REGIONAL MEETING LOCATIONS

Monday, June 5	Tuesday, June 6	Wednesday, June 7	Thursday, June 8	Friday, June 9
Powell Northwest College 231 W 6th Street Powell, WY 82435 9-11:30 am	**Greybull** Greybull Town Hall 24 South 5th Street Greybull, WY 82426 Council Room 9-11:30 am	**Sheridan** Sheridan College 1 Whitney Way Sheridan, WY 82801 Mars Agricultural Center (MAC), Rooms 201 & 202 1-3:30 pm	**Gillette** Gillette College 300 W. Sinclair Street Gillette, WY 82718 Main Bldg., Room GC Main120 9-11:30 am	**Sundance** Old Stoney Business & Cultural Center 120 N 4th Street Sundance, WY 82729 Suite A 9-11:30 am
Alpine Alpine Civic Center (Donn Wooden) 121 U.S. Hwy 89 Alpine, WY 83128 9-11 am	**Riverton** Central Wyoming College 2660 Peck Ave Riverton, WY 82501 Health & Science Center, Room HS100 9-11:30 am	**Casper** Natrona County School District - Central Bldg. 970 N Glenn Rd Casper, WY 82601 Garfield Fairdale Room 9-11:30 am	**Torrington** Eastern Wyoming College 3200 West C Street Torrington, WY 82240 CTEC Building, Room 101 9-11:30 am	
Pinedale Sublette County Courthouse 21 S. Tyler Avenue Pinedale, WY 82941 Commissioner Room 3-5 pm				
Evanston Evanston Roundhouse 1500 Main St. Portland Rose Room Evanston, WY 82930 9-11:30 am	**Rock Springs** Western Wyoming Community College 2500 College Drive Room 1302 Rock Springs, WY 82901 *(Park near main entrance on College Drive)* 9-11:30 am	**Rawlins** Carbon County Higher Education Center 1650 Harshman Street Room 4 Rawlins, WY 82301 9-11:30 am	**Laramie** LCCC - Albany County Campus 1125 Boulder Drive ACC Room 108 Laramie, WY 82070 9-11:30 am	
			Cheyenne LCCC - Laramie County Campus 1400 E. College Drive Health Science Bldg., Room 309 Cheyenne, WY 82007 3-5:30 pm	

AGENDA

Wyoming
BUSINESS COUNCIL

Introductions

Broadband Technology Overview

Funding and Programmatic Opportunities

Community Engagement

Survey, Discussion, Q&A

BROADBAND TECHNOLOGY OVERVIEW

An introduction to broadband infrastructure and technologies for communities and local policymakers

Wyoming
BUSINESS COUNCIL

FEDERAL AND STATE BROADBAND SPEED THRESHOLDS

25/3 Mbps

The FCC's definition is 25 megabits per second down and 3 megabits per second up (25/3 Mbps)

100/20 Mbps

Congress set a new 100/20 Mbps standard in the American Rescue Plan Act and Infrastructure Investment & Jobs Act

100/100 Mbps

State threshold for adequate broadband is 100/100 Mbps

HOW MUCH BANDWIDTH DO WE NEED?

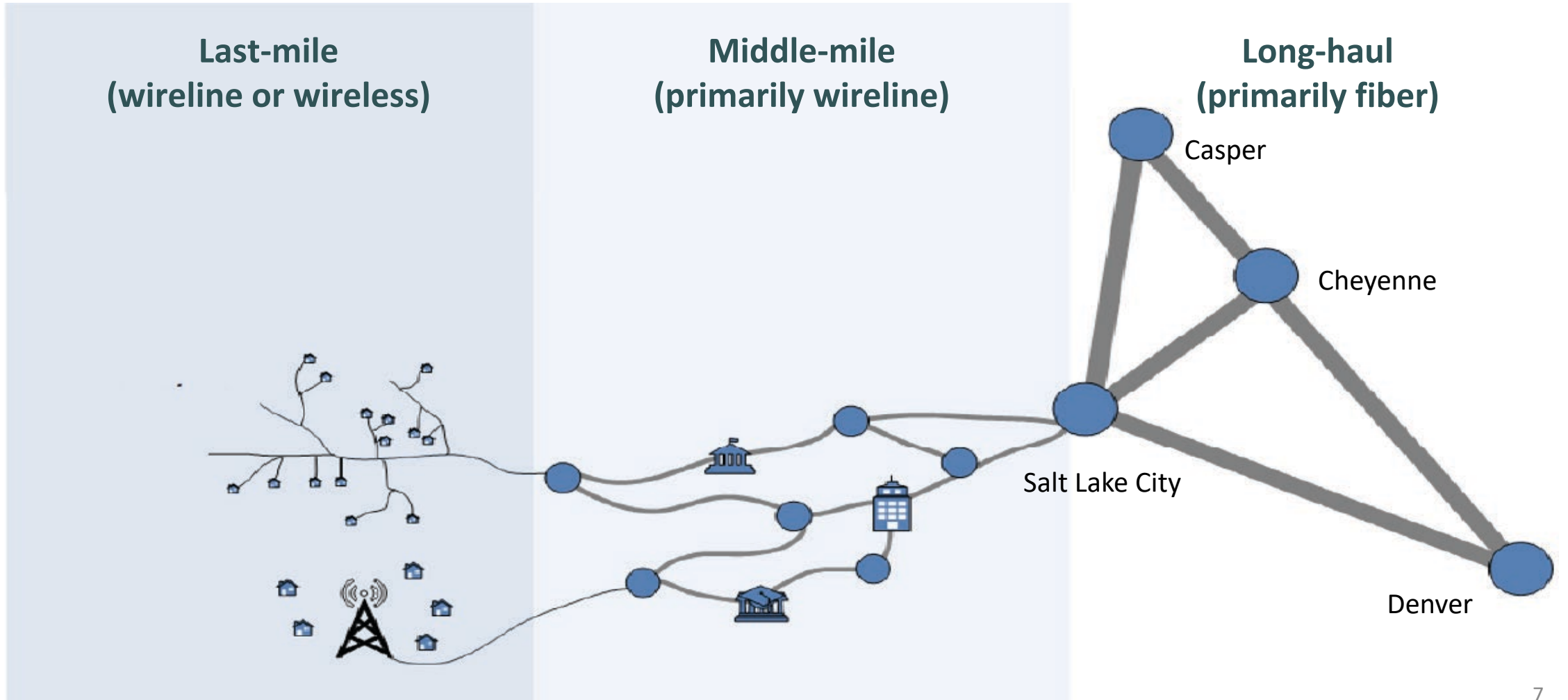## Today we need more bandwidth than minimum 25/3 Mbps broadband speeds defined by the FCC

Typical peak use for family of four

- Download in Mbps
- Upload in Mbps
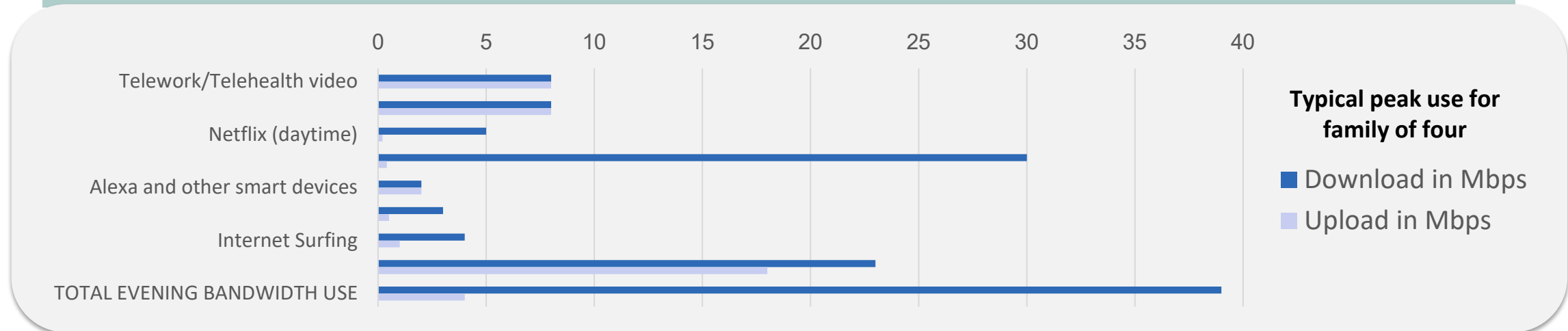
With augmented reality, other anticipated applications, and increased usage we will soon need much higher speeds
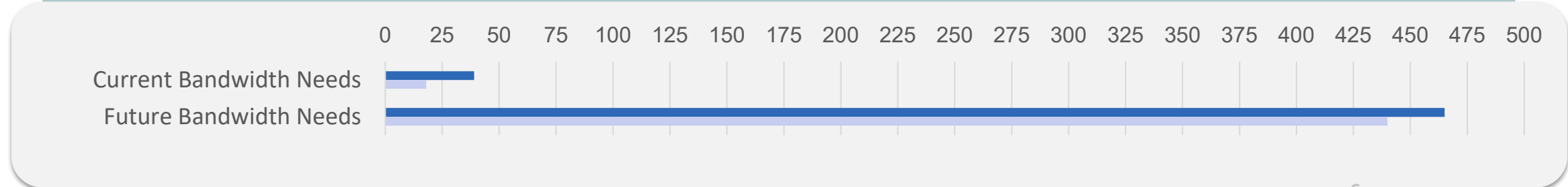
HOW DID WE GET HERE?
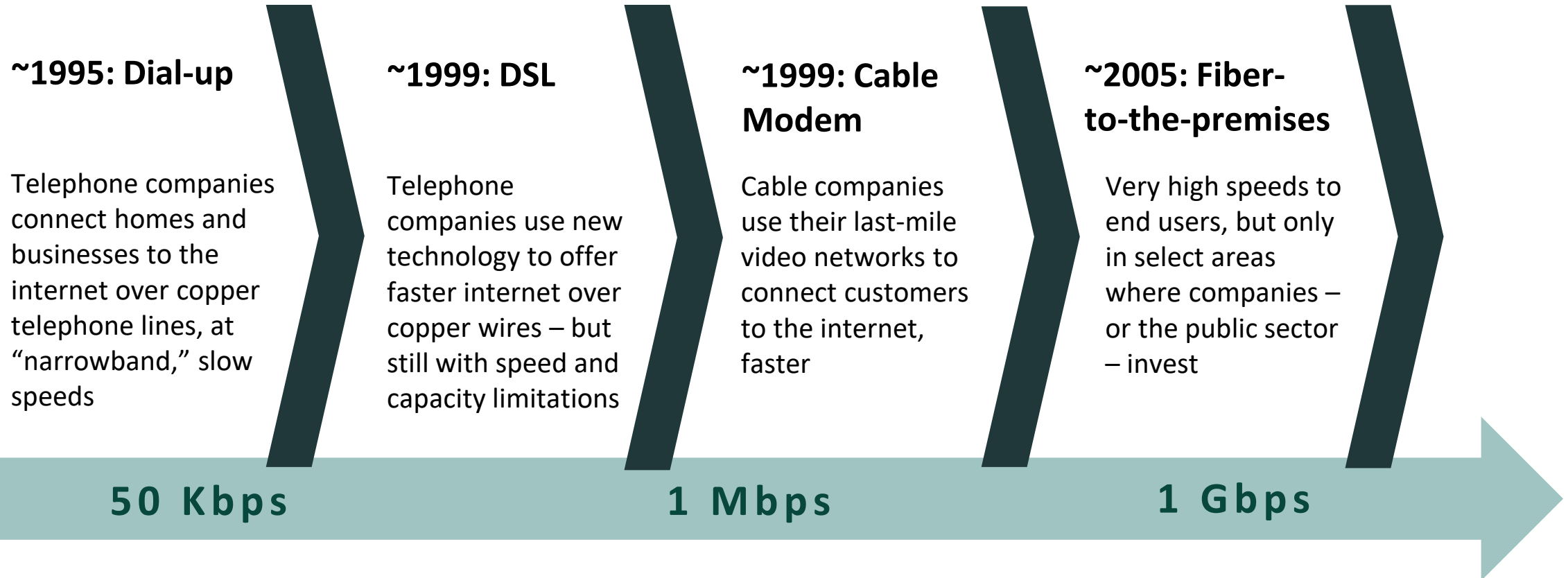
Broadband has developed through the evolution of technology and industry investment

~1995: Dial-up

Telephone companies connect homes and businesses to the internet over copper telephone lines, at "narrowband," slow speeds

~1999: DSL

Telephone companies use new technology to offer faster internet over copper wires – but still with speed and capacity limitations

~1999: Cable Modem

Cable companies use their last-mile video networks to connect customers to the internet, faster

~2005: Fiber-to-the-premises

Very high speeds to end users, but only in select areas where companies – or the public sector – invest

50 Kbps　　　　　　**1 Mbps**　　　　　　**1 Gbps**

BROADBAND MAPS AT A GLANCE

- **The Public Wyoming Broadband Availability Map**
  - Shows locations and whether they are served, unserved, or underserved
  - Data collected directly from WY ISPs
  - http://wyomingbusiness.org/communities/broadband/connect-wyoming
- **The Wyoming Broadband Grant/Application Tool**
  - Available to ISPs who provided map data to the WBC
  - Will be used for Connect Wyoming 2 round of funding
  - http://wyomingbusiness.org/communities/broadband/connect-wyoming
- **The National Broadband Map**
  - Available to the public
  - Shows broadband serviceable locations and service
  - Developed by the FCC who collected data directly from ISPs
  - Will be used to determine federal funding allocation for all states in an upcoming program (details in the next slides)
  - https://broadbandmap.fcc.gov/home
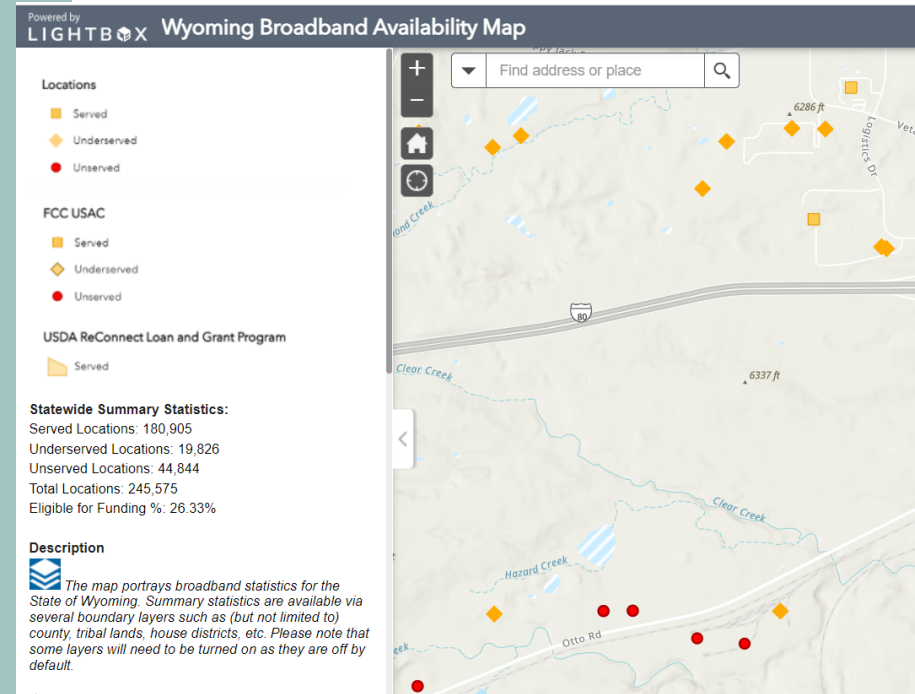
FUNDING AND PROGRAMMATIC OPPORTUNITIES

Funding overview and timeline

UPCOMING WYOMING FUNDING

The WBC is planning to launch a new grant cycle using federal funds and is developing two sets of plans to access funds from the federal infrastructure law

Connect Wyoming 2 CPF

Using a Capital Projects Fund allocation from the U.S. Department of the Treasury, the WBC will conduct another grant cycle providing opportunities to ISPs to apply for broadband infrastructure funding

Broadband Equity, Access, and Deployment (BEAD) Program Plans

A series of plans that will be submitted to the federal government to access funding that will be awarded for construction of new broadband infrastructure

Statewide Digital Access Plan

A plan that will be submitted to the federal government to access digital equity funding for programs that help Wyoming households afford, adopt, and use broadband

BROADBAND EQUITY, ACCESS, AND DEPLOYMENT (BEAD) PROGRAM

The Wyoming Business Council's plan for expanding broadband to in-state addresses will include funds from the federal Broadband Equity, Access and Deployment (BEAD) program of at least $100 million, plus an allocation based on number of unserved and underserved addresses

Funds to be expended in order

1. Unserved locations: those that cannot get internet service of at least 25/3 Mbps
2. Underserved locations: those that can get internet service between 25/3 and 100/20 Mbps only
3. Community Anchor Institutions (schools, libraries, hospitals) – locations that cannot get 1 Gbps symmetrical
4. Low-income and affordable housing
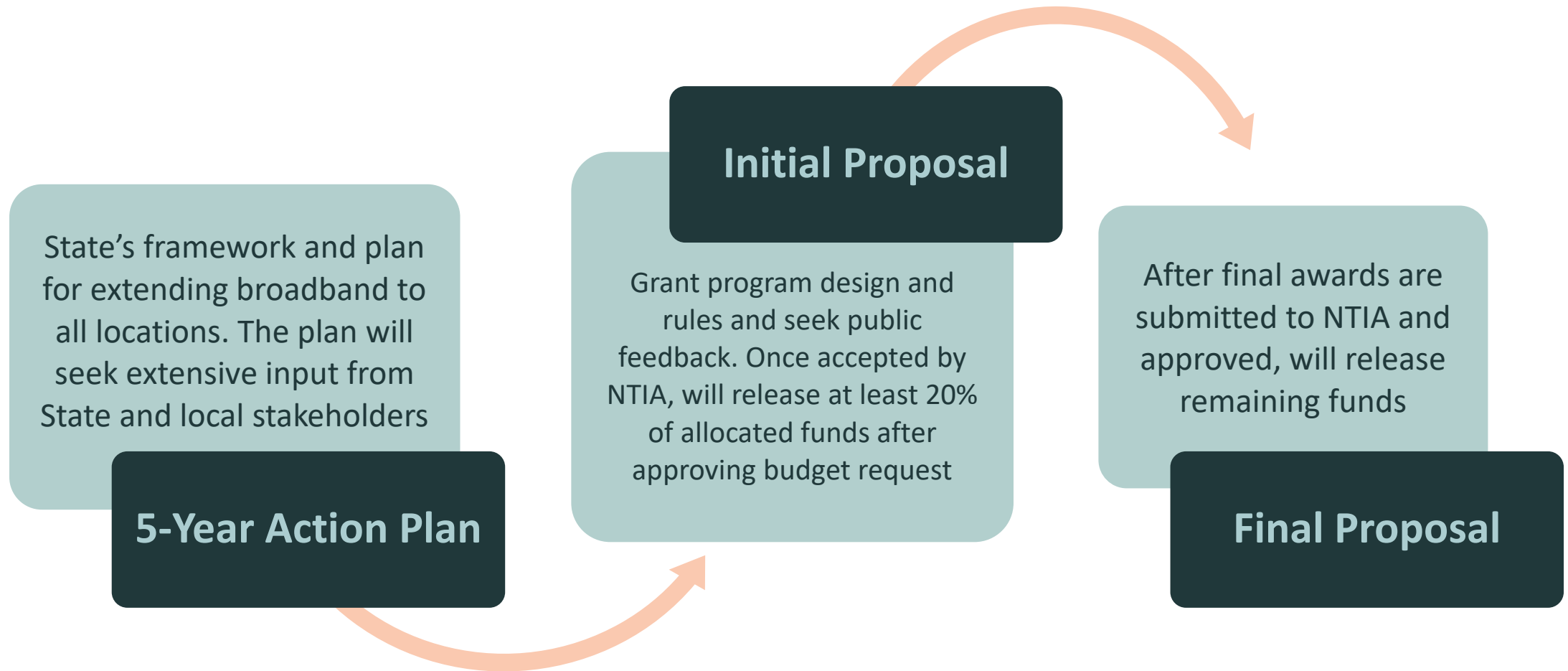
Planning	Provisional grant program	Deployment
2023	**2024**	**2025**

REQUIRED PLANNING WILL RESULT IN RELEASE OF BEAD FUNDS

5-Year Action Plan

State's framework and plan for extending broadband to all locations. The plan will seek extensive input from State and local stakeholders

Initial Proposal

Grant program design and rules and seek public feedback. Once accepted by NTIA, will release at least 20% of allocated funds after approving budget request

Final Proposal

After final awards are submitted to NTIA and approved, will release remaining funds

BROADBAND SERVICE DEPLOYMENT UNDER BEAD

Broadband service project areas prioritize unserved then underserved address locations

- State issues subgrants and requires matching funds to deploy broadband infrastructure and deliver service

- Workforce development plans by subgrantees and the State support readiness and new jobs for underrepresented groups

- Low-cost service options available to households qualifying for the Affordable Connectivity Program (ACP)

- Additional low-cost service parameters address affordability for middle class and support service availability to underrepresented groups

- Promote compliance with environmental laws, cybersecurity, and fair and equitable labor practices

Subgrant Program

Low-cost Service Options

Fair Labor Standards

Workforce Readiness

STATEWIDE DIGITAL ACCESS PLAN

What is "Digital Access"?

Broadband Access:
Affordable, accessible, and reliable high-speed home internet service is available for all individuals

Accessible and Inclusive Content:
Public online content is inclusive and accessible by all individuals

Devices and Tech Support:
Individuals have access to a computer or tablet and technical support

Privacy and Security:
Individuals can protect their data privacy and online security

Digital Literacy and Skills:
Individuals have digital skills to support their ability to meaningfully use the internet in their daily lives

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DIGITAL ACCESS FUNDING PRIORITIES

The Wyoming Business Council's plan for advancing digital access will create the framework for both the BEAD and Digital Access Programs and support outreach and training for covered populations

Program areas:

- **Broadband Access**: Individuals have more affordable, accessible, and reliable high-speed home internet service

- **Devices and Tech Support:** Individuals have access to a computer or tablet and technical support

- **Digital Literacy and Skills:** Individuals have digital skills to support their ability to meaningfully use the internet in their daily lives

- **Accessible and Inclusive Content:** Public online content is inclusive and accessible by all individuals

- **Privacy and Security:** Individuals can protect their data privacy and online security

Covered Populations:

- Rural residents
- Low-income individuals
- Veterans
- Seniors
- Individuals with disabilities
- English learners
- Racial and ethnic minorities
- Incarcerated individuals

DIGITAL ACCESS FUNDING OPPORTUNITIES

State Digital Equity Capacity Grant Program:

In 2024, the WBC will receive money from NTIA to implement the Wyoming Statewide Digital Equity Program over five years

Digital Equity Competitive Grant Program:

In 2025, NTIA will open a program to fund annual digital equity grants for four years. Wyoming communities and organizations can apply directly to NTIA

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PARTNERS FOR BROADBAND PLANNING

Wyoming
BUSINESS COUNCIL

State Agencies and Local and Regional Governments

Government roles in providing assets to facilitate broadband deployment and as community anchors

Internet Service Providers

ISP roles in providing affordable broadband and workforce development

Community Anchor Institutions (CAI)

CAI roles in broadband resilience and needs for service

Workforce Development

Workforce development to support bottlenecks in broadband deployment and maintain infrastructure

Digital Access Orgs and Covered Populations Reps

Organization roles in advocating and supporting digital access and opportunity programs and methods for measuring success

Business and Economic Development

Industry and development organization roles in fostering growth in communities

BEAD AND DIGITAL ACCESS TIMELINE

ACTIVITIES

		2023 Q1-2	2023 Q3-4	2024 Q1-2	2024 Q3-4	2025 >
1	Community Engagement	Continues through planning & execution cycles				
2	Digital Access Planning and Programs	Planning process & Digital Access Plan		State grants		
					Federal grants	
3	Infrastructure Planning	5-Year Action Plan & Initial Proposal		Final Proposal		
4	Infrastructure Grant Program			BEAD grant program execution		
5	Infrastructure Deployment			20% of funds	100% of funds	

ENGAGEMENT OPPORTUNITIES

| 1 | Community Engagement | Continues through planning & execution cycles |

	April	May	June	July	Aug – Dec
Statewide virtual facilitated sessions for: State Agencies, Local and Regional Governments, CAIs, ISPs, Digital Access and Covered Population Orgs, Workforce Development Orgs, and Business and Economic Development Orgs	Completed →				
Surveys and inventories for: Digital Asset Programs, CAI Access, Agency Assets, Covered Populations Access Barriers, Workforce Development Opportunities		In progress →			
Regional meetings			Now →		
Impact analysis; share results				→	

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REGIONAL PROFILE

REGION – COUNTY MAPPING

Region	County (Meeting Location)	
Northwest	**Park** *(Powell)* **Big Horn** *(Greybull)* **Hot Springs** **Washakie**	
Northeast	**Sheridan** *(Sheridan)* **Campbell** *(Gillette)* **Crook** *(Sundance)*	**Johnson** **Weston**
West Central	**Teton** **Fremont** *(Riverton)* **Sublette** *(Pinedale)*	
East Central	**Natrona** *(Casper)* **Converse** **Niobrara** **Platte**	
Southwest	**Lincoln** *(Alpine)* **Sweetwater** *(Rock Springs)* **Uinta** *(Evanston)*	
Southeast	**Carbon** *(Rawlins)* **Albany** *(Laramie)* **Laramie** *(Cheyenne)* **Goshen** *(Torrington)*	
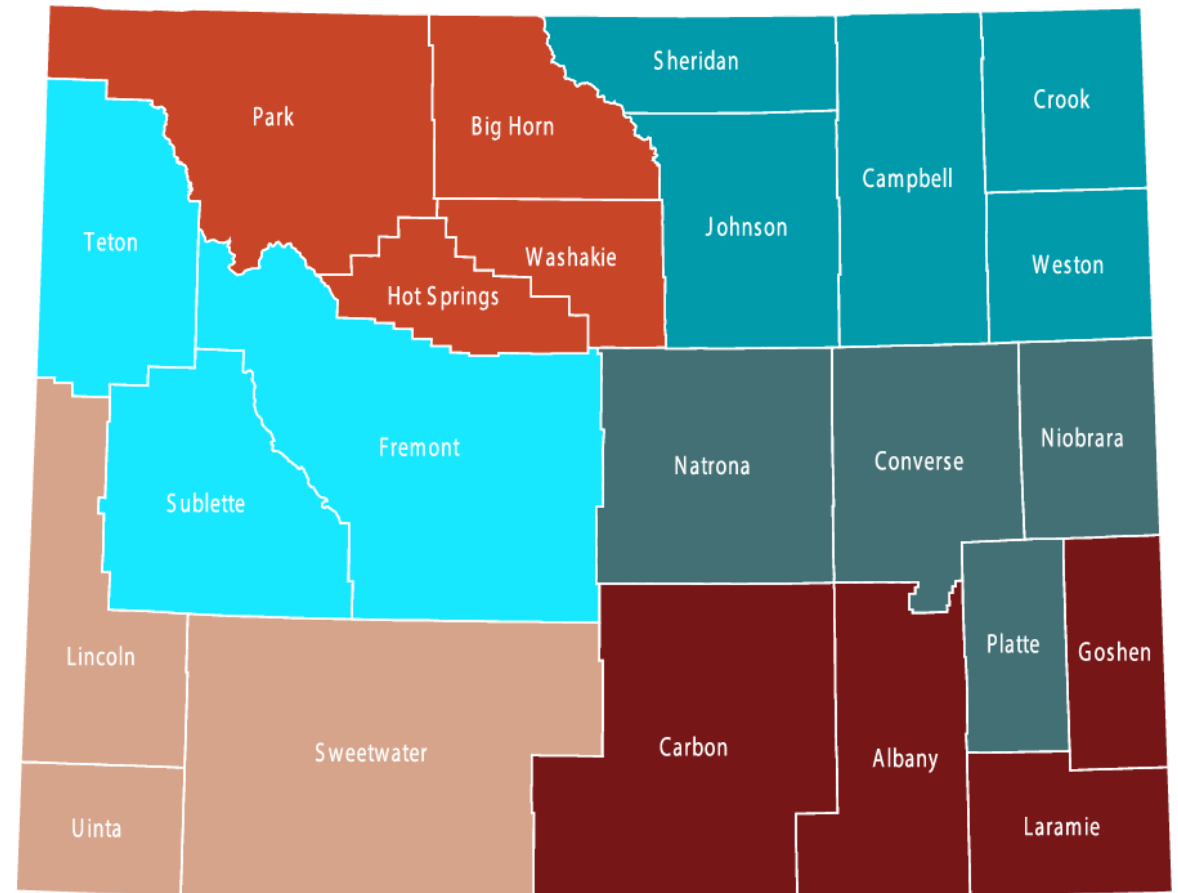
NORTHWEST WYOMING AVAILABILITY & ADOPTION

Northwest Wyoming has a similar share of households unserved with broadband and participating in ACP, and a lower share of households subscribed to fiber, cable, or DSL service as compared to Wyoming

Availability

Per the FCC Map as of December 2022, the region has a similar percentage of households unserved with broadband as compared to the state
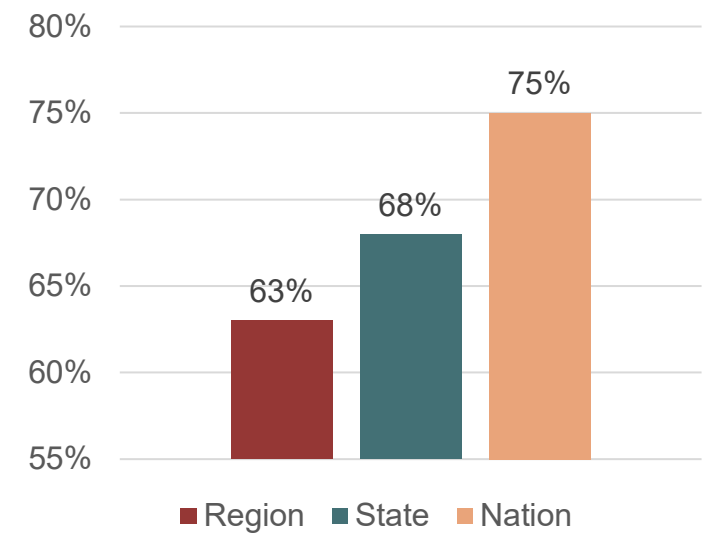
- Region: 15%
- State: 17%
- Nation: 7%
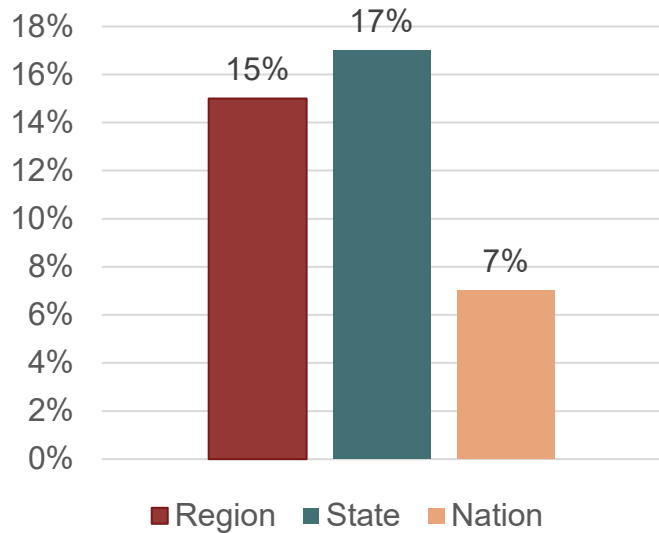
Federal Subsidy Use

Per USAC as of May 2023, the region has a similar percentage of eligible households that participate in the federal ACP $30/month subsidy as Wyoming
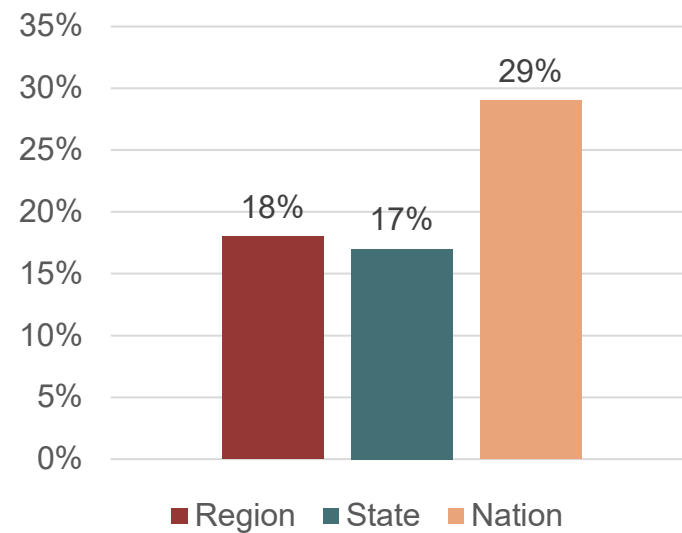
- Region: 18%
- State: 17%
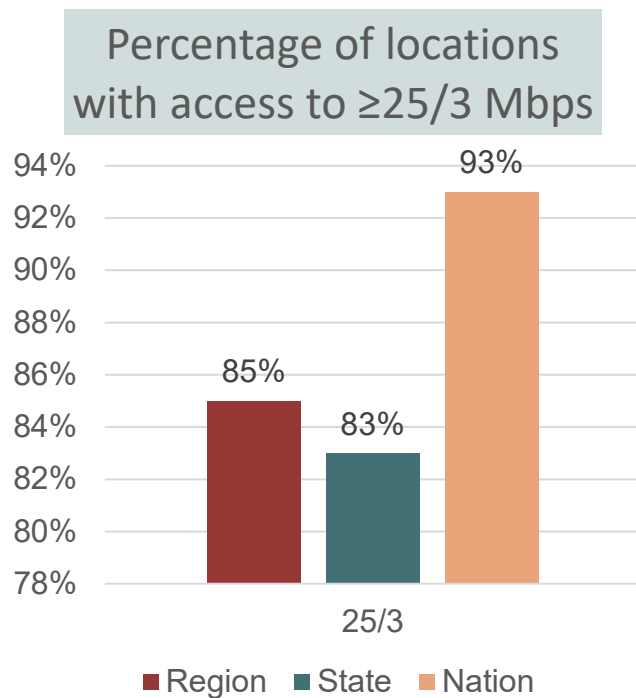- Nation: 29%

Broadband Adoption

Per the Census ACS 5-Year 2021 survey, the region has a lower percentage of households subscribed to fiber, cable, or DSL internet service as compared to Wyoming

- Region: 63%
- State: 68%
- Nation: 75%

Sources: Federal Communications Commission, National Broadband Map, Broadband Data Collection (as of December 2022); Universal Service Administrative Comp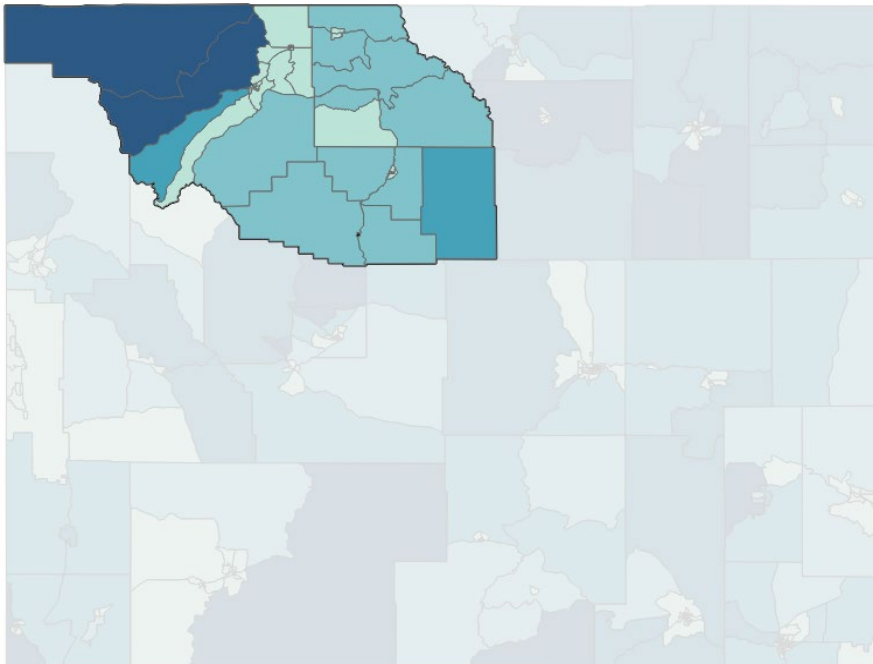any, ACP Enrollment & Claims Tracker (2023); Census Bureau, American Community Survey Public Use Microdata 2021 5-year estimates

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NORTHWEST WYOMING BROADBAND AVAILABILITY

Northwest Wyoming has a higher share of locations with access to >25/3 and >100/100 Mbps as compared to the state
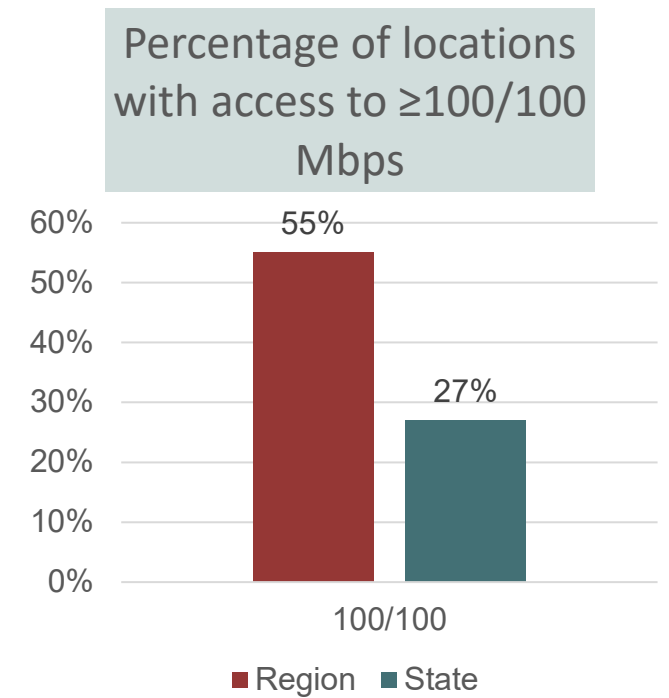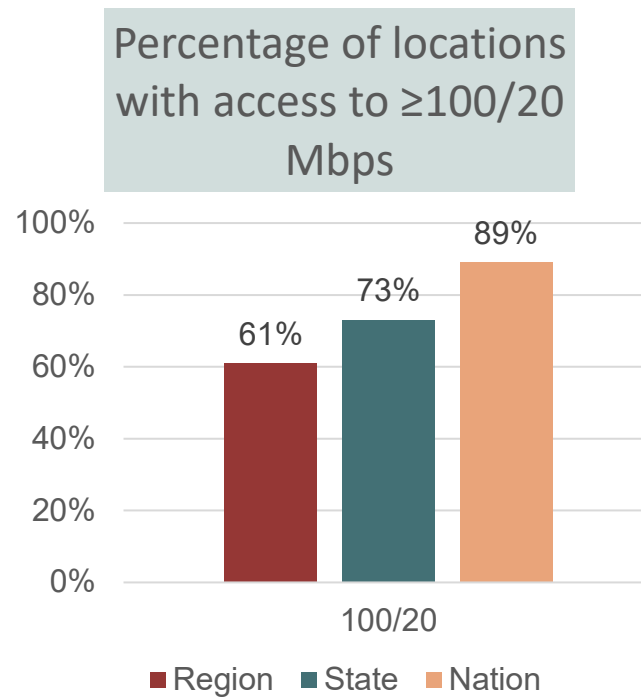
Percentage of locations with access to ≥25/3 Mbps

- Region: 85%
- State: 83%
- Nation: 93%

25/3

■ Region ■ State ■ Nation

Percentage of locations with access to ≥100/20 Mbps

- Region: 61%
- State: 73%
- Nation: 89%

100/20

■ Region ■ State ■ Nation

Percentage of locations with access to ≥100/100 Mbps

- Region: 55%
- State: 27%

100/100

■ Region ■ State

Note: National data is not available for locations served by >100/100 Mbps.

Source: Federal Communications Commission, National Broadband Map, Broadband Data Collection (as of December 2022).

NORTHWEST WYOMING UNSERVED LOCATIONS

Wyoming BUSINESS COUNCIL

~16% of region's locations are unserved on the FCC map (4,000 of region's 25,326 locations)

Percent of unserved locations
% unserved as share of CBG's total locations

0-20%	21-40%	41-60%	61-80%	>81%

1. Unserved locations are the top priority for federal IIJA funding under federal rules.

2. FCC considers a location unserved that lacks 25/3 Mbps speeds over wireline, licensed fixed wireless, or hybrid licensed/unlicensed fixed wireless.

3. FCC's service estimations may vary depending on geographic locations (e.g., may estimate a higher number of unserved locations in urban areas and a lower number of unserved locations in rural areas)

NORTHWEST WYOMING UNDERSERVED LOCATIONS

Wyoming
BUSINESS COUNCIL

Percent of underserved locations
% underserved as share of CBG's total locations

0-20%	21-40%	41-60%	61-80%	>81%

~25% of region's locations are underserved on the FCC map (6,332 of region's 25,326 locations)

1. Under federal IIJA rules, underserved areas (between 25/3 & 100/20) receive funding if unserved areas are addressed first.

2. Accuracy of service estimation may vary depending on a range of variables (e.g., provider reporting, FCC methodology).

3. Approximately ~25% of the region's locations are considered underserved, but this number varies at the CBG level

Source: Federal Communications Commission, National Broadband Map, Broadband Data Collection (as of December 2022)
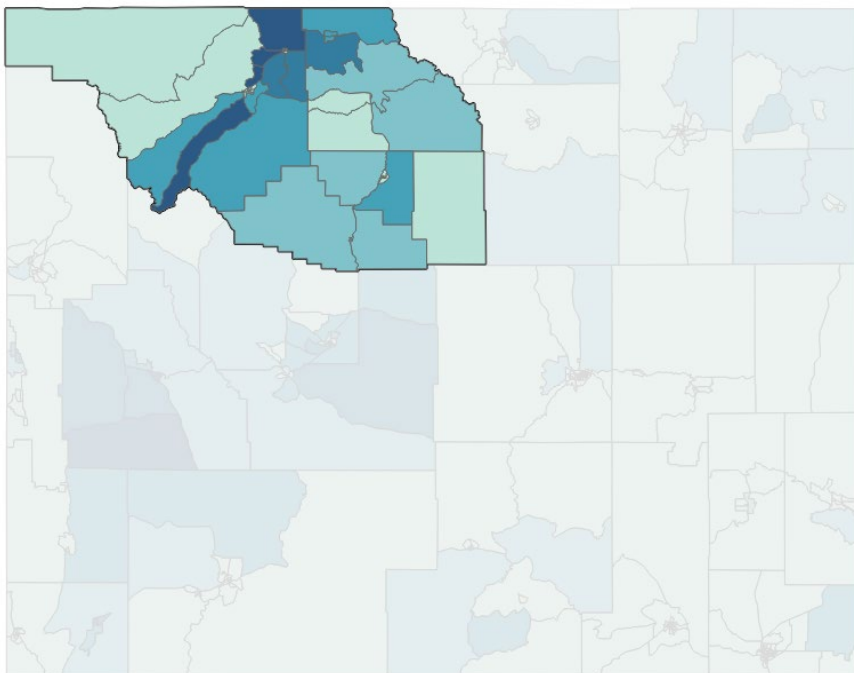
NORTHEAST WYOMING AVAILABILITY & ADOPTION

Northeast Wyoming has a higher share of households unserved with broadband, higher ACP uptake, and a lower share of households subscribed to broadband as compared to Wyoming
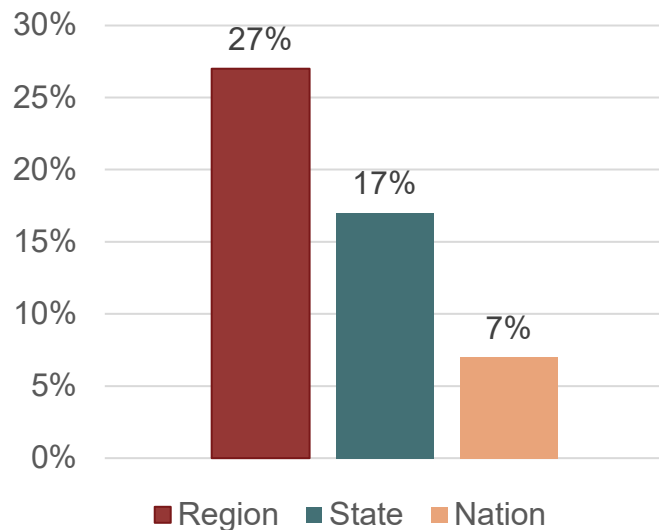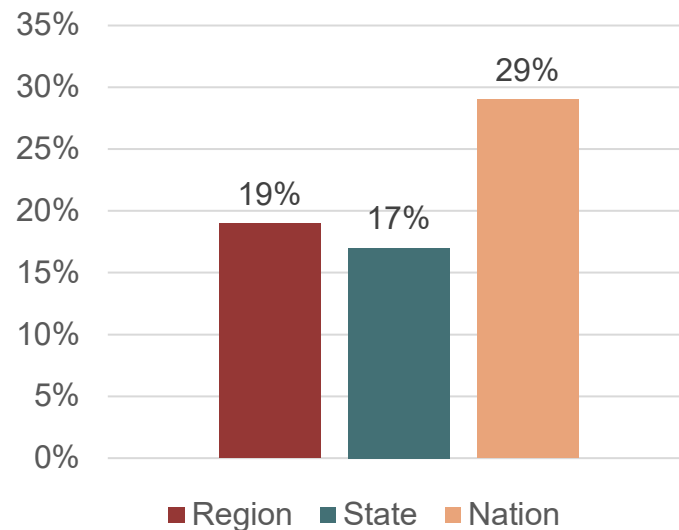
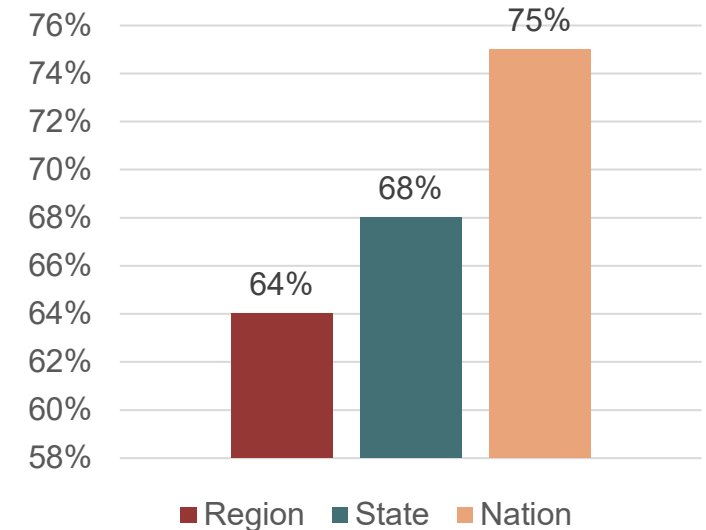| Availability	Federal Subsidy Use	Broadband Adoption
Per the FCC Map as of December 2022, the region has a higher share of households unserved with broadband as compared to Wyoming	Per USAC as of May 2023, the region has slightly more eligible households enrolled in the ACP $30/month subsidy as compared to Wyoming	Per the Census ACS 5-Year 2021 survey, the region has a slightly lower percentage of households subscribe to fiber, cable, or DSL internet service as compared to Wyoming

Availability
- Region: 27%
- State: 17%
- Nation: 7%

Federal Subsidy Use
- Region: 19%
- State: 17%
- Nation: 29%

Broadband Adoption
- Region: 64%
- State: 68%
- Nation: 75%

Legend: ■ Region ■ State ■ Nation

NORTHEAST WYOMING BROADBAND AVAILABILITY
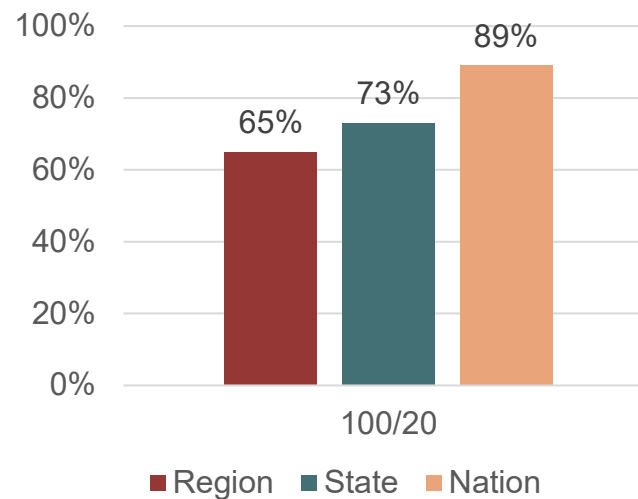
Northeast Wyoming has a lower share of locations with access across all speeds as compared to Wyoming, particularly for locations with access to ≥100/100 Mbps
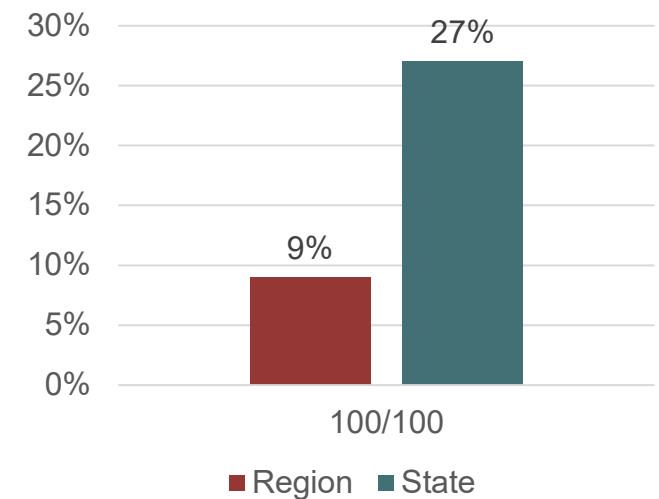

Percentage of locations with access to ≥25/3 Mbps
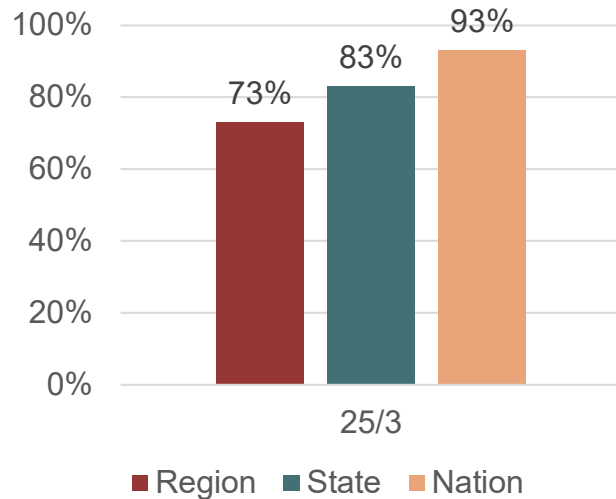
Percentage of locations with access to ≥100/20 Mbps

Percentage of locations with access to by ≥100/100 Mbps

Note: National data is not available for locations served by ≥100/100 Mbps.

Source: Federal Communications Commission, National Broadband Map, Broadband Data Collection (as of December 2022).
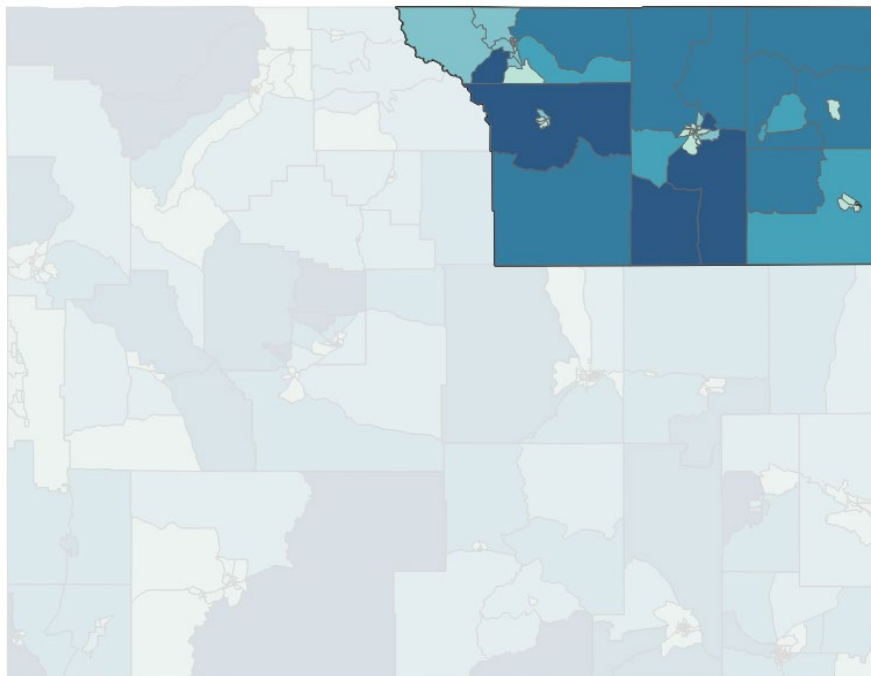
# NORTHEAST WYOMING UNSERVED LOCATIONS

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~27% of region's locations are unserved on the FCC map (11,907 of region's 44,339 locations)

Percent of unserved locations
% unserved as share of CBG's total locations

| 0-20% | 21-40% | 41-60% | 61-80% | >81% |

1. Unserved locations are the top priority for federal IIJA funding under federal rules.

2. FCC considers a location unserved that lacks 25/3 Mbps speeds over wireline, licensed fixed wireless, or hybrid licensed/unlicensed fixed wireless.

3. FCC's service estimations may vary depending on geographic locations (e.g., may estimate a higher number of unserved locations in urban areas and a lower number of unserved locations in rural areas)

Source: Federal Communications Commission, National Broadband Map, Broadband Data Collection (as of December 2022)

NORTHEAST WYOMING UNDERSERVED LOCATIONS

Wyoming
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Percent of underserved locations
% underserved as share of CBG's total locations

0-20%	21-40%	41-60%	61-80%	>81%

~8% of region's locations are underserved on the FCC map (3,649 of region's 44,339 locations)
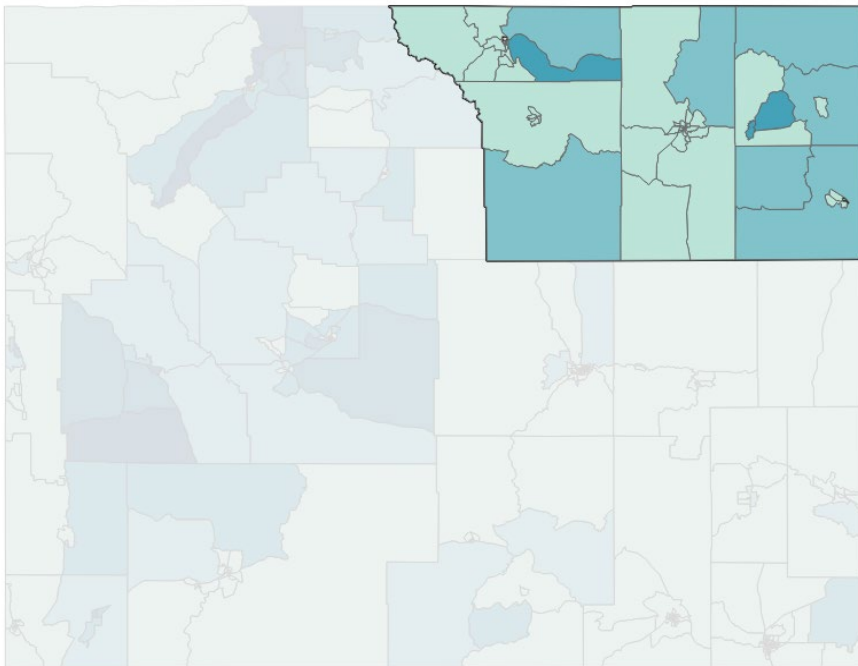
1. Under federal IIJA rules, underserved areas (between 25/3 & 100/20) receive funding if unserved areas are addressed first.

2. Accuracy of service estimation may vary depending on a range of variables (e.g., provider reporting, FCC methodology).

3. Although less than 10% of the region's locations are considered underserved, this number varies at the CBG level

Source: Federal Communications Commission, National Broadband Map, Broadband Data Collection (as of December 2022)
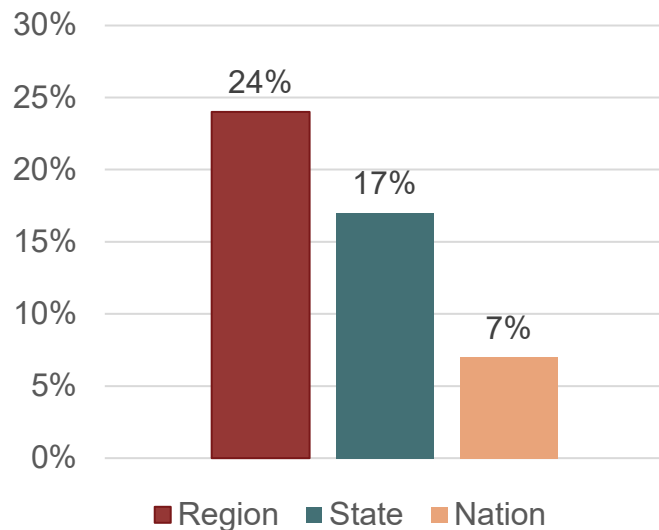
WEST CENTRAL WYOMING AVAILABILITY & ADOPTION

West Central Wyoming has a higher share of households unserved with broadband, lower ACP uptake, and a similar share of households subscribed to fiber, cable, or DSL as compared to the state
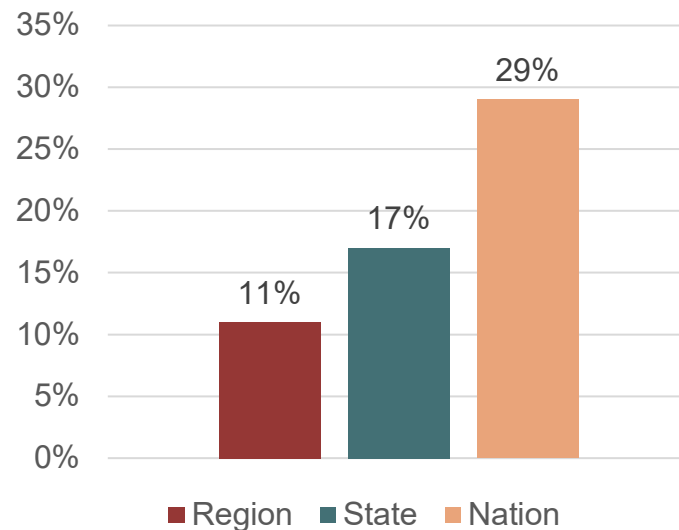
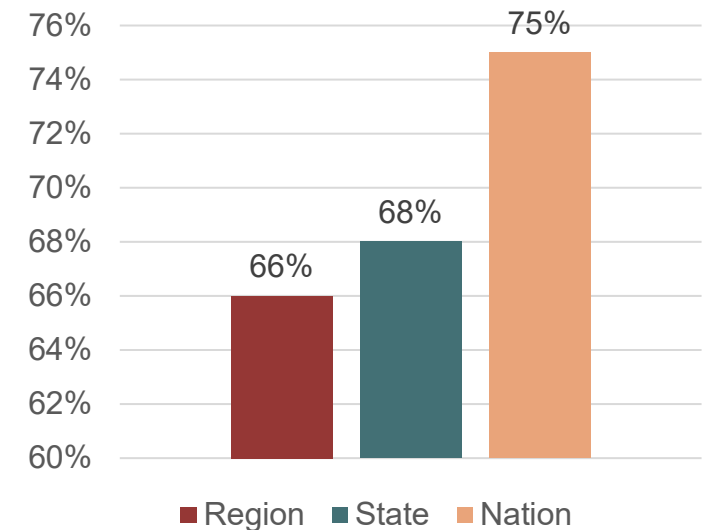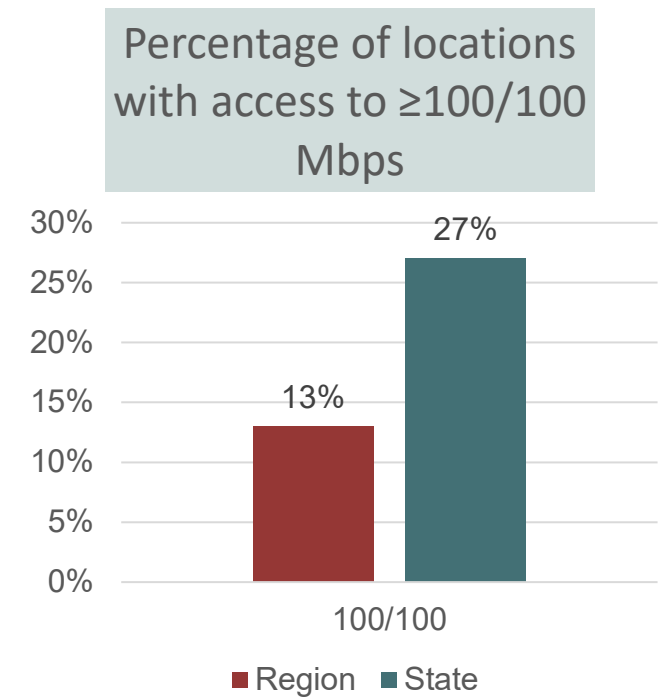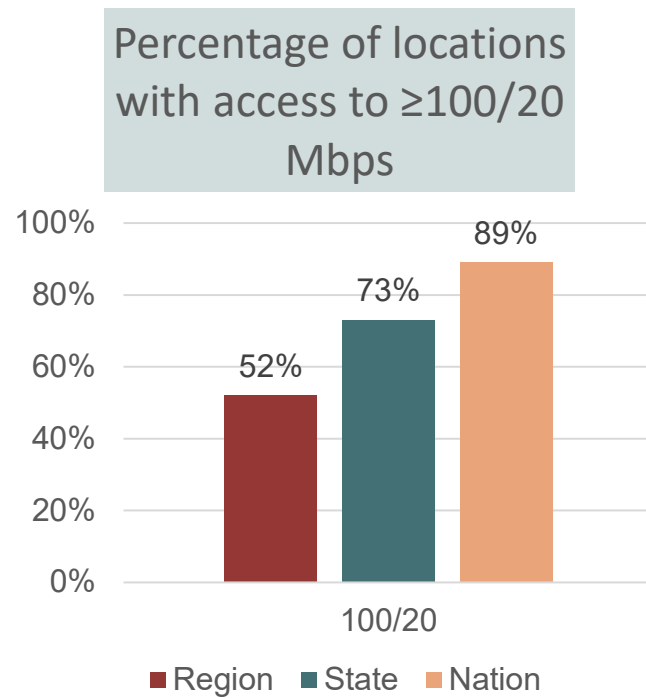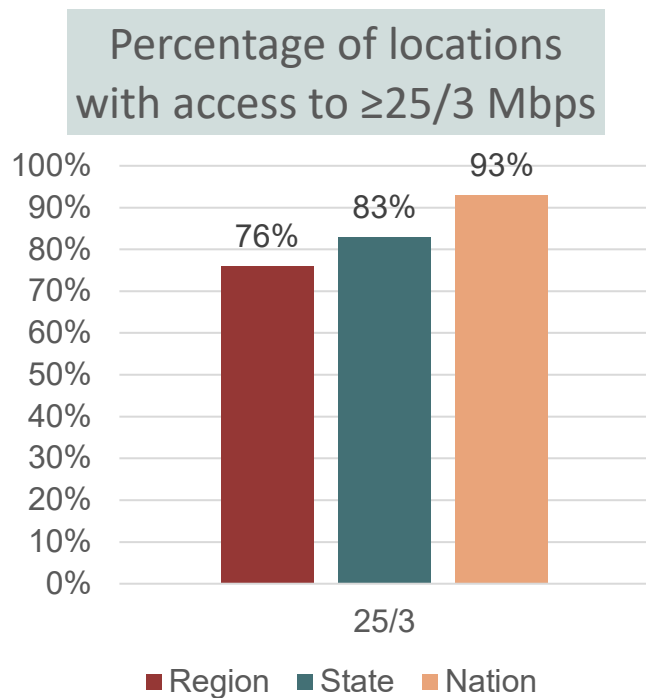| Availability	Federal Subsidy Use	Broadband Adoption
Per the FCC Map as of December 2022, the region has a higher percentage of households unserved with broadband	Per USAC as of May 2023, the region has lower uptake of the ACP $30/month subsidy than the state and nation	Per the Census ACS 5-Year 2021 survey, the region has a similar share of households who subscribe to fiber, cable, or DSL internet as compared to Wyoming

Availability

- Region: 24%
- State: 17%
- Nation: 7%

Federal Subsidy Use

- Region: 11%
- State: 17%
- Nation: 29%

Broadband Adoption

- Region: 66%
- State: 68%
- Nation: 75%

WEST CENTRAL WYOMING BROADBAND AVAILABILITY

Wyoming
BUSINESS COUNCIL

West Central Wyoming has a lower percentage of locations with access across all speeds as compared to Wyoming

Percentage of locations with access to ≥25/3 Mbps

- 76% — Region
- 83% — State
- 93% — Nation

25/3

■ Region ■ State ■ Nation

Percentage of locations with access to ≥100/20 Mbps

- 52% — Region
- 73% — State
- 89% — Nation

100/20

■ Region ■ State ■ Nation

Percentage of locations with access to ≥100/100 Mbps

- 13% — Region
- 27% — State

100/100

■ Region ■ State

Note: National data is not available for locations served by >100/100 Mbps.

Source: Federal Communications Commission, National Broadband Map, Broadband Data Collection (as of December 2022)

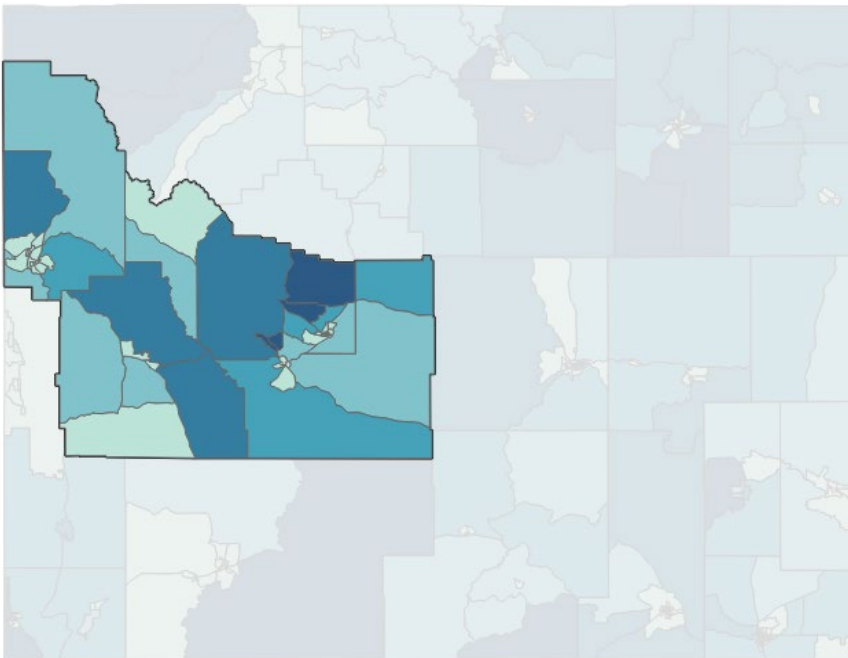# WEST CENTRAL WYOMING UNSERVED LOCATIONS

Wyoming BUSINESS COUNCIL

Percent of unserved locations
% unserved as share of CBG's total locations

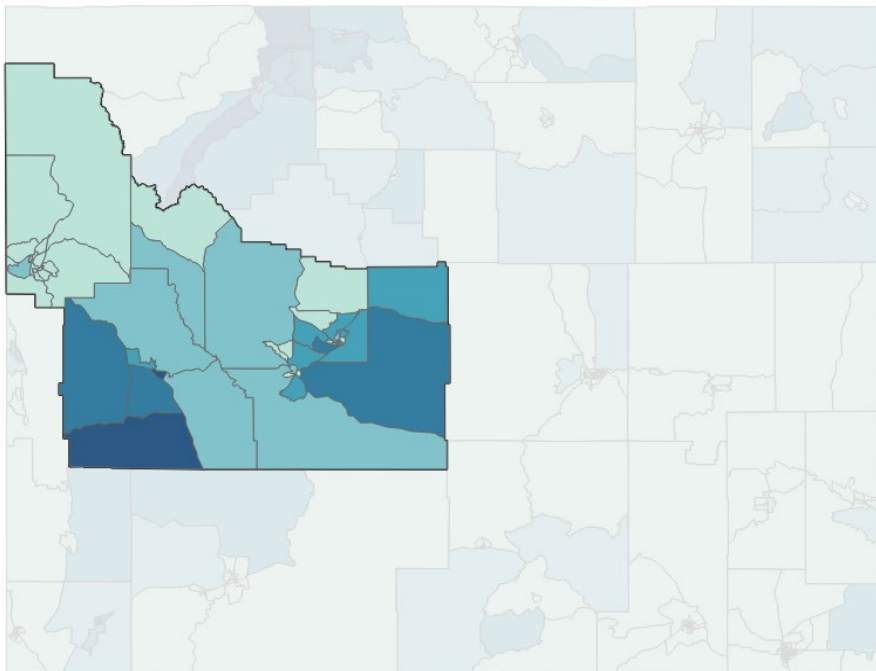|				
0-20%	21-40%	41-60%	61-80%	>81%

~24% of region's locations are unserved on the FCC map (8,451 of region's 34,575 locations)

1. Unserved locations are the top priority for federal IIJA funding under federal rules.

2. FCC considers a location unserved that lacks 25/3 Mbps speeds over wireline, licensed fixed wireless, or hybrid licensed/unlicensed fixed wireless.

3. FCC's service estimations may vary depending on geographic locations (e.g., may estimate a higher number of unserved locations in urban areas and a lower number of unserved locations in rural areas)

Source: Federal Communications Commission, National Broadband Map, Broadband Data Collection (as of December 2022)

WEST CENTRAL WYOMING UNDERSERVED LOCATIONS

Percent of underserved locations
% underserved as share of CBG's total locations

0-20% 21-40% 41-60% 61-80% >81%

~24% of region's locations are underserved on the FCC map (8,471 of region's 34,575 locations)

1. Under federal IIJA rules, underserved areas (between 25/3 & 100/20) receive funding if unserved areas are addressed first.

2. Accuracy of service estimation may vary depending on a range of variables (e.g., provider reporting, FCC methodology).

3. Approximately 25% of the region's locations are considered underserved, but this number varies at the CBG level

Source: Federal Communications Commission, National Broadband Map, Broadband Data Collection (as of December 2022)

EAST CENTRAL WYOMING AVAILABILITY & ADOPTION

East Central Wyoming has a lower share of households unserved with broadband, higher uptake of ACP, and higher broadband subscriptions as compared to the state
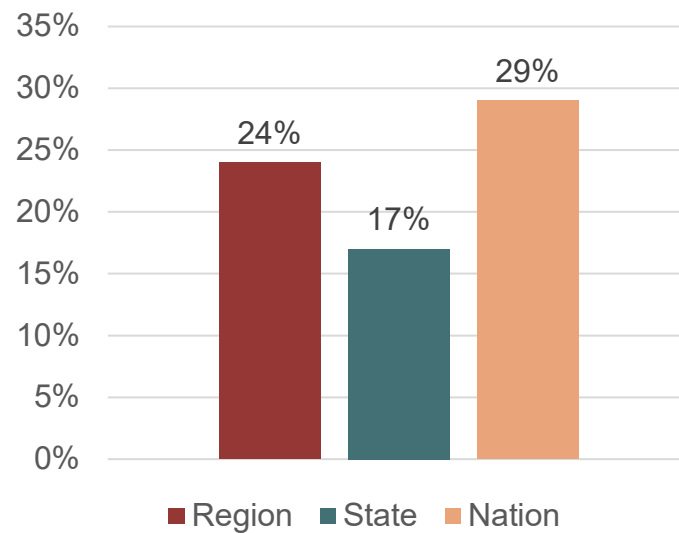
Availability	Federal Subsidy Use	Broadband Adoption

Per the FCC Map as of December 2022, the region has a lower percentage of households unserved with broadband as compared to the state
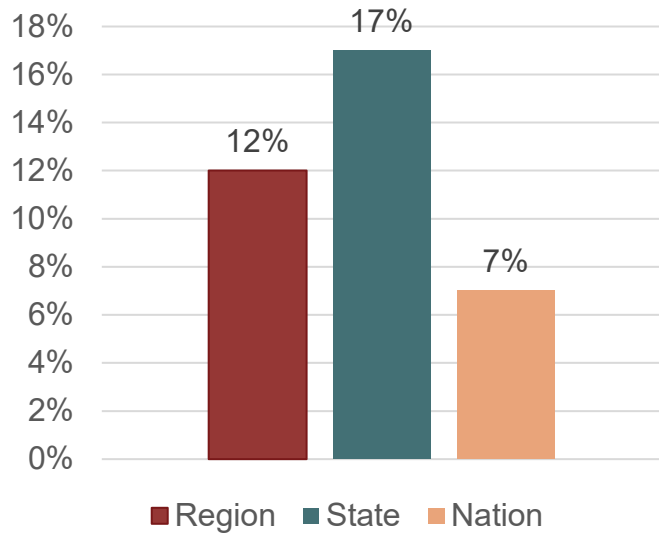
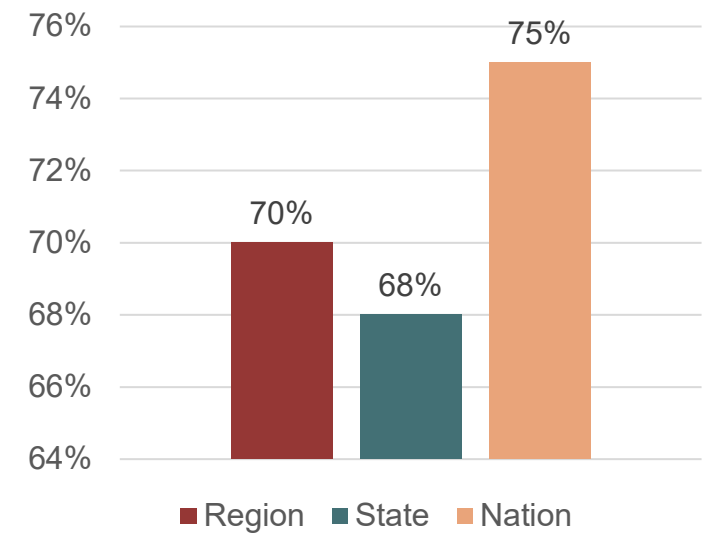Per USAC as of May 2023, East Central has a higher rate of ACP $30/month uptake as compared to Wyoming

Per the Census ACS 5-Year 2021 survey, the region has a slightly higher percentage of households subscribed to fiber, cable, or DSL as compared to Wyoming
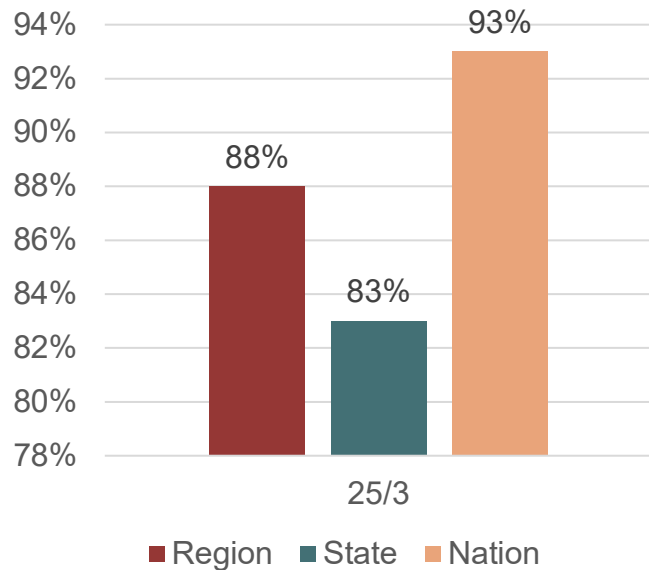
Availability
- Region: 12%
- State: 17%
- Nation: 7%

Federal Subsidy Use
- Region: 24%
- State: 17%
- Nation: 29%

Broadband Adoption
- Region: 70%
- State: 68%
- Nation: 75%

Legend: Region, State, Nation

EAST CENTRAL WYOMING BROADBAND AVAILABILITY

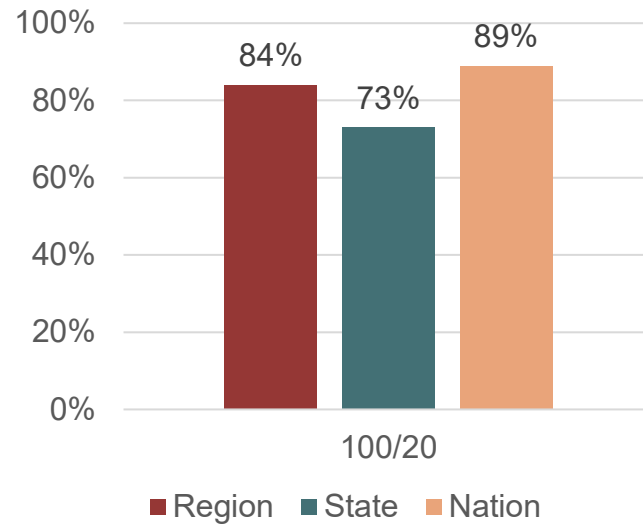**East Central Wyoming has a higher share of locations with access across speeds as compared to Wyoming**
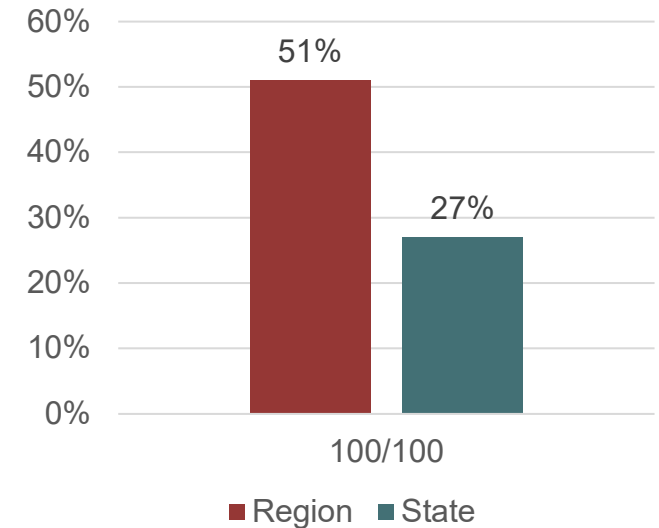

Percentage of locations with access to ≥25/3 Mbps

- Region: 88%
- State: 83%
- Nation: 93%

Percentage of locations with access to ≥100/20 Mbps

- Region: 84%
- State: 73%
- Nation: 89%

Percentage of locations with access to ≥100/100 Mbps

- Region: 51%
- State: 27%

Note: National data is not available for locations served by ≥100/100 Mbps.

Source: Federal Communications Commission, National Broadband Map, Broadband Data Collection (as of December 2022).
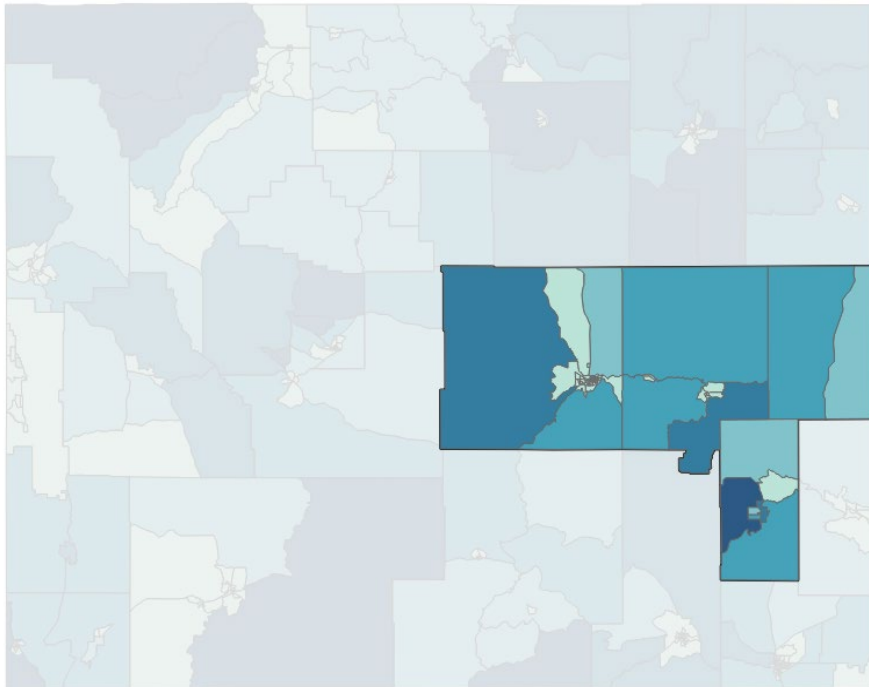
EAST CENTRAL WYOMING UNSERVED LOCATIONS

Wyoming
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~12% of region's locations are unserved on the FCC map (5,975 of region's 48,377 locations)

Percent of unserved locations
% unserved as share of CBG's total locations

0-20%	21-40%	41-60%	61-80%	>81%

1. Unserved locations are the top priority for federal IIJA funding under federal rules.

2. FCC considers a location unserved that lacks 25/3 Mbps speeds over wireline, licensed fixed wireless, or hybrid licensed/unlicensed fixed wireless.

3. FCC's service estimations may vary depending on geographic locations (e.g., may estimate a higher number of unserved locations in urban areas and a lower number of unserved locations in rural areas)
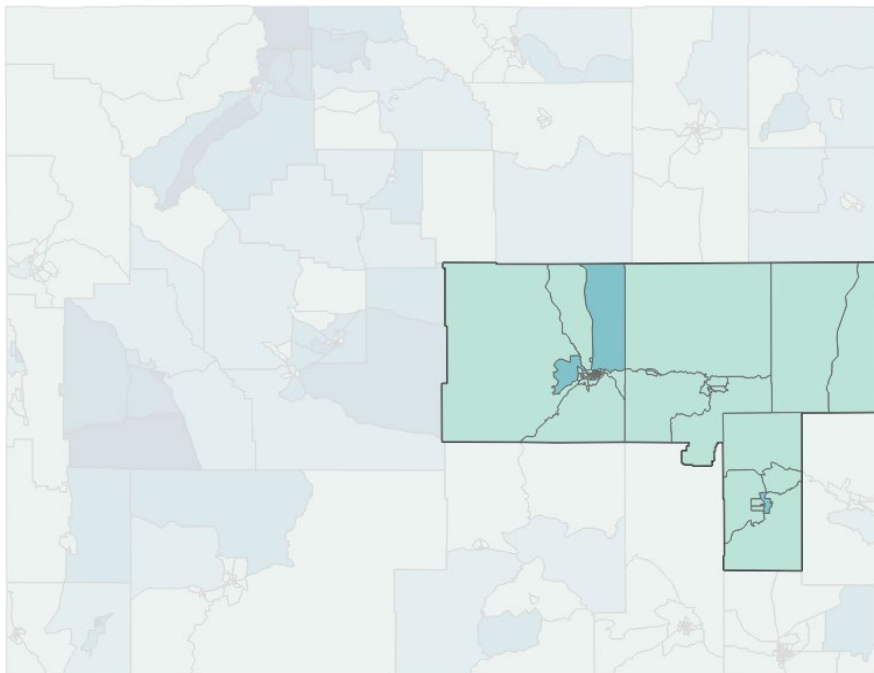
EAST CENTRAL WYOMING UNDERSERVED LOCATIONS

Wyoming
BUSINESS COUNCIL

Percent of underserved locations
% underserved as share of CBG's total locations

0-20%	21-40%	41-60%	61-80%	>81%

~3% of region's locations are underserved on the FCC map
(1,560 of region's 48,377 locations)

1. Under federal IIJA rules, underserved areas (between 25/3 & 100/20) receive funding if unserved areas are addressed first.

2. Accuracy of service estimation may vary depending on a range of variables (e.g., provider reporting, FCC methodology).

3. Although less than 5% of the region's locations are considered underserved, this number may vary at the CBG level
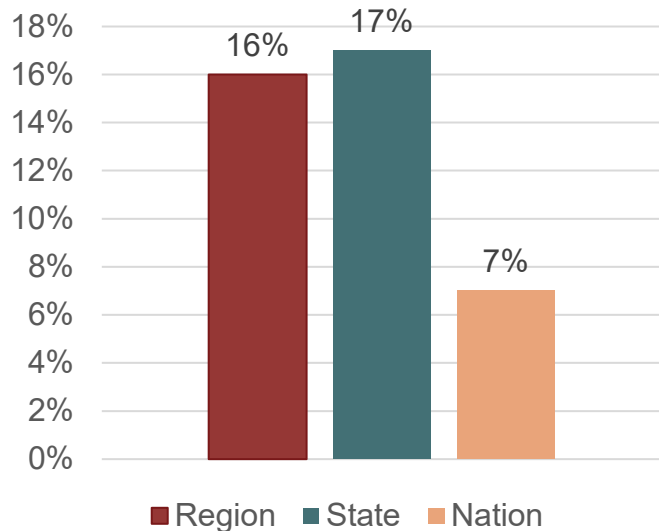
SOUTHWEST WYOMING AVAILABILITY & ADOPTION

Southwest Wyoming has a similar share of households unserved by broadband, lower rate of ACP uptake, and similar share of households subscribed to broadband as the state
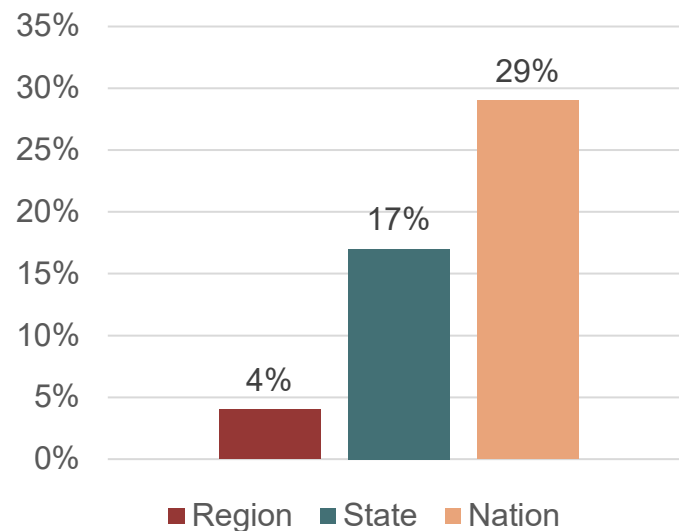
Availability

Per the FCC Map as of December 2022, Southwest Wyoming has a similar percentage of households unserved by broadband as compared to the state


- 16% Region
- 17% State
- 7% Nation

Federal Subsidy Use

Per USAC as of May 2023, the region has a lower share of eligible households that participate in the ACP $30/month subsidy as compared to the state and nation

- 4% Region
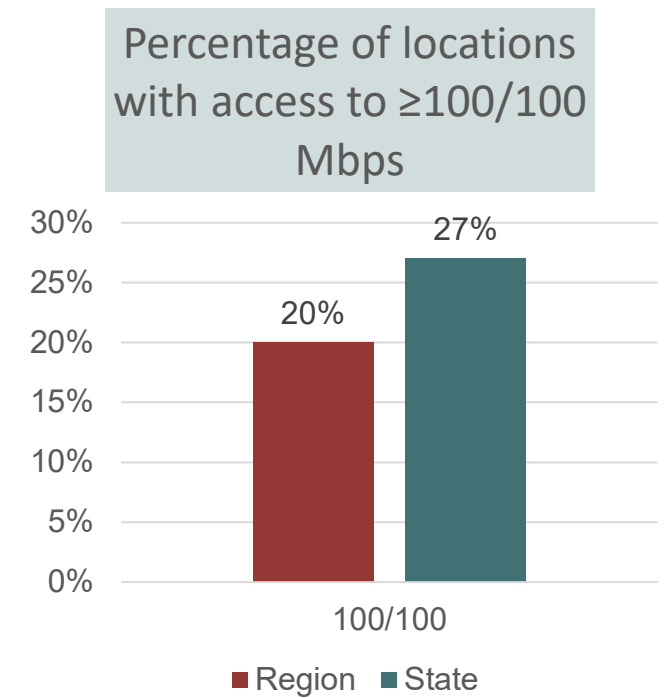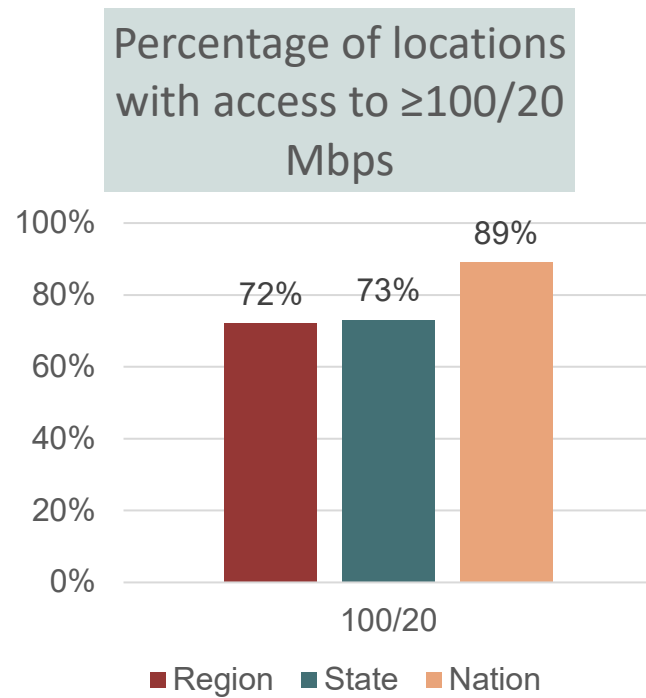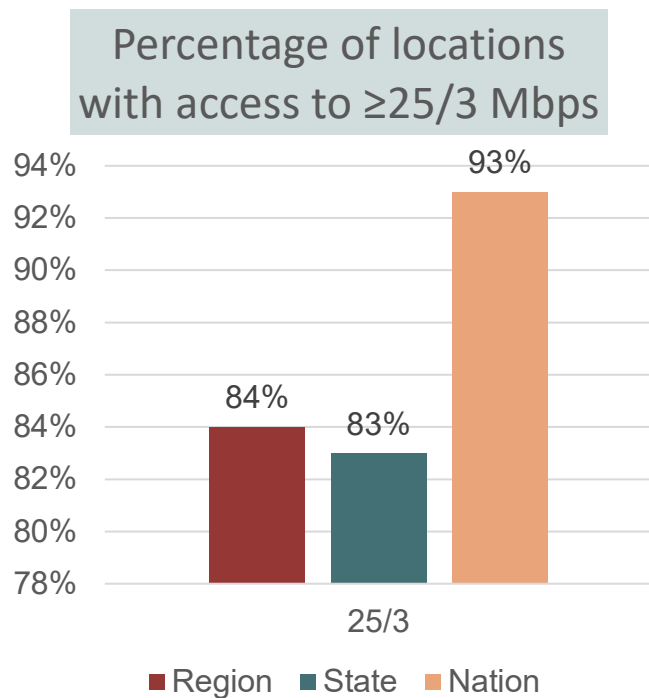- 17% State
- 29% Nation

Broadband Adoption

Per the Census ACS 5-Year 2021 survey, the region has a similar share of households subscribed to fiber, cable, or DSL internet service as compared to Wyoming

- 70% Region
- 68% State
- 75% Nation
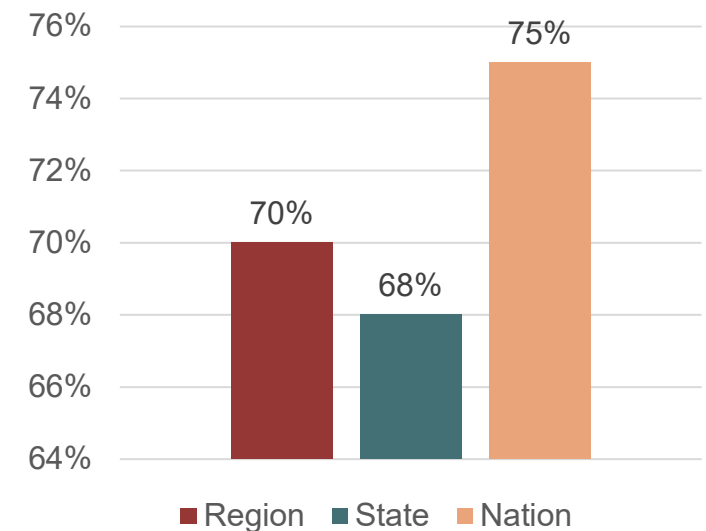
SOUTHWEST WYOMING BROADBAND AVAILABILITY

Southwest Wyoming has relatively similar share of locations with access to >25/3 Mbps and >100/20 Mbps as compared to the state, and slightly fewer locations have access to >100/100 Mbps

Percentage of locations with access to ≥25/3 Mbps

- Region: 84%
- State: 83%
- Nation: 93%

Percentage of locations with access to ≥100/20 Mbps

- Region: 72%
- State: 73%
- Nation: 89%

Percentage of locations with access to ≥100/100 Mbps

- Region: 20%
- State: 27%

Note: National data is not available for locations served by >100/100 Mbps.

Source: Federal Communications Commission, National Broadband Map, Broadband Data Collection (as of December 2022).

SOUTHWEST WYOMING UNSERVED LOCATIONS

~16% of region's locations are unserved on the FCC map (6,036 of region's 37,789 locations)

Percent of unserved locations
% unserved as share of CBG's total locations

0-20%	21-40%	41-60%	61-80%	>81%

1. Unserved locations are the top priority for federal IIJA funding under federal rules.

2. FCC considers a location unserved that lacks 25/3 Mbps speeds over wireline, licensed fixed wireless, or hybrid licensed/unlicensed fixed wireless.

3. FCC's service estimations may vary depending on geographic locations (e.g., may estimate a higher number of unserved locations in urban areas and a lower number of unserved locations in rural areas)

SOUTHWEST WYOMING UNDERSERVED LOCATIONS

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Percent of underserved locations
% underserved as share of CBG's total locations

0-20%	21-40%	41-60%	61-80%	>81%

~12% of region's locations are underserved on the FCC map (4,579 of region's 37,789 locations)

1. Under federal IIJA rules, underserved areas (between 25/3 & 100/20) receive funding if unserved areas are addressed first.

2. Accuracy of service estimation may vary depending on a range of variables (e.g., provider reporting, FCC methodology).

3. Approximately 12% of the region's locations are considered underserved, but this number varies at the CBG level

Source: Federal Communications Commission, National Broadband Map, Broadband Data Collection (as of December 2022)

SOUTHEAST WYOMING AVAILABILITY & ADOPTION
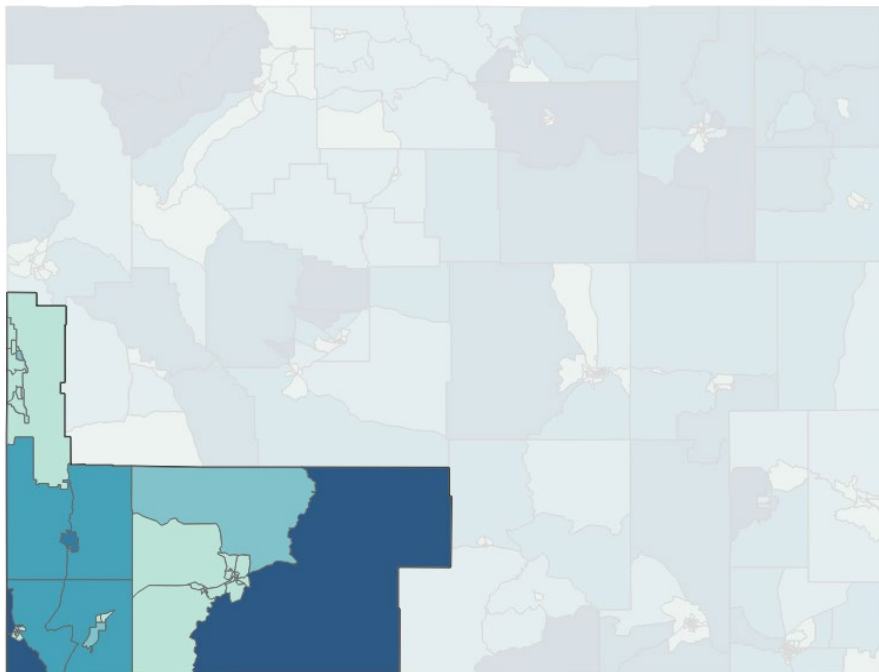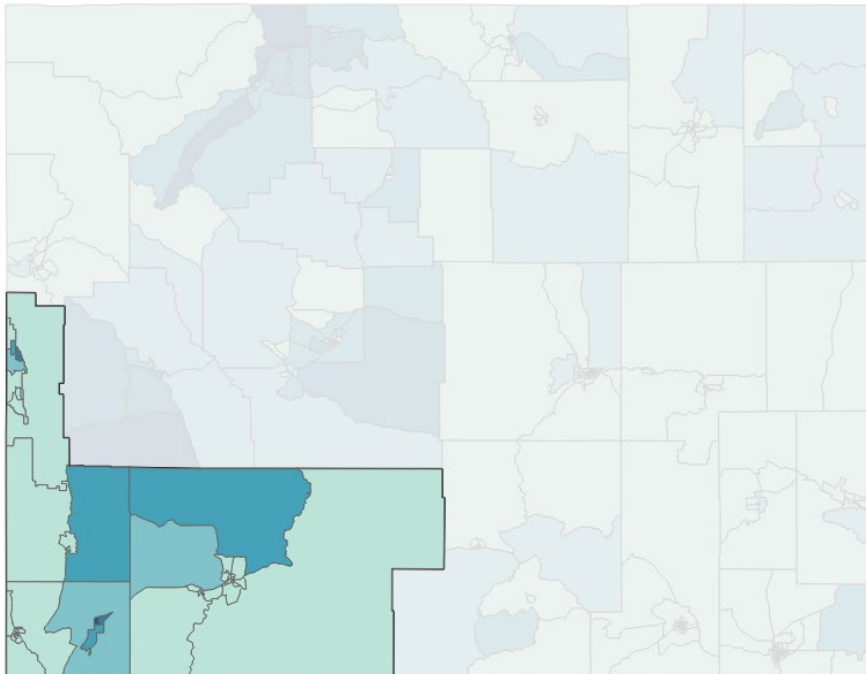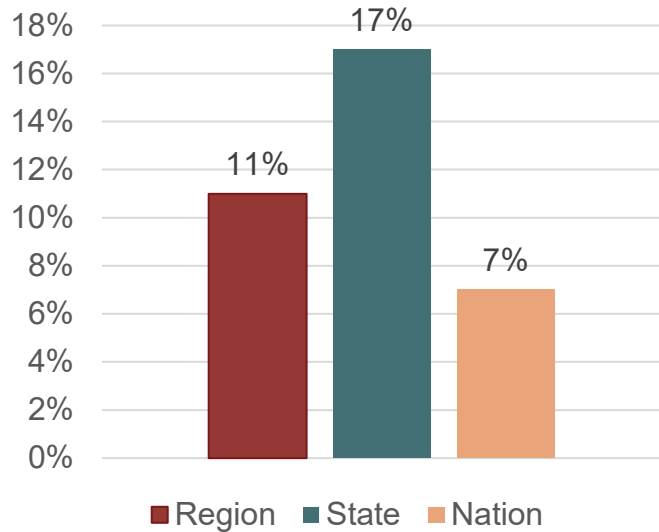
Southeast Wyoming has a lower share of households unserved by broadband, but higher ACP uptake and broadband subscription as compared to the state

Availability	Federal Subsidy Use	Broadband Adoption
Per the FCC Map as of December 2022, the region has a lower percentage of households unserved by broadband as compared to the state	Per USAC as of May 2023, the region has a higher percentage of eligible households that participate in the ACP $30/month subsidy as compared to the state	Per the Census ACS 5-Year 2021 survey, the region has a higher percentage of households subscribed to fiber, cable, or DSL internet service as compared to Wyoming

Availability (Region 11%, State 17%, Nation 7%)

Federal Subsidy Use (Region 21%, State 17%, Nation 29%)

Broadband Adoption (Region 72%, State 68%, Nation 75%)

Legend: ■ Region ■ State ■ Nation
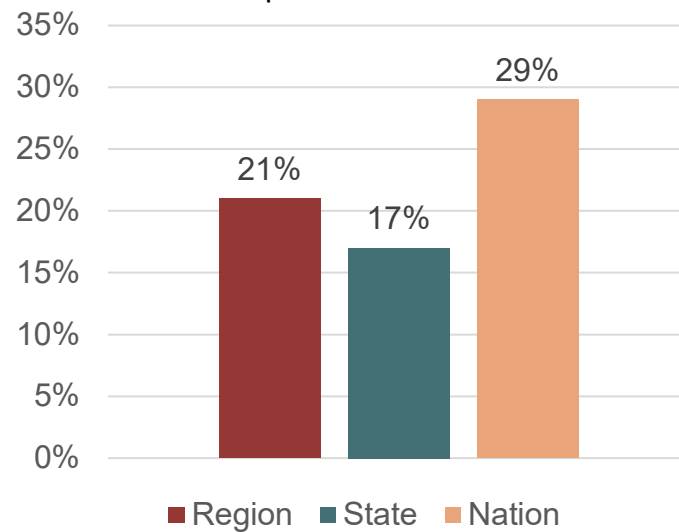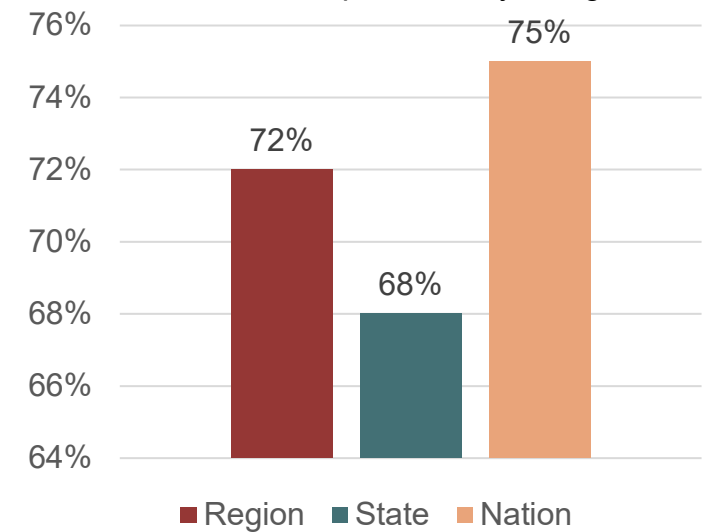
SOUTHEAST WYOMING BROADBAND AVAILABILITY

Southeast Wyoming has a greater share of locations with access to >25/3 Mbps and >100/20 Mbps as compared to the state, but lower share of >100/100 Mbps
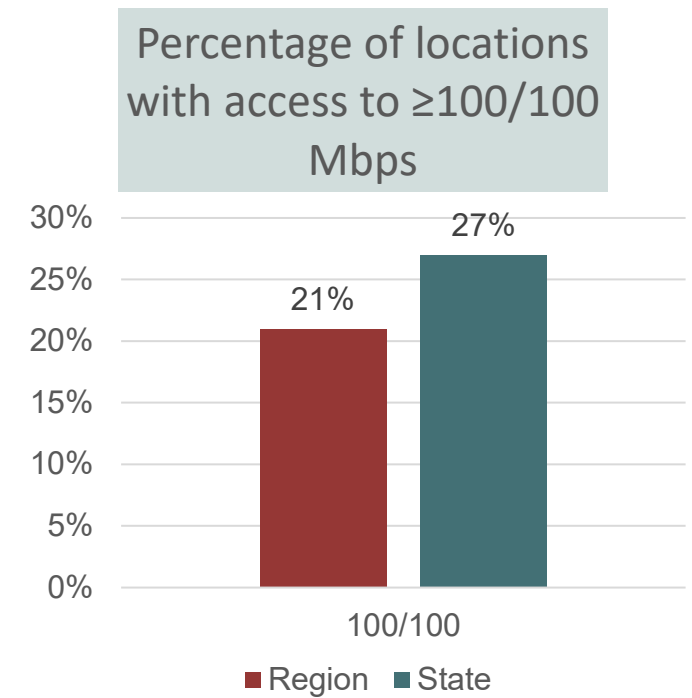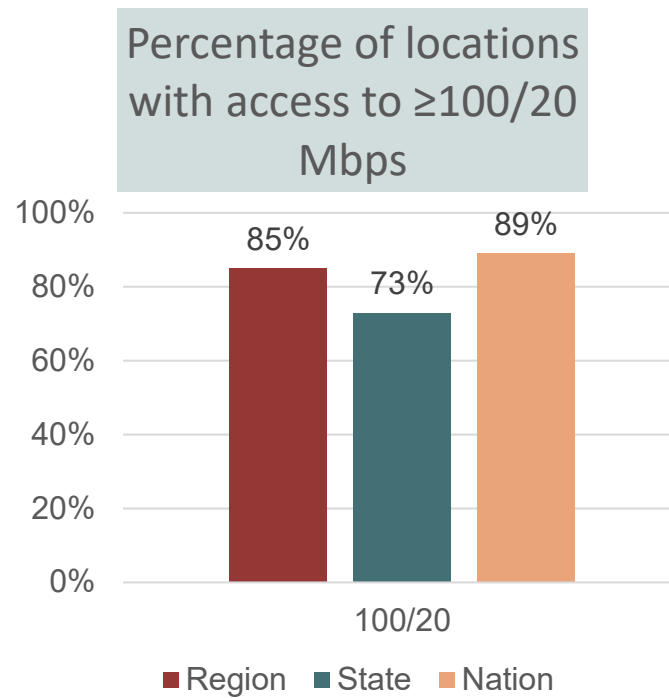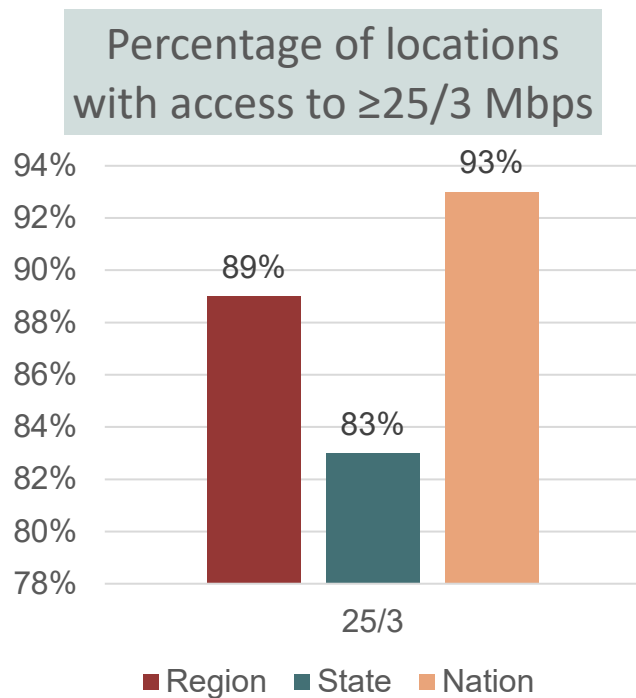
Note: National data is not available for locations served by >100/100 Mbps.

Source: Federal Communications Commission, National Broadband Map, Broadband Data Collection (as of December 2022)

SOUTHEAST WYOMING UNSERVED LOCATIONS

Percent of unserved locations
% unserved as share of CBG's total locations

0-20%	21-40%	41-60%	61-80%	>81%

**~11% of the region's locations are unserved on the FCC map
(7,688 of region's 67,945 locations)**

1 Unserved locations are the top priority for federal IIJA funding under federal rules.

2 FCC considers a location unserved that lacks 25/3 Mbps speeds over wireline, licensed fixed wireless, or hybrid licensed/unlicensed fixed wireless.

3 FCC's service estimations may vary depending on geographic locations (e.g., may estimate a higher number of unserved locations in urban areas and a lower number of unserved locations in rural areas)

Source: Federal Communications Commission, National Broadband Map, Broadband Data Collection (as of December 2022)
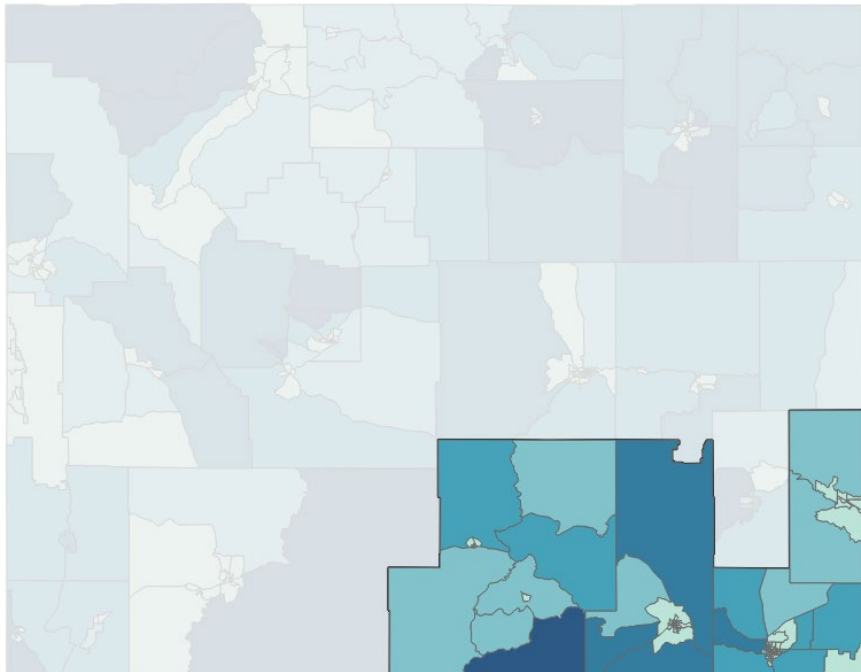
SOUTHEAST WYOMING UNDERSERVED LOCATIONS

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Percent of underserved locations
% underserved as share of CBG's total locations

0-20%	21-40%	41-60%	61-80%	>81%

~4% of the region's locations are underserved on the FCC map (2,749 of region's 67,945 locations)

1. Under federal IIJA rules, underserved areas (between 25/3 & 100/20) receive funding if unserved areas are addressed first.

2. Accuracy of service estimation may vary depending on a range of variables (e.g., provider reporting, FCC methodology).

3. Although less than 5% of the region's locations are considered underserved, this number varies at the CBG level

Source: Federal Communications Commission, National Broadband Map, Broadband Data Collection (as of December 2022)
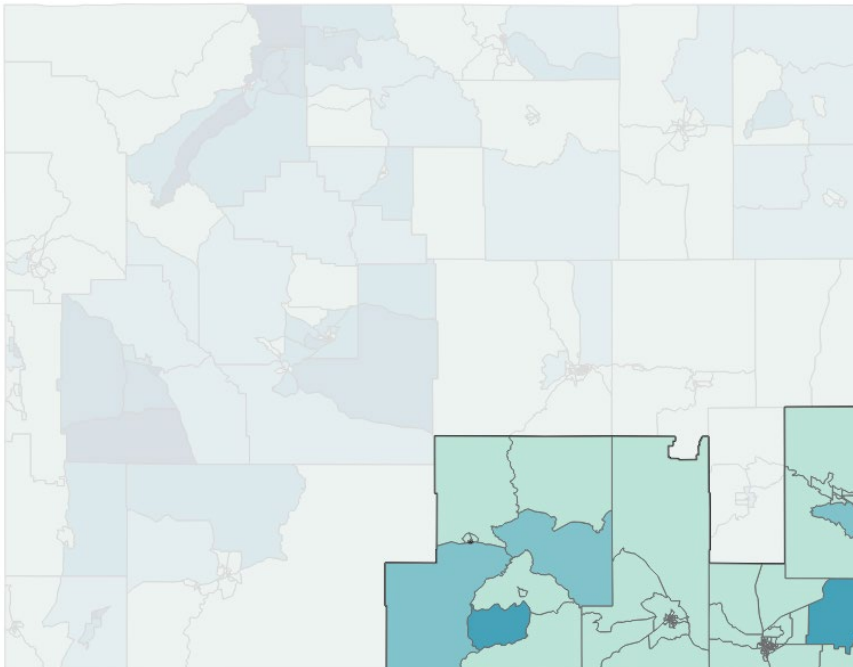
COMMUNITY ENGAGEMENT

This is why we're here today!

STAKEHOLDER INPUT IS VITAL

Wyoming
BUSINESS COUNCIL

PUBLIC INCLUDING COVERED POPULATIONS

Regional meetings that include public

Public comment on certain plans

STATE AND LOCAL GOVERNMENT

Virtual statewide and on-site regional meetings with Wyoming State and local government

Workforce, Transportation, Health, Education, others

Understand goals and strategies that may be supported by broadband access

BEAD 5-Year Action Plan, Initial and Final Proposals

Digital Access Plan

DATA SOURCES

Latest FCC, Wyoming broadband maps, Census, ACS, etc.

Service availability, cost to serve, funding requirement analysis

Input from stakeholders to refine

Build a baseline view of broadband gaps and needs

BROADBAND FOCUSED ORGs AND ISPs

Virtual statewide and on-site regional meetings with ISPs, non-profit groups, and reps from covered populations

Build a baseline view of broadband gaps and needs

Inventory current programs

DIGITAL ACCESS OBJECTIVES – IMPACT ON STATE OUTCOMES

Wyoming BUSINESS COUNCIL

Measurable objectives

- Broadband Access
- Digital Literacy and Skills
- Privacy and Security
- Devices and Technical Support
- Accessible and Inclusive Content
- Affordability

Assess Impact →

State outcomes

- Economic and Workforce Development
- Education
- Health
- Social and Civic Engagement
- Delivery of Essential Services

AFFORDABLE CONNECTIVITY PROGRAM

The Affordable Connectivity Program (ACP) is an FCC program that helps connect families and households struggling to afford internet service

Benefits for eligible households:

- Up to $30/month internet service discount
- Up to $75/month internet service discount on qualifying Tribal lands
- One-time discount up to $100 for a device
- Some low-cost service plans can be entirely subsidized

Household income and federal assistance programs determine eligibility*

Apply for the ACP: affordableconnectivity.gov

ACP Enrollment Support: (877) 384-2575

* See all eligibility criteria at affordableconnectivity.gov

SUBMITTING AN FCC BROADBAND MAP CHALLENGE

Communities can challenge data in the FCC's broadband map

Map may contain errors which can be remedied via a challenge process

Ways to challenge:

- Challenge an individual address*
- Challenge bulk addresses**

(requires individual address input)

Types of information to challenge:

- Address fabric data (building locations and unit counts)
- Reported service coverage

What can my organization do?

- Educate partners and residents
- Support coordination of bulk challenges

* https://help.bdc.fcc.gov/hc/en-us/articles/10475216120475-How-to-Submit-a-Location-Challenge-
** https://www.fcc.gov/news-events/events/2022/09/broadband-serviceable-location-fabric-bulk-challenge-process-webinar

PARTNER SURVEYS AND INVENTORIES

Wyoming
BUSINESS COUNCIL

State and Local Government Asset Inventory

Infrastructure-related assets that may help facilitate or reduce the cost of broadband deployment in the State

Community Anchor Connectivity

Barriers and obstacles to clients, facility access, criticality of internet to mission and program capacity

ISP Workforce Preparedness

Sources for hiring, workforce programs, ACP, internet skills and adoption, collaboration in community, deployment approaches, disaster recovery plans

Workforce Programs Inventory

Workforce programs profile, barriers to developing diverse and skilled workforce, ISP workforce-related questions

Digital Access Program Inventory

Program details, planned program types and areas of focus, broadband impacts on programmatic outcomes

Barriers and Obstacles for Covered Populations

Internet, computer, and content access; digital skills; data security; barriers and obstacles; broadband impacts on programmatic outcomes

GOVERNMENT AGENCY ASSET INVENTORY

- **Physical assets** (conduit, fiber, structures, real estate, poles, etc.) available for lease to ISPs for broadband deployment

- **Capital construction projects** that include opportunities for placement of communications facilities

- **Analysis of skilled labor availability and workforce readiness** as it may impact State broadband policies and deployment goals

- **Agency role in tracking and monitoring** broadband or other communications outages

- **Planning or development of regulations** related to reliable and resilient broadband or other communications services

- **Policies and strategic plans** related to broadband digital equity, infrastructure deployment, economic development, resilience, partnerships, business planning and related efforts

COMMUNITY ANCHOR INSTITUTIONS SURVEY

- **Profile:** Organization focus, groups you serve, and programs or services that facilitate use of broadband internet services by your clients

- **Barriers and obstacles:** Describe what prevents members of the communities you serve from accessing or using broadband internet

- **Facility access:** Level of internet access your organization's locations have and need. Can you get at least 1 Gigabit per second? If not, why not?

- **Criticality of service:** Criticality of broadband internet service to your mission. Has your organization been consulted in emergency or resilience planning?

- **Workforce development:** Is your organization involved in telecom or technology workforce programs?

DIGITAL ACCESS PROGRAM INVENTORY

- **Profile:** Groups your organization serves, broadband/digital equity plans, are you part of a broadband coalition?

- **Existing programs:** Details on digital equity programs or services you offer, aspects of digital equity addressed, populations served, length of program activity, budget range, scope, scale, and so on

- **Planned programs:** New programs you may be developing

- **Programmatic impacts** of access to broadband by communities you serve. Metrics used to measure progress. Metrics the State should consider for economic and workforce, education, health, and civic and social engagement outcomes
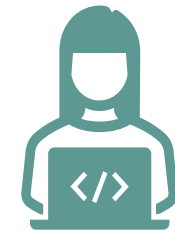
COVERED POPULATIONS BARRIERS SURVEY

- **Internet access:** Individuals in covered populations' experience with internet service

- **Computer access:** Individuals' experience in accessing computers

- **Digital literacy and skills:** Individuals' ability to effectively use technologies, get information, and use the internet

- **Inclusive and accessible content:** Individuals' access to meaningful website content

- **Data privacy and cyber security:** Individuals' ability to secure their information and computers

- **Barriers and obstacles:** Unique barriers to accessing broadband internet, home computers, and website content; acquiring digital skills; and securing information

- **Programmatic impacts** of access to broadband
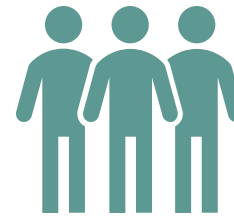
Covered Populations:

- Rural residents
- Low-income individuals
- Veterans
- Seniors
- Individuals with disabilities
- English learners
- Racial and ethnic minorities
- Incarcerated individuals

INTERNET SERVICE PROVIDERS SURVEY

- Sources used for hiring workers for broadband service deployment

- Workforce development or apprenticeship programs. How you will work with the State on workforce development for broadband deployment, including programs to support diversity

- Participation in the Affordable Connectivity Program, subsidized service offerings speeds and costs

- Internet skills and adoption programs

- Collaboration with communities to close the digital divide

- Approaches to deploying broadband in areas most expensive to serve

- Continuity and disaster recovery plans

WORKFORCE DEVELOPMENT SURVEY

- **Profile of workforce development programs your organization provides or uses, including:**

  - Programs for job placement in the communications industry or transferable skill sets
  - Programs addressing any specific populations or communities (such as rural)
  - Current capacity for developing and offering trainings to meet workforce demands in the communications industry
  - Plans for developing and offering additional programs to meet future demands
  - Funding sources for training programs

- **Barriers and obstacles to developing a diverse, skilled workforce and how these can be mitigated**

- **ISP workforce-related questions**

DISCUSSION QUESTIONS

- What does digital connectivity look like for your organization and community today?

- What are the current <u>barriers and opportunities</u> to broadband access, devices, and digital skills for your community?

- What are your future broadband funding and deployment priorities that are necessary to support your organization's goals and create strong digital connectivity for your community?

- What assets does your organization and community have that can help the State optimize broadband access and connectivity for your constituents?

- What broadband planning or related activities exist for your organization or in the community?

- What additional partners should be included in the planning process?

- Discuss your organization's role in workforce development.

QUESTIONS ABOUT WORKFORCE

- Discuss your organization's role in workforce development.

- Do any current workforce development programs include broadband-related jobs?

- What opportunities are there (e.g., new policies or investment) to expand workforce development programs to include broadband?

- What workforce development considerations should be built into broadband grant program requirements?

- What role should ISPs have in developing the needed workforce?

Broadband-Related Jobs

- Network design engineers
- Telecommunications construction workers
- Make-ready line workers
- Outside plant fiber technicians
- Heavy equipment operators
- Inside plant technicians
- Customer support technicians
- Customer care representatives
- Project management
- Trainers

Are there other jobs that need support?

QUESTIONS FOR ELECTED OFFICIALS AND GOVERNMENT AGENCIES

- What do you hear from your partners and the public about their challenges with broadband access and opportunity?

- Do you have upcoming opportunities in your community that would support the expansion of broadband? (E.g., infrastructure projects, greenfield developments, etc.)

- How do you view broadband enhancing economic development opportunities in your community?

- What publicly owned infrastructure assets could spur broadband deployment in the county?

- What programs does your agency offer that support broadband access and opportunity for residents? Are you aware of other programs offered by organizations in the county?

QUESTIONS FOR ISPS

- Based on your participation in other private/public funding efforts (ARPA) what should Wyoming consider for its BEAD grant program design?

- What are your top priorities and goals to invest in broadband infrastructure in this region/county?

- What do you need to fulfill broadband deployment and service expansion in the county?

- What are the known obstacles to deployment?

- What publicly owned physical and non-physical infrastructure assets would help your deployment efforts?

- What programmatic assets such as subsidy programs or partnerships with local communities and organizations do you have?

- What workforce resources do you rely on today? Where are the gaps?

QUESTIONS FOR MEMBERS OF THE PUBLIC

- What is your experience with accessing and using the internet?

- What are the primary activities you use the internet for?

- Does anyone face challenges with internet quality? Accessing a computer?

- Do you feel confident in your skills to use the internet and computers to support you and your family?

- How is Wi-Fi used for operations and access to the public or your clients? Is there enough bandwidth for reliable Wi-Fi access?

- What local community organizations help you reach the internet? How is that experience?

- Are there government services you regularly engage with online? How is that experience? Are there services you would like to access but can't?

CONNECT WITH US

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