



Wyoming Draft Digital Access Plan

In compliance with all requirements of the NTIA's State Digital Equity Planning Grant Program

Project Name: State Digital Equity Planning Grant Program

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Project Abstract

The Wyoming Broadband Office (WBO), part of the Wyoming Business Council (WBC), is eligible to participate in the National Telecommunications and Information Administration's (NTIA) State Digital Equity Capacity Grant (DE) Program, a program that funds a variety of efforts to improve the affordability, adoption and use of broadband. To receive NTIA funding for the DE program, WBO was required to first apply for a State Digital Equity Planning Grant and complete a State Digital Equity Plan. This document is WBO's draft Digital Equity Plan, which is named the Wyoming Digital Access Plan. It includes a vision for digital equity, a set of goals to action that vision within the DE program, current assets and barriers, and an implementation plan to achieve the goals and address the barriers identified.

The draft Digital Access Plan was informed by significant stakeholder engagement, which is described within this document, and the final Digital Access Plan will be stronger because of continued public review and feedback. In this regard, WBO is seeking additional input from the public before submitting this Digital Access Plan to NTIA for review. Provide feedback to WBO about this plan by August 17, 2023 by visiting <https://wyomingbusiness.org/communities/broadband/digital-access-plan/>.



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1 Executive Summary

The Wyoming Broadband Office's (WBO) vision for broadband and digital access is as expansive as the state itself: ensure that **every citizen and business can connect to and effectively use affordable, reliable, and future-proof broadband**. To do this, WBO will align activities with existing policies, strengthen current initiatives, and steward new public investments, making the most efficient use of each available dollar. While the Wyoming Digital Access Plan (DAP) specifically focuses on overcoming the barriers to broadband affordability and adoption, particularly for Covered Populations, its success will rest equally on the Broadband Office's infrastructure programs, which will bring new or upgraded services to all residences and businesses in Wyoming. The DAP will guide WBO's digital access efforts and will inform its funding application to the National Telecommunications and Information Administration's (NTIA) forthcoming State Digital Equity Capacity Grant Program.

To develop the Broadband Equity, Access, and Deployment (BEAD) program's Five-Year Action Plan and the DAP, WBO combined stakeholder engagement and research efforts to assess the state's needs and identify potential solutions. The data analysis focused on current infrastructure and availability, adoption, affordability, and digital skills across Wyoming geographies and populations. This analysis uncovered significant challenges related to digital access; for example:

- Only six counties across the state of Wyoming have at least 70% adoption of terrestrial broadband. The five counties with the lowest rates of terrestrial broadband adoption (between 44%-55%) are all located on the eastern side of the state.
- The largest gap in adoption is across income levels. 94.7% of households earning more than \$75K per year subscribe to broadband while only 68.2% of households earning less than \$20K per year do.
- 57% of Native Americans (primarily members of the Eastern Shoshone and Northern Arapaho tribes), and Black citizens subscribe to terrestrial broadband compared to 71% of all Wyomingites. Similarly, 62% of Wyomingites aged 60+ subscribe to terrestrial broadband, while 73% of working age adults do.
- Approximately 10% of households only access broadband through a cellular data connection, typically a smartphone.
- While overall device ownership is at 88%, Black citizens, lower-income citizens, Native Americans (primarily members of the Eastern Shoshone and Northern Arapaho tribes), and individuals with a disability are less likely to own a computer or tablet than other groups.

In addition to data analysis, WBO engaged in a robust stakeholder engagement effort, anchoring discussions in the analytic baseline developed through analysis. The Broadband Office held 24 in-person and virtual meetings across all parts of the state, fielded six organizational surveys to hear from stakeholder groups (e.g., local governments, Community Anchor Institutions, organizations representing Covered Populations), and collaborated with multiple state agencies and other stakeholders via 1:1 engagement. This process uncovered a range of additional assets within the state that can provide a foundation for digital access efforts (e.g., current grants focused on Affordable Connectivity Program [ACP] outreach and teaching digital skills, device lending programs at public libraries and colleges). Engagement with various stakeholders also helped WBO determine how the Digital Access Plan could align with existing policies and initiatives such as the Wyoming Innovation Partnership, the Department of Education's Digital Learning Plan, and activities taking place throughout Wyoming's 23 county libraries.

As a result of these efforts, WBO developed a set of six goals with key activities and corresponding metrics:

1. Provide all Wyoming citizens and businesses with access to reliable, high-speed internet at home and in their communities.



2. Increase the number of Wyoming citizens who subscribe to broadband, including low-cost programs.
3. Increase the number of Wyoming citizens with the opportunity to use one or more computing devices.
4. Increase the number of Wyoming citizens who are equipped to use the internet and internet-enabled devices to support their economic, educational, health and related goals.
5. Create a safe environment (e.g., privacy and cybersecurity) for citizens to engage with broadband enabled devices.
6. Promote a range of internet-enabled government service offerings which meet citizen needs.

These goals respond directly to the barriers WBO identified during this planning process as well as the state's priorities around education, economic and workforce development, and health. Governor Gordon has prioritized both "an exceptional education, economy and workforce" and "safe and healthy communities".¹ Successfully implementing this Digital Access Plan will enable Wyoming to build on a foundation of in-flight efforts as it continues to innovate in these areas.

¹ Wyoming Governor's Office Priorities. <https://governor.wyo.gov/priorities>



2 Introduction and Vision for Digital Equity

2.1 Vision

Wyoming’s vision is to ensure that **every citizen and business can connect to and effectively use affordable, reliable, and future-proof broadband**.

The **first part of this vision – connecting** – is critical to success for Wyoming. Today, approximately 73% of Wyoming’s broadband serviceable locations (BSLs) are served.² Through existing federal funding commitments, WBO expects that percentage to increase to 85%. With a combination of new programs (e.g., BEAD and Connect Wyoming 2 [CPF]) and private investment, WBO believes that all locations will soon be able to access broadband reliably and, wherever possible, through a future-proof technology. This bold vision will not be easily achieved. Three factors make deployment in Wyoming especially challenging – population density, land area, and topography. Wyomingites are dispersed across the state, resulting in a population density of only 6 people per square mile.³ Wyoming is also a frontier state with the smallest population of any of the 50 states but the 9th largest land area. Finally, with an average elevation of 6,700 feet, Wyoming’s mountainous terrain can pose logistical and cost challenges to deploying fiber optic cable. Through the state’s BEAD plans (Five-Year Action Plan and Initial Proposal), Wyoming will propose a sustainable strategy for bringing all citizens and businesses online.

The **second part of this vision – affordability** – will be realized through both Wyoming’s BEAD Five-Year Action Plan and Digital Access Plan. These plans support an increase in the affordable supply of broadband by engaging with providers to participate in the Affordable Connectivity Program (ACP) and offer low-cost plans, driving citizen awareness of affordable plans, and supporting ongoing efforts to increase affordable devices (e.g., through device loans or refurbishment). Together, these activities will increase broadband adoption across the state.

Lastly, the **third part of this vision – effective use of broadband** – will be achieved by increasing the number of people and businesses who both find value in broadband internet access and make meaningful use of it. This can be achieved in three ways:

- Digital skill development at schools, libraries, workplaces, community colleges, and universities
- Government services delivered more effectively and efficiently online, particularly for Covered Populations⁴
- Safe and secure online environments for Wyoming’s citizens

As WBO considers the strategies it will undertake to implement the Digital Access Plan, it will focus on increasing the number of citizens with access to **affordable broadband** and **devices**. It will prioritize **digital skills and online privacy**. Wyoming will also build on these actions to **improve the delivery and accessibility of online government services for its citizens**. These initiatives will enable **greater economic resilience and growth**, both bringing new citizens to the state and

² Service estimation based on the Federal Communication Commission’s (FCC) National Broadband Map (<https://broadbandmap.fcc.gov>) as of 18 Nov 2022, not including existing federal funding commitments. WBO will update estimates regularly as new data becomes available.

³ *Economic Analysis Division: Just the Facts*. (2022). Wyoming Department of Administration & Information. https://eadiv.state.wy.us/Wy_facts/Facts2022.pdf

⁴ Covered Populations are defined in Section 1.C. of the State Digital Equity Capacity Grant Program Notice of Funds Availability: “1. Individuals who live in covered households; 2. Aging individuals; 3. Incarcerated individuals, other than those who are incarcerated in a Federal correctional facility; 4. Veterans; Individuals with disabilities; Individuals with a language barrier, including individuals who – a. Are English Learners; and b. Have low levels of literacy; 7. Individuals who are members of a racial or ethnic minority group; and Individuals who primarily reside in a rural area.” Covered Households are those earning not more than 150% of the poverty level.



helping current Wyomingites grow their diverse businesses (e.g., via new business starts and expansions of family-owned businesses).

To accomplish this effort, WBO has built a team of technical experts and advisors. Concurrently, agencies across the Executive Branch are identifying key personnel to support both planning and implementation. With this talented, multi-disciplinary team, WBO is well positioned to act on this ambitious Digital Access Plan.

WBO recognizes that the nature of this federal funding is one-time, which has different implementation implications for broadband infrastructure and digital access. While investment in infrastructure can be successful on a one-time basis, the same is not universally true for other areas related to digital access. Therefore, WBO is focused on designing efforts with an eye towards sustainability. To start, WBO has identified existing efforts and potential partners that can help the state accelerate and sustain the impact of these foundational investments.

2.2 Alignment with Existing Efforts to Improve Outcomes

The Digital Access Plan's goals align with multiple state-level efforts, including two of Governor Gordon's priorities, 1) an exceptional education, economy, and workforce, and 2) safe and healthy communities.⁵ Across economic and workforce development, education, health, civic and social engagement, and delivery of other essential services, it is critical for citizens and businesses to connect to and effectively use affordable, reliable, and future-proof broadband. As WBO begins implementation of the Digital Access Plan, it will continue to review existing public and private efforts in the state to identify additional ways to ensure sustainability through alignment with existing efforts.

Sections 2.2.1.- 2.2.5 detail key state of Wyoming initiatives that can support (or be supported by) increased broadband access and use.

2.2.1 Economic and workforce development

Wyoming Business Council

The Wyoming Business Council (WBC) is the economic development agency for the state of Wyoming. Led by a Board of Directors, including business leaders from across the state and co-chaired by Governor Gordon, WBC provides recruitment, development, and investment services to support a resilient economic framework for Wyoming businesses and communities to thrive. WBC views broadband access and use as critical enablers of economic development, making it the ideal organization to house WBO and operate the state's broadband initiatives. For example, WBC was a primary partner of the Economically Needed Diversity Options for Wyoming (ENDOW) initiative, which recommended expanding broadband as a key lever to support the state's future growth. ENDOW also served as a foundation for similar, recent efforts to strengthen and diversify the economy, such as WBC's partnership with the Harvard Growth Lab which focuses on identifying opportunities to develop stronger pathways to sustainable prosperity across the State of Wyoming.⁶

⁵ Wyoming Governor's Office Priorities. <https://governor.wyo.gov/priorities>

⁶ Pathways to prosperity in Wyoming. Harvard Growth Lab. <https://growthlab.cid.harvard.edu/policy-research/pathways-prosperity-wyoming>



Wyoming Innovation Partnership

The Wyoming Innovation Partnership (WIP) is a collaboration to align education and workforce development and support innovation, entrepreneurship, and research to help drive Wyoming's economy.⁷ WIP supports economic growth and diversification to build a highly skilled, ambitious, and qualified workforce by linking community goals with the state's economic strategy. This partnership will be driven by data to ensure a strong return on investment for the people of Wyoming.

Wyoming Department of Workforce Services

The Wyoming Department of Workforce Services (DWS) assists Wyoming's communities to adapt and thrive. The Workforce Programs Division oversees 55 state and federal programs administered in 18 Workforce Centers across the state. The Workforce Centers are a central point of service for Wyomingites seeking employment and training, including resume and cover letter assistance. DWS also supports IT apprenticeships and other training programs (some of which are in partnership with employers) that rely on digital skills and broadband infrastructure. The Wyoming Workforce Development Council (WWDC) – comprised of private and public sector leaders – advises DWS, determines federal workforce grant allocations, and oversees Next Gen Sector Partnerships, which are industry-led, community-supported partnerships that strengthen regional economies and connect people to jobs.

University of Wyoming Business Resource Network

The Business Resource Network, supported by the University of Wyoming Office of Research and Economic Development and the WBC, supports the Wyoming Small Business Development Center (SBDC) Network and Impact 307.⁸ The SBDC network supports small businesses through online training and services, particularly those in rural areas which rely on e-commerce. Impact 307 is a statewide innovation-driven incubator system focusing on technology-oriented high-growth companies and start-ups.

2.2.2 Education (K-12, Higher Education, and Adult Education)

University of Wyoming

The University of Wyoming, the leading academic research institution in the state, offers online education to ensure that higher education is available to students unable to commute to Laramie. It hosts the Wyoming Telehealth Network and the Wyoming Institute for Disabilities and plays a leading role in helping students develop advanced technology skills (e.g., computer science). The Wyoming Center on Aging, housed at the University, also helped older adults and adults with disabilities connect to remote social services and healthcare as part of its response to COVID-19.⁹

⁷ *Wyoming Innovation Partnership (WIP)*. (n.d.). Wyoming Innovation Partnership, <https://wip.wyo.gov/home>

⁸ *Business Resource Network*. University of Wyoming. <https://www.uwyo.edu/research/business-resource-network/index.html>

⁹ *UWYO-Distance Education*. (n.d.). University of Wyoming. <https://www.uwyo.edu/distance/>; *Tech2Connect | Wyoming center on aging*. (n.d.). UWYO-Center on Aging Initiative. <https://www.uwyo.edu/wycoa/tech2connect-folder/>



Wyoming Community College Commission

The Wyoming Community College Commission’s 2021-2025 Strategic Plan announced a commitment to expand access to remote learning for all programs (including non-credit, community/cultural enrichment, and lifelong learning).¹⁰ Through partnerships with other entities, made possible by broadband connectivity, the Commission aims to attract, develop, retain, and advance a skilled, technical, and scientifically oriented workforce.

Wyoming Department of Education

The Wyoming Department of Education (WDE) provides digital access and digital literacy to Wyoming students to give them a foundation for future success in the workforce and higher education. WDE’s priorities include ensuring “all students leave Wyoming schools career or college ready” and the Department has published multiple guides and strategies to support the use of technology on and off campus.¹¹ This includes the 2022-2023 Distance Learning guide, the 2017-2021 Digital Learning Plan (currently being updated), and the Future Ready Framework which provides “a robust structure for Digital Learning visioning, planning, and implementation focused on Personalized Student Learning.”¹² This research-based framework includes seven key areas that are critical to address during a comprehensive planning process.

2.2.3 Health

Statewide Collaborations

Wyoming has strong network collaborations around issues related to poverty, housing, health, and education. The state utilizes strong community-based organizations such as the Head Start Collaborative, the Family Resource Center Network, Continuum of Care for housing, Federally Qualified Healthcare Centers, Community Mental Health Centers, the Community Services Network of Wyoming (CSNOW), Wyoming 211, Visiting Nurse programs, home visitation programs, Aging and Disabilities Resource Centers, Kinship Programs, Veteran Services, and more. These community-based organizations currently provide case management and resource navigation for Covered Populations. The partnerships across these organizations are strong and collaborative in nature and can be found in every county in Wyoming.

Wyoming Telehealth Network

The Wyoming Telehealth Network (WyTN), administered by the University of Wyoming – College of Health Sciences, supports healthcare entities, providers, and specialists to increase access to care and improve health outcomes for Wyomingites, through professional development, collaboration, and use of telecommunications technology. The Wyoming Telehealth Consortium, part of WyTN, was created by legislation in 2009 to develop and promote standards for telemedicine and telehealth networks. The Consortium recently engaged in a strategic planning process that identified lack of broadband infrastructure and affordable access in

¹⁰ *Strategic Plan 2021 to 2025*. (2021). Wyoming Community College Commission. <https://wvolog.gov/InterimCommittee/2020/S23-202010162021-2025StrategicPlanCommunityCollegeSystem.pdf>

¹¹ Wyoming Statutes Title 21. Education § 21-2-204

¹² *2022-23 Distance Learning: Guidance for Wyoming School Districts*. (n.d.). Wyoming Department of Education. <https://edu.wyoming.gov/wp-content/uploads/2022/07/2022-23-Distance-Learning-Guidance-1.pdf>; *Digital learning plan*. (2022, February 17). Wyoming Department of Education. <https://edu.wyoming.gov/educators/technology/digital-learning-plan/>



the state as a barrier to telemedicine adoption.¹³ WyTN members receive no-cost HIPAA-secure Zoom licenses for providing telehealth services. Both the Department of Health Services (DHS) and Department of Enterprise Technology Services (ETS) are involved in WyTN.

2.2.4 Civic and Social Engagement

Wyoming's Library Systems

Each of Wyoming's 23 counties has a library system and there are a combined 54 branches across these systems. Each library system reflects the unique characteristics of its county, offering diverse print, digital, and special collections (e.g., a Library of Things). Many libraries have explicit goals that require both robust broadband and device access (e.g., supporting lifelong learning, facilitating information and digital literacy skills, helping small businesses thrive).

2.2.5 Delivery of Other Essential Services

Department of Enterprise Technology Services

The Department of Enterprise Technology Services (ETS) develops and executes the statewide information technology strategy while providing services and infrastructure to ensure the continuity of mission-critical and essential state systems. ETS administers the Wyoming Unified Network (WUN), which connects K-12 schools, community colleges, and the Executive Branch. One of ETS' strategic themes is modernizing digital government. In its most recent Strategic Plan, the Department includes a goal to "enhance citizen services," explaining that "Wyoming citizens use technology to access state resources when working with the state. Citizens expect applications to be easy to use and immediately available, utilizing contemporary capabilities for compatibility with today's modern devices. Digital government transformation efforts play a major role in making this happen."¹⁴

Wyoming Department of Transportation

The Wyoming Department of Transportation (WYDOT) is proactively preparing the state's transportation system for a future that requires broadband (e.g., to support adoption of connected, autonomous vehicles used by residential commuters and tourists).¹⁵ WYDOT has supported broadband deployment by helping providers size the number of conduits and fiber strands to reduce the need for multiple visits in right-of-way (ROW) corridors and bringing Wi-Fi access to rest areas. WYDOT also uses a dig-once policy to facilitate statewide infrastructure development for telecommunication and broadband services.

2.3 Strategy and Objectives

To achieve the vision outlined in Section 2.1, WBO has identified a holistic set of goals across six dimensions of broadband deployment and digital access: broadband availability, broadband affordability and adoption, device availability and affordability, digital skills, privacy and cybersecurity, and online accessibility and inclusivity. Together, these goals enable the realization of

¹³ *Strategic Plan and Governance Structures*. (2021). University of Wyoming: Wyoming Telehealth Consortium. <https://wyomingtelehealth.org/wp-content/uploads/2022/09/wtc-strategic-plan.pdf>

¹⁴ *2022-2026 Strategic Plan*. (2022). Wyoming Department of Enterprise Technology Services. <https://drive.google.com/file/d/1Kpy7QmQOHmv9jDztXEbPBS70CJQvtkqw/view>

¹⁵ *2020-2023 Strategic plans*. (n.d.). Wyoming Department of Transportation. https://www.dot.state.wy.us/home/administration/strategic_performance/strategic-plans-1.html



Wyoming’s integrated vision for broadband and digital connectivity, drawing on a range of capital streams including BEAD and the Digital Equity programs. Therefore, these goals are also included in Section 2.2 (Goals and Objectives) of Wyoming’s Five-Year Action Plan.

For each dimension, WBO has identified a potential objective or strategy, potential KPI(s), the current baseline, future goals, and a data collection approach. Future goals include both near-term goals that are within 2 years of beginning BEAD and Digital Access implementation and long-term goals that are within 5 years of beginning implementation.

2.3.1 Broadband Availability

Connecting to and effectively using affordable, reliable, and future-proof broadband is important to reaching many of Wyoming’s current goals, particularly around economic and workforce development, education, and health. Using broadband, however, first requires having it, and today too many Wyomingites do not. Consequently, WBO’s most urgent focus is increasing broadband availability and reaching its goal to provide all Wyoming citizens and businesses – including all Covered Populations – access to reliable, high-speed internet at their homes, in their communities, and at their businesses (Exhibit 1).

Exhibit 1: Objectives related to broadband availability

Goal 1: Provide all Wyoming citizens and businesses with access to reliable high-speed internet at home and in their communities					
Objective/Strategy	KPI	Baseline	Near-Term¹⁶	Long-Term¹⁷	Data Collection
Provide all Wyoming citizens and businesses with access to reliable high-speed internet at home and in their communities	% (and #) of unserved locations	9% (23,691) unserved (considers locations with federal funding commitments as served). ¹⁸ 17% (44,108) unserved, includes all currently unserved locations (i.e., those with and without federal funding commitments to serve).	7% (~20% decrease in unserved locations)	0%	BEAD subrecipient reporting ¹⁹

¹⁶ WBO has defined near-term goals in this plan as two years.

¹⁷ WBO has defined long-term goals in this plan as five years.

¹⁸ FCC National Broadband Map. 18 Nov 2022. Wyoming will update service estimation based on the most recent FCC DATA maps for the Initial Proposal.

¹⁹ WBO refers to BEAD subgrantees as “subrecipients,” per the BEAD NOFO guidelines which state that applicable regulations governing federal financial assistance generally use the term “subrecipient” to refer to what the Infrastructure Act calls “subgrantees” and the term “subaward” to refer to what the Infrastructure Act calls “subgrants.”



Goal 1: Provide all Wyoming citizens and businesses with access to reliable high-speed internet at home and in their communities

Objective/Strategy	KPI	Baseline	Near-Term ¹⁶	Long-Term ¹⁷	Data Collection
	% (and #) of underserved locations	6% (14,458) underserved (considers locations with federal funding commitments as upgraded). 10% (27,340) underserved, includes all currently underserved locations (i.e., those with and without federal funding commitments to upgrade).	4.75% (~20% decrease in underserved locations)	0%	BEAD subrecipient reporting
Enable workforce training for broadband-deployment roles	% (and #) of subrecipients reporting labor as a barrier to timely construction of BEAD-funded projects	N/A because BEAD has not started	<10%	0%	BEAD subrecipient reporting
	# of workers re-skilled/up skilled; # of training programs	To be identified with Department of Workforce Services through Initial Proposal planning			Department of Workforce Services

2.3.2 Broadband Affordability and Adoption

Increasing broadband adoption across the state is critical to the state’s future. WBO is also keenly aware that its share of the State Digital Equity Capacity Grant Program is likely to be modest. As a result, Wyoming will accelerate broadband adoption through strategies related to both its BEAD implementation (e.g., ACP participation by subrecipients, subrecipient marketing plans) and Digital Access Plan implementation (e.g., raising awareness of ACP among Covered Populations, increasing the number of state programs that promote ACP), with a focus on reducing disparities in adoption by Covered Populations (Exhibit 2). In addition, the Community Services Network of Wyoming (CSNOW) and the Council of Community Services (CCS) have received a total of \$475,000 in grants from the Federal Communications Commission (FCC) to increase ACP enrollment. WBO expects that these initiatives will have a substantial impact on ACP enrollment and broadband adoption among Covered Populations.

Exhibit 2: Objectives related to broadband affordability and adoption

Goal 2: Increase the number of Wyoming citizens who subscribe to broadband, including low-cost programs

Objective/ Strategy	Potential KPI	Baseline	Near-Term	Long-Term	Data Collection
Require all BEAD subrecipients to participate in ACP	% of BEAD subrecipients participating in ACP	N/A because BEAD has not started	100% of subrecipients participate in ACP	100% of subrecipients participate in ACP	BEAD subrecipient reporting



Goal 2: Increase the number of Wyoming citizens who subscribe to broadband, including low-cost programs

Objective/ Strategy	Potential KPI	Baseline	Near-Term	Long-Term	Data Collection
Require all BEAD subrecipients to offer a low-cost plan	% of BEAD subrecipients offering low-cost plans	N/A because BEAD has not started	100% of subrecipients offer a low-cost plan	100% of subrecipients offer a low-cost plan	BEAD subrecipient reporting
Increase adoption of new services through broad awareness of BEAD subrecipients' new infrastructure buildouts and low-cost plans	% of locations newly served or upgraded through BEAD that received marketing / outreach about new service and low-cost plans	N/A because BEAD has not started	100% of newly served / upgraded BEAD locations receive outreach from subrecipient	100% of newly served / upgraded BEAD locations receive outreach from subrecipient	BEAD subrecipient reporting
Grow number of relevant state programs that promote ACP or other low-cost program enrollment (e.g., SNAP)	% of state programs that promote ACP or other low-cost program enrollment through existing channels which serve large portions of ACP-eligible citizens	To be identified through planning process	75% state program participation	100% state program participation	Data reporting
Boost enrollment of ACP among eligible households	% of households eligible for ACP that subscribe	20% ACP enrollment	Increase ACP enrollment to highest rate in the Rocky Mountain region	Maintain ACP enrollment at highest rate in the Rocky Mountain region	ACP enrollment data

2.3.3 Device Availability and Affordability

While 94% of households earning more than \$75,000/year own a computer, only 83% of households earning between \$20,000 and \$75,000 do. For households earning less than \$20,000, the computer ownership rate is ~66%. Supporting short- and longer-term device loans through Community Anchor Institutions (CAIs) such as schools, libraries, affordable housing communities, health care providers, etc. can help bridge the gap for citizens who do not own computers.

The Wyoming State Library may soon have funding from other sources to start a new device loan program that will combine devices and access points by offering laptops or tablets with built in Wi-Fi at public libraries around the state. As the largest program of its kind in Wyoming, it will be important to measure impact and, if needed, consider awarding Digital Access funding to further scale the program in later years. This will enable WBO to focus its funding on areas not currently supported by other investments (Exhibit 3).



Exhibit 3: Objectives related to device availability and affordability

Goal 3: Increase the number of Wyoming citizens with the opportunity to use one or more computing devices

Objective/ Strategy	Potential KPI	Baseline	Near-Term	Long-Term	Data Collection
Expand access to device loans (i.e., laptop, tablet, hotspot)	# of loanable devices from libraries or colleges	Zero laptops / tablets available ~120 loanable hotspots available at libraries	2,000 devices and/or hotspots available (requested through separate funding source)	Add devices as needed to maintain 75% utilization	Utilization numbers and waitlist data from State Library and Colleges
	Utilization rate of devices at libraries or colleges	To be identified through baseline assessment	100% utilization - hotspots are continuously checked-out and have a waitlist	75% utilization	

2.3.4 Digital Skills

Increased digital skills (i.e., digital literacy) for all Wyomingites ensures that citizens can effectively use the internet – once broadband is available and they have adopted it – to support their economic, educational, health and related goals. WBO’s goals focus on education and jobs for students and adults, as well as health access for all citizens (Exhibit 4).

Exhibit 4: Objectives related to digital skills

Goal 4: Increase the number of Wyoming citizens who are equipped to use the internet and internet-enabled devices to support their economic, educational, health and related goals

Objective/Strategy	Potential KPI	Baseline	Near-Term	Long-Term	Data Collection
Grow the number of Wyomingites who possess the digital skills to support an exceptional education, economy, and workforce	# of workers re-skilled/up skilled	N/A. To be requested from subrecipients	# of people across Covered Populations that complete certifications at learning locations # of certifications completed across Covered Populations at learning locations Specific increases to be defined during State Digital Equity Capacity Grant subrecipient application process		Digital Access subrecipient reporting
	# of K-12 students participating in basic and advanced skills training				
Increase the number of Wyomingites who are trained to use telehealth services to access medical care	# of patients who are trained to use telehealth services	N/A. To be requested from subrecipients	Increase in telehealth training; specific activities and scope to be refined pending public comment and further evaluation		Digital Access subrecipient reporting

2.3.5 Privacy and Cybersecurity

Trust is a key component in driving adoption and use of the internet. To support citizen trust as they use broadband, WBO will monitor subrecipient cybersecurity risk through their adoption of the National Institute of Standards and Technology (NIST)



cybersecurity framework. WBO’s discussions with stakeholders across the state indicate that privacy and security are already included in basic digital skills classes, and it is WBO’s expectation that this continues (Exhibit 5).

Exhibit 5: Objectives related to online privacy and cybersecurity

Goal 5: Create a safe environment (e.g., privacy and cybersecurity) for citizens to engage with broadband-enabled devices					
Objective/ Strategy	Potential KPI	Baseline	Near-Term	Long-Term	Data Collection
Require subrecipients to adopt the NIST cybersecurity framework	% of subrecipients that have adopted NIST’s cybersecurity framework	N/A because BEAD has not started	100%	100%	BEAD subrecipient reporting

2.3.6 Online Accessibility and Inclusivity

Online accessibility and inclusivity will enable Wyoming citizens and businesses to interact with government more easily. Accessible online services make government services more intuitive and user-friendly for all citizens and provide special consideration for Wyomingites with lower literacy levels, disabilities, or those who primarily speak another language (e.g., Spanish). Importantly, accessibility also means meeting people where they are in terms of technology and skills and driving change through the lens of citizen experience. This may include ensuring that government services work as well for someone on the newest laptop or the oldest cell phone, that language is clear and easy to understand, and that the steps to complete a task or activity have been built through ongoing discussion and feedback from stakeholders. WBO plans to first partner with the Department of Enterprise Technology Services to support the assessment of current state services and prioritize areas for enhancement, with a particular focus on those that most impact Covered Populations (Exhibit 6).

Exhibit 6: Objectives related to online accessibility and inclusivity

Goal 6: Promote a range of internet-enabled government service offerings which meet citizen needs					
Objective/ Strategy	Potential KPI	Baseline	Near-Term	Long-Term	Data Collection
Expand the number of state government services delivered online, with emphasis on those which primarily serve Covered Populations	% (and #) of state government services which are online and mobile-friendly	To be determined from initial assessment	Conduct current state assessment in collaboration with ETS. Prioritize services for enhancement	Implement enhancement in collaboration with ETS	Data from relevant state departments
Incorporate accessibility for those who possess auditory, visual, or other impairments	% (and #) of state government services which are accessible				
Offer state services online in Spanish and / or other languages	% (and #) of state online services offered in Spanish and / or other languages				



3 Current State of Digital Equity: Barriers and Assets

3.1 Asset Inventory

WBO has developed an Asset Inventory to support implementation of the BEAD Five-Year Action Plan and the Digital Access Plan within the state of Wyoming. The inventory places each asset in a single category, but WBO recognizes that some assets may have relevance in multiple areas. There are five sub-categories of assets – Digital Inclusion Assets by Covered Population (Section 3.1.1), Existing Digital Equity Plans (Section 3.1.2), Existing Digital Equity Programs (Section 3.1.3), Broadband Adoption (Section 3.1.4), and Broadband Affordability (Section 3.1.5).

3.1.1 Digital Inclusion Assets by Covered Population

Section 3.1.1 includes digital inclusion assets that focus on training opportunities for specific Covered Populations (e.g., rural, 60+, incarcerated). In most instances, programs are available for anyone to participate (e.g., libraries), though organizations may conduct specific outreach to Covered Populations. These assets are provided by state agencies, the University of Wyoming, nonprofit organizations, businesses, and schools. *This section is identical to Wyoming’s Five-Year Action Plan Section 3.3.4 (Digital Equity).*

Exhibit 7: Digital inclusion assets that focus on or support Covered Populations

Organization Name	Asset Name	Description
University of Wyoming	Distance Learning Programs	The University of Wyoming helps meet the educational needs of Wyomingites through distance learning programs. Degree programs and certifications are available online, greatly expanding educational opportunities for rural citizens.
Wyoming Community College System	Distance Learning and Digital skills training	Wyoming’s seven community colleges offer certificates in a variety of technology-related fields and provide distance learning courses. Additionally, each campus offers digital literacy training through their adult education programs.
Wyoming library systems	Digital skills training and online resources	Libraries throughout Wyoming offer in-person and online technology training classes. For example, the Laramie County Library provides training classes that include using a mouse, learning to type, navigating webpages, using email, and online safety for social media. The State Library provides access to LinkedIn Learning, an online career development resource, for all library systems in the state.
Various K-12 schools and school districts	Digital skills classes, 1:1 device programs, online learning, technical support	School districts provide a variety of services to support adoption and training. For example, Carbon County District #1 offers technical support during parent/teacher nights, digital skills classes, and 1:1 device programs; Laramie School District #2 provides Wi-Fi on its buses; Big Horn County School District #1 offers the Wyoming Connections Academy, which is a tuition-free, K–12 online program that students attend from home.
Boards of Cooperative Educational Services (BOCES)	Digital skills training, public computer lab	BOCES are unique to each district in the educational roles they fill. For example, the Oyster Ridge BOCES has a computer lab that is open to the public and Western Sublette 9 BOCES offers computer courses for adults.
Wyoming State Museum	Digital skills for seniors	The State Museum offers a free, eight-week course that introduces digital skills that older adults can use to simplify and improve their everyday lives.



Department of Workforce Services (DWS) and Department of Corrections (DOC)	Digital skills training	The Pathway Home 3 grant provides the opportunity for individuals to successfully re-enter communities and the labor force by providing justice-involved individuals and incarcerated adults with critical skill building and support services prior to – and after – release. DWS and DOC will teach returning citizens foundational skills, such as job readiness, employability, digital literacy, and job search strategies.
Small Business Development Center Network (SBDC)	Small business digital skills training	The Wyoming SBDC network aims to support small businesses through online training and services, particularly those businesses in rural areas which rely on e-commerce. The SBDC network offers a select number of digital skills training (e.g., creating successful ad campaigns on Facebook, creating Energized Web Content).
Wyoming American Association of Retired Persons (WY AARP)	Digital skills training, ACP outreach	Each month, AARP and CyberWyoming collaborate on a one-page flyer that is distributed with meals to inform senior adults about online scams and how to avoid them. The back of the flyer highlights AARP's program, Harnessing the Power of Technology to Change the Way We Age (OATS) program and the Affordable Connectivity Program. AARP also previously established the Senior High-Tech Program, in which local high school students would help seniors to better use their smartphones. Though AARP is not currently running the program, it continues in parts of the state.
Various broadband providers and technology firms	Digital skills training and assistance in finding resources	Multiple broadband providers and technology firms offer digital skills training, open computer lab space, and assistance finding resources such as ACP (e.g., Vistabeam, Microsoft, and Union Wireless).
University of Wyoming - Wyoming Institute for Disabilities (WIND)	No-cost devices and device loans for Wyomingites with disabilities	WIND manages two programs for the state: a) iCanConnect program, which provides communications technology free of charge to income eligible people of all ages who have combined vision and hearing loss. b) Assistive technology services, which provide a variety of support, including device loans, demonstrations, and financial support.
Wyoming Department of Health	GetSetUp Virtual Classes for Older Adults	The Wyoming Department of Health has partnered with GetSetUp to provide live virtual classes taught by older adults. Older citizens in the state have the opportunity for free access to a variety of health and technology-focused classes.
University of Wyoming and Public Libraries	Telehealth	Several libraries either have or are in the process of placing a sound-proof telehealth kiosk in the library for citizens to use. These kiosks are provided through grants from the University of Wyoming.
Wyoming Business Council (WBC)	Framework - Seven Steps to Better Community Broadband	WBC developed this framework in 2021. The Framework outlines Seven Steps to Better Community Broadband which breaks the steps down in simple pieces and provides guidelines for communities on how to have conversations with stakeholders and providers.

3.1.2 Existing Digital Equity Plans

WBO has not identified any other statewide, all-encompassing digital equity plans in Wyoming. However, there are multiple plans supporting aspects of digital equity (e.g., online learning, telemedicine) and those are incorporated into Section 2.2 (Alignment with Existing Efforts to Improve Outcomes).



3.1.3 Existing Digital Equity Programs

WBO has included existing digital equity programs within Sections 3.1.1 (Digital Inclusion Assets by Covered Population), 3.1.4 (Broadband Adoption), and 3.1.5 (Broadband Affordability).

3.1.4 Broadband Adoption

Below are current assets in the state related to broadband adoption. Data regarding broadband adoption (overall and by Covered Population) is located in Sections 3.2.1 (Covered Population Needs Assessment) and 3.2.2 (Broadband Adoption). *Assets listed below include relevant items from Wyoming’s Five-Year Action Plan Section 3.3.4 (Broadband Access) and all of 3.3.2 (Broadband Adoption).*

Exhibit 8: Broadband adoption assets

Organization Name	Asset Name	Description
Wyoming Library Systems	Public Computer Labs, device lending and Wi-Fi access	Wyoming's public library systems have a total of 721 computers available for public use, which were used a total of 172,000+ times in 2021. All library systems also offer free Wi-Fi at branches. Some branches have begun Wi-Fi hotspot lending programs and the State Library may begin a laptop/hotspot lending program. There were 214,000+ wireless sessions in 2021.
State and local rest stops and visitor centers	Wi-Fi access	Free Wi-Fi is available at WYDOT rest stops across the state, select state Welcome Centers (e.g., the Southeast Welcome Center), local visitor centers (e.g., Town of Guernsey Visitors Center), and public spaces (e.g., Cheyenne’s Depot Plaza).
Community Colleges	Wi-Fi access and device lending	Campuses have extended Wi-Fi to their parking lots, and many have device lending programs for students.

3.1.5 Broadband Affordability

Below are current assets in the state related to broadband affordability. These assets are primarily provided by non-profit organizations and funded by federal programs to support ACP outreach and enrollment in Wyoming. Wyoming organizations are eligible for two additional federal ACP outreach programs (the FCC’s National Competitive Outreach Program [NCOP] and Tribal Competitive Outreach Program [TCOP] grants) and if more funds are awarded within the state, WBO will update the inventory.

Data regarding broadband affordability is located in Section 3.2.3 (Broadband Affordability). *This list of assets is identical to Wyoming’s Five-Year Action Plan Section 3.3.3 (Broadband Affordability).*

Exhibit 9: Broadband affordability assets

Organization Name	Asset Name	Description
Affordable Connectivity Program (ACP)	ACP	The federal ACP provides eligible households with a discount on broadband service and connected devices: up to \$30 per month for high-speed internet services and up to \$75 per month for households on Tribal lands (i.e., the Wind River Indian Reservation).



Organization Name	Asset Name	Description
Community Services Network of Wyoming (CSNOW)	Program to support ACP adoption	In March 2023, CSNOW, a nonprofit organization, was awarded a \$325,000 grant from the Federal Communications Commission (FCC) to support ACP outreach and enrollment in Wyoming.
Community Services Network of Wyoming (CSNOW)	Program to pay internet and other utility bills during a crisis	CSNOW has limited funding available to pay people's internet (and other utility) bills in emergency / crisis situations.
Council of Community Services (CCS)	Program to support ACP adoption	In March 2023, CCS, a nonprofit organization, received a \$150,000 grant to support ACP outreach and enrollment. They will also be teaching digital skills.
Various school districts	ACP adoption	Select school districts have invested significant time to conduct ACP outreach (e.g., Laramie County School District #1).



3.2 Needs Assessment

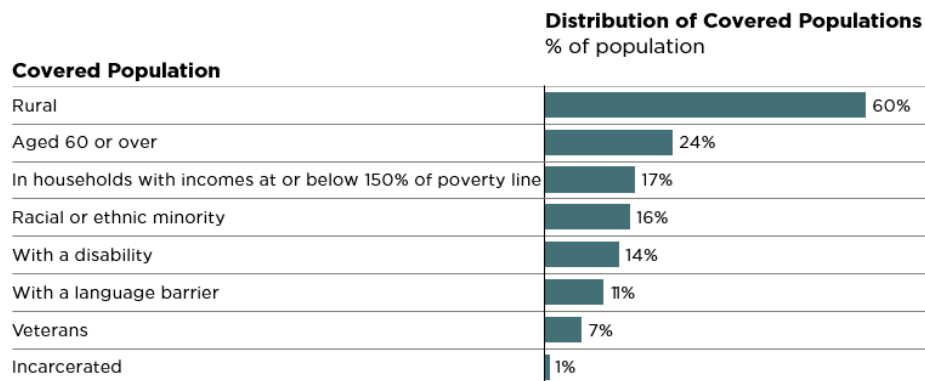
3.2.1 Covered Population Needs Assessment

This section is identical to Section 3.4.5 (Digital Equity) of the Five-Year Action Plan.

Wyoming's Covered Populations

NTIA identifies eight categories of Covered Populations that have traditionally had less access to and lower adoption of broadband. The categories are rural citizens, those 60 and over, those at or below 150% of the federal poverty line, racial and ethnic minorities, those with a disability, those with a language barrier, veterans, and incarcerated individuals. In Wyoming, rural citizens (60% of the total population) and those aged 60 or over (24%) comprise the largest share of Wyoming's Covered Populations (Exhibit 10). Low-income households, defined as those at or below 150% of the federal poverty line, racial and ethnic minorities, citizens with a disability, and those with a language barrier are all between 11% and 17% of the total statewide population. Veterans and incarcerated individuals comprise less than 10% of Covered Populations.

Exhibit 10: Distribution of Covered Populations in Wyoming²⁰



Broadband availability by Covered Population

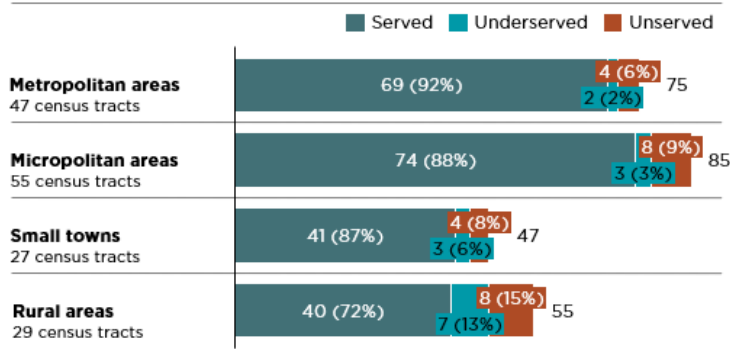
WBO analyzed the impact of broadband availability on various Covered Populations across the state. For most Covered Populations, WBO did not find a difference in broadband availability. However, three Covered Populations (rural, those aged 60+, and veterans) were all found to have at least some gaps in broadband availability. Wyomingites who live in rural areas are the most likely to live in areas that are unserved or underserved; and both those aged 60+ and veterans are more likely to live in unserved or underserved communities. At 28%, rural areas have the highest proportion (and total number) of unserved and underserved locations in Wyoming (Exhibit 11).

²⁰ Digital Equity Act Population Viewer. <https://www.census.gov/data/data-tools/digital-equity-act-population.html>. Rounded to nearest whole number. Covered Population percentages based on total population estimate of ~580K. Rural is defined as any area that is not urban. An urban area will comprise a densely settled core of census blocks with at least 2,000 housing units or have a population of at least 5,000.



Exhibit 11: Distribution of service estimation by community type²¹

Distribution of service estimation by community type
Thousands of locations (% of locations)



Citizens over 60 and veterans are slightly more likely to live in areas with less broadband availability. For example, approximately 17% of both Veterans and 60+ live in areas where >30% of locations are unserved or underserved (Exhibit 12)

Exhibit 12: Broadband availability for veterans and 60+²²

Broadband availability for veterans and 60+
% of locations unserved or underserved in block group

% of locations un- or underserved	Veterans	Non-Veterans	Individuals aged 60+	Individuals aged < 60
80-100% Un or Underserved	3.2%	2.8%	3.2%	2.8%
30-80% Un or Underserved	13.4%	11.6%	13.7%	11.4%
0-30% Un or Underserved	83.4%	85.5%	83.2%	85.8%

Across other Covered Populations (e.g., low income, racial/ethnic minorities, disability status), access to broadband is approximately the same as or slightly greater than the statewide average.

Broadband adoption by Covered Population

Broadband adoption varies significantly by Covered Population (e.g., veteran, rural, racial or ethnic minorities, persons with disabilities, and low-income). The largest gap in adoption is across income levels. While nearly one-third (31.8%) of households earning less than \$20,000 per year have not adopted broadband, only 5.3% of those earning \$75,000 or more per year do not subscribe (Exhibit 13).

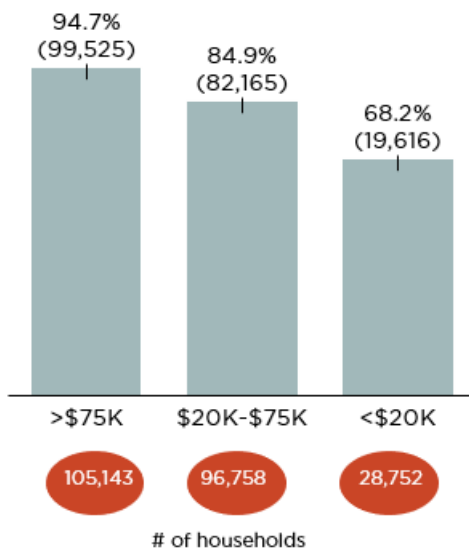
²¹ Community type determined by the USDA rural-urban commuting area (RUCA) codes at the Census Tract level: Codes 1-3 Metropolitan area (an Urban Area by the US Census and geographies within its primary commuting radius); Codes 4-6 Micropolitan area (a large Urban Cluster (population 10k – 50k) and its primary commuting radius); Codes 7-9 Small Town (defined as a small Urban Cluster (population 2.5k – 10k) and its primary commuting radius); Code 10 Rural area (defined as geographies outside of both an Urban Area and Urban Cluster). Excludes 1 Census Tract which is “Not Coded” by USDA (21 locations). Values for served, unserved, and underserved locations reflect location totals when locations to be served by RDOF, CAFII, and USDA ReConnect are considered served

²² U.S. Census Bureau, *American Community Survey (ACS), 5-Year Estimates* (Table B21001-Veterans and B01001-Population aged 60+ years). <https://www.census.gov/data.html>; FCC National Broadband Map. 18 Nov 2022; US Census Bureau block group boundaries (2020). Locations are not presently served with 100/20 Mbps and/or not covered by RDOF, CAF II, or USDA Reconnect



Exhibit 13: Broadband adoption by income²³

Broadband adoption by income
% and # of households in income bracket



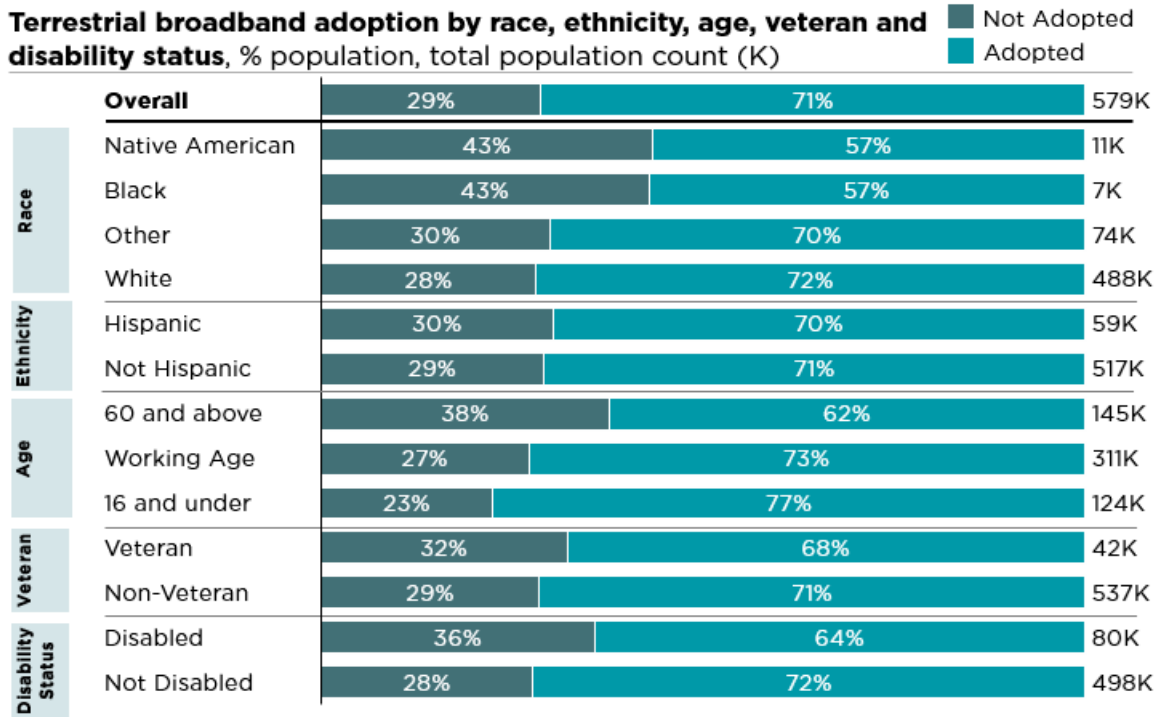
There is also a significant gap in broadband adoption between citizens over 60 and those of working age or younger. 62% of Wyomingites aged 60+ subscribe to terrestrial broadband, while 73% of working age adults do. Similarly, 57% of both Native Americans²⁴ and Black Wyomingites subscribe compared to 71% of the population overall. Veterans and disabled citizens have also adopted terrestrial broadband at a slightly lower rate than non-veterans or non-disabled (Exhibit 14).

²³ Broadband adoption includes any internet subscriptions except dial-up, U.S. Census Bureau, American Community Survey (ACS), 2021 5-Year Estimates. Table S2801, <https://www.census.gov/data/>

²⁴ Census data categorizes groups as Native American rather than referring to members of specific tribes. Members of the Eastern Shoshone and Northern Arapaho tribes comprise most Native Americans living in Wyoming.



Exhibit 14: Terrestrial broadband adoption by race, age, veteran and disability status²⁵



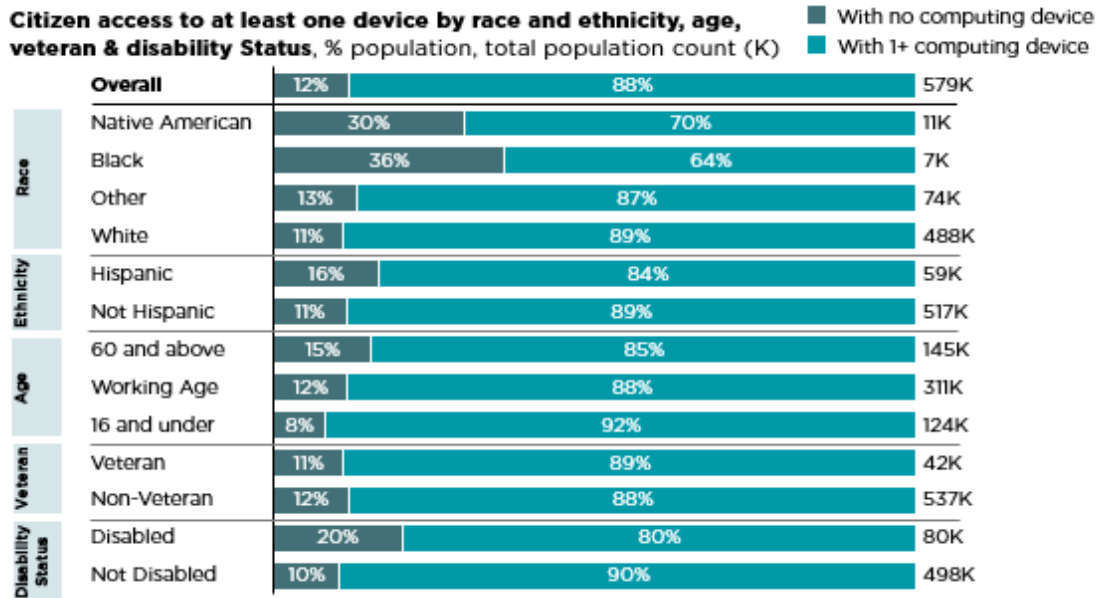
Covered Populations also face gaps in access to internet-capable devices

Black Wyomingites, Native Americans, and individuals with a disability are less likely to own internet-capable devices compared to the rest of the Wyoming population. The gaps are significant. Overall device ownership is at 88%, but Black Wyomingites, Native Americans²⁶, and individuals with a disability are far less likely to own a computer or tablet than other groups, with adoption rates of 64%, 70%, and 80% respectively. By comparison, 90% of citizens without a disability and 89% of white citizens have a device at home. Individuals 16 and under have the smallest gap in device adoption across all demographic groups in Wyoming (Exhibit 15).

²⁶ Census data categorizes groups as Native American rather than referring to members of specific tribes. Members of the Eastern Shoshone and Northern Arapaho tribes comprise most Native Americans living in Wyoming.



Exhibit 15: Wyoming citizen access to at least one device by race, age, veteran & disability status²⁷



Wyoming does not currently have survey data indicating broadband adoption or device ownership levels for rural citizens, incarcerated individuals, or citizens with a language barrier.

3.2.2 Broadband Adoption

This section is identical to Section 3.4.2 (Broadband Adoption) in the Five-Year Action Plan.

Adoption by technology

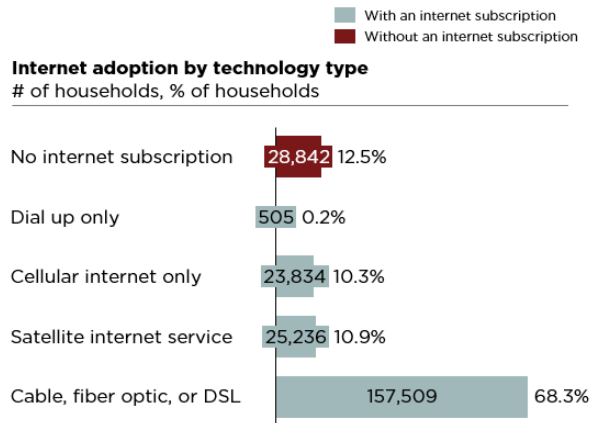
While the majority of Wyoming households have an internet subscription (87.5%), there are significant gaps by type of technology. Approximately 10% of households only access the internet through a cellular data connection. While this may be sufficient service for some, for others it can be a product of limited home broadband access options or an inability to afford separate home broadband and phone plans. When more than one person lives in a household, cellular-only plans can be limiting given that the household’s access to the internet may travel with the person who owns the phone. A similar share of households (11%) subscribes to satellite service. Satellite service is typically available in locations where terrestrial broadband may not be viable (e.g., fiber, cable, DSL) and could contribute to overall internet subscription rates in Wyoming (Exhibit 16).

At present, the U.S. Census does not track subscriptions to fixed wireless services. This could result in an undercount of total households that subscribe to broadband (e.g., households with fixed wireless may have responded that they did not have broadband at all because their specific connection type was not included). However, it is also possible that fixed wireless subscribers simply chose the category they thought was closest to their connection type. While this likely would not change overall adoption numbers, it could produce variation across types of services.

²⁷ U.S. Census Bureau, American Community Survey (ACS), 2021 5-Year Estimates (IPUMS). Excludes smartphones, <https://www.census.gov/data/>

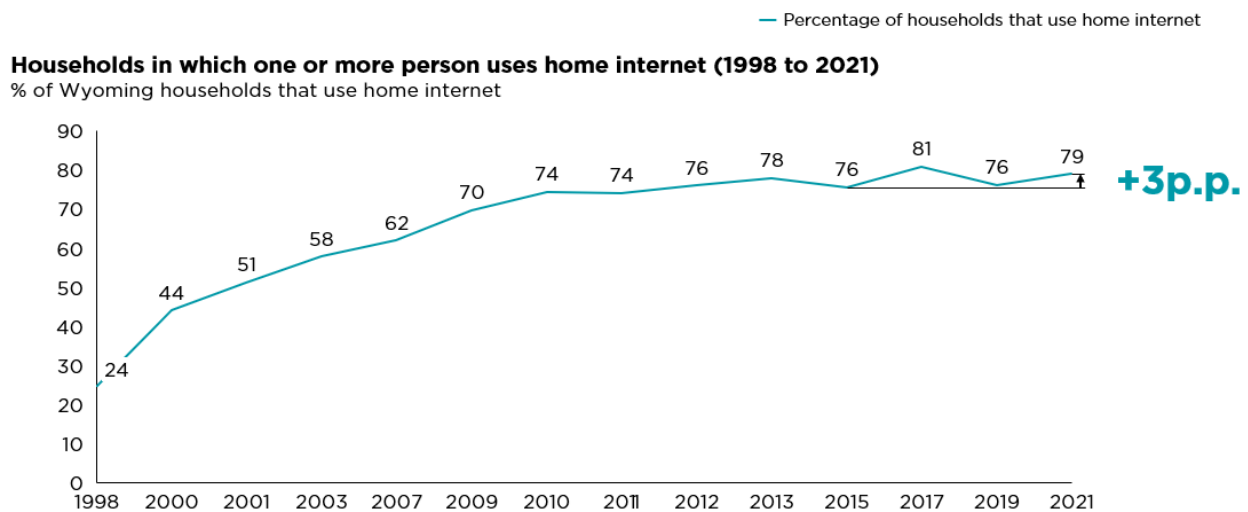


Exhibit 16: Wyoming internet adoption by technology type²⁸



According to NTIA’s Internet Use Survey data for Wyoming, home internet use by anyone in the household has increased by 3 percentage points since 2015 (Exhibit 17). Drivers of low usage could include lack of availability, affordability, device access, or digital skills.

Exhibit 17: Households in which one or more person uses the internet²⁹



Adoption by geography

Adoption rates of high-speed internet also vary across geographies in Wyoming, particularly when comparing across technologies. When considering both terrestrial (fiber optic, cable, and DSL) and satellite technologies, all counties have subscription rates of at

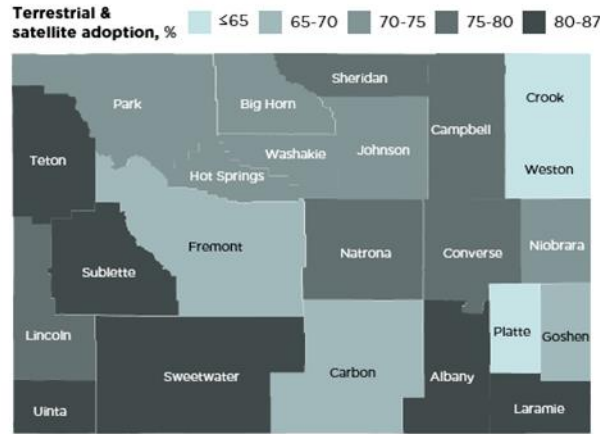
²⁸ U.S. Census Bureau, American Community Survey (ACS), 2021 5-Year Estimates. [Table S2801 “Types of Computers and Internet Subscriptions”](#). Based on 230,653 households in Wyoming according to ACS 2021 5-year estimates. Note: Percentages may not add to 100% as households may be subscribed to multiple types of internet service (e.g., satellite and cable, fiber optic, or DSL). <https://www.census.gov/data/>

²⁹ *Digital nation data explorer | National telecommunications and information administration*. National Telecommunications and Information Administration. <https://ntia.gov/other-publication/2022/digital-nation-data-explorer>



least 63%, although no county has a subscription rate greater than 87%. The four counties with the lowest terrestrial (i.e., fiber optic, cable, DSL) and satellite broadband adoption are Crook, Weston, Goshen and Platte, all of which are located on the eastern side of the state (Exhibit 18). Notably, two of these four counties, Crook and Weston, also have a relatively low percentage of served locations and the highest cellular-only subscription rates in the state, likely driven in part due to low service availability (Exhibit 21).

Exhibit 18: Terrestrial and satellite broadband adoption by county³⁰

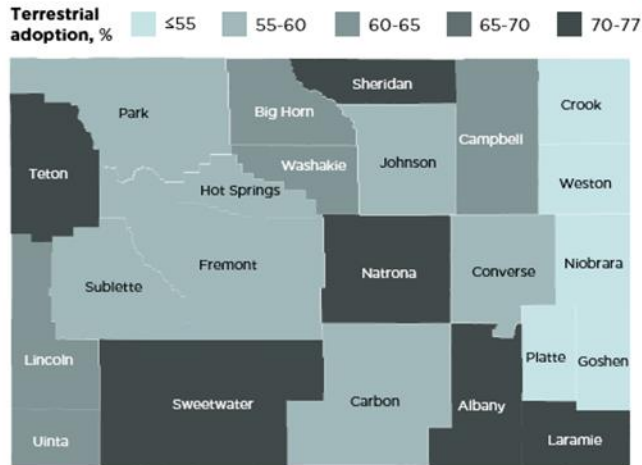


When satellite is removed from the analysis, there is still significant variation in adoption of terrestrial broadband across Wyoming counties. Only six counties across Wyoming have at least 70% adoption of terrestrial broadband (i.e., fiber optic, cable, DSL). The five counties with the lowest rates of terrestrial broadband adoption (between 44%-55%) are all located on the eastern side of the state. Two of these five counties (Goshen and Platte) border other counties with significantly higher terrestrial adoption rates (70-77%), which could be due to topography, population density, or other factors such as speed or reliability of terrestrial broadband (Exhibit 19).

³⁰ US Census Bureau, American Community Survey (ACS), 2021 5-Year Estimates. Table S2801. <https://www.census.gov/data/>

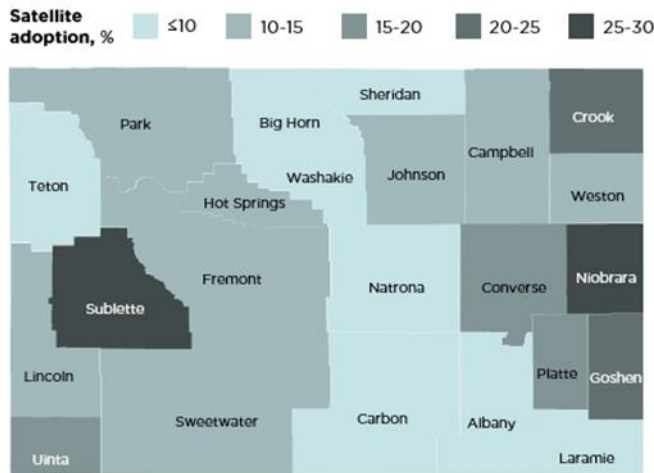


Exhibit 19: Terrestrial broadband adoption by county³¹



Satellite internet adoption is largely concentrated in the Western and Eastern regions of the state. Two counties – Sublette and Niobrara – rely on satellite for a sizeable portion (>25%) of their internet usage (Exhibit 20).

Exhibit 20: Satellite broadband adoption by county³²

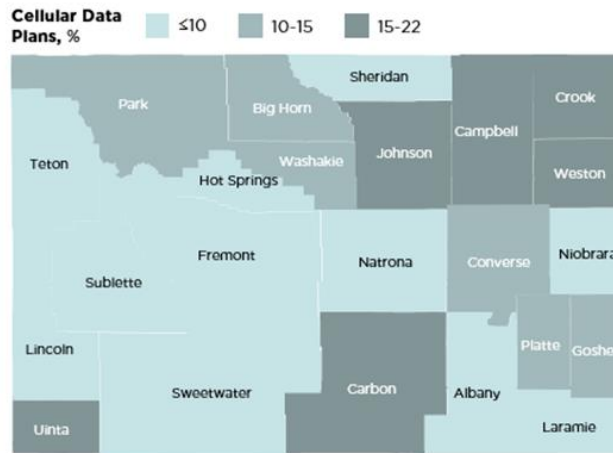


In addition to terrestrial and satellite, there are also households that rely only on cellular data for their broadband needs. Cellular-only adoption is highest in the northern and eastern regions of the state of Wyoming. In six counties (Carbon, Campbell, Crook, Johnson, Weston, and Uinta) 15-22% of the population rely on cellular data as their only means to access the internet (Exhibit 21).

³¹ Ibid 24

³² Ibid 24

Exhibit 21: Cellular-only adoption by county³³



As noted above, broadband adoption differs significantly across counties in Wyoming. Challenges in broadband adoption may be driven by a variety of factors, including the availability of high-speed internet as outlined in Section 3.2.1 and affordability as outlined in Section 3.2.3 below. Strengthening the state’s holistic approach to accessibility of affordable broadband infrastructure is a key step in moving the needle on adoption.

3.2.3 Broadband Affordability

This section is identical to Section 3.4.3 (Broadband Affordability) in the Five-Year Action Plan.

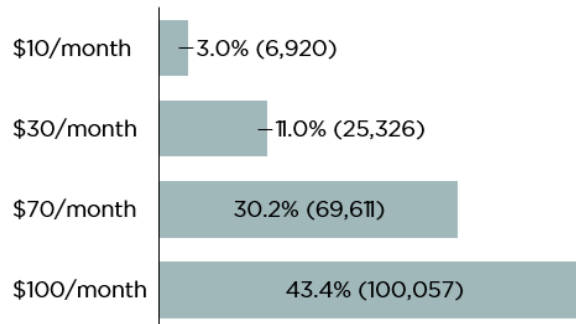
In line with national trends, affordability is likely a significant driver of the gap in broadband adoption. In Wyoming, there is a 26.5 percentage point gap in broadband adoption between households earning <\$20K/year and those earning >\$75K/year (68.2% compared to 94.7%, respectively) (Exhibit 13). Given the variation in broadband plan prices, one way to consider affordability is by assessing the proportion of a monthly plan’s price relative to household income. For example, using the 2% of income threshold set by the Broadband Commission for Sustainable Development, more than 40% of Wyoming households may not be able to afford internet that costs \$100/month. This falls precipitously when broadband is \$10/month; at that price point, only 3% of Wyoming households may not be able to afford internet (Exhibit 22).

³³ Ibid 24



Exhibit 22: Households that would pay more than 2% of income for broadband at various price points³⁴

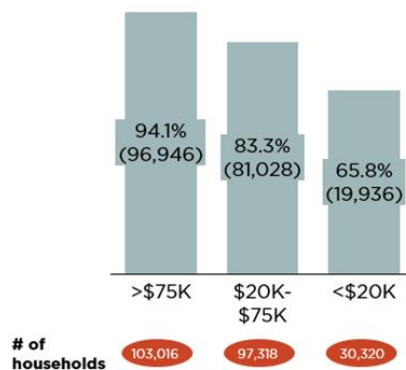
Households that would pay more than 2% of income for broadband at various price points
% and # of households



These analyses indicate broadband adoption varies by income group among Wyoming households, and an analysis of device access shows similar trends. Approximately 67% of households with incomes <\$20K/year have a desktop, laptop, or tablet at home compared to 94% of households with incomes >\$75K/year (Exhibit 23).

Exhibit 23: Access to one or more computing devices by income

Access to ≥1 computing device by income
% and # of households in income group



At least 80% of households in every county have access to one or more devices including a laptop, computer, smartphone, or tablet (Exhibit 24).³⁵ Statewide, 19% of Wyomingites do not have access to a laptop or desktop, while 8% only have access to a smartphone, and 1% only have access to a tablet. To connect to and effectively use the internet, Wyomingites need access to both

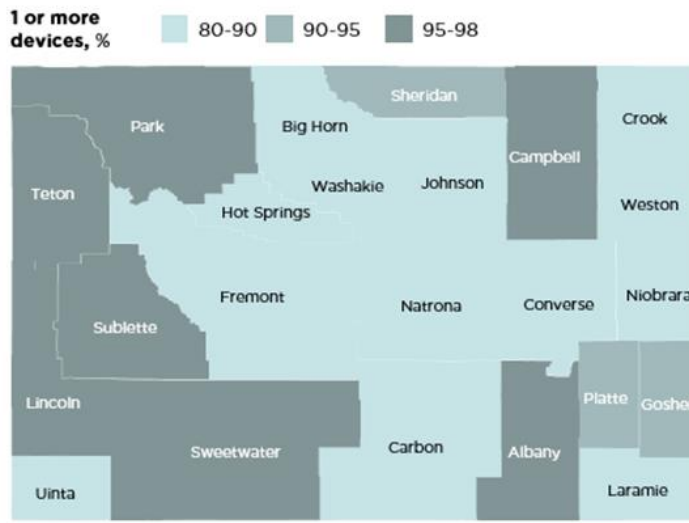
³⁴ *Broadband targets 2025*. (2022, March 2). Broadband Commission for Sustainable Development. <https://www.broadbandcommission.org/broadband-targets/>. Affordability model assumes straight-line income distribution between intervals \$0-\$10k, \$10k-\$15k, \$15k-\$25k, \$25k-\$35k, \$35k-\$50k, \$50k-\$75k, \$75k-\$100k, \$100k-\$150k, \$150k-\$200k, and \$200k and up. Affordability model qualifies a plan as affordable if it costs no more than 2% of a person’s annual income.

³⁵ US Census Bureau, American Community Survey (ACS), 2021 5-Year Estimates. Table S2801. <https://www.census.gov/data.html>



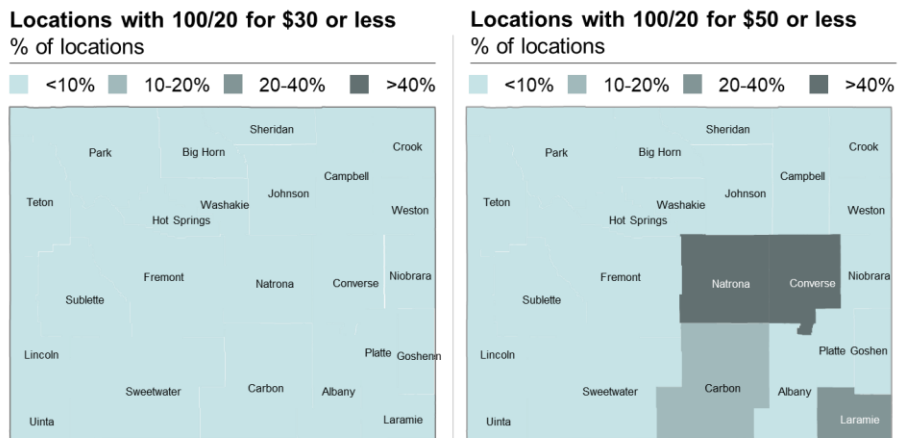
affordable home broadband plans and affordable internet-capable devices.

Exhibit 24: Percent of households that have one or more devices by county³⁶



One potential driver of the affordability gap in access to broadband could be a lack of affordable subscriptions. The availability of affordable subscriptions varies across Wyoming counties. An affordability analysis found that ~1% of locations (2,988) in Wyoming have access to a broadband plan with 100/20 Mbps for \$30 or less. Increasing the cost of the subscription to \$50 or less increases availability to ~14% of locations (36,833) across WY, with the southeastern counties having greater access to affordable plans (Exhibit 25).

Exhibit 25: Locations across with 100/20 Mbps subscriptions available for \$30 or less and for \$50 or less³⁷



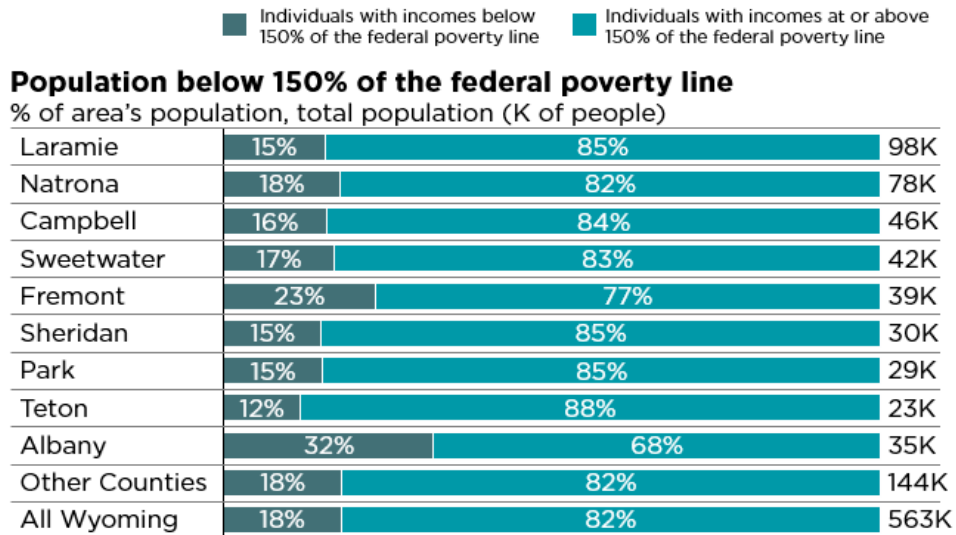
³⁶ US Census Bureau, American Community Survey (ACS), 2021 5-Year Estimates. Data pulled from Table S2801, <https://www.census.gov/data.html>

³⁷ Federal Communications Commission. *FCC provider Map- Desk Research of Provider Websites*. <https://broadbandmap.fcc.gov/data-download/nationwide-data?version=jun2022>. Affordability is not based on business-to-business providers, or providers without readily available pricing online



Approximately 18% of Wyoming citizens live in a household with income below 150% of the federal poverty line (and therefore count as a Covered Population). Given the cost of broadband, this could suggest a barrier to adoption. Wyoming counties with small to medium-sized populations, such as Albany and Fremont, have a relatively higher percentage of households with income below 150% of the federal poverty line (Exhibit 26).

Exhibit 26: Population below 150% of the federal poverty line³⁸.



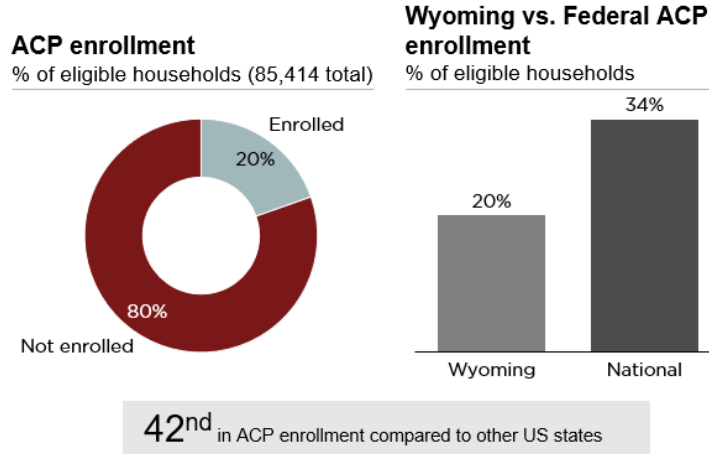
While WBO's research of existing broadband plans in the state indicates most plans are above \$30/month, the price a household pays could be significantly less if it participates in the Affordable Connectivity Program (ACP). ACP reimburses a provider up to \$30/month (or \$75/month on tribal lands), significantly reducing the net cost for eligible households.³⁹ In Wyoming, there are 85,414 households (~37%) eligible for ACP and 16,903 households were enrolled in ACP (~20% of all eligible households) as of April 2023; this is 14 percentage points lower than the national average. Currently, 80% of eligible households in Wyoming are not enrolled, making Wyoming 42nd in percentage ACP enrollment compared to other states (Exhibit 27). Given the high rate of ACP eligibility and low rate of enrollment, many Wyomingites may lack awareness of internet subsidy programs that could help improve broadband affordability (and by extension, adoption).

³⁸ US Census Bureau, American Community Survey (ACS), 2021 5-Year Estimates. Data pulled from Tables C17002 (Ratio of Income to Poverty Levels). Population numbers may vary as values capture the population for whom poverty status is known. <https://www.census.gov/data/>. 9 largest counties by population, other includes 14 counties not listed

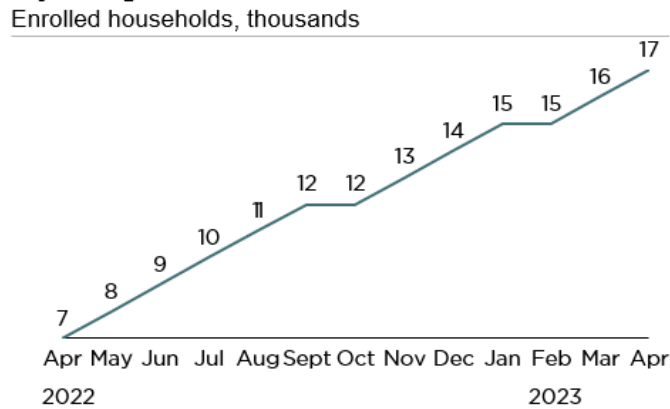
³⁹ Affordable connectivity program. (2022, November 22). Federal Communications Commission. <https://www.fcc.gov/acp>



Exhibit 27: ACP enrollment in Wyoming relative to the nation⁴⁰



Wyoming ACP enrollment over time



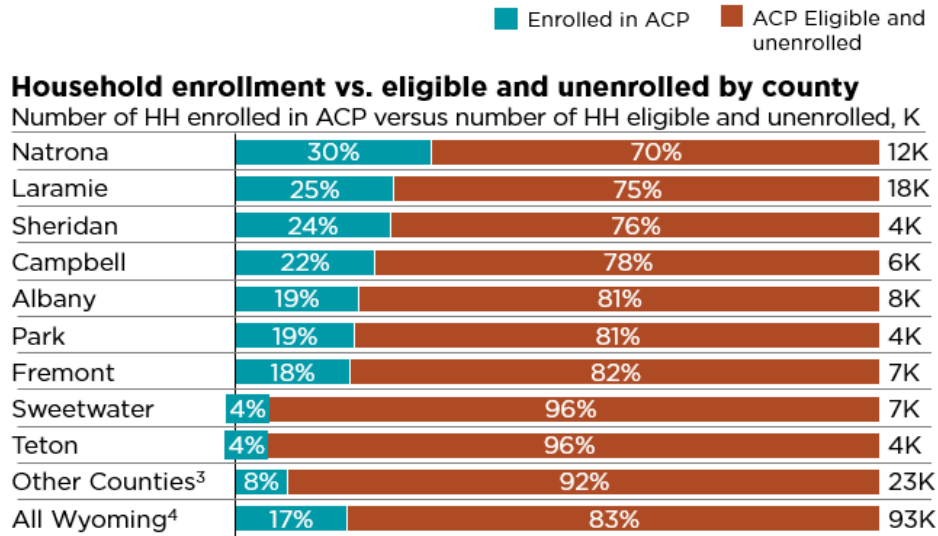
Approximately 68,500 eligible households are estimated to not be enrolled in ACP across the state.⁴¹ There is significant variation across even similarly populated counties. For example, Sweetwater and Fremont counties have similar populations (~39K and ~41K citizens, respectively). However, ACP enrollment in Sweetwater stands at 4%, while 18% of Fremont’s eligible population is enrolled (Exhibit 28). Wyoming may have an opportunity to increase high-speed broadband adoption by creating affordable internet subscriptions and increasing awareness efforts to drive enrollment in available assistance programs.

⁴⁰ ACP data. (2023, April) (Most recent data at time of publication) Education Superhighway ACP Enrollment dashboard. <https://www.educationsuperhighway.org/no-home-left-offline/acp-data/>. ACP enrollment ranking excludes Washington D.C and territories.

⁴¹ Ibid



Exhibit 28: Household ACP enrollment vs. eligible and unenrolled by county⁴²



⁴² Total eligibility estimated by CTC Technology & Energy analysis; enrollment numbers provided by USAC. The CTC Technology & Energy estimate for eligibility (93K) is slightly higher than the EducationSuperhighway estimate for eligibility (85K), yielding a slightly lower enrollment rate estimate of 17%. 9 largest counties by population, includes 14 counties not listed above; US Census Bureau, American Community Survey (ACS), 2021 5-Year Estimates. Table S2801.



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4 Collaboration and Stakeholder Engagement

This section is identical to Section 5.1 (Stakeholder Engagement Process) in Wyoming’s Five-Year Action Plan.

4.1 Introduction

The Wyoming Broadband Office (WBO) recognizes that successful stakeholder engagement creates a crucial input to understanding the unique internet accessibility challenges of Wyoming’s population. To develop a sustainable, holistic stakeholder strategy, WBO integrated stakeholder engagement for development of both the Five-Year Action Plan and Digital Access Plan. WBO also collaborated with state and local leaders, increasing the likelihood of reaching all stakeholder groups and fostering open dialogue.

WBO designed its engagement strategy to reach a broad audience, holding 24 large events (in-person and virtual), fielding six organizational surveys, and offering focused 1-1 sessions to collect more in-depth stakeholder input. Given Wyoming’s large rural population – approximately 60% – WBO leveraged a variety of engagement formats such as virtual sessions, in-person sessions, surveys, and phone calls to reach as many groups as possible. See Section 4.2 for more detail around each engagement format.

WBO also wanted to develop a sustainable path for future stakeholder engagement. To accomplish that, WBO built on the trust the Wyoming Business Council (WBC) has created with communities across the state. WBO partnered with WBC’s six Regional Directors, all of whom have deep ties with communities in their regions.

The Regional Directors recommended WBO localize marketing and outreach efforts for all sessions. In addition, Regional Directors recommended WBO host in-person listening sessions across all six WBC regions at convenient and familiar locations such as colleges and community centers. WBO ensured each in-person location met accessibility needs and were proximate to underserved and unserved citizens. *For more information on WBO’s strategy for virtual and in-person listening sessions across the six regions, please see Section 4.2.*

WBO believes that investing in an ongoing, comprehensive stakeholder engagement process that incorporates feedback into both the BEAD and Digital Access Plan will help create an approach that best reflects the unique needs of Wyoming citizens. To date, the stakeholder engagement process has enabled WBO to:

- Disseminate information and frameworks to all stakeholder entity groups (public, private, community based, and Covered Populations) to support decision making;
- Initiate and maintain an open dialogue with stakeholders by structuring engagement touchpoints (including listening sessions);
- Identify and learn about obstacles and barriers for all Wyomingites (and Covered Populations in particular) to inform approaches to deployment and digital access; and
- Establish channels for future engagement and collaboration.

This process has successfully established a common pathway across regions in the state for collaborating with myriad stakeholder groups to support the development of the BEAD Five-Year Action Plan and the Digital Access Plan.

The following sections provide an in-depth overview of WBO’s stakeholder engagement process:

- **Section 4.2** – describes the overall stakeholder engagement plan and process used to successfully gather feedback from a variety of stakeholder groups, including Covered Populations in Wyoming.



- **Section 4.3** – identifies key stakeholders and potential collaborators including state agencies, associations, community organizations, the Eastern Shoshone and Northern Arapaho tribes, and other Covered Populations.
- **Section 0** – summarizes key takeaways and learnings that WBO will incorporate into its iterative process for future stakeholder engagement.

4.2 Engagement Plan and Process

WBO plays a critical role within Wyoming to increase prosperity for Wyoming communities, businesses, and citizens. WBO has worked closely with the Governor’s Office, legislators, broadband providers, WBC’s Broadband Advisory Council, and community stakeholder groups to ensure funding it pursues fits state needs and priorities.

To support the development of the BEAD Five-Year Action Plan and Digital Access Plan, WBO implemented several types of stakeholder engagement touchpoints:

- Statewide virtual listening sessions (9)
- Regional in-person listening sessions (15)
- 1:1 Engagements with state agencies and other stakeholders (10)
- Surveys to community leaders, organizational stakeholders, and representatives of organizations that serve Covered Populations (6)

WBO launched and executed a marketing strategy for all the listening sessions and surveys, using an email marketing tool to send emails to individual stakeholders and ensure emails were successfully delivered to key stakeholders. See the following subsections on statewide virtual listening sessions, regional in-person listening sessions, and surveys to key stakeholders and Covered Populations for more detail around WBO’s marketing efforts.

WBO’s stakeholder engagement team has extensive experience gathering input and feedback from broadband providers, citizens, private and nonprofit organizations, and rural and tribal authorities. The engagement team tailored the stakeholder engagement process to reach key stakeholder groups for input on the potential future-state of broadband in Wyoming. WBO’s stakeholder engagement team sought personalized responses from stakeholders by presenting a range of data elements, including current state of broadband availability, service speeds, Affordable Connectivity Program (ACP) uptake, and subscriptions to fiber, cable, or DSL internet.

Statewide Virtual Listening Sessions

WBO’s strategy for virtual listening sessions was to take a broad approach for outreach by partnering with state leaders and hosting statewide sessions. WBO successfully marketed, organized, and led one virtual meeting on February 28th (2023) and held seven virtual meetings during the week of April 24th (2023) for state agencies, local and regional governments, Community Anchor Institutions (CAIs), service providers, organizations representing Covered Populations, workforce development organizations, and business and economic development organizations. WBO also held an additional virtual session on June 13th (2023) for those who could not attend one of the in-person regional listening sessions. Marketing materials for the April events included information about all seven listening sessions, so stakeholders could decide whether to attend all events or those most convenient for their schedules (Exhibit 29).



Exhibit 29: Wyoming Broadband Office's online marketing of statewide virtual listening sessions in April 2023⁴³

BROADBAND LISTENING SESSIONS

Broadband Access in Wyoming

A series of online meetings to understand broadband funding opportunities and accessibility throughout the state.

MEETING SCHEDULE & REGISTRATION LINKS

- **April 24, 2023, State Agencies**
 - 3:30 – 5:00 pm MT
 - Register at https://us06web.zoom.us/webinar/register/WN_uU6-ckafSuyUFDy6yp12EQ
- **April 25, 2023 Local and Regional Governments**
 - 11:00 am – 12:30 pm MT
 - Register at https://us06web.zoom.us/webinar/register/WN_gK4jn4UXTgyELufTssmCg
- **April 26, 2023 Community Anchor Institutions**
 - Noon – 1:30 pm MT
 - Register at https://us06web.zoom.us/webinar/register/WN_Ddv3J_-BQH-YxEkE2WJe_g
- **April 26, 2023 Internet Service Providers**
 - 3:00 – 4:30 pm MT
 - Register at https://us06web.zoom.us/webinar/register/WN_2dPhBqWLSsaSW7nVAZrFWA
- **April 27, 2023 Organizations Focused on Digital Access and Supporting Covered Populations**
 - 1:00 – 2:30 pm MT
 - Register at https://us06web.zoom.us/webinar/register/WN_4pw9guj_RbyLK_jLvaMqQ
- **April 27, 2023 Workforce Development Organizations**
 - 4:00 – 5:30 pm MT
 - Register at https://us06web.zoom.us/webinar/register/WN_wErLAgQ5S-umhADkboXq2Q
- **April 28, 2023 Business and Economic Development Organizations**
 - 9:00 – 10:30 am MT
 - Register at https://us06web.zoom.us/webinar/register/WN_w8IYMEcSqtPk-eWmhhtQ

Exhibit 30 provides a detailed summary of each of the nine statewide virtual listening sessions. Across the nine statewide virtual listening sessions, WBO successfully conducted outreach to a total of 935 stakeholders; and WBO successfully hosted a total of 127 stakeholders.

Exhibit 30: Summary of statewide virtual listening sessions

Date of Event	Total Attendance	Focus Area(s)	Attendees by Stakeholder Entity Type
02/28/2023	34	<ul style="list-style-type: none"> • IJJA/DE/BEAD programs • Inputs and timelines 	Public Entities <ul style="list-style-type: none"> • Healthcare Professionals
04/24/2023	11	<ul style="list-style-type: none"> • State Agencies 	Public Entities <ul style="list-style-type: none"> • Academic Community • House of Representatives (staff member) • State Departments (infrastructure) Private Sector <ul style="list-style-type: none"> • Community Development Groups Community Based Organizations <ul style="list-style-type: none"> • Representing People with Disabilities • Rural Community
04/25/2023	14	<ul style="list-style-type: none"> • Local and Regional Government 	Public Entities <ul style="list-style-type: none"> • Local Government • Elected Officials • Public Housing Authorities • State departments (infrastructure) Private Sector <ul style="list-style-type: none"> • Broadband Providers • Economic Development Groups Community Based Organizations <ul style="list-style-type: none"> • Representing People with Disabilities • Rural Community

⁴³ WBC hosts in-person broadband meetings across Wyoming June 5 to 9. (2023, May 22). Wyoming Business Council. <https://wyomingbusiness.org/news/wbc-hosts-in-person-broadband-meetings-across-wyoming-june-5-to-9/>

Date of Event	Total Attendance	Focus Area(s)	Attendees by Stakeholder Entity Type
04/26/2023	8	<ul style="list-style-type: none"> Community Anchor Institutions 	Public Entities <ul style="list-style-type: none"> Academic Community Libraries Private Sector <ul style="list-style-type: none"> Broadband Providers Economic Development Groups
04/26/2023	24	<ul style="list-style-type: none"> Broadband Service Providers 	Private Sector <ul style="list-style-type: none"> Broadband Providers Community Based Organizations <ul style="list-style-type: none"> Community Development Groups
04/27/2023	4	<ul style="list-style-type: none"> Digital Access 	Private Sector <ul style="list-style-type: none"> Broadband Providers Community Based Organizations <ul style="list-style-type: none"> Representing People with Disabilities
04/27/2023	3	<ul style="list-style-type: none"> Workforce development 	Private Sector <ul style="list-style-type: none"> Broadband Providers Economic Development Groups
04/28/2023	12	<ul style="list-style-type: none"> Business and economy 	Public Entities <ul style="list-style-type: none"> Local Government Private Sector <ul style="list-style-type: none"> Broadband Providers Chambers of Commerce Economic Development Groups
6/13/2023	17	<ul style="list-style-type: none"> Listening session 	Private Sector <ul style="list-style-type: none"> Broadband Providers Economic Development Groups Community Based Organizations <ul style="list-style-type: none"> Representing Aging Populations Representing Rural Populations Public Entities <ul style="list-style-type: none"> Local and State Government Citizen

Regional In-Person Listening Sessions

WBO took a regional approach to in-person listening sessions by partnering with WBC Regional Directors and local leaders. WBO successfully advertised, organized, and led 15 in-person regional listening sessions during the week of June 5, 2023.

WBO hosted an initial planning session with Regional Directors across the state to determine the marketing and location strategies for all in-person listening sessions. For the location strategy, WBO and the Regional Directors decided to host 15 in-person listening sessions at sites located centrally within communities and at Community College facilities. Central locations provided the benefit of convenience and familiarity for stakeholders. Community College facilities offered a variety of benefits, including ample space;



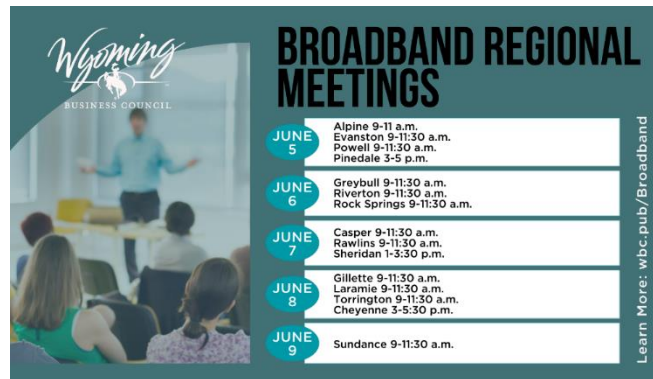
video and projection capabilities for presentations; and physical components to support accessibility needs, familiarity, and positive association. To conduct the in-person sessions, WBO organized the engagement team into three groups, each with ownership over a geographic segment to ensure coverage of all of Wyoming’s regions. In those locations where a community college was not present or available, Regional Directors and WBO chose to host sessions at publicly used and accessible facilities.

For marketing efforts, WBO coordinated with state agencies, Regional Directors, and public-entity associations to cast a wider net on outreach. Regional Directors amplified marketing efforts by sending email notices out directly to their networks. In addition, when attending conferences of county or municipal associations, Regional Directors distributed hard copies of the marketing materials (Exhibit 31). WBO marketed the events on WBO’s website and weekly newsletter (Exhibit 32).

Exhibit 31: Wyoming Broadband Office’s flyer marketing of regional in-person listening sessions



Exhibit 32: Wyoming Broadband Office’s online marketing of regional in-person listening sessions⁴⁴



In addition, WBO engaged state agencies and anchor institutions to ensure sessions were widely marketed. For example, the Wyoming State Library marketed the in-person listening sessions on Twitter to its approximately 1,700 followers (Exhibit 33).

⁴⁴ WBC hosts in-person broadband meetings across Wyoming June 5 to 9. (2023, May 22). Wyoming Business Council. <https://wyomingbusiness.org/news/wbc-hosts-in-person-broadband-meetings-across-wyoming-june-5-to-9/>

Exhibit 33: Wyoming State Library Twitter marketing of WBO's regional in-person listening sessions⁴⁵



WBO also partnered with the Wyoming Association of Municipalities (WAM), Wyoming County Commissioners Association (WCCA), and Wyoming Association of County Officers (WACO) to market the in-person listening sessions digitally and through flyers. WBO communicated directly with leaders of each association to gather feedback and collaborate on the preferred approach for marketing and attendance. Working with WAM, WCCA, and WACO enabled WBO to further personalize its outreach approach and successfully reach employees across municipalities and counties.

To increase effectiveness of marketing efforts to reach key target stakeholder groups, WBO contacted community college, library, senior center, and veteran networks and requested they post flyers and include marketing materials in digital newsletters.

Exhibit 34 provides a detailed summary of each of the 15 regional in-person listening sessions. Across these sessions, WBO successfully engaged a total of 117 attendees across 96 organizations. Entities representing rural populations attended every meeting, and there were also groups that worked with low-income, disabled, aging and veteran populations, as well as incarcerated citizens, those with language barriers or lower literacy, and members of racial or ethnic minorities. Organizations that served housing insecure individuals, youth, and farmers and ranchers also attended listening sessions. Each session covered a broad range of topics, including existing assets for broadband deployment and digital access, existing and potential partners, and obstacles and barriers for implementation.

As noted under the statewide virtual listening sessions, WBO also hosted a virtual session for those who were unable to attend any of the in-person regional listening sessions.

Exhibit 34: Summary of In-Person Regional Listening Sessions

Date	Location	Attendance	Attendees by Stakeholder Entity Type
June 5, 2023	Alpine	3	Public Entities <ul style="list-style-type: none"> Teton County Library Wyoming House of Representatives

⁴⁵ Wyoming State Library Twitter message marketing the in-person listening sessions. <https://twitter.com/WyoLibraries/status/1662187639531814936?ctx=HHwWslC2xb-2o5EuAAAA>

Date	Location	Attendance	Attendees by Stakeholder Entity Type
	Evanston	10	Public Entities <ul style="list-style-type: none"> Evanston City Council Uinta County Lincoln County Private Sector <ul style="list-style-type: none"> Union Wireless Wazi Technical Solutions All West Communications Community Based Organizations <ul style="list-style-type: none"> Wyoming Business Council Board
	Powell	5	Public Entities <ul style="list-style-type: none"> Dossie Overfield Park County Commission Private Sector <ul style="list-style-type: none"> Nemont Telephone TCT Range Communications
	Pinedale	9	Public Entities <ul style="list-style-type: none"> State House of Representatives Sublette County Sweetwater County Town of Pinedale
June 6, 2023	Greybull	3	Public Entities <ul style="list-style-type: none"> South Big Horn Conservation District Private Sector <ul style="list-style-type: none"> TCT Community Based Organizations <ul style="list-style-type: none"> Big Horn County Citizens for Economic Development
	Riverton	15	Public Entities <ul style="list-style-type: none"> Central Wyoming College and Wyoming PBS City of Lander City of Riverton Fremont County Private Sector <ul style="list-style-type: none"> Range Communications Teton Therapy Wind River Internet Community Based Organizations <ul style="list-style-type: none"> Idea Inc. (Improve and Develop Economic Activity)
	Rock Springs	13	Public Entities <ul style="list-style-type: none"> City of Green River Sweetwater County Library System Sweetwater County School District #2 Wyoming Legislature District 17 Western Wyoming Community College Private Sector <ul style="list-style-type: none"> All West Communications Union Telephone Company Genesis Alkali Silver Star Communications



Date	Location	Attendance	Attendees by Stakeholder Entity Type
			<ul style="list-style-type: none"> Rocky Mountain Power Rock Springs Chamber of Commerce Community Based Organizations <ul style="list-style-type: none"> Rock Springs Housing Authority Equality State Center
June 7, 2023	Casper	6	Public Entities <ul style="list-style-type: none"> City of Casper City of Green River State House of Representatives Private Sector <ul style="list-style-type: none"> Union Telephone Casper Area Chamber of Commerce Community Based Organizations <ul style="list-style-type: none"> The Wyoming Relay Equipment Distribution Program (WYRED)
	Rawlins	8	Public entities <ul style="list-style-type: none"> Carbon County Carbon County Library System Carbon County School District 1 Town of Riverside Carbon County Higher Education Center Community Based Organizations <ul style="list-style-type: none"> Rawlins Downtown Development Authority Wyoming Business Council
	Sheridan	8	<ul style="list-style-type: none"> Private Sector Range Communications Century Link Quest Communications Sheridan County Chamber of Commerce Sheridan Press Visionary Broadband Community Based Organizations <ul style="list-style-type: none"> Community Services Network of Wyoming
June 8, 2023	Gillette	4	Public entities <ul style="list-style-type: none"> City of Gillette Private Sector <ul style="list-style-type: none"> Visionary Broadband Community Based Organizations <ul style="list-style-type: none"> Council of Community Services
	Laramie	9	Public entities <ul style="list-style-type: none"> Albany County Commission City of Laramie Department of Workforce Services Wyoming State Museum Private Sector <ul style="list-style-type: none"> LARIAT Lumen
	Torrington	11	Public entities <ul style="list-style-type: none"> City of Torrington Department of Workforce Services Eastern Wyoming College Town of Fort Laramie



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Date	Location	Attendance	Attendees by Stakeholder Entity Type
			Private Sector <ul style="list-style-type: none"> • Vistabeam Internet • Wyoming Newspapers Inc. Community Based Organizations <ul style="list-style-type: none"> • Goshen County Senior Friendship Center • WYO Help
	Cheyenne	10	Public entities <ul style="list-style-type: none"> • Department of Workforce Services • Laramie County Library • Laramie County School District 1 • Platte County Library • Public Service Commission • Wyoming Department of Transportation Community Based Organizations <ul style="list-style-type: none"> • AARP Wyoming
June 9, 2023	Sundance	3	Public entities <ul style="list-style-type: none"> • Crook County Library • Crook County Museum & 1875 Art Gallery

1:1 Engagements with State Agencies and Other Stakeholders

Interagency cooperation is paramount to ensuring the BEAD and Digital Access plans support and further enhance state initiatives and priorities. Several departments participated in listening sessions (e.g., Department of Workforce Services, Department of Transportation), which provided opportunities for direct discussions with stakeholder attendees. WBO also engaged state agencies directly to understand how their visions align with broadband deployment and skills needs, identify opportunities for partnership in achieving the state’s broadband goals and objectives, and explore potential gaps across the state in broadband deployment and digital access that impact service delivery. In addition to state agencies, WBO has also engaged several other stakeholders (e.g., nonprofit organizations, internet service providers) that have reached out and requested meetings. In each case, WBO hosted 1:1 virtual engagement sessions and discussed a broad range of strategic priorities in May and June 2023 (Exhibit 35). WBO will continue to engage with stakeholders in this format throughout the planning process.

Exhibit 35: Summary of 1:1 virtual engagement sessions with state departments and other stakeholders

Stakeholder Title	Date	Topics Discussed/Addressed
State Agency: Enterprise Technology Services	5/24/2023	<ul style="list-style-type: none"> • Broadband outcomes for Wyoming • E-commerce + digital government services • Virtual classrooms, learning opportunities • Remote healthcare • Promoting benefits with citizens
State Agency: State Library	6/1/2023	<ul style="list-style-type: none"> • Potential areas for collaboration with the Wyoming Unified Network • Aspirations for broadband and internet connectivity at all state libraries • Broadband adoption programs including loaned devices and hot spots, free of charge • Marketing and outreach campaigns on digital access programs for Wyoming Citizens
State Agency: Department of Health	6/7/2023	<ul style="list-style-type: none"> • Last mile connectivity challenges • Agency promotion of telehealth services and programs • Opportunities for telepsychiatry and remote patient monitoring



Stakeholder Title	Date	Topics Discussed/Addressed
		<ul style="list-style-type: none"> • Cultural adoption of telehealth services
State Agency: Community Colleges Commission	6/12/2023	<ul style="list-style-type: none"> • Broadband redundancy / resiliency throughout the community college system • Refreshing laptops that are too old and purchasing more computer equipment • Connectivity for rural communities • Training on cybersecurity best practice
State Agency: Department of Education	6/14/2023	<ul style="list-style-type: none"> • ETS as the main source of conduit to central district offices • Deployment barriers due to rurality by providing vendors access to right of way (ROW) • School broadband infrastructure and activity to increase access at underserved locations • Sustainability of devices on loan for tele-education
State Agency: Department of Workforce Services	6/15/2023	<ul style="list-style-type: none"> • Affordability and accessibility challenges for citizens to access services and programs • Partnership opportunities related to training future labor skills for broadband deployment and adoption • Current programming supporting digital skills as well as potential future programming
American Association of Retired Persons (AARP)	6/21/2023	<ul style="list-style-type: none"> • Collaboration in promoting ACP adoption • Current programming supporting digital skills • Key partners in promoting digital skills and home internet use
Wyoming Rural Electric Association, Rocky Mountain Power, Black Hills Energy	6/22/2023	<ul style="list-style-type: none"> • Overview of the BEAD and Digital Access planning process • Engagement of electric cooperatives in the BEAD program
International Brotherhood of Electrical Workers (IBEW) District 8	6/26/2023	<ul style="list-style-type: none"> • Potential collaboration on workforce development • Continued engagement throughout planning and implementation
State Agency: Veterans Commission	6/28/2023	<ul style="list-style-type: none"> • Limited connectivity (broadband and cell service) in rural communities • Telehealth services and programs • Online service delivery • Cross-agency partnership opportunities

Surveys to Key Stakeholders and Covered Populations

In addition to meetings and listening sessions, WBO developed and fielded six stakeholder surveys across the following topics: infrastructure assets, digital skills and tools assets, workforce development training and readiness programs, CAI broadband access, Covered Population broadband barriers, and broadband provider engagement. These surveys provided WBO with insights about barriers and assets present in the state, as well as ideas about how barriers could be alleviated through strategies designed to provide broadband access, devices, training and support, and data privacy and cybersecurity. Example responses include –

- One respondent noted that her broadband was unreliable and expensive and that this made it very difficult to attract remote workers.
- Another wrote that many of his adult education students did not have broadband at home and only had a cell phone to access digital resources. He expressed that students having broadband and devices would improve their outcomes and opportunities for academic and professional success.
- A library worker explained that many people in her community did not have broadband infrastructure. While the library offers on-site desktop computers and Wi-Fi, she noted that it “is very inconvenient... to have to drive many miles away just to have access to something most people have in their own homes.”
- A person who works with Wyomingites who have disabilities discussed the difficulty of poor or no internet connections for members of the deaf community who rely on video relay service or remote interpreting. She also shared the challenges people



face when employers, educational providers, or broadband provider staff do not know how to turn on accessibility settings in webinars and similar situations.

These are but a few of the powerful and informative responses Wyomingites provided via surveys. To generate interest, WBO included links to the surveys in all communication that was sent out to stakeholders. During in-person and online meetings, WBO also shared the survey with all meeting attendees. WBO received 40 responses from entities across the state. These responses provided additional context that further supported WBO’s assessment of broadband and digital access in Wyoming today (Exhibit 36).

Exhibit 36: Public Survey Engagements

Survey title	Key stakeholder groups	Total # of respondents
Wyoming Agency Asset Inventory Survey	State, local, and regional government agencies	4
Wyoming Digital Access Program Inventory	Stakeholders with knowledge of programs helping the community use broadband technologies	8
Wyoming Workforce Development Opportunity Survey	Stakeholders with input into broadband workforce development	8
Wyoming Community Anchor Institution Broadband Access Survey	Schools, libraries, health providers, public safety, housing, faith-based and other community organizations	5
Wyoming Covered Populations Broadband Barriers Survey	Organizations that serve or represent unserved and underserved populations	9
Wyoming Broadband Provider Engagement Survey	Broadband Providers	6
TOTAL NUMBER OF RESPONSES		40

4.3 Stakeholders, Collaborators, and Constituencies

WBO’s outreach strategy targeted a broad range of stakeholders in Wyoming. In line with NTIA guidance issued in March 2022 in preparation for IJIA Broadband Programs,⁴⁶ WBO has categorized stakeholders into three segments: Public Service, Private Sector, and Community Service. To date, WBO has identified and conducted outreach to a total of 935 stakeholders. This number continues to grow as stakeholder engagement is ongoing throughout the planning process. Exhibit 37 displays more detail on the total stakeholders that were emailed invitations for participation within each category.

Exhibit 37: Stakeholders invited to attend during engagement outreach

⁴⁶ Broadband, NTIA. (2022). *Stakeholder Engagement Overview: NTIA Guidance for IJIA Broadband Programs*. https://broadbandusa.ntia.doc.gov/sites/default/files/2022-03/Engagement%20Overview%20for%20States%20Localities_FINAL.pdf



Public Service

Academic Community (local schools, adult education programs, colleges)	26
Congressional Field Representatives	4
Libraries	7
Local Elected Officials	408
Local Government Staff	42
Local Public Safety Officials	20
Members of the State Legislature or their staff	89
Public Utility Commissions and equivalent	16
State Departments Dealing with Infrastructure (e.g., Transportation)	9
State Infrastructure Coordinators	2
State Public Safety	1
Workforce Development Agencies and Organizations	4
Total Public Service	628

Private Sector

Chambers of Commerce	75
Economic Development Agencies and Organizations	15
Broadband Providers	55
Labor Unions	2
Total Private Sector	147

Community Service

Civil Rights Organizations	8
Communities Who Have Language Barriers	4
Community Anchor Institutions	6
Community Development	28
Faith-Based Community	7
Healthcare Community	10
LGBTQIA+	2
Other	
Stakeholders in organizations that Represent and Support Aging Populations	38
Stakeholders in organizations that Represent and Support Incarcerated Individuals	5
Stakeholders in organizations that Represent and Support People with Disabilities	8
Stakeholders in organizations that Represent and Support Racial and Ethnic Minorities	6
Stakeholders in organizations that Represent and Support the Agricultural Industry	3
Stakeholders in organizations that Represent and Support Veterans	6



Public Housing Authorities or Owners of HUD-assisted Housing	6
Rural Community	11
Tribal Communities	12
Total Community Service	160
<hr/>	
Total Key Stakeholders	935

Tribal Consultation

As part of Wyoming’s outreach and planning work for BEAD and Digital Equity, WBO has reached out to the Northern Arapaho Tribe of Wyoming and Eastern Shoshone Tribe. These are the only two federally recognized Tribal governments in Wyoming and both reside on the Wind River Reservation. WBO has met with the Governor’s Tribal Liaisons for the Northern Arapaho Tribe and the Eastern Shoshone Tribe. As a result of that communication, WBO has also sent a Tribal consultation letter to Tribal leadership via certified mail to request a separate meeting with each Tribe to discuss broadband planning, infrastructure deployment, and digital access programming. On July 6, WBO conducted a presentation to the Northern Arapaho Tribal Council explaining the BEAD and Digital Access programs and their implications for tribal members, including information about program eligibility and feedback on the Digital Access Plan. Four members of the Tribal Council were present. Meetings are recorded and later published to a website for viewing by all tribal members. These coordination meetings will support and enhance Wyoming’s Five-Year Action Plan and Digital Access Plan.

4.4 Key Takeaways

Stakeholder input has been critical to the development of the draft BEAD Five-Year Action Plan and Digital Access Plan. The breadth of outreach and diversity of engagement resulted in robust discussions and new ideas. WBO employed a variety of methods to reach potential attendees, including digital (e.g., email, social media, websites), phone, and traditional (e.g., print). However, a key to this success was also working directly with state, regional, and local leaders, who provided WBO with a large set of contacts across stakeholder groups and directly supported outreach efforts. Local leaders also helped WBO tailor engagement sessions by identifying trusted and convenient locations to hold listening sessions.

The stakeholder engagement sessions proved immensely valuable in surfacing common themes for Wyomingites related to challenges and opportunities across infrastructure deployment, affordability and adoption, and digital skills programs. In addition, the in-person regional engagement sessions had unexpected positive outcomes such as cross-collaboration and the incubation of new ideas from groups of stakeholders that do not regularly interact. Stakeholder groups expressed a common desire for improvements in overall broadband infrastructure and Wi-Fi connectivity, citing the rurality and topography of Wyoming as common challenges. In addition, attendees discussed the challenge of affordability for satellite service for all citizens (and low-income citizens in particular). Participants discussed the importance of promoting services and programs, and noted that challenges in this space were mostly due to the remoteness of Wyoming stakeholders. Stakeholders did share a few examples where promotion has been successful. For example, senior centers, libraries, court houses, counties, schools, and higher education institutions (universities and colleges) have been successful with promoting digital programs.

Below is a detailed synopsis of the key takeaways from all the stakeholder listening sessions.

Deployment



- **The many unserved areas in Wyoming and the unreliability of some existing broadband services** impede a range of activities from everyday tasks to those related to educational and economic growth. For example:
 - A museum’s alarm system can be triggered erroneously because of its poor internet connection
 - Businesses cannot take credit cards because of an inconsistent broadband connection
 - Low broadband availability in some communities requires teachers to send home paper packets
 - Limited and inconsistent connections make it difficult for businesses to create an online presence
 - Farmers are unable to use new technologies, such as autonomous tractors
 - Citizens drive to served locations to call and report emergencies because of unreliable cellular and broadband connectivity in a community
- **The rural/frontier nature (e.g., population density, topography) of many unserved and underserved locations is an obstacle to deployment:**
 - There is a short annual construction window due to weather conditions and hardened soil
 - There is a lack of broadband provider coverage in sparsely populated areas near Wyoming’s eastern state border
 - There are difficulties with middle mile and last mile deployment, overall, and especially for servicing areas with high volumes of outdoor recreation
 - New developments are bringing in new citizens, but even with increased population density, the developments and the communities in which they are located are not always finding improved broadband access
 - In select areas of the state, county and local facilities could improve their services with access to faster broadband speeds
- **Labor costs and shortages have increased the challenge of expanding broadband in unserved areas due to:**
 - Limited pipeline of skilled and unskilled workers, resulting in recruitment from other states or abroad to find qualified workers
 - Longer construction times (e.g., when drops are 6-7 miles apart) that amplify labor costs
- **The process to attain permits, especially on federally owned lands, results in delayed or more expensive projects; for example:**
 - An application to the Bureau of Land Management (BLM) had still not been approved after three years
 - Respondents reported varied experience when working with offices within BLM
 - Providers may be required to create more expensive routes to avoid federal land
- **While all public libraries and K-12 schools have broadband access, the quality and reliability vary considerably:**
 - Schools are connected to the Wyoming Unified Network, but remote locations may not have sufficient broadband
 - Connectivity limitations at libraries can be a result of availability or affordability
 - Public Wi-Fi is available at libraries, but with limited connectivity in some cases



Affordability

- **High prices keep broadband and satellite service out of reach for low-income Wyomingites:**
 - Families tend to prioritize costs related to housing- and food-insecurities over costs of connectivity
 - Satellite service, which is sometimes the only available service, can be unaffordable for many citizens
 - Nonprofit organizations, school districts, and broadband providers have an opportunity to conduct additional outreach to increase ACP participation
- **Device lending programs could be more impactful if expanded:**
 - Program size and capacity vary across organizations or geographies, with some school districts and libraries offering device lending programs, and several social service non-profits incorporating these programs into their operating models, but few doing this work at scale

Digital Skills

- **Multiple organizations across the state offer digital skills training and there is informal coordination that could be expanded:**
 - Organizations providing training range from broadband providers to libraries to nonprofit organizations and could be expanded to further support Covered Populations (e.g., at VA hospitals, public housing authorities, rural schools, senior centers, jails)
 - More coordination among training providers could increase the number of citizens who could benefit from training
- **Transportation is an issue that can affect multiple Covered Populations:**
 - Members of the public without broadband or a device at home often want to visit a library or similar organization providing access and skills, but may not be able to if they lack transportation and the nearest location is 1-2 hours away.
- **Organizations in Wyoming are undertaking innovative work with their physical spaces:**
 - Libraries are coordinating with the University of Wyoming to offer telehealth kiosks in their public areas
 - Gillette College has built Area 59, which is a large makerspace and technology learning center



5 Implementation

5.1 Implementation Strategy & Key Activities

WBO's implementation goals for the Wyoming Digital Access Plan build on the existing activities taking place in schools, businesses, libraries, colleges, universities, and nonprofit organizations across the state. By building upon existing assets and evaluating and learning from best practices, the state will amplify the impact of the funding and increase sustainability in the future. At present, WBO plans to use most of its Digital Equity Act funding to set-up a statewide competitive grant program to support Covered Populations that will prioritize organizations that have been in the state for at least three years with a demonstrated record of impact in advancing digital access. Grants will be directed to supporting one of WBO's six goals:

1. Provide all Wyoming citizens and businesses with access to reliable high-speed internet at home and in their communities.
2. Increase the number of Wyoming citizens who subscribe to broadband, including low-cost programs.
3. Increase the number of Wyoming citizens with the opportunity to use one or more computing devices.
4. Increase the number of Wyoming citizens who are equipped to use the internet and internet-enabled devices to support their economic, educational, health and related goals.
5. Create a safe environment for citizens to engage with broadband-enabled services.
6. Promote a range of internet-enabled offerings which meet citizen needs.

Implemented together, these goals will also support many of Wyoming's other statewide objectives related to education, the economy, and healthcare.

This section details each goal, the barriers it addresses, the strategies WBO plans to implement to reach the goal, the related activities, and the corresponding measurable goal(s) (i.e., KPIs) and timeline. The activities listed below address the barriers described in Section 3.2, build on the Asset Inventory in 3.1, and align with existing state policies and strategies in Section 2.2. Goals, strategies, and KPIs in this section match those detailed in Section 2.3. For ease of reference, goals are placed within the related dimension (e.g., Broadband Availability, Digital Skills) from Section 2.3.

5.1.1 Broadband Availability

Goal 1: Provide all Wyoming citizens and businesses with access to reliable, high-speed internet at home and in their communities.

Barriers

While Goal 1 will be accomplished through other funding sources (e.g., BEAD, Capital Projects Fund), WBO includes it here because without increasing access to broadband throughout the state, Wyoming's significant rural populations, which also include many older and lower-income citizens, cannot take advantage of the benefits broadband adoption and digital skills confer.

Strategies and Activities

WBO will meet this goal by making grants to broadband providers to connect all unserved and upgrade all underserved homes and businesses (i.e., Broadband Serviceable Locations – BSLs) in the state. A key piece of this implementation will be ensuring that



Wyoming has the workforce necessary to build and maintain broadband networks. WBO’s proposal for fully deploying broadband throughout the state will be described in detail in the state’s forthcoming BEAD Initial Proposal.

Measurable Goals and Timeline

See Section 2.3, Exhibit 1

5.1.2 Broadband Affordability and Adoption

Goal 2: Increase the number of Wyoming citizens who subscribe to broadband, including low-cost programs

Barrier

This goal addresses one of the largest drivers of the gap in broadband adoption – affordability. In Wyoming, there is a 26.5 percentage point gap in broadband adoption between households earning <\$20K/year vs. those earning >\$75K/year (68.2% adoption compared to 94.7% adoption (*Exhibit 13*)). Additionally, this goal addresses adoption for those households and businesses that do not have access today but will gain access through BEAD.

Strategies and Activities

By requiring BEAD subrecipients to offer a low-cost plan and participate in the Affordable Connectivity Program (ACP), Wyoming can ensure rural citizens who receive new service over the coming years will be able to afford it. It is equally important for BEAD subrecipients to engage in active outreach about their new services to all members of the communities they are serving, which will support both overall adoption and adoption by Covered Populations. Promoting the ACP program through state programs in which many low-income Wyomingites participate is also a potentially effective and low-cost way to increase awareness of the program. Lastly, WBO will support ACP awareness building by trusted organizations.

Wyoming has an ambitious plan to increase broadband subscribership that relies on five strategies and, if required, additional related activities:

- Require all BEAD subrecipients to participate in ACP.
- Require all BEAD subrecipients to offer a low-cost plan.
- Increase adoption of new services through broad awareness of BEAD subrecipients’ new infrastructure buildouts and low-cost plans.
 - Related activities: Monitor implementation of marketing plans as part of WBO’s subrecipient monitoring and evaluation activities.
- Increase the number of relevant state programs that promote ACP enrollment (e.g., SNAP).
 - Related activities: Request state agencies to identify which of their programs have the greatest share of participation by members of Covered Populations and support these programs in promoting ACP enrollment to their participants.
- Drive awareness of ACP among Covered Populations.
 - Related activities:



- Coordinate with existing grant-funded programs (e.g., FCC subrecipients CSNOW and CCS) to avoid duplication of services in geographies or by Covered Populations.
- Award State Digital Equity Capacity Grant Funds to trusted community organizations (e.g., libraries, nonprofit organizations, healthcare entities) as needed in response to identified gaps.

Measurable Goals and Timeline

See Section 2.3, Exhibit 2

5.1.3 Device affordability and availability

GOAL 3. Increase the number of Wyoming citizens with the opportunity to use one or more computing devices

Barrier

Overall device ownership and use is high across the state (88%), but is significantly lower for specific groups (e.g., Native Americans, lower-income households, Black citizens, and Disabled Wyomingites).⁴⁷ Without a computing device, the utility of a broadband connection is extremely limited.

Strategy and Activities:

If funding is secured, the State Library may deploy approximately 2,000 tablets with Wi-Fi hotspots through local library systems across the state.

- These devices will be available for community members to check-out and use at home. This would be the first large-scale community device lending program in Wyoming.
- WBO will collaborate with the State Library to monitor implementation and evaluate the need for additional devices, particularly as utilization reaches 75% or higher (to ensure sufficient slack in the system to make devices available to citizens).
- It is additionally possible that some Covered Populations who need device access may be more effectively reached through other channels (e.g., schools, healthcare centers).
- WBO will continue stakeholder engagement throughout the five-years of the Digital Access Plan's implementation and will consider additional device loans if required to meet the needs of Wyoming's citizens.

All of these devices will also include Wi-Fi access, which can support those citizens who lack both devices and affordable broadband service. One limitation of these Wi-Fi hotspots is that they will only work in areas of the state with existing cellular data service. While there will likely always be some need for hotspot access, WBO expects the demand to decrease as broadband availability and affordability improves.

Additional programs could also start soon (e.g., a state refurbishing program) if external funding is approved. WBO will continue to monitor new programs as they begin throughout the state.

⁴⁷ U.S. Census Bureau, American Community Survey (ACS), 2021 5-Year Estimates (IPUMS). Census data categorizes groups as Native American rather than referring to specific tribes. However, members of the Eastern Shoshone and Northern Arapaho tribes comprise most Native Americans living in Wyoming. <https://www.census.gov/data.html>



Measurable Goals and Timeline

See Section 2.3, Exhibit 3

5.1.4 Digital Skills (Literacy)

GOAL 4. Increase the number of Wyoming citizens who are equipped to use the internet and internet-enabled devices to support their economic, educational, health and related goals

Barriers

Nearly 33% of America’s workers lack digital skills.⁴⁸ These skills span a wide array of complexity, from creating an email account for the first time to writing a first line of code. Significant activity to bolster digital skills already exists across Wyoming and it is important to strengthen these existing efforts. Libraries, adult education, and community organizations (e.g., AARP) provide basic digital skills training in Wyoming, through formal classes and workshops and informal 1-1 tutoring. Wyoming’s workforce system, located across the state at community college campuses and 18 workforce centers, collaborates with employers and workers to provide upskilling and reskilling opportunities to meet the demands of today’s marketplace. Some of these training opportunities include occupational digital skill development. The state’s K-12 and college systems also offer basic and advanced digital skills to students. As Wyomingites adopt broadband in greater numbers, particularly among Covered Populations, there could be a greater demand to develop these skills.

Strategies and Activities

To meet this goal, WBO has developed two strategies:

- Grow the number of Wyomingites who possess the digital skills to support an exceptional education, economy, and workforce
 - Expand access to basic digital skills training in local organizations (e.g., libraries, health-related organizations, adult education, nonprofit organizations). These organizations may have staff or volunteers who can help citizens navigate opportunities for digital skills training and, if needed, provide citizens with support in signing up for low-cost broadband programs or checking-out a device from the library.
 - Support additional training contextualized to occupational digital skills in partnership with workforce stakeholders, including with lower-wage employers. While some basic skills are applicable across a wide variety of contexts, others are specific to a type of job (e.g., construction, quick service).
 - Increase opportunities for advanced skill training as part of workforce upskilling or reskilling, primarily through the community college system and in response to employer needs.
 - Strengthen investment in K-12 and college STEM training at basic and advanced levels.
- Increase the number of Wyomingites who use telehealth services to access medical care.

⁴⁸ The New Landscape of Digital Literacy, National Skills Coalition. (2020). <https://nationalskillscoalition.org/resource/publications/the-new-landscape-of-digital-literacy/>. While this research was conducted using 2012-2014 data, 2017 data, the most recently available, showed no measurable difference in digital problem solving. See https://nces.ed.gov/surveys/piaac/national_results.asp for more information.



- Expand training opportunities for citizens who may benefit from telehealth services such as individuals living in rural areas, senior populations, or those without access to easy and reliable transportation or flexible work schedules.

Measurable Goals and Timeline

See Section 2.3, Exhibit 4

5.1.5 Online Privacy and Cybersecurity

GOAL 5: Create a safe environment (e.g., privacy and cybersecurity) for citizens to engage with broadband enabled devices.

Barriers

While privacy and cybersecurity are often not the primary reasons for non-adoption (only 1.4% of Wyoming citizens cite privacy or security as their primary reason for non-adoption⁴⁹), it is still imperative to have a safe environment for citizens to engage with broadband enabled devices.

Strategy and Activities

- To deliver on this goal, WBO will ensure subrecipients follow-through with commitments to adopt the NIST cybersecurity framework.
 - This will be accomplished through implementation of the BEAD program.

Measurable Goals and Timeline

See Section 2.3, Exhibit 5

5.1.6 Online Accessibility & Inclusivity

GOAL 6. Promote a range of internet-enabled government service offerings which meet citizen needs.

Barriers:

Greater digital service delivery can support all citizens, and at present, many services are not delivered digitally (e.g., paper forms, applications that do not work on mobile devices). Advancing online government services that better reflect the needs of users offer an additional opportunity to accelerate the impact of broadband expansion. Given the state's low population density and high rurality, strategies to improve online accessibility and inclusivity could vastly expand the opportunity for participation in state services or programs for all Wyomingites, especially those who are unable to travel to government offices for a variety of reasons. For example, rural and low-income citizens may be unable to access the paper forms required to apply for food benefits due to rural isolation.

⁴⁹ *Digital nation data explorer | National telecommunications and information administration.* (2023). National Telecommunications and Information Administration. <https://ntia.gov/other-publication/2022/digital-nation-data-explorer#sel=internetUser&disp=map>



Strategy and Activities:

WBO has identified three key strategies which can support the state in creating accessible and inclusive online government services:

- Increase the number of government services delivered online with a particular emphasis on those that primarily serve Covered Populations.
- Incorporate accessibility for hearing, visual, or other challenges.
- Offer online services in Spanish and/or other languages.

To identify existing programs that support Covered Populations and could benefit from both greater digital delivery and citizen experience improvements, WBO intends to collaborate with Enterprise Technology Services (ETS) on an assessment of current state services. As a result of this initial assessment, ETS will have data to better understand the potential impact of various interventions and could then prioritize services for enhancement.

Measurable Goals and Timeline

See Section 2.3, Exhibit 6

5.2 Timeline

WBO will complete all activities within five years of receiving approval and funds to implement the Wyoming Digital Access Plan. WBO conceived of near-term goals as two years and long-term goals as five years to align with program timelines. Detailed objectives can be found in Section 2.3 and Section 5.1.



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6 Conclusion

Through rigorous research and a comprehensive stakeholder engagement process, WBO has developed a plan to address the hardest digital access challenges facing the state. Once funding is in-hand (currently anticipated in early 2024), WBO will transition from planning to implementation. Throughout the implementation journey, WBO will continue to engage stakeholders and leverage a rigorous, data-driven approach to decision-making. Doing so will ensure that these investments will make the most difference for Wyomingites.



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