OREGON BROADBAND OFFICE

DRAFT STATE OF OREGON DIGITAL EQUITY PLAN

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STATE OF OREGON 1859

STATE OF OREGON DIGITAL EQUITY PLAN

DRAFT | October 2023

This draft State of Oregon Digital Equity Plan is being released for public comment in advance of its submission by the Oregon Broadband Office (OBO), an office within the Oregon Business Development Department, to the National Telecommunications and Information Administration (NTIA). This ambitious Plan aligns with the state's BEAD Five-Year Action Plan and is intended to be a living document that enables OBO to measure and monitor the implementation of a range of strategies—and to change those strategies as data and conditions indicate. The fulfillment of this Plan is contingent upon the State of Oregon's receipt of its NTIA Digital Equity Capacity Grant Program allocation.

All are welcome to submit comments regarding the draft document. Comments regarding the draft should be submitted via the Oregon Broadband Office Public Comment Portal by 5:00 p.m. PST on December 16, 2023.

This report was prepared by OBO using federal funds under award (41-30-DP111) from the National Telecommunications and Information Administration (NTIA), U.S. Department of Commerce. The statements, findings, conclusions, and recommendations are those of the authors and do not necessarily reflect the views of NTIA or the U.S. Department of Commerce.

Contents

Figures

Tables

1 EXECUTIVE SUMMARY

The Oregon Broadband Office (OBO) hereby submits to the National Telecommunications and Information Administration (NTIA) of the U.S. Department of Commerce this Statewide Digital Equity Plan (the Plan).

OBO is an office within the Oregon Business Development Department, dba, Business Oregon, and is designated by the State of Oregon as the Eligible Entity for purposes of the federal Digital Equity Act. With the support of Oregon's elected leaders, OBO endeavors to ensure that all people in Oregon have access to reliable, affordable home broadband internet, an affordable, quality, internet-enabled computing device, digital skills, quality technical support in culturally and linguistically diverse in-community spaces, access to cybersecurity tools and the knowledge needed to stay safe online, and inclusive online content designed to enable and encourage self-sufficiency, participation, and collaboration.

As detailed in this Plan, OBO has conducted a comprehensive outreach effort, developed a data-driven digital equity needs assessment, and identified a clear implementation path for achieving digital equity objectives.

The Plan includes all 15 requirements outlined in NTIA's State Digital Equity Planning Grant Program Notice of Funding Opportunity (NOFO). For more information, see Appendix F.

1.1 Vision and principles for digital equity

It is the vision of the State of Oregon that all people in Oregon will have meaningful access to affordable and reliable high-speed broadband home internet, an internet-enabled computing device, digital literacy, technical support, and inclusive content. Each component of digital equity enables economic and educational opportunities and supports improved health outcomes and a robust democracy.

The state's commitment arises from Oregon's recognition of the criticality of attaining digital equity for the well-being of the many diverse people of Oregon. Meaningful access to the internet is an essential and critical component for thriving in the 21st century. Digital equity enables economic opportunity as well as supports educational, healthcare, and civic participation goals.

Digital equity allows people from diverse backgrounds to fully participate in the economy of innovation and creativity, which helps to foster the goal of economic opportunity. Civic participation goals can be achieved because digital equity allows all people to have the tools to register to vote, engage in meaningful online discourse, and be better connected to the communities in which they live. The goal of healthcare access for all people is fostered by digital equity because of the knowledge and confidence that is gained from learning new digital skillsets that can be applied to telemedicine and to gain easier access to personal healthcare information. Digital equity inherently supports educational goals, bringing learning to the home and on the go for all people of Oregon.

To achieve this vision for digital equity, the State of Oregon will work with its institutional, tribal, local, and nonprofit partners toward five key goals:

1. Universal access to affordable and reliable high-speed home internet.
2. Universal access to an affordable, quality, internet-enabled modern computing device that meets each person's needs.
3. Universal access to digital literacy skills[1] and quality technical support in culturally and linguistically diverse in-community spaces.

[1] "The term "digital literacy" means the skills associated with using technology to enable users to find, evaluate, organize, create, and communicate information. [. . .] The term "digital equity" means the condition in which individuals and communities have the information technology capacity that is needed for full participation in the society and economy of the United States. The term "digital inclusion" means "the activities that are necessary to ensure that all individuals in the United States have access to, and the use of, affordable information and communication technologies, such as—reliable fixed and wireless broadband internet service; internet enabled devices that meet the needs of the user; and applications and online content designed to enable and encourage self-sufficiency, participation, and collaboration; and includes—obtaining access to digital literacy training; the provision of quality technical support; and obtaining basic awareness of measures to ensure online privacy and cybersecurity." The term "digital literacy" means "the skills associated with using technology to enable users to find, evaluate, organize, create, and communicate information." Infrastructure Investment and Jobs Act § 60302(10)-(12), https://www.congress.gov/117/plaws/publ58/PLAW-117publ58.pdf. OBO recognizes that digital literacy and digital skills evolve as technologies evolve and is inclusive of emerging technologies and, as such, inclusive of Artificial Intelligence (AI) technologies and the need for AI literacies. To that end "Digital Literacy (DL) involves the confident and critical use of a full range of digital technologies for information, communication and basic problem-solving in all aspects of life. It is

4. Universal access to the tools and information needed to protect oneself online.
5. Universal access to inclusive state resources and online content to access essential services and programs.

Efforts toward these goals will be informed by four framework principles for Oregon's digital equity efforts:

1. Utilize data and rigorous information gathering to help drive decision making on the prioritization of limited resources.
2. Engage and collaborate with a broad spectrum of diverse and representative stakeholders through processes that are inclusive and reach underserved and marginalized communities.
3. Build on existing achievements and collaborations by acknowledging and incorporating the work and best practices that have been accomplished statewide.
4. Respect and incorporate culturally and linguistically diverse communities as partners in the process toward reaching established and agreed upon goals and outcomes.

1.2 Current state of digital equity: Assets and barriers

In summary, the data indicate that Oregon's digital equity challenges include access to affordable broadband internet services, low participation rates in broadband internet service subsidy programs computing device access, and digital literacy and skills training, including cybersecurity and privacy.

Critical barrier 1: Lack of broadband availability. A significant barrier to digital equity is inadequate broadband infrastructure in rural areas of Oregon. Within rural

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underpinned by basic skills in ICT: the use of computers to retrieve, assess, store, produce, present and exchange information, and to communicate and participate in collaborative networks via the Internet." See, UNESCO; "Recommendations on Assessment tools for monitoring digital literacy within UNESCO's Digital Literacy Global Framework," UNESCO Institute for Statistics, 2019, https://unesdoc.unesco.org/ark:/48223/pf0000366740, and UNESCO, https://tcg.uis.unesco.org/wp-content/uploads/sites/4/2021/08/Metadata-4.4.2.pdf. See also, the American Library Association's definition of Digital Literacy via their Digital Literacy Task Force; American Library Association, https://literacy.ala.org/digital-literacy/.

areas of the state, infrastructure is not as ubiquitous as it is in urban areas with greater population density. Some people who reside in rural areas do not have the opportunity to use the internet at home or, in some cases, at their places of work or even at the community anchor institutions (CAI) that serve them.

Critical barrier 2: Low-income households struggle to consistently afford broadband internet services, internet-enabled computing devices, and technical support. The second barrier to digital equity in Oregon is that many people struggle to consistently afford access to the internet, a modern, fully capable, internet-enabled computing device, and the technical services to support those devices and internet use. For this reason, this Plan recognizes internet and computing device affordability as a key priority for digital equity efforts in Oregon.

Critical barrier 3: Individuals who are members of covered populations require support to develop digital literacy skills. A third critical barrier to attaining digital equity in Oregon is that some people who are members of covered populations (including older adults, individuals who live in low-income households, individuals with disabilities, veterans, incarcerated individuals, individuals who are English-language learners or have low levels of literacy, individuals who are members of racial and ethnic minority groups, and people living in rural areas)[2] do not yet have updated digital literacy skills to navigate the modern internet and to do so without

[2] Covered populations are defined in the Internet Infrastructure and Jobs Act, Section 60301 et seq. (known as the Digital Equity Act of 2021) as: "(A) individuals who live in covered households; (B) aging individuals; (C) incarcerated individuals, other than individuals who are incarcerated in a Federal correctional facility; (D) veterans; (E) individuals with disabilities; (F) individuals with a language barrier, including individuals who (i) are English learners; and (ii) have low levels of literacy; (G) individuals who are members of a racial or ethnic minority group; and (H) individuals who primarily reside in a rural area." "Internet Infrastructure and Jobs Act, Section 60302 (Definitions), paragraph 8," Congress, https://www.congress.gov/bill/117th-congress/house-bill/3684/text. Covered households are those for which "the income of which for the most recently completed year is not more than 150 percent of an amount equal to the poverty level, as determined by using criteria of poverty established by the Bureau of the Census." "Internet Infrastructure and Jobs Act, Section 60302 (Definitions), paragraph 7," Congress, https://www.congress.gov/bill/117th-congress/house-bill/3684/text. For the definition of "aging individuals," the statute uses the definition of "older individual" as "an individual who is 60 years of age or older" from the United States Code. "42 U.S.C. Section 2003, paragraph 40," Findlaw, https://codes.findlaw.com/us/title-42-the-public-health-and-welfare/42-usc-sect-3002.html.

risk to their personal privacy and security. Given these challenges, this Plan prioritizes skills training as a key area of Oregon's digital equity effort.

Critical barrier 4: Local communities require resources and expertise for digital equity efforts. Oregon's commitment to digital equity means a significant commitment of resources to sustain the initiatives contemplated in this Plan and to support local communities, nonprofits, and CAIs to develop local capacity.

To sustain these efforts over time, Oregon will require resources beyond what NTIA will provide under the Digital Equity Capacity Grant Program. OBO seeks to develop strategies for continuing the work launched under this Plan by partnering with philanthropy and seeking other funding sources, and by tracking the impact of Oregon's digital equity efforts to quantify the business case for further investment in digital equity programs.

1.3 Needs assessment

Through data collection, community engagement, [3] and analysis, [4] OBO has identified a range of critical barriers associated with the needs of Oregon households and communities. These are described in detail below. In brief, the key identified challenges include:

1. Lack of broadband internet availability to rural households.

[3] The state's comprehensive stakeholder outreach program included extensive efforts to identify the needs of all communities with an emphasis on those belonging to covered populations. Outreach and data collection efforts were made to assess the baseline from which the state is working and to identify the barriers to Digital Equity faced generally and specifically by each of the covered populations in Oregon. The research and analysis are based on available and relevant data from the American Community Survey (ACS), NTIA's Internet Use Survey (administered as a supplement to the Current Population Survey), FCC's National Broadband Map, and OBO's custom scientific phone survey (administered in 2023). As described in detail in Section 3.2, the data and analysis are intended to facilitate understanding of the extent to which: (1) broadband internet service is available to and adopted by residents; (2) residents are confidently performing various digital skills; (3) residents are aware of and impacted by online security and privacy concerns; (4) computer devices are abundant and adequate for meaningful internet use; and (5) online government resources and services are accessibly built and maintained.

[4] Analysis was undertaken to benchmark Oregon against national averages, and to benchmark its residents belonging to covered populations against those that do not belong to covered populations. Analytical tools include a range of statistical tools and models, including regression analysis, in order to isolate factors and make appropriate conclusions regarding correlation and causation, thereby shaping the selection of metrics.

2. Low-income households' struggle to afford broadband internet services, computing devices, and technical support.
3. Individuals in covered populations need digital literacy and digital skills.

The state's comprehensive stakeholder outreach program included extensive efforts to identify the needs of covered populations. Outreach and data collection efforts included questionnaires, mapping efforts, public meetings, focus groups, and meetings with key state and local stakeholders to develop broadband strategic plans, objectives for this Digital Equity Plan and the state's BEAD Five-Year Action Plan. Current and ongoing outreach includes engagement with key stakeholders during local and regional meetings, as well as data collection through end user questionnaires with ongoing analysis of results.

The table below summarizes key digital adoption barriers for each covered population. It is important to note that barriers to digital adoption are considered opportunities.

Table 1: Key barriers and opportunities for covered populations

Covered population	Identified barriers and opportunities
Aging individuals (older adults)	Not having the digital literacy skills and comfort levels to use online tools to access public service or social and civic opportunities or entertainment; affordability of services and devices; inadequate services to receive remote healthcare in appropriate/private places; lack of device loan or PC refurbishment programs; accessing documents online necessary for proving eligibility for other programs; need for digital literacy and online safety programs.
Incarcerated individuals	Lack of adequate funding for digital literacy and higher education opportunities, workforce training inside correctional institutions; scant opportunity for digital literacy and job training for formerly incarcerated to expand job/educational opportunities.
Individuals who are members of a racial or ethnic minority group	Not having access to digital technologies further exacerbate and compound historical and existing inequities in health, education, and economic opportunities.

Covered population	Identified barriers and opportunities
Individuals who primarily reside in a rural area	Lack of access to affordable and reliable broadband internet that, in turn, creates barriers to developing digital literacy skills; lack of access to public computing spaces and support for digital literacy and workforce development skill programming.
Individuals with disabilities	Access to inclusive technology is cost-prohibitive or the available assistive technology device (hardware/software) is ill-suited to the user; inclusive online content; adequate services to allow work, education, and telehealth at home.
Individuals who are English learners or have low levels of literacy	Limited or lack of language accessible online content including plain language principles; knowledge of or access to language accessibility tools to support online activity; need for digital literacy skills and online safety training in languages other than English.
Individuals who live in covered households[5]	Need for digital literacy programs, unaffordable cost of service for speeds and at the data capacity necessary to meet critical needs such as education and working from home; knowledge of or access to discount internet subsidy programs; living in public housing, rural, or low-income communities with outdated, unreliable, and slow service; old buildings with inadequate wiring; and multigenerational households.
Veterans	Oregon's veterans face challenges that intersect with those of aging individuals (older adults), individuals from racial and ethnic minoritized groups, individuals with disabilities, individuals living in rural areas, and individuals from covered households. These challenges are compounded in rural areas where lack of terrestrial and cellular broadband access is coupled with the inherent limitations of smartphones as inadequate to complete complex online benefits forms, participate in video hearings, or access other online veterans'

[5] "A household, the income of which for the most recently completed year is not more than 150 percent of an amount equal to the poverty level, as determined by using criteria of poverty established by the Bureau of the Census." Digital Equity Act: State Capacity Grant Program, Planning Grants, and Competitive Grant Frequently Asked Questions (FAQs), https://broadbandusa.ntia.doc.gov/sites/default/files/2022-06/DE-FAQs.pdf.

Covered population	Identified barriers and opportunities
	services. There is a need to improve veterans' access to broadband internet discount programs such as the ACP and Lifeline, and workforce training and digital literacy skills improvement that could expand employment opportunities beyond skills developed in the military.

1.4 Collaboration and stakeholder engagement

OBO's approach to collaborating with key constituencies and stakeholders in the state has been thorough, extensive, inclusive, and transparent. The agency conducted a comprehensive and coordinated external engagement process in preparation of this Plan (see Appendix B).

This outreach approach included:

- **In-person engagements in 12 local communities and with tribal authorities** to solicit input, insights, priorities, and guidance.
- **Partner organization engagement** through virtual workshops and distribution of online surveys for government agencies, nonprofit entities, internet service providers, and community anchor institutions.
- **Scientific residential phone survey of Oregon households** on digital equity topics.
- **Ongoing meetings** with state agencies and community organizations that represent covered populations.
- **Lived Experience Expert Focus Groups** with covered population[s] serving nonprofit organizations statewide.

OBO conducted a series of virtual workshops with government agencies and anchor institutions, community-based organizations representing covered populations, and internet service providers. In parallel to outreach through in-person engagements, OBO used a statistically valid data collection methodology to conduct a statewide residential phone survey to inform this Plan and capture resident input across the state. OBO continues to conduct ongoing outreach to tribal governments, state agencies, and nonprofit organizations serving covered populations.

1.5 Implementation plan

OBO looks forward to the opportunity to use its Digital Equity Capacity Grant to support and develop further digital equity capacity in Oregon, in partnership as feasible and when aligned with this Plan.

At the same time, OBO notes that the ability to develop and sustain these initiatives is dependent on the availability of sustained resources—including the ways in which digital equity is understood to support other policy priorities, such as how universal internet access can enable improved access to education and healthcare. For that reason, these potential initiatives are offered as examples of what may be possible if resources are available.

Consistent with its efforts to expand access to broadband internet, OBO has designed these initiatives in the most pragmatic way possible—to be actionable, measurable, and sustainable—rather than risk designing more ambitious initiatives that are not financially or practically actionable.

As described in detail (including activities and timelines) in Section 2.3 and Section 5, the following are potential strategies aligned with each key digital equity challenge:

1. Critical barrier: Lack of broadband internet availability.

   Strategy 1: Increase access to residential broadband internet.

2. Critical barrier: Low-income households struggle to consistently afford broadband internet services, internet-enabled computing devices, and technical support.

   Strategy 1: Increase Affordable Connectivity Program[6] (and any subsequent or similar initiatives should they be funded) and ISP low-cost program

[6] ACP or a successor program. As of the writing of this Plan, participants have claimed $8.5 billion of the $14.2 billion allocated to the program, according to the most recent data published by the Universal Service Administrative Corp. See: "EBB & ACP Funding Summary," USAC, https://www.usac.org/about/affordable-connectivity-program/acp-enrollment-and-claims-tracker/ (accessed October 9, 2023). The ACP could run out of funding by mid-2024 if Congress does not allocate additional funds. See: "Time Is Ticking on the Affordable Connectivity Program," GovTech, July 21, 2023, https://www.govtech.com/network/time-is-ticking-on-the-affordable-connectivity-program.

enrollment among eligible households (e.g., those earning 200 percent or less than the federal poverty guideline).

Strategy 2: Increase Internet Service Providers' (ISPs') low-cost service offerings.

Strategy 3: Expand access to affordable computing devices and technical support.

Strategy 4: Develop data and informational resources to enable application of a digital equity lens to state infrastructure and program decisions.

3. Critical barrier: Individuals who are members of covered populations require support to develop digital literacy skills.

   Strategy 1: Increase the opportunity to learn digital literacy skills in culturally and linguistically in-community spaces.[7]

   Strategy 2: Expand accessibility of information for persons with disabilities and accessibility of information in multiple languages for people who speak a language other than English.

   Strategy 3: Promote information about the availability of digital literacy programming.

   Strategy 4: Expand opportunities to learn online safety and privacy to covered populations.

4. Critical barrier: Local communities require resources and expertise for digital equity efforts.

   Strategy 1: Build collaboration among state, local, and nonprofit entities.

   Strategy 2: Support and develop local organizational and community capacity for digital equity programs.

   Strategy 3: Sustain and grow the state's efforts in digital equity.

[7] "In-community spaces" refer to culturally and linguistically community-centered spaces, either in-person or virtual.

2 INTRODUCTION AND VISION FOR DIGITAL EQUITY

2.1 Vision

It is the vision of the State of Oregon that all people in Oregon will have access to affordable and reliable high-speed broadband internet to attain positive economic, educational, and health outcomes and to participate in social and civic life. The state's commitment arises from Oregon's recognition of the criticality of digital equity to the well-being of the many diverse people of Oregon. Meaningful access to the internet is essential to thriving in the 21st century. Digital equity enables economic opportunity as well as supports educational, healthcare, and civic participation goals.

Digital equity allows all people to fully participate in the economy of innovation and creativity, which helps to foster the goal of economic opportunity. Civic participation goals can be achieved because digital equity allows all people to have the tools to register to vote, engage in meaningful online discourse, and be better connected to the communities in which they live. The goal of healthcare access for all people is fostered by digital equity because of the knowledge and confidence that is gained from learning new digital skillsets that can be applied to telemedicine and to enable easier access to personal healthcare information. Digital equity inherently supports educational goals, bringing learning to the home and on the go for all people of Oregon.

In the state's vision, all people in Oregon will have access to the following **five critical elements of digital equity:**

1. **Universal access to affordable and reliable high-speed home internet.** Consistent with the Oregon Five-Year Action Plan and considerable efforts of recent years, OBO seeks to ensure that all people in Oregon have access to a robust fixed broadband connection at their home. As addressed in the Five-Year Action Plan, OBO will seek to maximize the reach and impact of various funding sources, including the BEAD Program allocation, to extend broadband infrastructure throughout the state. OBO furthermore seeks to work with partners on strategies that can improve affordability, particularly for the covered populations for whom this is a significant barrier. This effort will involve coordination with entities dedicated to enabling eligible

households to access federal support programs such as the Affordable Connectivity Program (ACP) and Lifeline, as well as mandating affordability into the scoring and requirements for all broadband grant programs.

2. **Universal access to an affordable, quality, internet-enabled computing device that meets the person's needs.** OBO seeks to work with nonprofit and public partners to expand ownership of computing devices, as well as the ability to support, maintain, and repair those devices. Among other approaches, OBO will work with partners to support eligible households in their purchase of computing devices under the ACP during the life of the program, and any subsequent or similar initiatives should they be funded.

3. **Universal access to digital literacy skills and quality technical support in culturally and linguistically diverse in-community spaces.** OBO seeks to expand access to digital literacy skills training, recognizing that covered populations face significant challenges in this area. OBO will work through experienced stakeholders that have established skills training courses and to support and expand existing efforts to serve more people in Oregon.

4. **Universal access to the tools and information necessary to protect one's online safety and privacy.** OBO recognizes that some people in Oregon, particularly those that are lower-income or older adults, report greater challenges and more discomfort regarding their ability to protect themselves online. OBO seeks to work through experienced stakeholders that have established training courses in this space, leveraging existing capabilities and expanding outcome-driven programs to reach more communities.

5. **Universal access to inclusive state resources and online content for essential services and programs**. Oregon seeks to ensure inclusive design of online content by collaborating with state agencies that serve people with disabilities and people who speak a language other than English so that these community members have full access to needed digital tools and content.

To achieve this vision for digital equity, OBO will adopt the following four framework principles for its digital equity efforts:

1. **Prioritize data and rigorous information gathering that helps drive decision making on the prioritization of limited resources.** As it has done in awarding

broadband infrastructure grants, Oregon will adopt a data-driven approach to grantmaking for digital equity. Data will similarly be the basis for measuring both needs and achievements over time and OBO will continue to lead in data collection. This will enable progress toward digital equity to be measured on an ongoing basis using data on access, usage, skills, and outcomes. Regular evaluations will ensure that programs are effective, adaptable, and responsive to evolving needs.

2. **Engage and collaborate with a broad spectrum of diverse and representative stakeholders through processes that are inclusive and reach underserved and marginalized communities.** Digital equity work requires collaboration and partnerships. OBO will continue to engage with its local government, ISP, organized labor, and CAI stakeholders to solicit ideas, insights, priorities, and lessons learned. OBO also recognizes the layered complexities that members of covered populations may experience and as such will seek to be intentional and proactive in its engagement. OBO will similarly continue its efforts to collaborate with tribal nations, another important and critical constituency in Oregon.

3. **Build on existing achievements and collaboration by acknowledging and incorporating the work and best practices that have been accomplished statewide.** The State of Oregon will leverage and benefit from the efforts of other entities that have spent years developing expertise and capabilities with proven success in digital inclusion programming. Rather than attempt to replicate or recreate those capabilities, OBO will provide data, support, and resources to entities that already have developed, and proven the efficacy and efficiency of, existing programs to address digital equity. In this way, the State of Oregon will respect local and community experience and know-how, working to support its stakeholders that have proven capabilities in digital inclusion work. This collaboration is particularly important with respect to utilizing proven best practices on inclusivity with members of covered populations.

4. **Respect and incorporate culturally and linguistically diverse communities as partners of the process towards reaching established and agreed upon goals and outcomes.** Respecting and incorporating the cultural and linguistic diversity of communities is essential for creating inclusive and effective

programs that serve the needs of all people in Oregon. OBO will be thoughtful and inclusive when conducting outreach on affordable internet and digital literacy programs, ensuring alignment with existing efforts to improve outcomes.

OBO's role in administering digital equity efforts and broadband infrastructure development is fully aligned with state priorities. This section of the Plan describes other State of Oregon programs and priorities how they align, and in some cases complement, this Plan and OBO's overall broadband expansion efforts.

The following table shows the alignment between a sample of key partners, plans, goals, and outcomes and applies to each covered population.

Table 2: Digital equity alignment with state outcomes

Outcome	Key agency partners	Plan	Goals / priorities	Digital equity alignment
Economic & workforce development	OBO	Strategic Plan[8]	Rural broadband, including the Rural Broadband Capacity Improvement Program	Improved access for covered populations
	Business Oregon	Equitable Economic Recovery Plan[9]	Ensure that gains in the post-Covid recovery reach all populations; set broadband price and availability goals	Improved opportunities for covered populations

[8] Oregon Broadband Office Strategic Plan, January 30, 2020, https://www.oregon.gov/biz/Publications/BroadbandStratPlan2020.pdf..
[9] "Equitable Economic Recovery Plan," Business Oregon, March 2022, https://www.oregon.gov/biz/Publications/OR_Recovery_Plan_FINAL.pdf; "Economic Recovery Plan," Business Oregon, https://www.oregon.gov/biz/reports/pages/economic-recovery-plan.aspx.

Outcome	Key agency partners	Plan	Goals / priorities	Digital equity alignment
	Oregon Corrections Enterprises (OCE)	2021-2022 Annual Report[10]	Training, certification, and job experience for adults in custody	Improved skills for covered populations
	Oregon Employment Department	WorkSource Oregon[11]	Partnership with the Oregon Employment Department and state, local, and nonprofit agencies	Improved skills for covered populations
Education	OBO	Strategic Plan[12]	Digital Literacy, Security, and Inclusion Program	Improved skills for covered populations
	Oregon Department of Education (ODE)	Broadband connectivity policy[13]	Equitable access to devices and internet for students	Improved access for covered populations
	Oregon Department of Education (ODE)	Oregon's Consolidated State Plan Under the Every	Calls for a comprehensive statewide computer and digital literacy plan for students	Improved skills for covered populations

[10] "2021-2022 Annual Report," OCE, https://d18hjk6wpn1fl5.cloudfront.net/public/446/documents/Current-OCE-INFORMATION-2022_ANNUAL_REPORT_PDF-446-52152-1.PDF.
[11] "What Is WorkSource Oregon?" WorkSource Oregon, https://worksourceoregon.org/about.
[12] Oregon Broadband Office Strategic Plan, January 30, 2020, https://www.oregon.gov/biz/Publications/BroadbandStratPlan2020.pdf..
[13] "Broadband Connectivity," ODE, https://www.oregon.gov/ode/schools-and-districts/pages/state-e-rate-program-and-broadband-connectivity.aspx.

Outcome	Key agency partners	Plan	Goals / priorities	Digital equity alignment
		Student Succeeds Act[14]		
	HECC	State Educational Attainment Goals and Equity Lens[15]	Enhance access to higher education and workforce training	Improved skills for covered populations
Health	Oregon Health Authority (OHA)	2020-2024 State Health Improvement Plan[16]	Increase access to health services in rural areas	Improved access and services for covered populations
	Oregon Health Authority (OHA) – Health Equity Goal	Language and disability access[17]	OHA established a strategic goal to eliminate health inequities by 2030	Improved services for covered populations
	Oregon Department of Human Services – Deaf and Hard of Hearing Services (ODHHS)	Community-Based Needs Assessment of Oregon's Deaf and Hard of Hearing	Internet access improves safety and provides, for example, information about assistive	Improved access and services for covered populations

[14] "Oregon's Consolidated State Plan Under the Every Student Succeeds Act," ODE, August 30, 2017, https://www.oregon.gov/ode/rules-and-policies/ESSA/Documents/APPROVED%20OR_ConsolidatedStateplan8-30-17.pdf; "Every Student Succeeds Act (ESSA)," ODE, https://www.oregon.gov/ode/rules-and-policies/ESSA/Pages/default.aspx.

[15] "State Educational Attainment Goals and Equity Lens," Higher Education Coordinating Commission (HECC), https://www.oregon.gov/highered/policy-collaboration/Pages/state-goals.aspx.

[16] "2020-2024 State Health Improvement Plan," Oregon Health Authority, September 2020, https://www.oregon.gov/oha/PH/ABOUT/Documents/ship/2020-2024/Healthier-Together-Oregon-full-plan.pdf.

[17] "Language and Disability Access," OHA, https://www.oregon.gov/oha/ei/pages/language-disability-access.aspx.

Outcome	Key agency partners	Plan	Goals / priorities	Digital equity alignment
		Communities: Final Report[18]	devices and software	
Civic and social engagement	State Library of Oregon	LSTA Five-Year Plan 2023-2027[19]	Increase internet and technology access and digital literacy skills	Improved skills for covered populations
	Oregon Youth Authority	10-Year Strategic Plan for Close Custody Facilities[20]	Broadband access for imprisoned youth for virtual family visits	Improved access and services for covered populations
	Oregon Department of Corrections (DOC)	Electronic communications with the incarcerated[21]	Communications with friends and loved ones. Broadband access for imprisoned youth for virtual family visits	Access and for covered populations
	Oregon Serves	2022-2024 State Service Plan for	Goals include equity, dismantling the school-to-prison	Improved access and services for covered

[18] Denise Thew Hackett, Ph.D., M.S.C.I, et al., "Community-Based Needs Assessment of Oregon's Deaf and Hard of Hearing Communities: Final Report," December 30, 2016, Oregon Department of Human Services, https://www.oregon.gov/odhs/aging-disability-services/Documents/deaf-hard-of-hearing-community-needs-assessment-2016.pdf; ODHHS, https://www.oregon.gov/odhs/aging-disability-services/pages/deaf-hard-of-hearing-services.aspx.

[19] "Library Services and Technology Act (LSTA) Five-Year Plan, 2023-2027," State Library of Oregon, https://www.oregon.gov/library/libraries/Documents/LSTA/2023-2027LSTAFiveYearPlan.pdf; "Library Services and Technology Act (LSTA) Program in Oregon," State Library of Oregon, https://www.oregon.gov/library/libraries/pages/lsta.aspx.

[20] "10-Year Strategic Plan for Close Custody Facilities," Oregon Youth Authority, August 26, 2014, https://www.oregon.gov/oya/Reports/OYA%2010-Yr%20Strategic%20Plan.pdf, p.4-4.

[21] "Electronic Communications," DOC, https://www.oregon.gov/doc/contact-inmate/pages/electronic-communications.aspx.

Outcome	Key agency partners	Plan	Goals / priorities	Digital equity alignment
		Oregon[22]	pipeline, serving rural communities, and addressing other disparities	populations
	Environmental Justice Council (EJC)[23]		The five Governor's Councils provide an opportunity for civic engagement, allowing Oregonians to address critical issues[24]	Improved access, policy roles, and services for covered populations
	Early Literacy Educator Preparation Council[25]			
	Racial Justice Council[26]			
	Wildfire Programs Advisory Council[27]			
	Housing Production Advisory Council[28]			
	State of Oregon Boards and Commissions[29]		Oregon's Governor appoints	Improved access, policy roles,

[22] "2022-2024 State Service Plan for Oregon," Oregon Serves, https://www.oregon.gov/oregonserves/about-us/Documents/oregonserves-state-service-plan-2022-2024.pdf.
[23] EJC, https://www.oregon.gov/gov/policies/Pages/environmental-justice-council.aspx.
[24] "Governor's Councils," Office of the Oregon Governor, https://www.oregon.gov/gov/policies/pages/default.aspx.
[25] Early Literacy Educator Preparation Council, https://www.oregon.gov/gov/policies/Pages/Early-Literacy-Educator-Prep-Council.aspx.
[26] Racial Justice Council, https://www.oregon.gov/gov/policies/Pages/racial-justice-council.aspx.
[27] Wildfire Programs Advisory Council, https://www.oregon.gov/gov/policies/Pages/wildfire-programs-council.aspx.
[28] Housing Production Advisory Council, https://www.oregon.gov/gov/policies/Pages/Housing-Production-Advisory-Council.aspx.
[29] "Boards & Commissions," Office of Oregon Governor, https://www.oregon.gov/gov/Pages/board-list.aspx.

Outcome	Key agency partners	Plan	Goals / priorities	Digital equity alignment
			members to over 250 Boards and Commissions including major state agencies. Members are vital participants in statewide decision-making.	and services for covered populations
Delivery of essential health and human services	Oregon Health Plan (OHP)		Enable online access to eligibility and account information for eligible people in Oregon	Improved services for covered populations
	Oregon Housing Stability Council (OHSC)	"Utility Bill Payment Assistance"[30]	Assist those in need with energy costs	Improved services for covered populations
	Oregon Department of Transportation	Strategic Action Plan, Revised July 2023[31]	Provide equitable access to transportation and integrate broadband into the transportation system	Improved services for covered populations

[30] "Utility Bill Payment Assistance," OHSC, https://www.oregon.gov/ohcs/energy-weatherization/pages/utility-bill-payment-assistance.aspx. See also "Home Weatherization Services," OHSC, https://www.oregon.gov/ohcs/energy-weatherization/Pages/weatherization-services.aspx.

[31] "Strategic Action Plan, Revised July 2023," Oregon Department of Transportation, https://www.oregon.gov/odot/SAPDocs/Strategic-Action-Plan.pdf.

Outcome	Key agency partners	Plan	Goals / priorities	Digital equity alignment
	Oregon Department of Human Services (ODHS)[32]	Strategic plan underway[33]	Numerous ODHS services will complement this plan	Improved services for covered populations
	Oregon Department of Emergency Management (OEM)	Comprehensive Emergency Management Plan (CEMP)[34]	In addition to the goals in the Plan, OEM provides equity, inclusion, and language support for emergency preparedness agencies across the state of Oregon[35]	Improved safety for covered populations

2.1.1 Economic and workforce development goals, plans, and outcomes

This Plan, drafted by the Oregon Broadband Office (OBO), aligns with OBO's own strategic plan. In 2020, OBO issued a Broadband Strategic Plan[36] establishing how OBO will carry out its mission as defined by executive order and statute[37] and documenting its activities and planned programs to meet the state's policy goals. The plan called for a Rural Broadband Capacity Improvement Program to support

[32] "Supporting well-being for everyone in Oregon," Oregon Department of Human Services, https://www.oregon.gov/odhs.
[33] "Strategic planning process," ODHS, https://www.oregon.gov/odhs/building-wellbeing/Pages/strategic-plan.aspx.
[34] "Comprehensive Emergency Management Plan (CEMP)," OEM, https://www.oregon.gov/oem/emresources/Plans_Assessments/Pages/CEMP.aspx.
[35] "Equity, Inclusion and Language Access," OEM, https://www.oregon.gov/oem/equity/Pages/default.aspx. For a list of organizations, see "Oregon ESFs and Organizations," OEM, January 2021, https://www.oregon.gov/OEM/Documents/Oregon_ESF_Agency_Table_Job_Aid.pdf.
[36] Oregon Broadband Office Strategic Plan, January 30, 2020, https://www.oregon.gov/biz/Publications/BroadbandStratPlan2020.pdf.
[37] Executive Order Number 18-31 and HB 2173 Enrolled 2019.

broadband planning, engineering, and/or infrastructure deployment projects targeting unserved and underserved rural areas. According to the Broadband Strategic Plan, the digital divide "may well be contributing to the economic divide that also exists between urban and rural areas of the state."

OBO's Broadband Strategic Plan called for an additional program, the Broadband Outreach Program, to engage stakeholders—elected officials, government officials, healthcare providers, educators, businesses, agriculture and other community leaders, and broadband service providers—to facilitate communications, recruit local champions, and aggregate broadband service demand in communities to help to make a business case for broadband investment and to match projects with funding sources.

The global Covid-19 pandemic changed the economy of the United States and Oregon, while highlighting the importance of broadband in daily life. The Equitable Economic Recovery Plan[38] report prepared for Business Oregon and published in March 2022, defined an equitable recovery as one where gains reach "Black, Indigenous, and People of Color and rural communities." It detailed seven issues stifling Oregon's economic recovery from the effects of the Covid-19 pandemic.

One of the seven issues was a lack of access to affordable broadband. According to the most recent data available at the time, just 24 percent of Oregon's population had access to a low-priced internet plan priced at $60 per month or less. The report stated:

> Access to technology and high-speed internet is essential for workers, families, and businesses. The [. . .] pandemic amplified existing issues and inequities. Without access to broadband, e-commerce and small business competition will lag behind in Oregon. Students and workers will be unable to match the trend of increased learning via remote or online methods and the pandemic will continue to perpetuate public safety concerns and impact student learning growth.

[38] "Equitable Economic Recovery Plan," Business Oregon, March 2022, https://www.oregon.gov/biz/Publications/OR_Recovery_Plan_FINAL.pdf; "Economic Recovery Plan," Business Oregon, https://www.oregon.gov/biz/reports/pages/economic-recovery-plan.aspx.

Other barriers to an equitable recovery identified in the Equitable Economic Recovery Plan and addressed in this Digital Equity Plan are:

- Workforce development and retraining to address skill mismatches as employees change industries and embrace new opportunities.
- Workforce attraction as older workers retire and leave positions open. "Tracking retirements and training mid-career workers will be important to the replacement of knowledge, though employers will continue to face temporary challenges during this workforce transition."

Oregon Corrections Enterprises (OCE), a self-sustaining organization under the Department of Corrections Director, is designed to engage adults in custody in work and provide on-the-job training.[39] Programs include a contact center, graphic design program, office services, and print services. All programs offer training and certifications. The contact center had 402 participants during the period covered by the 2021-2022 Annual Report.[40] OCE is partnering with stakeholders to launch a Pre-Release Hiring Program (PREHP), designed to provide AICs [Adults in Custody] with a job immediately at release. PREHP is also designed to provide employers with "a way to proactively advance social justice issues and contribute to reducing inequality in Oregon communities."

This Plan aligns with the work of WorkSource Oregon, a statewide partnership between the Oregon Employment Department and state, local, and nonprofit agencies. It provides a variety of employment and training services to job seekers and employers in Oregon.[41] WorkSource Oregon's website offers content in 12 languages, including English, Spanish, Russian, Chinese (separate offerings in Traditional Chinese and Simplified Chinese), and Korean and aid people with low literacy levels, people with disabilities, and veterans seeking employment opportunities.

This Plan also aligns with the goals of the Oregon Higher Education Coordinating Commission (HECC). The "Future Ready Oregon" program "supports the education

[39] Oregon Corrections Enterprises, https://oce.oregon.gov/.
[40] "2021-2022 Annual Report," OCE, https://d18hjk6wpn1fl5.cloudfront.net/public/446/documents/Current-OCE-INFORMATION-2022_ANNUAL_REPORT_PDF-446-52152-1.PDF.
[41] "What Is WorkSource Oregon?" WorkSource Oregon, https://worksourceoregon.org/about.

and training Oregonians need for good-paying jobs. This package includes strategic and targeted investments focused on advancing opportunities for historically underserved communities."[42]

2.1.2 Educational outcomes

The 2020 OBO Broadband Strategic Plan[43] called for a Digital Literacy, Security, and Inclusion Program "to provide grants and forgivable loans to projects to improve digital literacy, cybersecurity, and the digital inclusion of unserved and underserved populations so that the benefits of broadband connectivity may be realized."

The Oregon Department of Education (ODE) promotes "equitable access to digital devices and internet connectivity" in support of its vision that "every student will have access to and benefit from a world-class, well-rounded, and equitable educational system."[44]

ODE sets digital equity goals under the federal Every Student Succeeds Act (ESSA), a school accountability law rooted in supporting all students equitably and building systems that eliminate barriers to student success. Oregon's Consolidated State Plan Under the Every Student Succeeds Act[45] calls for increased availability of digital learning, and the "creation of a long-term strategy to transform learning experiences by providing all students equitable access to digital age learning and teaching," which aligns with 2022 guidance by the U.S. Department of Education that "calls on state and local leaders to also bridge existing [broadband] adoption barriers" while "other federal agencies work to make internet access more available

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[42] "Future Ready Oregon: Workforce Training and Education Investment Package," Oregon Higher Education Coordinating Commission, https://www.oregon.gov/highered/policy-collaboration/Pages/Future-Ready.aspx.
[43] Oregon Broadband Office Strategic Plan, January 30, 2020, https://www.oregon.gov/biz/Publications/BroadbandStratPlan2020.pdf.
[44] "Broadband Connectivity," Oregon Department of Education, https://www.oregon.gov/ode/schools-and-districts/pages/state-e-rate-program-and-broadband-connectivity.aspx.
[45] "Oregon's Consolidated State Plan Under the Every Student Succeeds Act," ODE, August 30, 2017, https://www.oregon.gov/ode/rules-and-policies/ESSA/Documents/APPROVED%20OR_ConsolidatedStateplan8-30-17.pdf; "Every Student Succeeds Act (ESSA)," ODE, https://www.oregon.gov/ode/rules-and-policies/ESSA/Pages/default.aspx.

and affordable across the nation."[46] The Oregon Virtual School District (ORVSD), cited by ODE's plan, served 15,030 students statewide during the 2021-2022 school year, according to the Digital Learning Collaborative.[47]

This Plan aligns with the online access and digital equity programming goals of the Oregon Higher Education Coordinating Commission (HECC). Improved online access and digital equity programming will support the state's "40-40-20" goal, which states that, by 2024: "40% of Oregonians will complete a 4-year degree, 40% of Oregonians will complete a 2-year degree or certificate, 20% will earn a high school diploma or the equivalent." [48]

In addition, this Plan's goals to address covered populations' access to broadband are aligned with the state's adult education and training goal established in 2018, which is designed to improve job opportunities and solve industry needs, and states:

> Oregon anticipates more than 120,000 additional jobs requiring post-secondary training or education between now and 2030. In order to meet this need, 300,000 additional adult Oregonians should earn a new degree, certificate or credential valued in the workforce during that time. Because Oregon has substantial attainment gaps among minority, low-income, and rural Oregonians, the state will also commit to reducing those attainment gaps by half during the decade.[49]

2.1.3 Health outcomes

Recognizing the intersection of broadband and health and the importance of built infrastructure to support access to health, one goal of the Oregon Health Authority's "Healthier Together Oregon: 2020-2024 State Health Improvement Plan" is to

[46] "Advancing Digital Equity for All: Community-Based Recommendations for Developing Effective Digital Equity Plans to Close the Digital Divide and Enable Technology-Empowered Learning," U.S. Department of Education Office of Educational Technology, September 2022, https://tech.ed.gov/files/2022/09/DEER-Resource-Guide_FINAL.pdf.
[47] "Oregon Digital Learning Landscape," Digital Learning Collaborative, last updated December 2022, https://www.digitallearningcollab.com/state-profiles/oregon.
[48] "State Educational Attainment Goals and Equity Lens," Oregon Higher Education Coordinating Commission, https://www.oregon.gov/highered/policy-collaboration/Pages/state-goals.aspx.
[49] "Oregon's Adult Education and Training Goal," Oregon Higher Education Coordinating Commission, https://www.oregon.gov/highered/policy-collaboration/Pages/state-goals.aspx.

"increase affordable access to high-speed internet in rural Oregon."[50] OHA states that it "is committed to partnerships, co-creation and co-ownership of solutions with communities disproportionately affected by health issues so they can actively participate in planning, implementing, and evaluating efforts to address health issues." OHA's Health Improvement Plan addresses several potential benefits of technology, noting that telehealth can improve equitable access to healthcare in rural areas.

OHA has established a strategic goal to eliminate health inequities by 2030.[51] OHA defines health equity as "a health system where all people can reach their full health potential and well-being and are not disadvantaged by their race, ethnicity, language, disability, age, gender, gender identity, sexual orientation, social class, intersections among these communities or identities, or other socially determined circumstances." Achieving health equity requires collaboration across all sectors of healthcare and all regions of the state. Achieving health equity begins with communication. It starts by adding a step to patient intake in which patients are asked, "Will you need support to talk with us?" To support this communication, OHA has created Race, Ethnicity, Language and Disability (REALD) templates, which are available online, tailored for different settings and audiences, and produced in 23 languages.[52] The templates are the work of OHA's Office of Equity & Inclusion.

The Oregon Legislative Assembly in 2015 appropriated $200,000 for a comprehensive study to identify the social, health, and educational disparities experienced by the Deaf and Hard of Hearing Communities. The contract was awarded to Western Oregon University's (WOU) Regional Resource Center on Deafness (RRCD) in 2016. The resulting report, the Community-Based Needs Assessment of Oregon's Deaf and Hard of Hearing Communities: Final Report,[53] was

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[50] "Healthier Together Oregon: 2020-2024 State Health Improvement Plan," Oregon Health Authority, September 2020, https://www.oregon.gov/oha/PH/ABOUT/Documents/ship/2020-2024/Healthier-Together-Oregon-full-plan.pdf.
[51] "Language and Disability Access," OHA, https://www.oregon.gov/oha/ei/pages/language-disability-access.aspx.
[52] "Race, Ethnicity, Language and Disability (REALD) templates," OHA, https://sharedsystems.dhsoha.state.or.us/DHSForms/Served/le7721c.pdf.
[53] Denise Thew Hackett, Ph.D., M.S.C.I, et al., "Community-Based Needs Assessment of Oregon's Deaf and Hard of Hearing Communities: Final Report," December 30, 2016, Oregon Department of

the result of months of focus groups and studies across Oregon. The report highlighted the health and safety benefits of internet access for the deaf and hard of hearing. For example, the "vast majority of individuals with hearing loss are not aware of other types of assistive technology which can be used with or without hearing aids and cochlear implants [. . .] This information is found through consumer groups and internet searches."

2.1.4 Civic and social engagement

Civic and social engagement is a critical component to a thriving democracy. And to healthy communities. Civic engagement means participating in the electoral process, attending a town hall to engage elected leadership, volunteerism, advocacy and activism, these civic activities are all ways to improve communities or address wider social issues.

Among the state entities that have civic and social engagement efforts in alignment with this Plan are:

- **Oregon Serves:** The 2022-2024 State Service Plan for Oregon[54] directs efforts toward addressing equity, serving rural communities, and dismantling the school-to-prison pipeline.
- **Governor's Councils:** These councils provide the people of Oregon with the opportunity to address crucial issues. The five councils are: Environmental Justice Council (EJC), [55] Early Literacy Educator Preparation Council, [56] Racial

Human Services, https://www.oregon.gov/odhs/aging-disability-services/Documents/deaf-hard-of-hearing-community-needs-assessment-2016.pdf; ODHHS, https://www.oregon.gov/odhs/aging-disability-services/pages/deaf-hard-of-hearing-services.aspx.

[54] "2022-2024 State Service Plan for Oregon," Oregon Serves, https://www.oregon.gov/oregonserves/about-us/Documents/oregonserves-state-service-plan-2022-2024.pdf. See also, Oregon Serves, https://www.oregon.gov/oregonserves/.

[55] EJC, https://www.oregon.gov/gov/policies/Pages/environmental-justice-council.aspx.

[56] Early Literacy Educator Preparation Council, https://www.oregon.gov/gov/policies/Pages/Early-Literacy-Educator-Prep-Council.aspx.

Justice Council, [57] Wildfire Programs Advisory Council, [58] and Housing Production Advisory Council. [59]

- **State of Oregon Boards and Commissions:** The Governor appoints members to more than 250 state boards and commissions, including the OBDD Commission and the Oregon Broadband Advisory Council. Members of Oregon State Boards and Commissions[60] are vital participants in statewide decision-making, individuals that serve on boards and commissions these individuals have the opportunity to participate in developing a wide variety of important governmental policies. Issues range from consumer protection, economic development, education, conservation, and health care, all of which are critical to the ongoing success of the State of Oregon.

One local example of online civic engagement is the City of Eugene's "Engage Eugene" online engagement platform. [61] This platform allows for online engagement on a variety of policies and projects, ensuring programs and policies reflect the needs of the people.

The State Library of Oregon (State Library) Library Services and Technology Act (LSTA) Five-Year Plan, 2023-2027, identifies digital equity as one of the five key needs to be addressed for library users. It also sets a goal of Oregon libraries to close the digital divide through projects that spur connectivity and technology, digital equity, and digital heritage collections. Under connectivity and technology, the objectives are to support projects that increase broadband, connectivity, and technology access with the outcome being to better meet community needs with high-speed internet and internet-enabled technology. Under digital equity, the objective is to encourage libraries' digital inclusion and skills training efforts in their communities.[62]

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[57] Racial Justice Council, https://www.oregon.gov/gov/policies/Pages/racial-justice-council.aspx.
[58] Wildfire Programs Advisory Council, https://www.oregon.gov/gov/policies/Pages/wildfire-programs-council.aspx.
[59] Housing Production Advisory Council, https://www.oregon.gov/gov/policies/Pages/Housing-Production-Advisory-Council.aspx.
[60] "Boards & Commissions," Office of Oregon Governor, https://www.oregon.gov/gov/Pages/board-list.aspx.
[61] "Engage Eugene," City of Eugene, https://engage.eugene-or.gov/.
[62] "Library Services and Technology Act (LSTA) Five-Year Plan, 2023-2027," State Library of Oregon, https://www.oregon.gov/library/libraries/Documents/LSTA/2023-2027LSTAFiveYearPlan.pdf.

This Plan aligns with a key goal of the Oregon Youth Authority's 10-Year Strategic Plan for Close Custody Facilities.[63] Among the ideal characteristics of facilities for youth offenders is, "[h]igh-speed internet capacity to support [. . .] video-based family visits."

The Oregon Department of Corrections (DOC) offers means for electronic communications with incarcerated friends or loved ones.[64] DOC also provides rules regarding sending publications to adults in custody (AIC).[65]

2.1.5 Delivery of other essential services

The examples in this section illustrate a sample of state programs that demonstrate the importance of broadband to enable people to access inclusive online content related to the delivery of essential services.

The Oregon Housing Stability Council (OHSC) provides leadership in, and reviews and sets policy for, the development and financing of affordable housing throughout the state.[66] Programs include funding to local community agencies that provide bill payment assistance programs to help low-income households meet their energy costs and to prevent the loss of home energy service.[67] Power is an essential service. OHSC also provides funding for home weatherization to low-income households, delivering long-term energy cost savings, which potentially improves financial resilience as well as health.[68]

The Oregon Department of Transportation Strategic Action Plan, revised July 2023, [69] cites equity as a priority, defined as: "Prioritize diversity, equity, and inclusion by identifying and addressing systemic barriers to ensure all Oregonians

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[63] "10-Year Strategic Plan for Close Custody Facilities," Oregon Youth Authority, August 26, 2014, https://www.oregon.gov/oya/Reports/OYA%2010-Yr%20Strategic%20Plan.pdf, p.4-4.
[64] "Electronic Communications," DOC, https://www.oregon.gov/doc/contact-inmate/pages/electronic-communications.aspx.
[65] "Publications," DOC, https://www.oregon.gov/doc/contact-inmate/Pages/Publications.aspx.
[66] "About the Council," OHSC, https://www.oregon.gov/ohcs/hsc/Pages/index.aspx. OHSC is part of Oregon Housing and Community Services (OHCS), Oregon's housing finance agency.
[67] "Utility Bill Payment Assistance," OHSC, https://www.oregon.gov/ohcs/energy-weatherization/pages/utility-bill-payment-assistance.aspx.
[68] "Home Weatherization Services," OHSC, https://www.oregon.gov/ohcs/energy-weatherization/Pages/weatherization-services.aspx.
[69] "Strategic Action Plan," Oregon Department of Transportation, revised July 2023, https://www.oregon.gov/odot/SAPDocs/Strategic-Action-Plan.pdf.

benefit from transportation services and investments." Transportation is not specifically cited as an essential service in NTIA guidance, but it is essential in daily life. The Oregon Department of Transportation seeks to provide "greater transportation access and a broader range of mobility options for Oregonians." It says that nearly one-third of Americans are unable to drive due to age, disability, or because they cannot afford a car.

The Oregon Department of Human Services (ODHS) is in its planning process, with a strategic plan due in 2024, to be created with community partners.[70] ODHS services include SNAP food benefits,[71] the Employment Related Day Care program (ERDC),[72] Home Care Services for seniors,[73] and other services too numerous to mention, all of which benefit covered populations and will complement the activities in this Plan. ODHS' community partner connections can also add value to this Plan.

The Oregon Department of Emergency Management[74] is built to deliver safety for all residents of Oregon. Its Equity, Inclusion, and Language Access Program consults, advises, trains, and provides policy development in the areas of equity, inclusion, diversity, equal opportunity, and affirmative action for emergency preparedness agencies across the state of Oregon.[75] The Comprehensive Emergency Management Plan (CEMP)[76] covers training, mitigation, and recovery in addition to emergency response.

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[70] "Strategic planning process," ODHS, https://www.oregon.gov/odhs/building-wellbeing/Pages/strategic-plan.aspx.
[71] "SNAP Food Benefits," ODHS, https://www.oregon.gov/odhs/food/pages/snap.aspx.
[72] "Employment Related Day Care program (ERDC)," https://www.oregon.gov/delc/programs/pages/erdc.aspx.
[73] "Home Care Services," ODHS, https://www.oregon.gov/odhs/home-care-consumers/Pages/default.aspx.
[74] Oregon Department of Emergency Management, https://www.oregon.gov/OEM/Pages/default.aspx.
[75] "Equity, Inclusion and Language Access," OEM, https://www.oregon.gov/oem/equity/Pages/default.aspx. For a list of organizations, see "Oregon ESFs and Organizations," OEM, January 2021, https://www.oregon.gov/OEM/Documents/Oregon_ESF_Agency_Table_Job_Aid.pdf.
[76] "Comprehensive Emergency Management Plan (CEMP)," OEM, https://www.oregon.gov/oem/emresources/Plans_Assessments/Pages/CEMP.aspx.

2.2 Strategy and objectives

This section of the Plan describes, at a high level, key strategies and objectives designed to address the critical digital equity challenges described below. Additional detail regarding the strategies and their associated initiatives is provided in Section 5, which details OBO's plans for execution.

2.2.1 Strategies

In brief, the strategies are as follows (see Section 5 for detail), organized based on the critical barrier they are designed to address:

1. **Critical barrier: Lack of broadband availability.** OBO recognizes the extent of broadband's far-reaching impacts on individuals, communities, businesses, education, healthcare, and overall economic and social development.

   Broadband facilitates online learning, enabling students of all ages to access educational materials, participate in virtual classrooms, and engage in distance education programs. It bridges the gap in educational opportunities, especially for those in remote or underserved areas.

   Broadband stimulates economic growth and innovation, enables e-commerce and remote workforce training and work opportunities, and enables access to government services.

   Broadband enables remote healthcare services, such as telemedicine and in-home health monitoring. It helps people stay or become connected to healthcare professionals regardless of geographical distances.

   Broadband allows for access to public social resources such as housing, health and nutrition resources, and resources to pay utility bills including electricity or heating, ensuring people have the resources to thrive.

   Broadband facilitates access to online public spaces and information, strengthening democracy.[77]

[77] "The Future of Digital Spaces and Their Role in Democracy," Pew Research Center, November 22, 2021, https://www.pewresearch.org/internet/2021/11/22/the-future-of-digital-spaces-and-their-role-in-democracy/.

Broadband supports precision agriculture and rural economic development by enabling farmers to access online resources to improve farming techniques, track weather patterns, manage crops, and access market information.

This Digital Equity Plan and OBO's BEAD broadband infrastructure program will work together to ensure the availability of broadband for all people in Oregon.

Strategy: Increase access to residential broadband through the deployment of the BEAD Program and the American Rescue Plan Act Capital Infrastructure Program.

2. **Critical barrier: Low-income households struggle to consistently afford broadband services, internet-enabled computing devices, and technical support.** Affordability of broadband services and computing devices is essential for ensuring that all members of society can participate in the digital world and the digital economy. Affordability reduces the scope of the digital divide and supports the State of Oregon's economy and residents.

   Through this Digital Equity Plan, OBO seeks to increase affordability of broadband services and devices through collaboration with local, ISP, and community partners.

   Strategy 1: Increase Affordable Connectivity Program (and any subsequent or similarly funded program) enrollment among eligible households (e.g., those earning 200 percent or less than the federal poverty guideline).

   Strategy 2: Increase Internet Service Providers' (ISPs') low-cost service offerings.

   Strategy 3: Expand access to affordable computing devices and technical support.

   Strategy 4: Develop data and informational resources to enable application of a digital equity lens to state infrastructure and program decisions.

3. **Critical barrier: Individuals who are members of covered populations require support to develop digital literacy skills.** Digital literacy and digital skills are not only about using technology but also about fostering empowerment, critical thinking, and full participation in society. They enhance people's abilities to learn, work, communicate, and engage effectively in the rapidly evolving digital economy by promoting education, employability, small business and entrepreneurship, healthcare access, financial management, and lifelong learning.

   Through this Digital Equity Plan, OBO seeks to develop partnerships and strategies to expand access to digital skills training and support local entities that train people in Oregon to access the internet and to do so with their safety and privacy protected.

   Strategy 1: Expand opportunity to learn digital literacy and digital skills.

   Strategy 2: Increase accessibility of information for persons with disabilities and for persons who speak a language other than English.

   Strategy 3: Promote information about the availability of digital literacy and digital skills programming.

   Strategy 4: Promote information about online safety and privacy to covered populations.

4. **Critical barrier: Local communities require resources and expertise for digital equity efforts.** Oregon's commitment to digital equity means a significant commitment of resources to sustain the initiatives contemplated in this Plan and to support local communities, nonprofits, and CAIs to develop local capacity.

   To sustain these efforts over time, Oregon will require resources beyond what NTIA will provide under the Digital Equity Capacity Grant program. OBO seeks to develop strategies for continuing the work launched under this Plan by partnering with philanthropy and seeking other funding sources, and by tracking the impact of Oregon's digital equity efforts to quantify the business case for further investment in digital equity programs.

Strategy 1: Build collaboration among state, local, and nonprofit entities.

Strategy 2: Support and develop local organizational and community capacity for digital equity programs.

Strategy 3: Sustain and grow state and local efforts in digital equity.

2.2.2 Measurable objectives and key performance indicators

In connection with each of the key digital equity challenges described above, OBO has established the following initial measurable objectives and key performance indicators (KPI) with short- and long-term goals toward achieving digital equity in Oregon. These objectives, KPIs, and goals may change over time to meet the evolving challenges of the digital divide in Oregon.

2.2.2.1 Critical barrier: Lack of broadband availability

Measurable objective	KPI	Baseline (current state)	Short-term goal	Long-term goal	Data source
Every location in Oregon can access 100/20 Mbps at home[78]	Percentage of locations with access to 100/20 broadband	89%	95%	98%	FCC National Broadband Map
	Percentage for covered households	Data collection in progress	95%	98%	
	Percentage for aging individuals	89%	95%	98%	
	Percentage for incarcerated individuals (other than in a federal facility)	Data not available	95%	98%	

[78] These coverage metrics reflect current state as reported by the FCC in the National Broadband Map as of July 25, 2023. They do not include grant funded or planned deployments for the future.

Measurable objective	KPI	Baseline (current state)	Short-term goal	Long-term goal	Data source
	Percentage for veterans	89%	95%	98%	
	Percentage for individuals with disabilities	89%	95%	98%	
	Percentage for individuals with a language barrier	89%	95%	98%	
	Percentage for members of racial or ethnic minorities	89%	95%	98%	
	Percentage of rural residents	57%	95%	98%	

2.2.2.2 Critical barrier: Low-income households struggle to afford broadband services, internet-enabled computing devices, and technical support

Measurable objective	KPI	Baseline (current state)	Short-term goal	Long-term goal	Data source
Increase enrollment in the Affordable Connectivity Program (and any subsequent or similarly funded program) and ISPs' low-cost programs	Percentage of eligible households participating in ACP	28%	50%	95%	USAC
Increase the percentage of ISPs that offer low-cost products (including a computing device) for lower-income households	Percentage of ISPs that offer low-cost products (including a computing device) for lower-income households	64%	75%	95%	USAC[79]
All people in Oregon have access to an affordable, workable, internet-enabled computing device	Percentage of all survey respondents who report they can get a broken or lost computing device fixed or replaced	77%	93%	95%	OBO residential phone survey

[79] Baseline estimate based on ACP participation data from USAC and known ISPs in Oregon from OBO's internal data.

Measurable objective	KPI	Baseline (current state)	Short-term goal	Long-term goal	Data source
	within a week				
Members of covered populations have access to an affordable, workable computing device	Percentage of all covered population survey respondents who report they can get a broken or lost computing device fixed or replaced within a week	76%	93%	95%	OBO residential phone survey
	Percentage of covered households	54%	93%	95%	
	Percentage for aging individuals[80]	76%	93%	95%	
	Percentage of households with an incarcerated individual	Data not available[81]	93%	95%	

[80] Data gathered through the residential phone survey categorized individuals aged 65 or older. Future survey instruments will reflect the NTIA's definition of aging individuals as 60 or older.
[81] While OBO's scientific residential phone survey of people in Oregon was able to gather details on internet use, device access, and digital skills for households with formerly incarcerated individuals, OBO was not able to gather these data for currently incarcerated individuals.

Measurable objective	KPI	Baseline (current state)	Short-term goal	Long-term goal	Data source
	Percentage of households with a veteran	79%	93%	95%	
	Percentage of households with an individual with a disability	77%	93%	95%	
	Percentage of households with an individual with a language barrier	Insufficient data[82]	93%	95%	
	Percentage of households with a member of a racial or ethnic minority	76%	93%	95%	
	Percentage of households in rural zip codes	78%	93%	95%	

[82] Insufficient sample size from responses to OBO's phone survey.

2.2.2.3 Critical barrier: Members of covered populations need support to develop digital skills

Measurable objective	KPI	Baseline (current state)	Short-term goal	Long-term goal	Data source
All people in Oregon are able to use the internet if they so choose	Average number of key digital skills performed (out of 14 factors[83] measured)	11.5	12/14	13/14	OBO residential phone survey
Members of covered populations are able to use the internet if they so choose	Average number of key digital skills performed by members of covered populations (out of 14 factors measured)	11.1	12/14	13/14	OBO residential phone survey
	Average for covered households	10.0	12/14	13/14	
	Average for aging individuals	9.6	12/14	13/14	

[83] The 14 factors are rooted in the NTIA Internet use Survey, but slightly modified when used for the residential phone survey that we conducted in the state. The factors are as follows: 1. Sending and receiving emails; 2. Using social media; 3. Participating in online video, voice, or conference calls (such as Zoom, Skype, or FaceTime); 4. Operating a small home business; 5. Working remotely and telecommuting; 6. Searching for a job online; 7. Taking classes or participating in job training online; 8. Accessing medical services online; 9. Accessing government services online; 10. Shopping, making travel reservations, or using other online consumer service; 11. Accessing online financial services; 12. Identifying online fraud (such as phishing schemes); 13. Identifying misleading information or disinformation; 14. Adjusting privacy settings online (such as on social media).

Measurable objective	KPI	Baseline (current state)	Short-term goal	Long-term goal	Data source
	Average for incarcerated individuals (other than in a federal facility)	Data not available[84]	12/14	13/14	
	Average for veterans	10.8	12/14	13/14	
	Average for individuals with disabilities	10.7	12/14	13/14	
	Average for individuals with a language barrier	Insufficient data	14/14	14/14	
	Average for members of racial or ethnic minorities	11.8	12/14	13/14	
	Average of residents in rural zip codes	11.5	12/14	13/14	
All people in Oregon can access information or training to learn how to	Percentage of all survey respondents who say they are confident they can protect their	85%	85%	90%	OBO residential phone survey

[84] While OBO's scientific residential phone survey of people in Oregon was able to gather details on digital skills for households with formerly incarcerated individuals, OBO was not able to gather these data for currently incarcerated individuals.

Measurable objective	KPI	Baseline (current state)	Short-term goal	Long-term goal	Data source
protect their personal security online	personal security online				
Members of covered populations can access information or training to learn how to protect their personal security online	Percentage of all covered population survey respondents who say they are confident they can protect their personal security online	83%	85%	90%	OBO residential phone survey
	Percentage for covered households	74%	85%	90%	
	Percentage for aging individuals	74%	85%	90%	
	Percentage of households with an incarcerated individual	No data available	85%	90%	
	Percentage of households with a veteran	77%	85%	90%	
	Percentage of households with a disabled individual	80%	85%	90%	

Measurable objective	KPI	Baseline (current state)	Short-term goal	Long-term goal	Data source
	Percentage of households with an individual with a language barrier	Insufficient data	85%	90%	
	Percentage of households with a member of a racial or ethnic minority	87%	85%	90%	
	Percentage of households in rural zip codes	85%	85%	90%	
All people in Oregon can access information or training to learn how to protect their privacy online	Percentage of all survey respondents who say they are confident they can protect their privacy online	80%	85%	90%	OBO residential phone survey
Members of covered populations can access information or training to learn how to protect their privacy	Percentage of all covered population survey respondents who say they are confident they can protect their privacy online	75%	85%	90%	OBO residential phone survey

Measurable objective	KPI	Baseline (current state)	Short-term goal	Long-term goal	Data source
online					
	Percentage for covered households	69%	85%	90%	
	Percentage for aging individuals	55%	85%	90%	
	Percentage of households with an incarcerated individual	No data available	85%	90%	
	Percentage of households with a veteran	68%	85%	90%	
	Percentage of households with an individual with a disability	69%	85%	90%	
	Percentage of households with an individual with a language barrier	Insufficient data	85%	90%	
	Percentage of households with a member of a	82%	85%	90%	

Measurable objective	KPI	Baseline (current state)	Short-term goal	Long-term goal	Data source
	racial or ethnic minority				
	Percentage of households in rural zips codes	77%	85%)	90%	
All people in Oregon can access government services online	Percentage of all survey respondents who say they are very confident using the internet to access government services online	83%	85%	90%	OBO residential phone survey
Members of covered populations can access government services online	Percentage of all covered population survey respondents who say they are very confident accessing government services online	78%	85%	90%	OBO residential phone survey
	Percentage for covered households	63%	85%	90%	
	Percentage for aging individuals	70%	85%	90%	

Measurable objective	KPI	Baseline (current state)	Short-term goal	Long-term goal	Data source
	Percentage of households with an incarcerated individual	No data available	85%	90%	
	Percentage of households with a veteran	74%	85%	90%	
	Percentage of households with an individual with a disability	79%	85%	90%	
	Percentage of households with an individual with a language barrier	Insufficient data	85%	90%	
	Percentage of households with a member of a racial or ethnic minority	79%	85%	90%	
	Percentage of households in rural zips codes	85%	85%	90%	

2.2.2.4 Critical barrier: Local communities require resources and expertise for digital equity efforts

Measurable objective	KPI	Baseline (current state)	Short-term goal	Long-term goal	Data source
Data are available to all local communities regarding the status of broadband and digital equity in their communities	Availability of federal and state broadband data, including phone survey results	50%	75%	100%	FCC map, OBO data
Partnership opportunities are available for localities, nonprofits, and CAIs	Number of convening events per year	4	12	12	OBO data
Localities have access to grant writing guidance and expertise for accessing federal digital equity funds	Percentage of localities that participate in OBO seminars regarding applying for federal digital equity funds	N/A	50% in 2025	N/A	OBO data

3 CURRENT STATE OF DIGITAL EQUITY: BARRIERS AND ASSETS

This section describes the current state of digital equity in Oregon, as documented through rigorous and comprehensive data collection and outreach efforts. It describes the resources and relationships available to OBO to promote digital equity; presents detailed asset inventories related to digital equity and broadband adoption, affordability, and access; and presents a needs assessment.

3.1 Asset inventory

This section identifies assets that promote digital equity for each of the state's covered populations, including resources, programs, plans, and strategies from public and private entities.

3.1.1 Digital inclusion assets by covered population

Through its outreach and research, OBO has identified key digital inclusion assets that support covered populations in the state, including workforce development training and employment services related to broadband adoption; technical assistance programs aimed at supporting digital inclusion; and nonprofits, partnerships, and coalitions that work toward digital inclusion. Table 3 lists a selection of representative digital inclusion assets and indicates the primary population(s) they serve.

Table 3: Digital inclusion assets by covered population(s)

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
Access Technologies, Inc. (ATI)	Oregon's Statewide Assistive Technology Program, administered by the nonprofit ATI, is part of a national network of programs to "increase access to assistive technology (AT) devices and services for individuals with disabilities and their families, and to facilitate the development of a consumer-responsive AT service delivery system."[85] Through the Assistive Technology MarketPlace, individuals can buy and sell used AT devices at a reduced cost.[86] The iCanConnect program offers equipment at no cost to qualifying low-income individuals with significant combined vision and hearing loss.[87]	x		x	x	x	x	x	x	x	x

[85] "Oregon Statewide AT Program," Access Technologies, Inc., https://www.accesstechnologiesinc.org/about/oregon-statewide-at-program.
[86] "Assistive Technology Marketplace," Access Technologies, Inc., https://www.accesstechnologiesinc.org/marketplace.
[87] "iCanConnect-Oregon," Access Technologies Inc., https://www.accesstechnologiesinc.org/about/icanconnect-oregon.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
AfroVillage	AfroVillage, which works with unhoused individuals with a focus on racial inequities, received a grant from the City of Portland Digital Inclusion Fund in 2022 to facilitate "ongoing digital skills training and technical support" to people in the community that face greater obstacles to digital equity. Its Community Digital Navigator program, Hook A Neighbor Up, sought to aid "community members that identify as Black, and that are displaced, unhoused, housing insecure, low and fixed income, or elders."[88]	x					x		x		
Baker County Library District	All locations maintain computers for public use with access to the internet.[89] The Library District also offers "one-on-one" computer aid sessions with its IT	x		x	x	x	x	x	x	x	

[88] "2022 Digital Inclusion Fund Grantees!" City of Portland, https://www.portland.gov/bps/com-tech/digital-equity/news/2022/5/27/2022-digital-inclusion-fund-grantees; AfroVillage, https://www.afrovillagepdx.org/.
[89] "Computers," Baker County Library District, https://bakerlib.specialdistrict.org/computers.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
	representative, free online digital skills tutorials, and children's tablets for loan.[90] Additionally, it grants patrons access to Tech-Talk, a "self-help resource" for growing digital skills; and a resource called LearningExpress Library, which offers users digital skills tutorials, resources in Spanish, and other virtual tutorials.[91]										
Beaverton, Oregon School District	The district implemented multiple programs to bridge the homework gap, such as extending library hours to provide internet access, community Wi-Fi services, and providing hotspots to high school students.[92]				x	x	x		x	x	
Blue Mountain	Blue Mountain Community College Library offers students access to Digital				x	x	x		x		

[90] "Services," Baker County Library District, https://www.bakerlib.org/services.
[91] "Job seeking," Baker County Library District, https://bakerlib.specialdistrict.org/job-seeking.
[92] "Five Opportunities to Tackle Digital Equity at the Start of the School Year!", COSN, https://www.cosn.org/five-opportunities-to-tackle-digital-equity-at-the-start-of-the-school-year/.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
Community College	Literacy training,[93] available in English and Spanish.[94] The library also operates a laptop checkout program which is available to all students.[95]										
Burnt River School District	Burnt River is a public charter school that offers a free, virtual K-12 program available to all students in Oregon. Students are "provided with technology and support" by the school.[96]				x	x	x	x	x	x	
Central Oregon Community College	The Central Oregon Community College Library offers students, staff, and members of the surrounding community free access to Northstar Digital Literacy training,[97] which offers resources in English and Spanish.			x	x	x	x		x		

[93] "What is Northstar Digital Literacy?" Blue Mountain Community College, https://libguides.bluecc.edu/c.php?g=787177&p=9096338.
[94] "Tutorials," Blue Mountain Community College, https://libguides.bluecc.edu/c.php?g=787177&p=9096803.
[95] "Laptop Checkout," Blue Mountain Community College, https://libguides.bluecc.edu/c.php?g=787177&p=9284013.
[96] "Online Program," Burnt River School District, https://www.burntriver.k12.or.us/page/online-program.
[97] "Northstar Digital Literacy," Central Oregon Community College, https://www.cocc.edu/departments/library/resources/northstar.aspx.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
Chemeketa Cooperative Regional Library Service	Mobile hotspot lending program made possible through funding from the Institute of Museum and Library Services (CAGML-248046-OMLS-20), and in cooperation with Chemeketa Community College.[98]	x		x	x	x	x	x	x	x	x
ChickTech	ChickTech, a national nonprofit headquartered in Portland, provides programs to help women and non-binary people enter the technology field, and works to create a more inclusive tech industry. The organization also has a location in Central Oregon.[99]						x		x	x	
City of Eugene Equity Panel	In 2021 the City of Eugene invited applications from organizations serving covered populations to convene a panel to inform work across multiple sectors "at	x			x	x	x		x	x	x

[98] "Hotspot Checkout," City of McMinnville, https://www.mcminnvilleoregon.gov/library/page/hotspot-checkout; "Circulating Wifi Hotspots," Chemeketa Cooperative Regional Library Service, https://ccrls.org/library-standard-service/circulating-wifi-hotspots/.
[99] ChickTech, https://chicktech.org/about/.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
	the intersections of environmental, economic, racial, and social equity,"[100] including recommendations around housing and transportation.[101]										
City of Salem	Tech +50, which covers basic tech skills, is part of the City of Salem's +50 initiative that assists older residents with several different needs.[102]	x			x		x		x		
City of Tigard	Laptop lending program and digital skills classes.[103]	x		x	x	x	x		x		
Clackamas Community College	The Clackamas Community College Library offers students, staff, and members of the surrounding community			x	x	x	x		x		

[100] "City of Eugene Equity Panel Application," City of Eugene, https://www.eugene-or.gov/DocumentCenter/View/60986/Equity-Panel-Application-Final.
[101] "2021 Eugene Equity Panel Update September 2021," City of Eugene, https://www.eugene-or.gov/DocumentCenter/View/63819/City-of-Eugen-Equity-Panel-Update-Sept-2021.
[102] City of Salem "Learn Computers at Tech +50," https://www.cityofsalem.net/community/seniors-and-center-50/increase-your-skills-with-center-50-classes/learn-computers-at-tech-50.
[103] "Borrow a Laptop," City of Tigard, https://www.tigard-or.gov/your-government/departments/library/books-more/library-of-things/borrow-a-laptop.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
	free access to Northstar Digital Literacy training,[104] which is available in Spanish.[105]										
Code Fellows	Code Fellows has partnered with the Oregon Department of Education (ODE) and Central Oregon STEM Hub to launch a program to provide technical education to high school students throughout central Oregon that will help prepare them for a successful career in tech industry.[106]						x	x	x	x	
College Possible Oregon	College Possible Oregon partnered with Free Geek to provide 80 graduating high school seniors in their Navigate program with refurbished computers for college							x	x	x	

[104] "Northstar Digital Literacy," Clackamas Community College, https://libguides.clackamas.edu/northstar.
[105] "Northstar Digital Literacy: Access Northstar in Spanish," Clackamas Community College, https://libguides.clackamas.edu/c.php?g=1163522&p=9436792.
[106] "Partnering to Increase Digital Equity in K-12", Code Fellows, https://www.codefellows.org/blog/patnering-to-Increasing-digital-equity-in-k-12/.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
	and one year of free support from Free Geek.[107]										
Confederated Tribes of Grand Ronde (CTGR) Tribal Library	With the assistance of grant funding from the Institute of Museum and Library Services (IMLS), the CTGR library maintains five computer stations equipped with access to the library's Wi-Fi.[108]							x		x	x
Confederated Tribes of Siletz Indians (CTSI)	The Confederated Tribes of Siletz Indians are "the most diverse confederation of Tribes and Bands on a single reservation" in the U.S.[109] Their Student Laptop Stipend Program grants tribal members enrolled in college a $1,000 stipend for the purpose of buying a laptop.[110] Additionally, the CTSI operate a computer lab open to all	x							x		x

[107] "Free Geek Donates Computers to Oregon Navigate Graduates," College Possible, July 26, 2021, https://collegepossible.org/news/free-geek-donates-computers/.
[108] "Library," Confederated Tribes of Grand Ronde, https://www.grandronde.org/services/education/library/.
[109] "Confederated Tribes of Siletz Indians," Confederated Tribes of Siletz Indians, https://www.ctsi.nsn.us/.
[110] "Student Laptop Stipend Program," Confederated Tribes of Siletz Indians, https://www.ctsi.nsn.us/student-laptop-stipend-program/.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
	tribal members[111] and every area office maintains a computer with access to the internet that Elders can use through the One-on-One Assistance program.[112]										
Corvallis-Benton County Public Library	The library operates a tech aid support program in which residents can schedule appointments and receive assistance "with a variety of basic tech needs."[113] The library also offers free public Wi-Fi, computers for patron-use,[114] and digital skills courses.[115]	x							x		
Corvallis School District	The district provides every student with a computing device such as an iPad.[116]				x	x	x	x	x	x	

[111] "CTSI Computer Lab," Confederated Tribes of Siletz Indians, https://www.ctsi.nsn.us/computer-lab/.
[112] "Nutrition & Support Services," Confederated Tribes of Siletz Indians, https://www.ctsi.nsn.us/nutrition-support-services/.
[113] "Tech Aid Support," Corvallis-Benton County Public Library, https://cbcpubliclibrary.net/tech-aid-support/.
[114] "Services," Corvallis-Benton County Public Library, https://cbcpubliclibrary.net/about/services/.
[115] "Digital Life," Corvallis-Benton County Public Library, https://cbcpubliclibrary.net/about/services/.
[116] "Care and Maintenance," Corvallis School District, https://www.csd509j.net/departments/technology-services/student-devices/care-and-maintenance/.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
Crook County Library	The Crook County Library maintains various computers for the use of its patrons, in addition to its publicly available Wi-Fi and AWE Early Literacy stations with "over 60 bilingual educational games."[117] Using a grant from Facebook, the library also provides its patrons the opportunity to loan technology kits, that include devices such as Samsung Galaxy tablets and Wi-Fi hotspots.[118] The library also offers individual 30-minute technology assistance sessions with its librarians.[119]	x				x			x	x	
Cow Creek Band of Umpqua Tribe of	The Education Division operates a College Computer Program which contributes up to $500 to purchase a computer to Cow Creek tribal members "pursuing a							x	x		x

[117] "Printers, Computers, & Faxing," Crook County Library, https://www.crooklib.org/library/page/printers-computers-faxing.
[118] "Take-home Technology Kits," Crook County Library, https://www.crooklib.org/library/page/take-home-technology-kits.
[119] "Sign-up for one-on-one computer help with a librarian," Crook County Library, https://www.crooklib.org/library/webform/sign-one-one-computer-help-librarian.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
Indians	Certification, Associate's, Bachelor's, or Graduate Degree on a full-time basis from a regionally accredited Title IV institution."[120]										
CyberLynx	Provides free computer literacy classes in collaboration with the Bandon Public Library.[121]	x		x	x		x	x	x		
Deschutes Public Library	Provides hotspots to patrons which can be checked-out from the library catalogue.[122]	x		x	x	x	x	x	x	x	
Eugene Public Library	Offers computer use, including adaptive technology options. Supplies free Wi-Fi as	x		x	x	x	x		x	x	

[120] "Forms & Resources," Cow Creek Band of Umpqua Tribe of Indians, https://www.cowcreekeducation.com/forms-resources/#:~:text=College%20Computer-,The%20Cow%20Creek%20Band%20of%20Umpqua%20Tribe%20of%20Indians%20Education,basis%20from%20a%20regionally%20accredited.

[121] CyberLynx, https://cyberlynxoregon.org/.

[122] Tina Walker Davis, "Leveling the Playing Field: Library Launches Mobile Hotspot Lending Program," Deschutes Public Library blog, November 10, 2021, https://www.deschuteslibrary.org/about/news/news?newsid=18354. See also: "Deschutes Public Library Hotspot [catalog entry]," https://dpl.bibliocommons.com/v2/record/S94C1878809.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
	well as lending mobile hotspots and laptops.[123]										
Eugene Service Station (ESS)	The ESS day shelter provides adults experiencing homelessness with access to computers and telephones, message services, and job and housing referrals, among other services.[124]	x		x	x	x	x		x		
Free Geek	Free Geek is a nonprofit that operates in Oregon to increase digital inclusion and access through discounted tech programs. These include a computer lending program for K-12 students, hardware grants, an online low-cost tech shop, annual memberships for low-cost tech, business partnerships to fill technology needs, and an open community center.[125] Through the Welcome to Computers	x			x	x	x	x	x	x	

[123] "Computers and Printing," Eugene Public Library, https://www.eugene-or.gov/1022/Computers-and-printing.
[124] "Emergency Assistance at the Eugene Service Station," Eugene Service Station. https://www.svdp.us/services/emergency-services/eugene-service-station/.
[125] "About," Free Geek, https://www.freegeek.org/about.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
	program, the organization offers digital skills training to low-income adults in the Portland metro area and provides them with a free computer upon completion of the program.[126]										
Goodwill Industries of Lane and South Coast Counties	Through its Job Connections program, Goodwill Industries of Lane and South Coast Counties offers online guidance with "resumes, applications, cover letters, networking strategies, interviewing techniques, community resource referrals and much more," in addition to free, live and pre-recorded, online workshops.[127] Also offers support and career assistance services for veterans, with access to computers at its service centers.[128]	x		x	x		x	x	x		
Grant County	The nonprofit has opened two community							x			

[126] "Welcome to Computers," Free Geek, https://www.freegeek.org/welcometocomputers.
[127] "Job Connections," Goodwill Industries of Lane and South Coast Counties, https://goodwill-oregon.org/job-connections/.
[128] "Goodwill Veteran Services," Goodwill Industries of Lane and South Coast Counties, https://goodwill-oregon.org/veteranservices/.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
CyberMill	hubs in the county that provide internet access and resources to "encourage Adult Distance Learning, innovation, and entrepreneurship,"[129] with a third location planned.[130]										
Hispanic Metropolitan Chamber (HMC)	The Hispanic Metropolitan Chamber (HMC) received a grant from the City of Portland Digital Inclusion Fund in 2022 to provide small businesses and BIPOC entrepreneurs opportunities to improve fundamental digital skills.[131] Through its Small Business Technical Assistance program, the HMC provides local businesses free technical aid in Spanish and English.[132]					x	x	x	x		

[129] Grant County CyberMill, https://gccybermill.com/about/.
[130] Christen McCurdy, "Logged On," Oregon Business, February 2023, http://www.journalgraphicsdigitalpublications.com/epubs/MEDIAMERICA/MediamericaOBMFeb2023/viewer/desktop/#page/28.
[131] "2022 Digital Inclusion Fund Grantees!" City of Portland, https://www.portland.gov/bps/com-tech/digital-equity/news/2022/5/27/2022-digital-inclusion-fund-grantees.
[132] "Small Business Technical Assistance," Hispanic Metropolitan Chamber, hmccoregon.com/business/.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
Hosea Youth Services Resource Center	Provides services, including computer and internet access, to young people ages 16-24 who are experiencing homelessness or otherwise impacted by life on the streets.[133]								x	x	
Jackson County Library	Offers computer access, lends mobile hotspots, supplies free wireless internet access,[134] and offers technology support in person or online.[135] Jackson County Library Services' DART (Direct Access to Resources and Technology) mobile library van provides Wi-Fi access and additional services.[136]	x		x	x	x	x	x	x		
Jefferson County School	The Jefferson County School District operates an online K-12 "tuition-free" public school called 509J Online. The				x		x	x	x	x	

[133] "Drop-In Center," Hosea Youth Services, https://www.hoseayouth.org/drop-in-center/.
[134] "Computers & WiFi," Jackson County Library Services, https://jcls.org/services/computers-wifi/.
[135] "Computer & Tech Help," Jackson County Library, https://jcls.org/resources/computer-tech-help/.
[136] "JCLS Announces Mobile Tech Van," JCLS, June 17, 2021, https://jcls.org/2021/06/17/jackson-county-library-services-announces-new-mobile-tech-van/.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
District 509J (JCSD 509J)	district will provide a Chromebook and hotspot for checkout to students without a computer and internet access.[137]										
Klamath County Public Library	The library offers "Kindle tablets, Chromebooks, Wi-Fi Hotspots and other devices" for loan[138] and maintains computers with internet access for the use of all residents of Klamath County.[139] The library also grants residents access to a resource called LearningExpress Library, which offers users digital skills tutorials and resources in Spanish.[140]	x		x	x	x	x	x	x	x	x
Klamath Tribes	The Planning & Enterprise Department of the Klamath Tribes, consisting of the	x		x	x	x		x	x	x	x

[137] "About 509J Online," Jefferson County School District 509J, https://www.jcsd.k12.or.us/schools/509j-online/about-509j-online/.
[138] "Library of Things," Klamath County Library, https://klamathlibrary.org/libraryofthings.
[139] "Acceptable Use of the Internet and Library Public Computers," Klamath County Library, https://klamathlibrary.org/acceptable-use-internet-and-library-public-computers.
[140] "Welcome to LearningExpress Library," EBSCO LearningExpress, https://www.learningexpresshub.com/productengine/LELIndex.html#/learningexpresslibrary/libraryhome?AuthToken=3F2FF6E7-F4B0-44C3-9832-6E03AFFB1D69.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
	Klamath, Modoc, and Yahooskin Bands of Snake Indians,[141] offers access to computers for preparing and developing business plans. These computers are connected to the Small Business Administration and the Oregon Native American Entrepreneurial Network.[142] The Education & Employment department also subsidizes the cost of computer skills courses.[143] The Klamath Tribes also recently received a $500,000 Tribal Broadband Connectivity Program grant award for a project that includes "network design and engineering to support the future deployment of a fixed wireless backhaul and last mile fiber-optic network"—which will address the digital										

[141] "The Klamath Tribes," Klamath County Library, https://klamathlibrary.org/learn/klamath-tribes.
[142] "Planning & Enterprise Department," The Klamath Tribes, https://klamathtribes.org/planning-and-enterprise-department/.
[143] "Klamath Tribes Social Services," The Klamath Tribes, https://klamathtribes.org/wp-content/uploads/2022/06/SSD-Website-Resources-1.pdf.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
	equity barrier posed by lack of broadband availability.[144]										
Linn-Benton Community College (LBCC)	LBCC offers free digital skills workshops to its students.[145]			x	x		x		x		
Maggie Osgood Library	This library in the City of Lowell offers digital literacy learning for residents through DigitalLearn.org, a website launched by the Public Library Association which includes self-directed tutorials on basic skills like using a computer and searching online.[146] The library also offers access to Office 365 in its computer workstations.[147]	x		x	x	x	x	x	x		

[144] "Biden-Harris Administration Announces Over $74.4 Million in Internet for All Grants to Tribal Lands," NTIA, September 27, 2023, https://www.ntia.gov/press-release/2023/biden-harris-administration-announces-over-744-million-internet-all-grants.
[145] "Academic Coaching," Linn-Benton Community College, https://www.linnbenton.edu/student-services/library-tutoring-testing/learning-center/academic-coaching/college_digital_skills.php.
[146] "Digital Literacy," City of Lowell, https://www.ci.lowell.or.us/library/page/digital-literacy.
[147] "Digital Literacy," City of Lowell, https://www.ci.lowell.or.us/library/page/digital-literacy.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
Mt. Hood Cable Regulatory Commission (MHCRC)	The Community Technology Grants Program provides support for organizations, schools, libraries, and government agencies to create content for Multnomah County community access channels to address local needs such as education, workforce training, access to social services, and civic participation.[148]	x		x	x	x	x		x	x	
Multnomah County Library	Has loaned Chromebooks and hotspots and offers digital skills classes.[149] Offers Northstar Digital Literacy training.[150] The mobile library brings library services to the mid-county area while some library locations are closed for construction. The mobile library features Wi-Fi access, tech help, and Digital Literacy Classes.[151]	x		x	x	x	x		x	x	

[148] "Community Technology Grants Program", Portland Government, https://www.portland.gov/bps/com-tech/mhcrc/tech-grants.
[149] "Chromebook and Hotspot lending application," Multnomah County Library, https://multcolib.org/chromebook-and-hotspot-lending-application; "Computer Help," Multnomah County Library, https://multcolib.org/events/computer-help-0.
[150] "Northstar Online Learning," Multnomah County Library, https://multcolib.org/northstar-online-learning.
[151] "The Mobile Library – a branch on wheels," Multnomah County Library, https://multcolib.org/mobile-library-branch-wheels.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
Older Adults Technology Services (OATS) from AARP	Aging Connected, an initiative of Older Adults Technology Services (OATS) from AARP and the Humana Foundation, works to bridge the digital divide for older adults by providing technology skills classes tailored to older learners and raising awareness of low-cost internet options. Meals on Wheels People in Portland offers OATS programming.[152]	x									
Oregon City Library	Hosts a public computing lab.[153]			x	x	x	x		x	x	
Oregon Department of Corrections	Incarcerated individuals can use monitored video call and text message services.[154] Incarcerated individuals have access to legal information through a		x								

[152] "Licensing Map," OATS from AARP, https://oats.org/licensing-map/.
[153] "Public Computers," Oregon City, https://www.orcity.org/library/public-computers.
[154] "Electronic Communications," Oregon Department of Corrections, https://www.oregon.gov/doc/contact-inmate/pages/electronic-communications.aspx.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
	partnership with the State of Oregon Law Library.[155]										
Oregon Digital Safety Net (ORDSN)	An initiative of the nonprofit Charitable Partnership Fund that aims to combat "digital exclusion" among marginalized populations in Oregon, including individuals living in poverty or experiencing homelessness, transient workers, and individuals returning from incarceration, who may not be able to maintain the same phone number or physical address for extended periods and may rely on a mobile phone as their sole point of contact and communications. The program aims to provide "evergreen" (i.e., long-lasting) phone numbers and email addresses to enable access to social	x		x	x	x	x	x	x		x

[155] Lynne Palombo, "Oregon's innovative approach to prison law libraries improves access, value, security," State of Oregon Law Library Legal Research Blog, December 3, 2019, https://soll.libguides.com/blog/Oregons-new-approach-to-prison-law-libraries-improves-access-value-and-security.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
	services, employment and housing opportunities, support networks, and more.[156]										
Oregon State University College of Health Hallie E. Ford Center for Healthy Children and Families	Through the Early Learning System Initiative (ELSI), the Oregon State University College of Health Hallie E. Ford Center for Healthy Children and Families is collaborating with community partners to identify existing resources and develop digital literacy training.[157]				x	x	x	x	x	x	x
Oregon State University Extension Service	Oregon State Extension has worked to promote the Affordable Connectivity Program in Oregon and to gather data on actual broadband speeds.[158]	x		x	x	x	x	x	x		

[156] ORDSN, https://www.ordsn.org/home.
[157] "Digital Literacy," Oregon State University, https://health.oregonstate.edu/elsi/training/digital-literacy.
[158] "OSU Extension Service," Oregon State University, https://extension.oregonstate.edu/broadband.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
Portland Community College	Portland Community College helps students, teachers, and staff stay up to date with current technologies and learn new computer skills through online learning resources and Digital Navigators on campus.[159] Portland Community College also offers free, monthly digital skills workshops for both native English speakers and English-language learners.[160]			x	x	x	x		x		x
Portland Public Schools	Utilizes a 1:1 take-home computer program for all students.[161]				x	x	x		x	x	
The Rosewood Initiative	The Rosewood Initiative, a community organization in the Rosewood neighborhood of Portland and Gresham, partnered with the City of Portland to					x	x		x		

[159] "Digital Literacy," Portland Community College, https://www.pcc.edu/digital-literacy-support/.
[160] "Computer Basics Workshops," Portland Community College, https://www.pcc.edu/opportunity-center/jobs/computer-basics/.
[161] "PPS 1:1," Portland Public Schools, https://www.pps.net/Page/17529.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
	provide devices and no-cost Wi-Fi to over 1,000 residents during the Covid-19 pandemic,[162] and received a 2022 grant from Portland's Digital Inclusion Fund to develop a Digital Navigator program building on this work. Through the Digital Equity & Literacy (DEL) program, the organization's Community Organizers will partner with MetroEast Community Media and provide individual and small group training in Spanish, Nepali, Burmese, and Rohingya.[163] Other learning opportunities include a four-week course, culturally specific cohorts, and workshops.										

[162] "Community Resilience," The Rosewood Initiative, https://www.rosewoodinitiative.org/community-resilience.
[163] "2022 Digital Inclusion Fund Grantees!" City of Portland, https://www.portland.gov/bps/com-tech/digital-equity/news/2022/5/27/2022-digital-inclusion-fund-grantees.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
Sheridan AllPrep Academy	"Empowering families by creating an online learning community that offers academic and social support while preparing students for a successful transition to post-secondary and the world of work."[164]				x	x	x	x	x	x	x
Sherwood Public Library	The Sherwood Public Library offers its patrons basic technological assistance in both Spanish and English.[165]	x		x	x	x	x				
South Wasco County School District	The rural district, comprised of two schools that are developed from many neighboring small communities, implemented digital learning initiatives including offering tablets to every student in grades 3-8 and installing interactive whiteboards in classrooms. The district				x	x	x	x	x	x	

[164] Sheridan AllPrep Academy, https://sheridanallprep.org/.
[165] "Diversidad, igualdad, inclusión y accesibilidad," City of Sherwood, Oregon, https://www.sherwoodoregon.gov/library/page/diversidad-igualdad-inclusi%C3%B3n-y-accesibilidad; "Tech Help," City of Sherwood, Oregon, https://www.sherwoodoregon.gov/library/webform/tech-help.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
	provides training to teachers on best technology practices.[166]										
Southwestern Oregon Community College (SWOCC)	The SWOCC library operates a publicly available computer lab and offers laptops for loan to students.[167]			x	x		x	x	x		
State Library of Oregon	Through the Digital Inclusion Cohort for Public Libraries, a peer learning cohort, the State Library offers support and training to library staff on designing digital inclusion programs and services.[168] The Library also offered up to 10 Digital Equity Grants worth $5,000 in 2023 to libraries who participated in a cohort to implement digital inclusion programs and services for underserved communities.[169]	x			x	x	x	x	x	x	x

[166] "Wanted: A Bandwidth Upgrade", Office of Educational Technology, https://tech.ed.gov/stories/wanted-a-bandwidth-upgrade/.
[167] "Library," Southwestern Oregon Community College, https://www.socc.edu/resources/library/.
[168] "Digital Inclusion Cohort for Public Libraries", State Library of Oregon, https://libguides.osl.state.or.us/conted/edgecohorts2023.
[169] "2023 Digital Equity Grant", State Library of Oregon, https://libguides.osl.state.or.us/lstagrants/digitalequity.

Asset name	Description	Aging (older adults)	Incarcerated	Veterans	Disabilities	English learner/ low literacy	Racial/ethnic minority	Rural	Low-income	Youth	Tribal
U.S. Department of Veterans Affairs (VA)	Nationwide and in Oregon, the VA is supporting telehealth services.[170] Through the VA Digital Divide Consult program,[171] the VA helps veterans who do not have internet service, or an internet-connected device get the access they need for telehealth care.	x		x	x	x	x	x	x		x
Willamette ESD	Willamette ESD provides approximately 61 services related to Special Education, Technology, School Improvement, and Administrative Services to school districts.				x	x	x	x	x	x	
YourTechQ	A youth-led nonprofit organization that provides free computer classes to older adults.[172]	x									

[170] "Welcome to VA Telehealth Services," U.S. Department of Veterans Affairs, https://telehealth.va.gov/.
[171] "Bridging the Digital Divide," U.S. Department of Veterans Affairs, https://telehealth.va.gov/digital-divide.
[172] YourTechQ, https://www.yourtechq.org/.

3.1.2 Existing digital equity plans

In addition to the state plans discussed in Section 2.2, some tribal, regional, and municipal entities have incorporated broadband and/or digital equity elements into their strategic planning. These plans, which have informed the preparation of this Plan, include:

- **Burns Paiute Tribe:** The Tribe's Strategic Plan [173] sets a goal, Goal 3, to document current levels of need and explore options to provide low-cost community broadband so that all community members have broadband access.
- **Clatsop County:** Under Policy C of the "Clatsop County Comprehensive Plan: Clatsop 2040," "Telecommunications is a critical component of infrastructure and efforts to further develop broadband throughout the county shall be considered a priority."[174]
- **Crook County Library:** The Crook County Library Strategic Plan, 2019-24[175] states that a survey found that, "One of the most common needs identified was more technology education, as navigating the modern world increasingly requires digital skills." Also, the plan lists as one priority, "Renovate public computer lab to be [Americans with Disabilities Act] ADA accessible."
- **Josephine Community Library:** The library's goals, according to its 2021-2024 Strategic Plan, [176] include digital skills training, providing access to the internet, and offering lifelong learning for teens and adults.

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[173] "Burns Paiute Tribe 2022-26 Strategic Plan," Burns Paiute Tribe, September 28, 2022, https://burnspaiute-nsn.gov/wp-content/uploads/2022/10/Burns-Paiute-Tribe_Strategic-Plan-FINAL-Approved-by-Council-9.28.2022.pdf, p.22.
[174] "Clatsop County Comprehensive Plan: Clatsop 2040," Clatsop County, https://www.clatsopcounty.gov/media/38731.
[175] "Strategic Plan," Crook County Library, https://www.crooklib.org/library/page/strategic-plan; "Strategy Plan 2019-24," Crook County Library, https://www.crooklib.org/sites/default/files/fileattachments/library/page/8684/strategic_plan_2019-24.pdf.
[176] "2021-2024 Strategic Plan," Josephine Community Library, https://josephinelibrary.org/wp-content/uploads/2021/08/JCLD-Strat-Plan_21-24_d.pdf.

- **City of Portland and Multnomah County working together with the Coalition of Digital Equity (CODE), formerly the Digital Inclusion Network (DIN):** The Digital Equity Action Plan[177] has five key goals:
    - Access to affordable high-speed internet and devices for those in need.
    - Training and support to ensure that everyone has the skills to use digital technology to enhance their quality of life.
    - Empower community partners to bridge the digital divide through funding, coordination, training and staff resources.
    - Create opportunities for jobs in the digital economy for underserved populations.
    - Build a policy framework that supports digital equity and meaningful internet adoption, leading to better community outcomes.
- **Tillamook County Library:** The library's goals, according to its 2023-2027 Strategic Plan,[178] include, "Provide technology tools and resources to bridge the digital divide and increase digital literacy."
- **City of Eugene:** The City of Eugene's Community Broadband Strategic Plan (2013) set a goal to close the City's digital divide by "tak[ing] actions towards universal digital literacy and access to affordable, robust broadband connections."[179] In 2021, the City established an Equity Panel composed of representatives from organizations serving covered populations[180] to advise on its work across multiple sectors.

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[177] "Digital Equity Action Plan," Portland, April 2016, https://www.portland.gov/oct/digital-equity-strategic-initiatives/documents/digital-equity-action-plan/download; "About the Digital Equity Action Plan," Portland, https://www.portland.gov/bps/com-tech/digital-equity/deap/digital-equity-action-plan.

[178] "2023-2027 Strategic Plan," Tillamook County Library, https://www.tillabook.org/sites/default/files/fileattachments/library/page/27588/tcl_strategic_plan.pdf; "Planning for the Future," Tillamook County Library, https://www.tillabook.org/library/page/planning-future.

[179] "City of Eugene Community Broadband Strategic Plan," City of Eugene, August 27, 2013, https://www.eugene-or.gov/DocumentCenter/View/19699/City-of-Eugene-Community-Broadband-Strategic-Plan.

[180] "2021 Eugene Equity Panel Update September 2021," City of Eugene, https://www.eugene-or.gov/DocumentCenter/View/63819/City-of-Eugen-Equity-Panel-Update-Sept-2021.

- **Oregon's Kitchen Table (OKT) and AGE+:** OKT, a program of the National Policy Consensus Center in the College of Urban and Public Affairs at Portland State University, and the nonprofit AGE+ conducted community engagements in all of Oregon's counties in 2021-2022 to inform the development of a potential Comprehensive Plan for Aging in Oregon. The summary report identifies "internet and computer literacy" as a resource to support Oregonians in aging by enabling older adults to access relevant information.[181]

Although several local strategic plans mention diversity, equity, and inclusion (DEI), such as the "City of Albany, Oregon, Strategic Plan, FY 2022 – FY 2026,"[182] OBO's research and outreach did not identify any local municipal digital equity plans other than that of the City of Portland (working with Multnomah County), cited above.

3.1.3 Existing digital equity programs

Table 4 lists programs and resources (state and federal) related to digital equity in Oregon, including OBO's two significant grant programs (the Broadband Deployment Program and the Broadband Technical Assistance Program)—both of which focus on unserved and underserved areas. Gap areas include programs specifically for covered populations including people with disabilities and incarcerated individuals.

Table 4: Existing digital equity programs

Program name	Description
OBO Broadband Deployment Program (BDP)	Recently approved by the U.S. Treasury,[183] this OBO grant program will utilize the state's full

[181] "Oregon's Kitchen Table – Community Engagement to Inform the Building of a Comprehensive Plan for Aging in Oregon," OKT, March 2022, https://www.oregonskitchentable.org/sites/default/files/results/okt-community-engagement-report-age%2B.pdf.

[182] "City of Albany, Oregon Strategic Plan, FY 2022 – FY 2026," City of Albany, https://www.cityofalbany.net/images/stories/citymanager/coa-strategicplan.pdf; "Strategic Plan," City of Albany, https://www.cityofalbany.net/strategic-plan.

[183] "Treasury Department Announces Approval of Federal Funds to Connect Over 17,000 Oregon Homes and Businesses to Affordable, High-Speed Internet as Part of President Biden's Investing in America Agenda," U.S. Treasury, Press Release, September 27, 2023,

Program name	Description
	allocation of American Rescue Plan Act (ARPA) Capital Projects Fund (CPF) funding ($156,795,418) to support broadband infrastructure projects that deliver reliable 100/100 Mbps service to locations lacking reliable 100/20 service. Thousands of Oregon households will get access to high-speed internet.[184] To be eligible for BDP funding, wireline and wireless internet service providers must participate in the Federal Communications Commission's Affordable Connectivity Program (ACP).[185] The BDP prioritizes projects that address affordability, digital equity, and close the digital divide at a regional scale, among its eight priorities.[186] Thus, this program will enhance internet affordability across Oregon by ensuring that broadband networks funded by this program participate in the ACP and address digital equity.
OBO Broadband Technical Assistance Program (BTAP)	Currently in development, this program, supported by the Oregon Broadband Fund, will award grants to assist eligible applicants[187] with strategic planning, conducting feasibility

https://home.treasury.gov/news/press-releases/jy1767. For a status tracker of OBO's current programs, see https://www.oregon.gov/biz/programs/Oregon_Broadband_Office/Pages/2021-22_Oregon_Broadband_Office_Priorities.aspx.

[184] "Draft Rules for Broadband Programs," OBO, https://www.oregon.gov/biz/Publications/Broadband/Broadband_Rules_Rollout.pdf. OBO is located within Business Oregon, which is the Eligible Entity.

[185] "Applicant's Handbook & Program Guidelines ("CPF Handbook") DRAFT – subject to 2023 legislation," Business Oregon, https://www.oregon.gov/biz/Publications/Broadband/Draft_ARPA_CP_BDP_Handbook.pdf.

[186] "Applicant's Handbook & Program Guidelines ("CPF Handbook") DRAFT – subject to 2023 legislation," Business Oregon, https://www.oregon.gov/biz/Publications/Broadband/Draft_ARPA_CP_BDP_Handbook.pdf.

[187] Eligible applicants include municipalities, electric cooperatives, nonprofits, municipal affiliates, and the nine federally recognized tribes in Oregon; private for-profit providers are ineligible but may partner with eligible applicants.

Program name	Description
	studies or business plans, and preliminary engineering to develop strategies to serve unserved and underserved areas.
Connecting Oregon Schools Fund	Established in HB 2173 (2019),[188] moneys in the fund are continuously appropriated to the Department of Education for the purpose of providing matching funds for federal moneys received by school districts, education service districts, public charter schools or a consortium that is any combination of school districts, education service districts and public charter schools for the purpose of providing broadband access to eligible education facilities in the state.[189]
Oregon Broadband Map[190]	OBO maintains an online, interactive map of broadband availability in the state, created in 2009 with a new version launched in 2019.[191] Data layers currently include service providers, broadband technologies, service speeds, service availability as reported to the FCC by providers, population density, and anchor institutions.[192] Oregon has received funding from the U.S. Economic Development Administration. With this funding, and OBO's partnership with Oregon State University, the map will be upgraded to include an application portal, dig once map, and data submission portal. The map has several layers of information that will

[188] "HB 2173," Oregon Legislature, https://olis.oregonlegislature.gov/liz/2019R1/Downloads/MeasureDocument/HB2173.
[189] ORS 276A.424, "Connecting Oregon Schools Fund," Oregon Revised Statutes, https://oregon.public.law/statutes/ors_276a.424.
[190] Oregon Broadband Map, https://geo.maps.arcgis.com/apps/webappviewer/index.html?id=002a3eee6efb48a1868b4494168d730a.
[191] "Business Oregon Broadband Timeline," OBO, https://www.oregon.gov/biz/programs/Oregon_Broadband_Office/Pages/timeline.aspx.
[192] Oregon Broadband Office Strategic Plan, OBO, January 30, 2020, https://www.oregon.gov/biz/Publications/BroadbandStratPlan2020.pdf.

Program name	Description
	enable OBO to support Oregon's Digital Equity Plan. New layers added as part of the upgrade include a map of the maximum download speed available, a layer showing locations that lack service, and separate layers for each of the following categories of community anchor institution: community support (government), community support (non-government), library, hospital, fire station, law enforcement, school (K-12), higher education, inclusive of a covered population layer.
City of Portland, Bureau of Planning and Sustainability, Community Technology group	City of Portland, Bureau of Planning and Sustainability promotes investment into communications technology to increase equity for the whole community.[193] Utilizing $3.5 million in ARPA funding, the City launched the Digital Divide Response project in 2021 to address internet access and device needs for "Black, Indigenous, People of Color (BIPOC), older adults, LGBTQIA+, immigrants and refugees, houseless or housing insecure, foster youth, domestic violence survivors, people impacted by incarceration, people with disabilities, and those living in poverty (priority populations) who face barriers to being digitally connected."[194]
Rural Capacity Fund Program of the Columbia Pacific Economic Development District	The Rural Capacity Fund Program[195] provides development funds for several purposes including for workforce development.

[193] "Digital Equity Strategic Initiatives Program," City of Portland, https://www.portland.gov/bps/com-tech/digital-equity.
[194] "Digital Divide Response Project Overview," City of Portland, https://www.portland.gov/united/digital-divide-response.
[195] "Rural Capacity Fund Program," Columbia Pacific Economic Development District, https://nworegon.org/regional-economic-development/rural-capacity-fund/.

Program name	Description
Grant to the Burns Paiute Tribe under the Tribal Broadband Connectivity Program	A grant of $499,728[196] will fund the construction of a 195-foot self-sustaining communications tower to serve 20 Native American community anchor institutions and 60 unserved Native American households.
Grant to the Confederated Tribes of Siletz Indians under the Tribal Broadband Connectivity Program	A grant of $500,000[197] will fund network planning activities for broadband infrastructure connection, construction, and service deployment for currently unserved Native American households, businesses, and community anchor institutions in and around reservation land located in Lincoln County, Oregon.
Grant to the Confederated Tribes of the Grand Ronde Community of Oregon under the Tribal Broadband Connectivity Program	A grant of $500,000[198] will fund the construction of a fixed wireless network delivering 100/20 Mbps to 200 unserved Native American households.
Grant to the Confederated Tribes of the Umatilla Reservation under the Tribal Broadband Connectivity Program	A grant of $15,504,758[199] will fund the construction of fiber to deliver 100/100 Mbps broadband to 342 unserved tribal households.
Grant to the Confederated Tribes of Warm Springs under the Tribal Broadband Connectivity Program	A grant of $6,988,050[200] will fund the construction of fiber to deliver speeds of between 25/3 Mbps and 1000/50 Mbps to 936 unserved tribal households, 21 unserved tribal businesses, and five unserved tribal community anchor institutions.

[196] "Burns Paiute Tribe," Internet For All, https://internetforall.gov/funding-recipients/burns-paiute-tribe.
[197] "Confederated Tribes of Siletz Indians," Internet For All, https://internetforall.gov/funding-recipients/confederated-tribes-siletz-indians.
[198] "Confederated Tribes of the Grand Ronde Community of Oregon," Internet For All, https://internetforall.gov/funding-recipients/confederated-tribes-grand-ronde-community-oregon.
[199] "Confederated Tribes of the Umatilla Reservation," Internet For All, https://internetforall.gov/funding-recipients/confederated-tribes-umatilla-reservation.
[200] "Confederated Tribes of Warm Springs," Internet For All, https://internetforall.gov/funding-recipients/confederated-tribes-warm-springs.

Program name	Description
Grant to the Cow Creek Band of Umpqua Tribe of Indians under the Tribal Broadband Connectivity Program	A grant of $482,325[201] to utilize 2.5 GHz spectrum to create a fixed wireless network that will deliver 25/3 Mbps service to all residents, businesses, and anchor institutions in the community.
Covid-19 Chromebook Distribution Program funded by Indian Housing Block Grant (IHBG) from the U.S. Department of Housing and Urban Development	The Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians used IHBG funding to deliver Google Chromebook devices to those who needed them for such purposes as distance learning and telehealth.[202]
Spectrum licenses under the FCC's 2.5 GHz Rural Tribal Priority Window	The FCC granted licenses to use the 2.5 GHz band to close the digital divide and to provide broadband and other advanced wireless services to rural tribal communities to the following Oregon tribes: Confederated Tribes of the Grand Ronde Community of Oregon; Confederated Tribes of the Umatilla Indian Reservation; Coquille Indian Tribe; Cow Creek Band of Umpqua Tribe of Indians; Warm Springs Telecommunications Company; and Confederated Tribes of the Coos, Lower Umpqua and Siuslaw Indians.[203]
Cayuse Native Solutions	With funding from the National Digital Inclusion Alliance, Cayuse Native Solutions operates its Digital Inclusion program which aims to facilitate the growth of digital skills, "distribute[s] technology equipment," and

[201] "Cow Creek Band of Umpqua Tribe of Indians," Internet for All, https://internetforall.gov/funding-recipients/cow-creek-band-umpqua-tribe-indians.
[202] Margan Gaines, "IHBG Covid-19 Chrome Book Distribution Program," Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians, February 24, 2021, https://ctclusi.org/ihbg-covid-19-chrome-book-distribution-program/.
[203] "FCC Grants First Licenses in 2.5 GHz Rural Tribal Priority Window," FCC, October 23, 2020, https://www.fcc.gov/document/fcc-grants-first-licenses-25-ghz-rural-tribal-priority-window (for grantees by state, see https://docs.fcc.gov/public/attachments/DOC-367726A3.pdf); "FCC Grants Additional 2.5 GHz Rural Tribal Priority Window Licenses," FCC, December 30, 2020, https://www.fcc.gov/document/fcc-grants-additional-25-ghz-rural-tribal-priority-window-licenses (for grantees by state, see https://docs.fcc.gov/public/attachments/DOC-369004A3.pdf).

Program name	Description
	employs a digital navigator for the Confederated Tribes of the Umatilla Indian Reservation.[204]
2022-2024 Culturally Specific After School Learning (CASL) Grants of the Oregon Department of Education (ODE)	Culturally Specific After School Learning (CASL) Grants[205] offered by the Oregon Department of Education's (ODE) Office of Equity, Diversity, and Inclusion (OEDI) offer funding to eligible organizations for programming anchored in the following essential pillars of practice: 1. Addressing unfinished learning through academic and mental health support, 2. Culturally affirming practices, including cultural identity development, 3. Leadership and self-advocacy skills, and 4. Giving back to the community. Applicants must be either community-based organizations (CBOs), culturally specific organizations, school districts, charter schools, early learning hubs or early learning providers, tribal governments, education service districts (ESDs), and post-secondary institutions of education or a partnership of these entities. Student participation in these programs is voluntary.
ODE's Oregon Technology Access Program award to Douglas Education Service	The Oregon Technology Access Program (OTAP)[206] provides training, information, technical assistance, and resources regarding

[204] "Cayuse will boost digital skills on Umatilla Rez!" Cayuse Native Solutions, https://www.cayusenativesolutions.com/post/cayuse-will-boost-digital-skills-on-umatilla-rez.
[205] "Culturally Specific After School Learning (CSASL) Grants," ODE, https://www.oregon.gov/ode/students-and-family/equity/CulturallySpecificAfterSchoolLearning/Pages/Culturally-Specific-After-School-Learning-(CSASL)-Grants.aspx.
[206] "Oregon Technology Access Program," Douglas Education Service District, https://douglasesd.k12.or.us/oregon-technology-access-program-otap/; "Assistive Technology for Students with Disabilities," ODE, https://www.oregon.gov/ode/students-and-family/specialeducation/regprograms_bestpractice/pages/assistive-technology-for-students-with-disabilities.aspx.

Program name	Description
District for technology for children with disabilities	the uses of technology for children with disabilities. Online resources include educational materials. Funding is provided by the U.S. Department of Education via the Individuals with Disabilities Education Act (IDEA).[207]
Adaptive Devices class and other programs offered by the Oregon Commission for the Blind	The Oregon Commission for the Blind offers an adaptive devices class[208] that teaches students to use VoiceOver, Apple's built-in accessibility answer for blind or visually impaired individuals. The Commission has other resources for the blind and visually impaired, including the Orientation and Career Center for the Blind (OCCB), a free residential program that teaches basic skills. The Commission also teaches reading braille, offers a class in Living With Blindness (LWB) class, and offers communication/socialization training.
Jobs for Veterans State Grant (JVSG)	A Jobs for Veterans State Grant (JVSG), part of $2,518,504, via the U.S. Department of Labor, Veterans' Employment and Training Service (USDOL-VETS), to the Oregon Employment Department, provides federal funding to conduct outreach to the business community to increase employment opportunities for veterans. The grant also provides funding for individualized career and training-related services to veterans and eligible persons with significant barriers to employment.[209]
Rural Broadband Capacity Program	The Oregon Legislative Assembly Joint Emergency Board allocated $10 million for grants from funds received by the state of

[207] "Individuals with Disabilities Education Act (IDEA)," U.S. Department of Education, https://sites.ed.gov/idea/.
[208] "Vocational Rehabilitation," Oregon Commission for the Blind, https://www.oregon.gov/blind/livingwithvisionloss/Pages/Vocational-Rehabilitation.aspx.
[209] "Veterans Services," Oregon Employment Department, https://www.oregon.gov/employ/jobseekers/Pages/Veterans.aspx.

Program name	Description
	Oregon under the CARES Act of 2020. Awards included $750,000 to the Confederated Tribes of Umatilla Indian Reservation for a last mile delivery system.[210]
Parrott Creek Behavioral Healthcare Expansion	With $600,000 in Coronavirus State and Local Fiscal Recovery Funds (SLFRF), Parrott Creek Child & Family Services is increasing the availability of child welfare beds "particularly for youth at risk of out-of-state placement." The project is using interviews, focus groups, Zoom forums, coalition meetings, and electronic surveys to engage with "multiple community stakeholders including adjudicated and foster youth, our local and statewide Tribal Community, Latino and Hispanic youth from rural parts of Clackamas County, and undocumented and uninsured members of our local communities" and with "other nonprofit social service providers." The project is due to be complete in late 2024.[211] The goal is a modern, culturally responsive health treatment campus that will include an on-site school for credit recovery.
Digital Equity Planning Grant Program	The following Oregon Tribal entities filed letters of intent for NTIA's Digital Equity Planning Grant Program: Burns Paiute Tribe,

[210] "Projects Funded with CARES Act of 2020 funding, through the Rural Broadband Capacity Program," Business Oregon, January 20, 2022, https://www.oregon.gov/biz/programs/RuralBroadbandCapacityProgram/Documents/Broadband%20Projects%202022.pdf; "Rural Broadband Capacity Program," Business Oregon, https://www.oregon.gov/biz/programs/RuralBroadbandCapacityProgram/Pages/default.aspx.

[211] "State of Oregon Recovery Plan: State and Local Fiscal Recovery Funds 2023 Report," Department of Administrative Services, https://www.oregon.gov/das/Financial/Acctng/Documents/SLFRF-Recovery-Plan-Performance-Report-2023.pdf. Also see Parrott Creek Child & Family Services, https://www.pcreek.org/.

Program name	Description
	Confederated Tribes of the Umatilla Indian Reservation, and Warm Springs Telecom.[212]
Lifelong Information for Entrepreneurs (LIFE) program of Mercy Corps Northwest	Offered at Oregon's only women's prison, Coffee Creek Correctional Facility since 2007 and expanded to Columbia River Correctional Institution, a men's prison, in 2019, this 32-week program offers entrepreneurial training for incarcerated people in Oregon "who are within 18 to 24 months of release and post-prison re-entry."[213]
Worksource Portland Metro-SE (WSPM-SE) re-entry programs	Worksource Portland Metro-SE (WSPM-SE) offers several re-entry programs to build skills, provide a path to employment, and deliver follow up support.[214]
State of Oregon Justice Reinvestment Program (JRP)	Provides fundings for programs designed to reduce recidivism and state prison usage, while protecting public safety and holding individuals accountable.[215] One such program is Washington County's Integrative Re-Entry Intensive Supervision Services (IRISS), which moves non-violent drug and property crime offenders from prison to enhanced community supervision.[216]

[212] "Letters of Intent Submitted for the Digital Equity Planning Program by Tribal Organization and State," NTIA, August 2022, https://www.internet4all.gov/sites/default/files/2022-08/Tribal%20DE%20LOIs%20Web%20Doc%20FINAL.pdf.
[213] "Prison and re-entry," Mercy Corps Northwest, https://nw.mercycorps.org/what-we-do/prison-and-reentry.
[214] "Resources for Justice Involved Individuals," Worksource Portland Metro-SE (WSPM-SE), https://seworks.org/ex-offenders/.
[215] "Justice Reinvestment," Oregon Criminal Justice Commission, https://www.oregon.gov/cjc/jri/pages/default.aspx. See also, "Oregon Justice Reinvestment Initiative: Return on Investment," submitted to the Oregon Criminal Justice Commission, September 20, 2022, https://www.oregon.gov/cjc/CJC%20Document%20Library/2023%20JRI%20ROI%20Final%20Report.pdf.
[216] "Integrative Re-Entry Intensive Supervision Services (IRISS)," Washington County District Attorney, https://www.washingtoncountyda.org/integrative-re-entry-intensive-supervision-services-iriss.

Program name	Description
Bills enabling the Department of Corrections (DOC) to enter partnerships to offer educational programs	Oregon SB 1522, effective as of March 23, 2022, required the DOC to develop a plan to offer access to certain online educational programs to adults in custody (AIC) at Coffee Creek Correctional Facility and the Snake River Correctional Institution.[217] Oregon SB 269 and SB 270, passed during the 2023 session, will be effective as of January 1, 2024.[218] SB 270 permits DOC to enter into agreements to offer education to AICs, including post-secondary distance education academic programs (subject to DOC rules and federal regulations relating to Pell Grants).[219] SB 269 requires DOC to enter into a memorandum of understanding with the Higher Education Coordinating Commission (HECC) for the purpose of improving the prison education system in Oregon.[220]
State and Local Cybersecurity Grant Program (SLCGP)	The SLCGP, a federally funded grant program[221] administered by the Oregon Department of

[217] "2022 Regular Session: SB 1522 Enrolled," Oregon State Legislature, https://olis.oregonlegislature.gov/liz/2022R1/Measures/Overview/SB1522.
[218] "2023 Regular Session: SB 270," Oregon State Legislature, https://olis.oregonlegislature.gov/liz/2023R1/Measures/Overview/SB270.
[219] "2023 Regular Session: Senate Bill 270," Oregon State Legislature, https://olis.oregonlegislature.gov/liz/2023R1/Measures/Overview/SB270. Also see, "Enrolled Senate Bill 270," Oregon State Legislature, https://olis.oregonlegislature.gov/liz/2023R1/Downloads/MeasureDocument/SB270/Enrolled. Also see, Sami Edge, "Bills aim to make it easier for incarcerated individuals to pursue higher education," *The Oregonian/Oregon Live*, March 29, 2023, https://www.oregonlive.com/education/2023/03/bills-aim-to-make-it-easier-for-incarcerated-individuals-to-pursue-higher-education.html.
[220] "2023 Regular Session: Senate Bill 269," Oregon State Legislature, https://olis.oregonlegislature.gov/liz/2023R1/Measures/Overview/SB269; "Enrolled Senate Bill 269," Oregon State Legislature, https://olis.oregonlegislature.gov/liz/2023R1/Downloads/MeasureDocument/SB269/Enrolled.
[221] "State and Local Cybersecurity Grant Program," Cybersecurity and Infrastructure Security Agency, .

Program name	Description
	Emergency Management (OEM),[222] assists local and Tribal governments in managing and reducing systemic cyber risk by funding the development of cybersecurity plans and projects. Projects applying for funding in Round 1 of the program must align with the Oregon Cybersecurity Plan.[223] Applicants for Round 1 must register by November 15, 2023, and applications will be accepted through January 10, 2024.

3.1.4 Broadband adoption

According to the most recent NTIA data (November 2021), 78.9 percent of Oregon residents have high-speed wired internet access at home (with a margin of error of plus or minus 4.0 percent), compared to a national average of 71.3 percent (with a margin of error of plus or minus 0.5 percent).[224]

The digital inclusion assets identified in Section 3.1.1 are intended to support broadband adoption by all people in Oregon, in general, and by covered populations, in particular.

In focus groups OBO conducted with community-based organizations, representatives emphasized the importance of local entities to provide services and promote initiatives by the state. Local groups can overcome trust barriers and tailor

[222] "State and Local Cybersecurity Grant Program," OEM, https://www.oregon.gov/oem/emresources/Grants/Pages/State-and-Local-Cybersecurity-Grant-Program.aspx.
[223] "State and Local Cybersecurity Grant Program: Program Guidance," released October 1, 2023, https://www.oregon.gov/oem/Documents/SLCGP-Program-Guidance.pdf.
[224] "Digital Nation Data Explorer: Wired High-Speed Internet Service Used at Home," NTIA, November 2021, https://ntia.gov/other-publication/2022/digital-nation-data-explorer#sel=wiredHighSpeedAtHome&disp=map. This data set does not provide the percentage of households using wireless or mobile high-speed internet service at home. In Oregon, 4.4 percent use satellite internet service at home (with a margin of error of plus or minus 1.3 percent), compared to a national average of 3.5 percent (with a margin of error of 0.2 percent), according to the data as of November 2021. "Digital Nation Data Explorer: Satellite Internet Service Used at Home," NTIA, November 2021, https://ntia.gov/other-publication/2022/digital-nation-data-explorer#sel=satelliteAtHome&disp=map.

information to the needs and lived experiences of the communities they serve, with the state providing training and resources to support and scale their work.

Attendees that work with refugees, immigrants, low-income families, and veterans in urban areas of the state noted that working with a community organization can be more comfortable and accessible for some than visiting the office of a government agency—particularly for veterans who experience post-traumatic stress disorder (PTSD), one representative noted.

Organizations working with older adults similarly suggested senior centers as hubs to connect individuals with services; a representative noted, however, that many centers in the state are underfunded.

In listening sessions OBO conducted in communities across the state, including Roseburg, Klamath Falls, Ruch, Baker City, and McMinnville, residents reported that in rural areas those who do not have service at home often rely on community anchor institutions such as schools and libraries for access and that these entities can also provide digital literacy training and technical support.

Responding to OBO's Community Anchor Institution Broadband Access Survey, a library staff member noted their organization's important role in supporting broadband adoption: "As a public library we are a critical partner in providing broadband access and training to communities. Aside from providing 24/7 free Wi-Fi up to 200 feet outside our building, we promote speed tests, help people apply for financial support, show people how to use devices and hotspots, provide public computers to use for free, and continuously educate people on how to connect and find resources online."

As one participant noted, however, in remote areas "driving back and forth to get access at a public space isn't accessible," and residents need affordable, reliable connectivity at their homes and businesses.

Community members may need additional training and support around devices and digital literacy and digital skills to support meaningful use of available connectivity. Organizations that work with individuals with disabilities and individuals with language barriers also emphasized the need for accessibly designed content and services; access to assistive technologies, which Oregon's

Statewide Assistive Technology program (see Table 3) helps to facilitate; and content, education, and support available in multiple languages.

3.1.5 Broadband affordability

The Federal Communications Commission's (FCC) Affordable Connectivity Program (ACP), which offers eligible households a discount of $30 per month on their internet service ($75 for households on qualifying tribal lands) and a one-time discount of up to $100 towards the purchase of a device, is one of the most significant programs available to low-income Oregon households to reduce the cost of broadband service.

In addition to participating in the program, some ISPs also offer low-cost plans for qualifying low-income households that effectively provide service at no cost to subscribers enrolled in the ACP.225 Some also offer discounts on the purchase of a device. Per data from USAC (see Appendix A), 40 of the 154 providers in Oregon that participate in the ACP (including mobile providers) as of August 2023 indicate that they offer "no cost" plans, and 64 offer device discounts.

As of July 2023, 190,362 Oregon households were enrolled in the ACP, [226] representing about 25 percent of the estimated 719,513 eligible households in the state.[227] (See additional analysis in Section 3.2.)

Nationwide and in Oregon, outreach from trusted community groups and institutions has proven key to overcoming trust barriers and increase enrollment in the program. Several entities in the state have received grant funding from the FCC to conduct outreach (see Table 5).

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[225] See FCC Fourth Report and Order and Further Notice of Rulemaking, FCC-22-87 (Nov. 30, 2022) at π 101 (noting that the FCC declined to collect detailed demographic for ACP, so tracking increased enrollment among covered populations other than low-income populations may be limited), https://docs.fcc.gov/public/attachments/FCC-22-87A1.pdf.

[226] "ACP Enrollment and Claims Tracker," USAC, https://www.usac.org/about/affordable-connectivity-program/acp-enrollment-and-claims-tracker/#enrollment-by-state (accessed July 27, 2023).

[227] "Oregon Bipartisan Infrastructure Law Fact Sheet," White House Briefing Room, as of July 2022, https://www.whitehouse.gov/wp-content/uploads/2022/08/Oregon-BIL-Fact-Sheet.pdf. According to the U.S. Census Bureau, Current Population Survey, 2022 Annual Social and Economic Supplement (CPS ASEC), that figure may be as high as 854,000.

The Confederated Tribes of Siletz Indians and the Burnes Paiute Tribe received grants through the Tribal Competitive Outreach Program (TCOP) to promote enrollment by tribal members. With support from the National Competitive Outreach Program (NCOP), the nonprofit consultant Oregon Institute for a Better Way will conduct outreach through Regional Navigators[228] in partnership with the National Grange (an agricultural advocacy organization with a presence in rural areas).[229] Josephine County and the South Central Oregon Economic Development District also received awards to conduct local outreach. Home Forward, a public housing corporation serving Multnomah County, received a similar grant through the Your Home, Your Internet pilot program to support enrollment among low-income households it serves.

Oregon has identified a broad suite of state agencies that can continue to help raise awareness of ACP among eligible people in Oregon, including, but not limited to the Oregon Department of Human Services (ODHS), Oregon Employment Department (OED), Oregon Department of Education (ODE), and Oregon Health Authority (OHA) in addition to the resources of Business Oregon, the parent agency of OBO.

The table below lists representative assets in the state related to broadband affordability, including efforts to increase enrollment in the ACP and discounted or subsidized broadband service and equipment programs for low-income subscribers.

Table 5: Broadband affordability assets

Asset name	Description
Your Home, Your Internet Pilot Program of the FCC	Award of $331,989 to Home Forward,[230] a public housing corporation incorporated by the City of Portland, to provide ACP outreach and application assistance to eligible households.[231]
FCC ACP Outreach Grant Program recipients	Five entities in Oregon were awarded grants: Oregon Institute for A Better Way ($420,000), Josephine County

[228] "Affordable Connectivity Program | ACPRC," https://www.acprc.org/.
[229] National Grange of the Order of Patrons of Husbandry, https://www.nationalgrange.org/.
[230] Home Forward, https://www.homeforward.org/.
[231] "Consumer and Governmental Affairs Bureau and Wireline Competition Bureau announce ACP Pilot Program Grants target funding," FCC, March 15, 2023, https://docs.fcc.gov/public/attachments/DA-23-219A1.pdf.

Asset name	Description
under the National Competitive Outreach Program (NCOP) and Tribal Competitive Outreach Program (TCOP)	($209,780), South Central Oregon Economic Development District ($150,000), the Confederated Tribes of Siletz Indians ($245,000),[232] and the Burns Paiute Tribe ($87,360).[233]
Tillamook County Creamery Association[234]	Partnered with the American Connection Corps (ACC)[235] to raise awareness of affordable broadband in Tillamook County.[236]
Oregon State University Extension Service	Provides ACP outreach, with websites in English and Spanish.[237]
OBO broadband service assistance	OBO has been allocated funding to provide assistance to households that have potential internet access yet cannot afford service.[238]
Oregon Lifeline	A federal and state government program that provides a monthly discount on phone or broadband service for qualifying low-income Oregon households. Participants can receive a discount on their phone bill of up to $15.25 per month; receive a discount on their broadband bill of up to $19.25 per month; or receive a free cell phone and data service.[239]
Tribal Lifeline & Link Up	Oregon residents on federally recognized tribal lands who meet Oregon Lifeline program requirements (e.g.,

[232] "Consumer and Governmental Affairs Bureau Announces ACP Outreach Grant Program Target Funding," FCC public notice, March 10, 2023, https://docs.fcc.gov/public/attachments/DA-23-194A1.pdf.
[233] "Consumer and Governmental Affairs Bureau Announces Second Round Of ACP Tribal Outreach Grant Program Awards," FCC public notice, September 6, 2023, https://docs.fcc.gov/public/attachments/DA-23-815A1.pdf.
[234] Tillamook, https://www.tillamook.com
[235] American Connection Corps, https://www.americanconnectioncorps.org/.
[236] "Tillamook County Creamery Association Shares Climate Action Plan Updates," Press Release, April 13, 2023, https://www.prnewswire.com/news-releases/tillamook-county-creamery-association-shares-climate-action-plan-updates-301796893.html.
[237] "Affordable Connectivity Program," OSU Extension Service, https://extension.oregonstate.edu/affordable-connectivity-program.
[238] "Governor's Budget, 2023-2025, State of Oregon," Oregon, https://www.oregon.gov/das/financial/documents/2023-25_gb.pdf, p.116.
[239] "Oregon Lifeline," Oregon Public Utility Commission, https://www.oregon.gov/puc/Pages/Oregon-Lifeline.aspx.

Asset name	Description
	based on income) may qualify for an additional $25 discount per month on broadband service.[240] The Tribal Link Up program also offers a one-time $100 discount on the initial activation of wireline or wireless service for qualifying residents. Residents may qualify again after they move to a new primary residence. This program also allows residents to pay the remaining amount they owe on a deferred schedule, interest free.
ISPs participating in ACP	Appendix A lists all ISPs participating in the ACP in Oregon.

3.2 Needs assessment

The state's comprehensive partner outreach program included extensive efforts to identify the needs of all people in Oregon with an emphasis on those belonging to covered populations. Outreach and data collection efforts were made to assess the baseline from which the state is working and to identify the barriers to digital equity faced generally and by each of the covered populations in Oregon.

The state's research and analysis are based on available and relevant data from the American Community Survey (ACS), NTIA's Internet Use Survey (administered as a supplement to the Current Population Survey), FCC's National Broadband Map, and ADECA's custom scientific phone survey (administered in 2023). Analysis was undertaken to benchmark Oregon against national averages, and to benchmark its residents belonging to covered populations against those that do not belong to covered populations.

The data and analysis are intended to facilitate understanding of the extent to which:

1. Broadband internet service is available to and adopted by all people.
2. People are confidently performing various digital skills.

[240] "Tribal Lifeline and Linkup," Oregon Public Utility Commission, https://www.oregon.gov/puc/Pages/Oregon-Lifeline.aspx.

3. People are aware of and impacted by online security and privacy concerns.
4. Computer devices are abundant and adequate for meaningful internet use.
5. Online government resources and services are accessibly built and maintained.

In brief, a lack of need or interest in home internet use is the primary reason cited by Oregon households that do not subscribe to broadband. This is followed by issues of affordability of service, a lack of available service offerings, and the ability to use the internet outside the home. Notably, very few respondents claimed that inadequate device access or online security or privacy concerns prevented them from home internet use, although other survey data may suggest otherwise. Reasons cited for a lack of home internet use are outlined in Table 6.

Table 6: Reported reasons for no home internet use[241]

Reasons for no home internet use	Oregon
Can't afford it	16%
Not worth the cost	1%
Can use it elsewhere	4%
Not available in area	4%
Don't need or not interested	57%
Online privacy or security concerns	1%
No or inadequate computing device	1%

The data indicates that Oregon's digital equity needs encompass access to affordable broadband services, increased enrollment in broadband service subsidy programs, device access, and digital literacy and digital skills training. The table below summarizes key barriers for each covered population identified through this assessment.

[241] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021. Accessed August 29, 2023.

Table 7: Key barriers and obstacles for covered populations

Covered population	Broadband availability	Broadband adoption	Digital literacy skills	Online security	Device adoption
Low-income households	It is likely that very-low-income households are disproportionately less covered by broadband	Low-income populations display the most urgent needs for more affordable broadband[242]	The Oregon-specific analysis did not conclude a specific barrier or need	Low-income individuals report needs for increased awareness of and confidence in protecting themselves from online security and privacy threats[243]	Low-income populations display the most urgent needs for increased device access[244]
Older adults	Older adults are less likely to be served by broadband[245]	Older adults display needs for greater internet adoption[246]	Older adults indicate the most urgent need for digital skills and telemedicine training[247]	Older adults report needs for increased confidence in protecting themselves from online security and	Older adults display a need for greater device adoption[249]

[242] U.S. Census Bureau, American Community Survey Public Use Microdata, 2021. Accessed August 29, 2023.
[243] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021. Accessed August 29, 2023.
[244] U.S. Census Bureau, American Community Survey Public Use Microdata, 2021. Accessed August 29, 2023.
[245] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021. Accessed August 29, 2023.
[246] U.S. Census Bureau, American Community Survey Public Use Microdata, 2021. Accessed August 29, 2023.
[247] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021. Accessed August 29, 2023.
[249] U.S. Census Bureau, American Community Survey Public Use Microdata, 2021. Accessed August 29, 2023.

Covered population	Broadband availability	Broadband adoption	Digital literacy skills	Online security	Device adoption
				privacy threats[248]	
Incarcerated individuals	Formerly incarcerated individuals are less likely to be served by broadband[250]	While no data are currently available in these areas, Oregon is endeavoring to develop relevant data in partnership with other state agencies.			
Veterans	The Oregon-specific analysis did not conclude a specific barrier or need	There exists a material gap between veterans and people who are not veterans in internet adoption rates[251]	Veterans indicate need for digital skills training[252]	Veterans report needs for increased awareness of and confidence in protecting themselves from online security and privacy threats[253]	There exists a slight gap between veterans and people who are not veterans in device adoption rates[254]
Individuals with disabilities	The Oregon-specific analysis did not conclude a	Individuals with disabilities display a	Individuals living with disabilities indicate need	Individuals with disabilities report needs	Individuals living with disabilities display a

[248] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021. Accessed August 29, 2023.
[250] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021. Accessed August 29, 2023.
[251] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021. Accessed August 29, 2023.
[252] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021. Accessed August 29, 2023.
[253] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021. Accessed August 29, 2023.
[254] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021. Accessed August 29, 2023.

Covered population	Broadband availability	Broadband adoption	Digital literacy skills	Online security	Device adoption
	specific barrier or need	need for greater internet adoption[255]	for digital skills training[256]	for increased confidence in protecting themselves from online security and privacy threats[257]	need for greater device adoption[258]
Individuals who are English learners or who have low literacy	Individuals who are either English learners or who have low literacy are disproportionately unserved by broadband[259]	While no data are currently available in these areas, Oregon is endeavoring to develop relevant data in partnership with other state agencies			
Individuals who are English learners (alone)	The Oregon-specific analysis did not conclude a specific barrier or need	There exists a material gap between English language learners	The Oregon-specific analysis did not conclude a specific barrier or need	English language learners report needs for confidence in protecting	English language learners display a need for greater device

[255] U.S. Census Bureau, American Community Survey Public Use Microdata, 2021. Accessed August 29, 2023.
[256] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021. Accessed August 29, 2023.
[257] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021. Accessed August 29, 2023.
[258] U.S. Census Bureau, American Community Survey Public Use Microdata, 2021. Accessed August 29, 2023.
[259] U.S. Census Bureau, Digital Equity Act of 2021, State Data. https://www.census.gov/programs-surveys/community-resilience-estimates/partnerships/ntia/digital-equity.html. Accessed August 29, 2023.

Covered population	Broadband availability	Broadband adoption	Digital literacy skills	Online security	Device adoption
		and those fluent in English in internet adoption rates[260]		themselves from online security and privacy threats[261]	adoption[262]
Individuals who have low levels of literacy (alone)	It is likely that individuals with low levels of literacy are disproportionately unserved by broadband[263]	While no data are currently available in these areas, Oregon is endeavoring to develop relevant data in partnership with other state agencies			
Individuals who are members of racial and ethnic minorities	The Oregon-specific analysis did not conclude a specific barrier or need	The Oregon-specific analysis did not conclude a specific barrier or need	The Oregon-specific analysis did not conclude a specific barrier or need	Racial and ethnic minorities report need for increased confidence in protecting themselves from online security and	The Oregon-specific analysis did not conclude a specific barrier or need

[260] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021. Accessed August 29, 2023.
[261] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021. Accessed August 29, 2023.
[262] U.S. Census Bureau, American Community Survey Public Use Microdata, 2021. Accessed August 29, 2023.
[263] U.S. Census Bureau, Digital Equity Act of 2021, State Data. https://www.census.gov/programs-surveys/community-resilience-estimates/partnerships/ntia/digital-equity.html. Accessed August 29, 2023.

Covered population	Broadband availability	Broadband adoption	Digital literacy skills	Online security	Device adoption
				privacy threats[264]	
Rural residents	Rural individuals are in the most urgent need of increased broadband availability[265]	While no data are currently available in these areas, Oregon is endeavoring to develop relevant data in partnership with other state agencies	Rural individuals indicate need for digital skills and telemedicine training[266]	Rural individuals report needs for confidence in protecting themselves from online security and privacy threats[267]	While no data are currently available in these areas, Oregon is endeavoring to develop relevant data in partnership with other state agencies

During the outreach OBO conducted for this Plan, community members and representatives of organizations serving covered populations provided anecdotal insights that inform and provide valuable context for the analysis of data sources described above and presented in the following sections. A list of barriers mentioned in OBO's outreach sessions is provided in Appendix E.

[264] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021. Accessed August 29, 2023.
[265] U.S. Census Bureau, Digital Equity Act of 2021, State Data. https://www.census.gov/programs-surveys/community-resilience-estimates/partnerships/ntia/digital-equity.html. Accessed August 29, 2023.
[266] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021. Accessed August 29, 2023.
[267] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021. Accessed August 29, 2023.

3.2.1 Covered populations in Oregon

To understand the challenges of digital equity for "covered populations"[268] it is necessary to define those groups. Due to the unique constraints of each data source, various analyses focus on different subsets of covered populations. Based on the availability of reliable data,[269] the covered populations analyzed in this needs assessment are as follows:

Table 8: Covered populations

Covered population	Covered definition	Broadband availability	Broadband adoption	Digital literacy skills	Online security	Device adoption
Low-income households	Any individual in a household earning less than 150 percent of the federal poverty line	✓	✓	✓	✓	✓

[268] Covered populations are defined in the Internet Infrastructure and Jobs Act, Section 60301 et seq. (known as the Digital Equity Act of 2021) as: "(A) individuals who live in covered households; (B) aging individuals; (C) incarcerated individuals, other than individuals who are incarcerated in a Federal correctional facility; (D) veterans; (E) individuals with disabilities; (F) individuals with a language barrier, including individuals who (i) are English learners; and (ii) have low levels of literacy; (G) individuals who are members of a racial or ethnic minority group; and (H) individuals who primarily reside in a rural area." "Internet Infrastructure and Jobs Act, Section 60302 (Definitions), paragraph 8," Congress, https://www.congress.gov/bill/117th-congress/house-bill/3684/text. Covered households are those "the income of which for the most recently completed year is not more than 150 percent of an amount equal to the poverty level, as determined by using criteria of poverty established by the Bureau of the Census." "Internet Infrastructure and Jobs Act, Section 60302 (Definitions), paragraph 7," Congress, https://www.congress.gov/bill/117th-congress/house-bill/3684/text. For the definition of "aging individuals," the statute uses the definition of "older individual" as "an individual who is 60 years of age or older" from the United States Code. "42 U.S.C. Section 2003, paragraph 40," Findlaw, https://codes.findlaw.com/us/title-42-the-public-health-and-welfare/42-usc-sect-3002.html.

[269] This Plan relies on rigorously collected and reliable data to make statistically significant conclusions regarding each covered population. The data used include those collected by the U.S. Census Bureau through the American Community Survey and the Current Population Survey. Where the data are not available, the Plan does not attempt to speculate.

Covered population	Covered definition	Broadband availability	Broadband adoption	Digital literacy skills	Online security	Device adoption
Older adults (aging populations)	Any individual who is 60 years of age or older	✓	✓	✓	✓	✓
Incarcerated individuals	Any individual currently or formerly incarcerated in a non-federal correctional facility	✓				
Veterans	Any individual formerly on active duty	✓	✓	✓	✓	✓
Individuals with disabilities	Any individual living with a self-identified physical or mental disability	✓	✓	✓	✓	✓
Individuals who are English learners or who have low literacy (Individuals	Any individual that either reports an English language proficiency	✓				

Covered population	Covered definition	Broadband availability	Broadband adoption	Digital literacy skills	Online security	Device adoption
with language barriers)	less than "very well" or with a literacy level beneath that of a grade 6 student[270]					
Individuals who are English learners (alone)	Any individual that reports an English language proficiency less than "very well"	✓	✓	✓	✓	✓
Individuals who have low levels of literacy (alone)	Any individual with a literacy level beneath that of a grade 6 student	✓				
Racial and ethnic minorities	Any individual that is not white (non-Hispanic)	✓	✓	✓	✓	✓

[270] Grade 6 has been adopted as a reasonable threshold for practical purposes. Neither NTIA nor the U.S. Census Bureau define low literacy. Census has developed probabilistic estimates using National Center for Education Statistics data assigning "low literacy" to Level 1 (i.e., the lowest out of five levels). See "2019 State Total Covered Populations Under the Digital Equity Act of 2021: Quick Guide," U.S. Census Bureau, NTIA. 2022, https://www2.census.gov/programs-surveys/demo/technical-documentation/community-resilience/state_total_covered_populations_quick_guide.pdf.

Covered population	Covered definition	Broadband availability	Broadband adoption	Digital literacy skills	Online security	Device adoption
	alone					
Rural inhabitants	Any individual living outside of a census-identified metropolitan service area	✓		✓	✓	

In Oregon, 76.1 percent[271] of the state belongs to a covered population. This implies that the interests of covered populations closely align to those of the whole state. Therefore, by planning to increase digital equity for covered populations, the state is taking meaningful steps to address the entirety of its digital equity needs.

Within Oregon, most individuals belonging to covered populations live in rural areas, are racial or ethnic minorities, have a relatively low income, or are 60 years of age or older. These covered populations are much larger in the state than those defined by incarceration status, English language proficiency, and veteran status. Perhaps most notable is the size of Oregon's rural population: An estimated 32.6 percent of the state lives in a rural area (as opposed to only 28.5 percent nationally). Oregon and national demographics are illustrated in Table 9 below.

[271] U.S. Census Bureau, Digital Equity Act of 2021, State Data. https://www.census.gov/programs-surveys/community-resilience-estimates/partnerships/ntia/digital-equity.html. Accessed August 29, 2023.

Table 9: Portion of Oregon and U.S. in various covered populations[272, 273]

Covered group	Oregon	Nation	Gap
Any covered group	76.1%	81.5%	-5.4%
Low-income	18.8%	20.1%	-1.3%
Aging adults	24.7%	22.9%	1.8%
Incarcerated	0.5%	0.6%	-0.1%
Veteran	6.3%	5.3%	1.0%
People with disabilities	15.1%	13.3%	1.8%
Language barrier	15.7%	21.4%	-5.7%
English language learner	5.1%	8.4%	-3.3%
Low levels of literacy	16.8%	21.9%	-5.1%
Ethnic and racial minority	25.1%	40.6%	-15.5%
Rural	32.6%	28.5%	4.1%

The demographic groups illustrated above are not mutually exclusive and many individuals belonging to a covered population belong to multiple covered populations (for example, many individuals living in rural areas are also low-income). Further, many of these traits are related (for example, individuals living with disabilities have higher tendencies to be on fixed incomes because of their disabilities). In this case, their presence in one covered population (individuals living with disabilities) directly affects their likelihood to appear in another covered population (individuals living in lower-income households). Additionally, individuals living with disabilities are in many cases more likely to be precluded from meaningful use of the internet by their relatively low income as opposed to

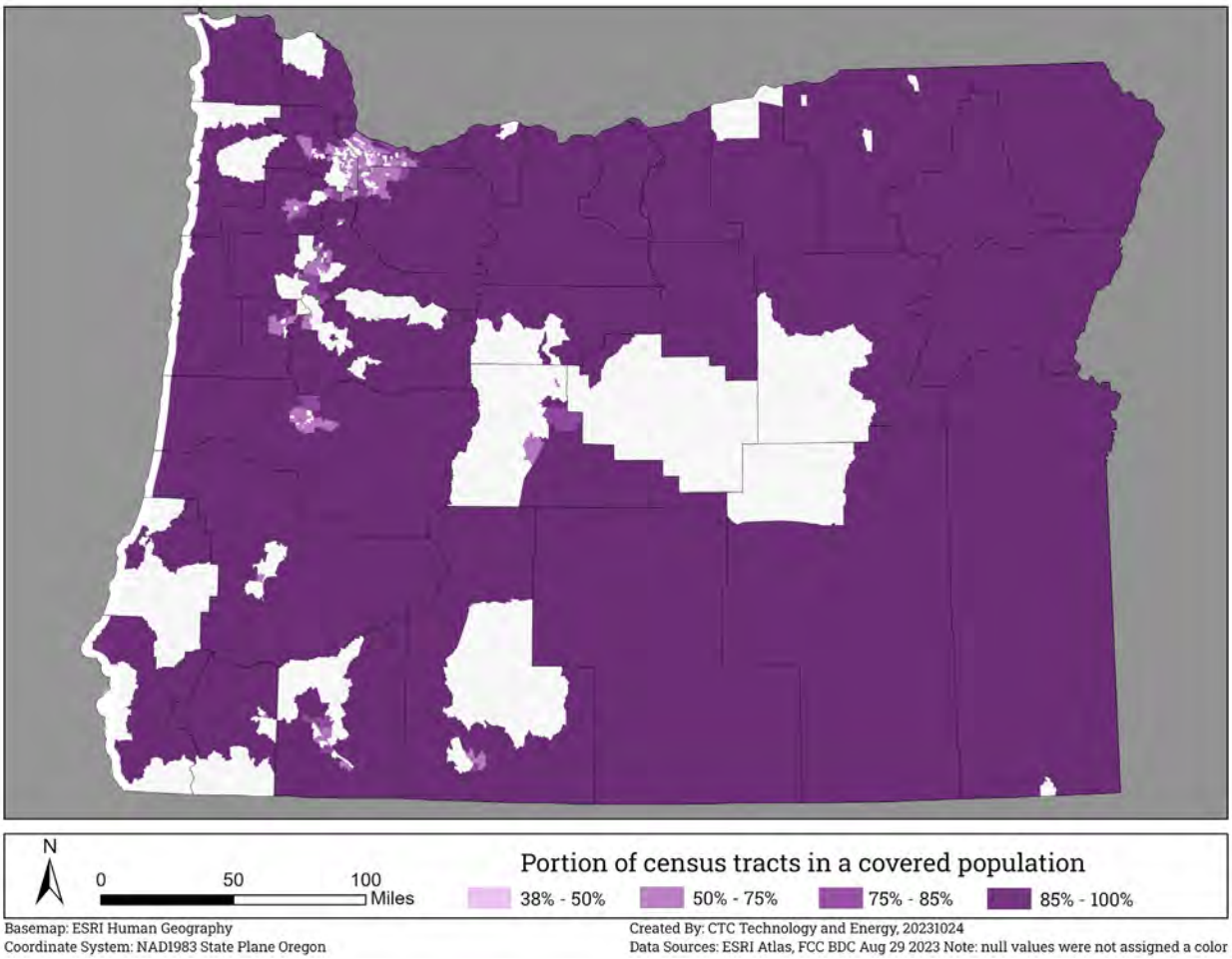
[272] U.S. Census Bureau, Digital Equity Act of 2021, State Data. https://www.census.gov/programs-surveys/community-resilience-estimates/partnerships/ntia/digital-equity.html. Accessed August 29, 2023.

[273] These data are sourced from the Census Bureau's Digital Equity Act of 2021 collection, which includes ACS and NTIA Internet Use Survey data as well as imputations from external data sources such as the National Center for Education Statistics to create the most comprehensive set of covered populations data. However, the data set is slightly outdated, sourcing ACS data from 2019 (most recent) to as far back as 2015. Additionally, the full data set is difficult to update given the limited documentation on the imputations performed. Therefore, for many of the remaining sections wherein analysis is performed on more specific broadband barriers rather than wholistic demographic statistics, more easily repeatable analysis is performed on more up-to-date data from the ACS and the NTIA Internet Use Survey (via the Current Population Survey). As a tradeoff with the increased data quality and useability, some insight into covered populations is lost, especially with regard to formerly incarcerated individuals and individuals with low levels of literacy.

their disability. Therefore, caution is urged in attributing causes of broadband outcomes to the nature of the affected covered populations.

Individuals belonging to covered populations are present throughout the entirety of Oregon. A general overview of the geographic distribution of covered populations is shown in the map in Figure 1; a high-resolution depiction of this data is available at the U.S. Census Bureau's Digital Equity Act Population Viewer website.[274]

Figure 1: Map of covered populations in Oregon[275]



[274] U.S. Census Bureau, Digital Equity Act of 2021, State Data. https://www.census.gov/programs-surveys/community-resilience-estimates/partnerships/ntia/digital-equity.html.
[275] U.S. Census Bureau, Digital Equity Act of 2021, State Data. https://www.census.gov/programs-surveys/community-resilience-estimates/partnerships/ntia/digital-equity.html. Accessed August 29, 2023.

3.2.2 Access to broadband service

Access to broadband service is the primary prerequisite for using the internet meaningfully to participate in the increasingly digital economy and world. For that reason, the state has completed a robust geographic analysis of broadband service offerings, a regression analysis of covered population presence and broadband availability, a comparative analysis of internet adoption rates across covered populations, and an analysis of ACP uptake and eligibility to understand residents' remaining needs in terms of access to broadband internet service. These analyses show:

1. Oregon is in line with the rest of the nation in most meaningful indicators of broadband availability.
2. Individuals living in rural areas face the most urgent needs for broadband availability.
3. Oregon outpaces the national averages in internet and wireline internet adoption and subscription rates.
4. Covered populations in Oregon are uniformly adopting the internet less frequently than individuals that do not belong to a covered population. This gap is largest when compared across incomes.
5. Oregon outperforms the national average for the percentage of eligible households enrolled in the ACP subsidy program, but Oregon still has a large opportunity for enrollment growth.

3.2.2.1 Availability of service

Of all Oregon households that do not use internet at home, an estimated 4 percent[276] claim that the main reason for their lack of internet use is a lack of available internet service. While this is not the most frequently cited cause for lack of broadband use at home, the availability of service is an absolute condition to achieve digital equity, and therefore deserves substantial attention.

[276] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021. Accessed August 29, 2023.

Oregon performs similarly to the nation across most meaningful indicators of broadband availability. When considering all internet delivery technologies (including those that are known to be less reliable such as satellite-based services), the FCC reports that Oregon and the nation are entirely served through speeds of 25/3 Mbps, which is the federal threshold for broadband service of any kind. However, Oregon has 3.5 percentage points fewer units served by speeds of at least 250/25 Mbps than the nation.

This trend continues once service is limited to wireline technologies, which are known to be more reliable than other internet-delivery technologies. 90 percent of units in Oregon are within a coverage footprint for wireline internet delivering 25/3 Mbps, a rate which is almost identical to the 89.8 percent nationally.

For licensed fixed wireless (LFW), which can be helpful for delivering service to rural areas that present difficulty for wireline construction, Oregon outpaces the nation in slower speed service availability. This is possibly due to an increased market for fixed wireless internet service in Oregon's mountainous terrains. However, Oregon lags behind the national rate for high-speed licensed fixed wireless, with only 11.9 percent of all residents in a coverage footprint for 100/20 Mbps service (compared to 19.2 percent nationally). High-speed fixed wireless antennas are a relatively new technology and many companies have only recently upgraded their service offerings to speeds above 100/20 Mbps, suggesting that perhaps the market has simply been slow to change in Oregon, rather than an absence of a compelling profit incentive for change (Table 10).

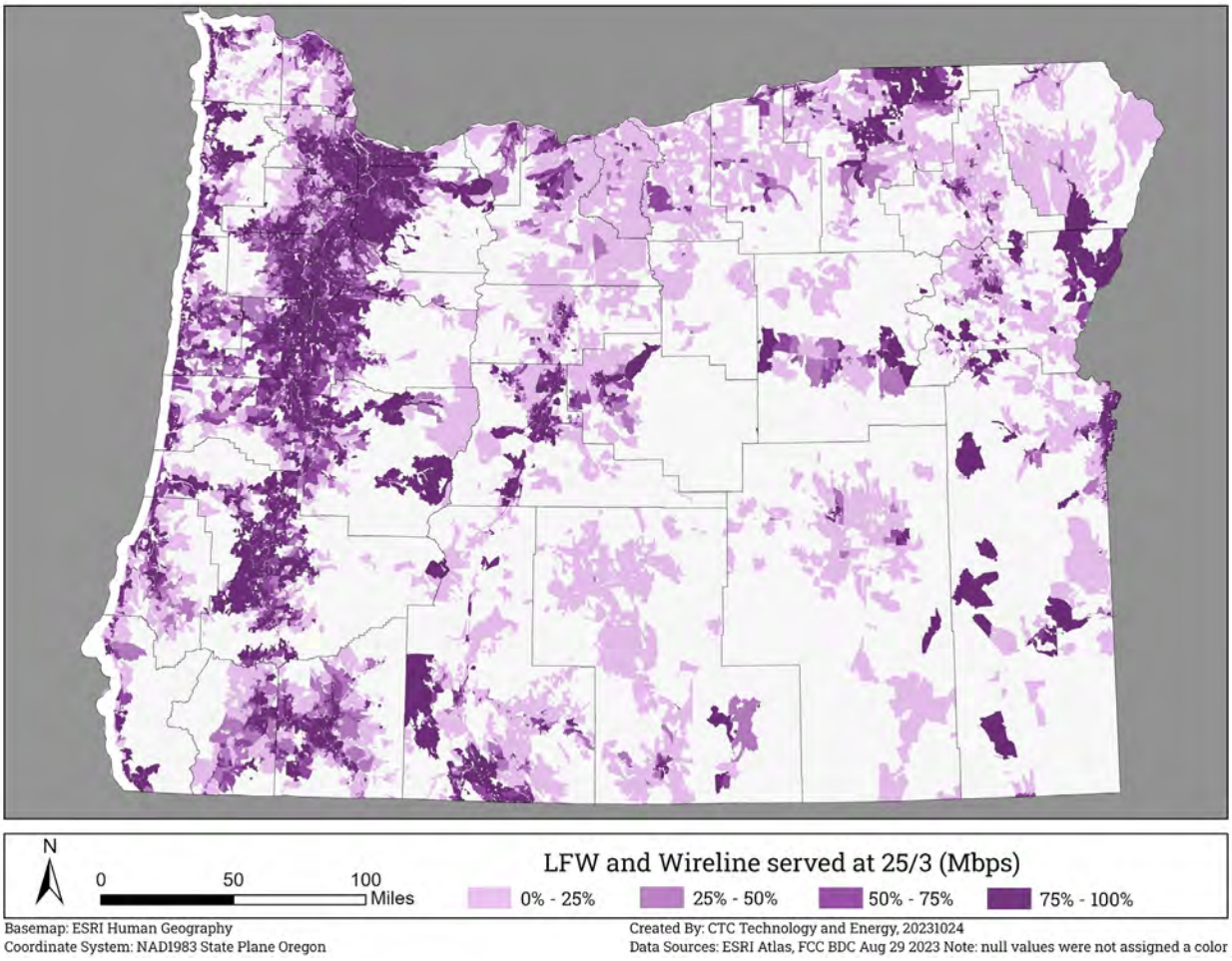
Table 10: Portion of units served with internet at various speeds in Oregon and the U.S.[277]

	Coverage (Mbps)	Oregon	Nation	Gap
All technologies	0.2 / 0.2	100.0%	100.0%	0.0%
	10 / 1	100.0%	100.0%	0.0%
	25 / 3	100.0%	100.0%	0.0%
	100 / 20	91.4%	92.1%	-0.7%
	250 / 25	83.8%	87.2%	-3.5%
	1000 / 100	28.5%	33.2%	-4.7%
Wireline	Coverage (Mbps)	Oregon	Nation	Gap
	0.2 / 0.2	95.0%	93.4%	1.5%
	10 / 1	92.5%	91.7%	0.9%
	25 / 3	90.0%	89.8%	0.2%
	100 / 20	88.6%	88.4%	0.2%
	250 / 25	83.7%	86.6%	-2.9%
	1000 / 100	28.5%	32.3%	-3.8%
Licensed fixed wireless	Coverage (Mbps)	Oregon	Nation	Gap
	0.2 / 0.2	83.3%	79.5%	3.8%
	10 / 1	60.6%	54.9%	5.7%
	25 / 3	52.8%	51.7%	1.1%
	100 / 20	11.9%	19.2%	-7.4%
	250 / 25	0.8%	2.6%	-1.9%
	1000 / 100	0.0%	0.2%	-0.2%

Certain areas of Oregon see low levels of coverage because private ISPs choose to invest elsewhere, where return on investment will presumably be greater. The availability of wireline or robust licensed fixed wireless broadband service in Oregon tends to correlate with the density of population. In more densely populated areas, there are more potential customers relative to construction costs. As a result, consistent with patterns throughout the United States, service in Oregon is frequently spotty in rural areas, as shown below for speeds of 25/3 Mbps (Figure 2), and 100/20 Mbps (Figure 3).Figure 3). High-resolution depictions of these data are available on the FCC's National Broadband Map.

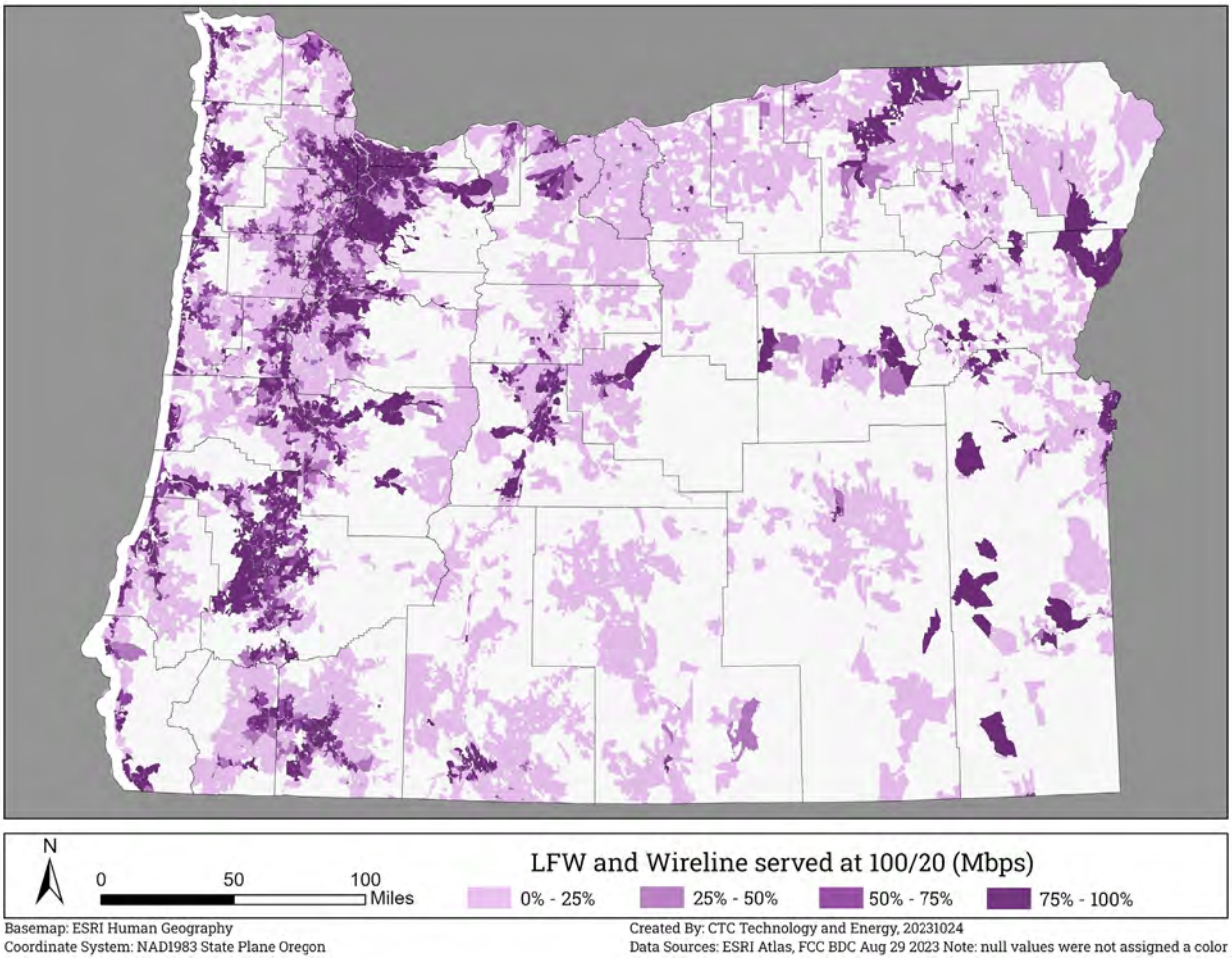
[277] FCC, National Broadband Map, https://broadbandmap.fcc.gov/home. Last updated August 16, 2023. Accessed August 29, 2023.

Figure 2: Map of units served by 25/3 Mbps[278]



[278] FCC, National Broadband Map, https://broadbandmap.fcc.gov/home. Last updated August 9, 2023. Accessed August 29, 2023.

Figure 3: Map of units served by 100/20 Mbps[279]



A regression analysis was undertaken by comparing the prevalence of various covered populations in each census tract in Oregon with the portion of units served by at least one broadband internet option with speeds of 25/3 Mbps or greater. The resulting correlation was relatively weak, with an R^2 value of 0.44. However, the analysis does further underline the relationship between rurality and broadband availability, as it was the most statistically significant correlation of all covered populations by a wide margin.

Three other covered populations had correlation that was statistically significant as relates to a lack of availability: aging individuals, formerly incarcerated

[279] FCC, National Broadband Map, https://broadbandmap.fcc.gov/home. Last updated August 9, 2023. Accessed August 29, 2023.

individuals, and English language learners and those with low literacy. All of these groups appear to be disproportionately unserved by broadband.

Both English language learners and those living with disabilities also achieved statistical significance but were negatively correlated with the portion of units unserved in a census tract (i.e., a greater portion of these covered populations indicated fewer units were unserved). In both cases, it is likely that these covered populations reside largely in urban areas where service is more available.

The full results of the regression analysis are presented in Table 11.

Table 11: Regression analysis of portion of census tract belonging to covered populations and portion of units unserved[280]

Regression statistics	
Multiple R	0.664
R Square	0.441
Adjusted R Square	0.434
Standard Error	0.136
Observations	667

Variables	Coefficients	Standard error	t Stat	P-value	Statistically significant
Intercept	-0.108	0.031	-3.514	0.000	Yes
Income	0.107	0.063	1.697	0.090	
Age	0.389	0.103	3.761	0.000	Yes
Incarceration status	0.441	0.134	3.293	1.04E-03	Yes
Veteran status	0.516	0.290	1.776	0.076	
Disability status	-0.741	0.149	-4.970	0.000	Yes

[280] Portion of census tract populations belonging to various covered populations from U.S. Census Bureau, Digital Equity Act of 2021, State Data. https://www.census.gov/programs-surveys/community-resilience-estimates/partnerships/ntia/digital-equity.html. Accessed August 29, 2023. Portion of units served in each census tract from FCC's National Broadband Map. Accessed August 29, 2023. A number of outlier tracts were removed.

Variables	Coefficients	Standard error	t Stat	P-value	Statistically significant
Language barrier (including low literacy)	0.621	0.185	3.351	0.001	Yes
English proficiency	-0.940	0.223	-4.225	0.000	Yes
Race and ethnicity	0.127	0.080	1.583	0.114	
Rurality	0.201	0.015	13.532	5.60E-37	Yes

Neither broadband availability nor many of these demographic characteristics are uniform throughout census tracts. For example, very low-income groups tend to cluster in areas that are much smaller than census tracts boundaries. Very low-income groups face higher internet availability obstacles versus other individuals that still belong to the "low-income" covered population definition. It is overwhelmingly likely that low-income households are less well served than higher-income households, although those trends have not appeared statistically when evaluating this exact partitioning of the state. It is possible that a more granular study would reveal more informative relationships between various covered populations and service availability.

Ultimately, all people in Oregon would benefit greatly from investment in increased service availability. For rural residents specifically, additional service availability could have significant impacts on achieving digital equity.

3.2.2.2 Adoption of service

Of all Oregon households that do not use internet at home, an estimated 16 percent[281] claim that a main reason for their lack of internet use at home is an inability to afford service. Challenges relating to service affordability, and the closely linked concept of reliability, seem to be high-priority obstacles to digital equity for many people in Oregon.

[281] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021. Accessed August 29, 2023.

According to the American Community Survey, 94.3 percent of Oregon residents have a home internet subscription (of any kind) —surpassing the national rate by 4.0 percentage points. Accordingly, Oregon also outperforms the national rate in the portion of residents with a wireline home internet subscription with a rate of 78.6 percent versus the national rate of 75.5 percent. Wireline internet subscriptions tend to be more reliable than others, and therefore can represent a more meaningful measure of useful internet adoption.

However, 12.8 percent of Oregon residents rely on a cellular data plan alone for home internet service, which is slightly more than the national figure of 10.9 percent and is considered to be insufficient to realize the many benefits of broadband. Individuals with mobile-only service typically cite affordability, their smartphone being good enough, and/or having access to broadband somewhere else as the reasons for not having home internet connectivity.

Table 12: Internet adoption rates in Oregon and the U.S.[282]

Internet in the house	Oregon	Nation	Gap
Internet subscription of any kind	94.3%	90.3%	4.0%
Internet subscription via wireline technology (i.e. fiber, cable, DSL)	78.6%	75.5%	3.1%
Only subscription via cellular data plan	12.8%	10.9%	1.9%

Within Oregon, individuals belonging to covered populations fare worse than others in home internet adoption. 91.9 percent of individuals belonging to a covered population report having a home internet subscription as opposed to 98.5 percent of those outside of covered populations. The gap widens for wireline internet connections, for which 74.2 percent of individuals belonging to covered populations claim adoption compared to 86.2 percent of non-covered populations.

[282] U.S. Census Bureau, American Community Survey Public Use Microdata, 2021. Accessed August 29, 2023.

Table 13: Internet adoption rates in covered and non-covered populations[283]

Internet in the house	Covered groups	Non covered groups	Gap
Internet subscription of any kind	91.9%	98.5%	-6.6%
Internet subscription via wireline technology (i.e. fiber, cable, DSL)	74.2%	86.2%	-12.0%
Only subscription via cellular data plan	14.3%	10.2%	4.1%

Individuals living in low-income households constitute the covered population with the largest adoption gaps. Low-income individuals are 12.7 percentage points less likely than higher-income individuals to have a home internet subscription, and they are 18.6 percentage points less likely to have a wireline internet subscription. People with disabilities and older adults constitute two more groups with somewhat meaningful adoption gaps; they were 13.4 and 12 percentage points, respectively, and less likely to have a wireline internet subscription than their non-covered population counterparts. Additionally, English language learners and veterans each had gaps in wireline internet adoption greater than or equal to 6 percentage points, which constitutes a material gap. Full breakdowns of each covered population's adoption rates are included in Table 14.[284]

[283] U.S. Census Bureau, American Community Survey Public Use Microdata, 2021. Accessed August 29, 2023.

[284] This Plan follows the U.S. Census Bureau's standards on reporting data related to the terms "minority" and "white." See: "About the topic of race," U.S. Census Bureau, https://www.census.gov/topics/population/race/about.html.

Table 14: Internet adoption rates in various covered populations[285]

	Internet in the house	Low-income	Higher-income	Gap
Income	Internet subscription of any kind	84.4%	97.1%	-12.7%
	Internet subscription via wireline technology (i.e. fiber, cable, DSL)	64.0%	82.7%	-18.6%
	Only subscription via cellular data plan	15.8%	11.9%	3.9%
	Internet in the house	**Ethnic or racial minority**	**White alone**	**Gap**
Race	Internet subscription of any kind	94.3%	94.3%	0.1%
	Internet subscription via wireline technology (i.e. fiber, cable, DSL)	78.5%	78.6%	-0.1%
	Only subscription via cellular data plan	13.7%	12.5%	1.2%
	Internet in the house	**Aging adults**	**Younger**	**Gap**
Age	Internet subscription of any kind	90.1%	95.7%	-5.6%
	Internet subscription via wireline technology (i.e. fiber, cable, DSL)	69.6%	81.6%	-12.0%
	Only subscription via cellular data plan	16.2%	11.6%	4.5%
	Internet in the house	**With disabilities**	**Without disabilities**	**Gap**
Disability	Internet subscription of any kind	86.2%	95.8%	-9.6%
	Internet subscription via wireline technology (i.e. fiber, cable, DSL)	67.2%	80.7%	-13.4%
	Only subscription via cellular data plan	14.8%	12.4%	2.4%
	Internet in the house	**English learner**	**Fluent**	**Gap**
English proficiency	Internet subscription of any kind	95.8%	94.2%	1.6%
	Internet subscription via wireline technology (i.e. fiber, cable, DSL)	72.9%	78.9%	-6.0%
	Only subscription via cellular data plan	19.9%	12.4%	7.6%
	Internet in the house	**Veteran**	**Non-veteran**	**Gap**
Veteran status	Internet subscription of any kind	91.2%	94.5%	-3.3%
	Internet subscription via wireline technology (i.e. fiber, cable, DSL)	72.3%	79.0%	-6.7%
	Only subscription via cellular data plan	15.0%	12.6%	2.3%

In addition to the considerable gap between low- and higher-income individuals in internet adoption, the reported frequency of inability (and unwillingness) to pay for home internet use suggests that the state has substantial needs for increased efforts to bring down the cost of home internet subscriptions and use.

Perhaps the most widely known and used effort to lower the cost of internet access is the Affordable Connectivity Program (ACP). The ACP subsidizes up to $30 per month (or $75 for households living on tribal lands) for broadband for qualifying households and may include a one-time subsidy toward buying a laptop or tablet. However, despite the benefit of the subsidy, the ACP is known to be chronically undersubscribed—which is especially true in Oregon where only about 26 percent of eligible households have enrolled and highlights the significant opportunity for growth.

[285] U.S. Census Bureau, American Community Survey Public Use Microdata, 2021. Accessed August 29, 2023.

Table 15: Affordable Connectivity Program enrollment in Oregon and the U.S.[286]

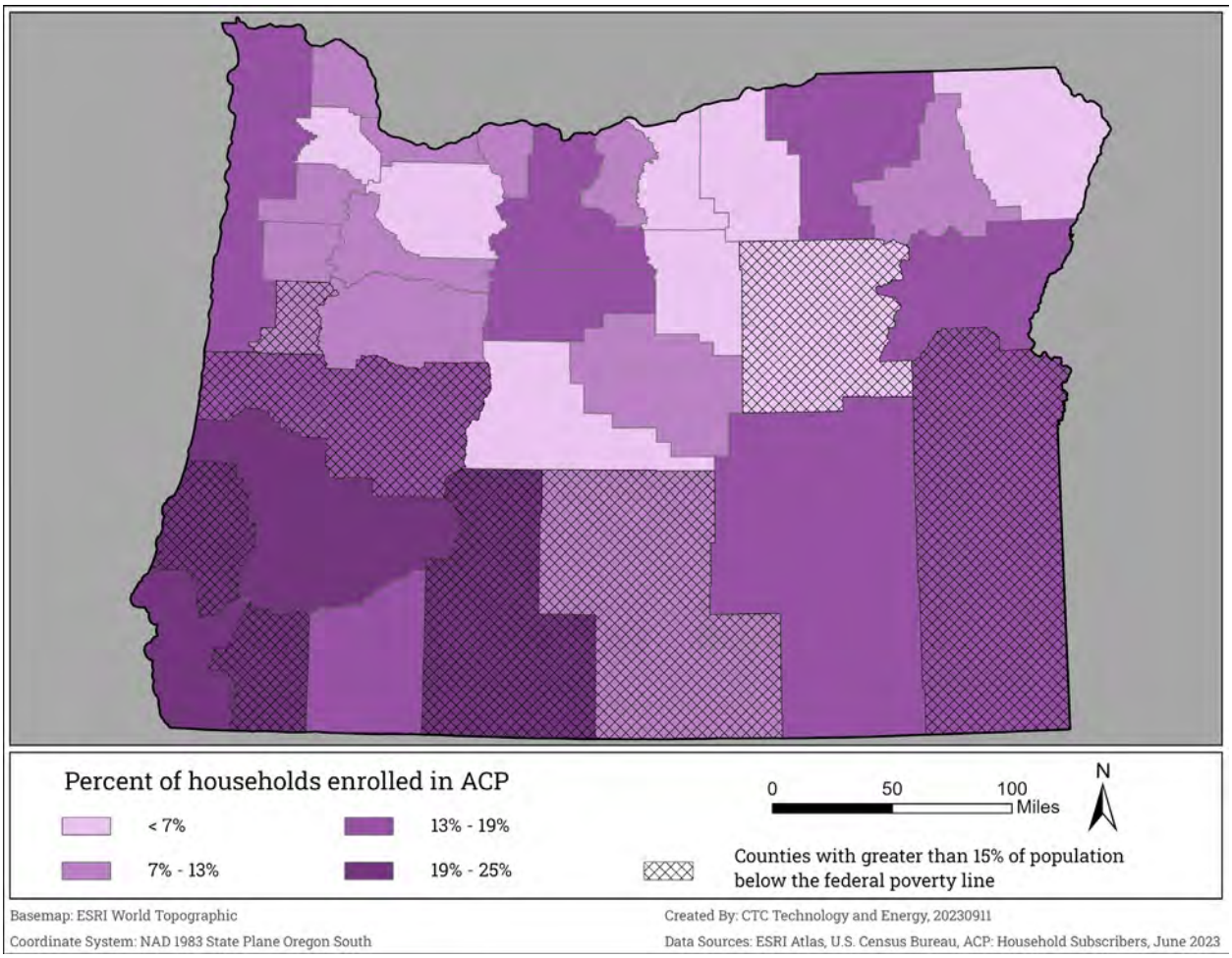
	Oregon	Nation
Households enrolled	199,575	19,903,735
Households estimated eligible	776,163	55,266,900
Portion of eligible households enrolled	26%	36%

Households can be determined to be eligible through many criteria, including if they earn up to 200 percent of the federal poverty level or participate in one of many federal or state support programs (e.g., National School Lunch Program). As a result, eligibility for the program is highly aligned with members of covered populations. An estimated 53 percent of individuals belonging to covered populations are eligible for the ACP.

Figure 4 shows the percentage of households in each Oregon county that participate in the ACP.

[286] Enrollment counts from USAC's ACP Enrollment and Claims Tracker, accurate as of August 28, 2023. https://www.usac.org/about/affordable-connectivity-program/acp-enrollment-and-claims-tracker/. Accessed August 29, 2023. Estimates of eligible households based on proprietary model that uses American Community Survey Public Use Microdata to estimate number of households qualifying for ACP via several of its eligibility criteria.

Figure 4: ACP enrollment in Oregon by county



3.2.3 Digital literacy and digital skills

For individuals to meaningfully use the internet, they must practice and be confident in their ability to perform digital skills. Although some individuals may have internet service and a working computer, they can frequently be functionally limited by their inability to navigate the internet effectively. In Oregon, 57 percent of residents without home internet use cite a lack of need or interest in the internet as a reason why they do not use internet in the home, making digital increasing literacy the highest priority need for achieving digital equity in the state. These findings suggest that some Oregon residents may be more inclined to use the internet at home if they understand the full use, and therefore value, of having fluency in various digital skills.

The State of Oregon used data from the Current Population Survey and the NTIA Internet Use Survey to evaluate the extent to which various covered populations engage in key online activities. These key findings are as follows:

1. Oregon outpaces the nation, but not significantly, in frequency of online digital skill use. Further, members of covered populations underperform compared to non-covered populations.

2. Individuals at or above 60 years of age, individuals living with disabilities, individuals living in rural areas, and veterans express the most urgent need for digital skills programming.

3. Oregon outperforms compared to the nation across almost all measured telemedicine-related online activities, and members of covered populations tend to underperform compared to non-covered populations.

4. In Oregon, all covered populations—except racial or ethnic minorities—express needs for telemedicine digital skills programming.

While a greater portion of Oregon residents tend to regularly perform online activities compared to the national rates, the data is not uniform and there are many activities in which the inverse is true. People in Oregon outpace the nation in activities such as streaming or downloading music, radio, and podcasts—with a gap of 8.4 percentage points between Oregon and the nation.

Also significant are the gaps for shopping, making travel reservations (or using other consumer services), and watching videos online, in which Oregon outperforms the nation by 8.3 percentage points and 7.4 percentage points, respectively. Even though Oregon exceeds the nation in performing many of these activities, there is still opportunity for improvement as the national figures mostly help contextualize Oregon's positionality in a broader context rather than serve as the ceiling for achievement.

Table 16: Digital literacy in Oregon and the U.S.[287]

Online activity	Oregon	Nation	Gap
Uses text messaging or instant messaging	94.9%	93.3%	1.6%
Uses email	94.8%	91.8%	3.0%
Uses online social networks	71.3%	74.6%	-3.2%
Shops, makes travel reservations, or uses other consumer services online	82.4%	74.1%	8.3%
Uses online financial services like banking, investing, paying bills	81.4%	74.3%	7.1%
Watches videos online	77.5%	70.1%	7.4%
Participates in online video or voice calls or conferencing	72.4%	65.6%	6.8%
Streams or downloads music, radio, podcasts, etc.	68.4%	60.0%	8.4%
Requests services provided by other people via the internet	48.0%	43.0%	5.0%
Accessing government services	43.8%	38.4%	5.5%
Takes class or participates in job training online	31.1%	25.7%	5.3%
Interacts with household equipment using the internet	23.6%	22.3%	1.2%
Telecommutes using the internet	26.2%	27.7%	-1.5%
Searches for a job online	20.3%	21.3%	-1.0%
Posts or uploads blog posts, videos, or other original content	16.0%	17.0%	-1.0%
Uses the internet to sell goods	13.7%	10.5%	3.2%
Offers services for sale via the internet	6.8%	8.8%	-1.9%

Individuals belonging to covered populations uniformly practice digital skills at a lower rate than those that do not belong to covered populations. Here, the largest gaps can be found in telecommuting using the internet (25.3 percentage point gap), streaming or downloading music, radio, podcasts, etc. (22.4 percentage point gap), requesting services provided by other people via the internet (20.5 percentage point gap), and watching videos online (16.9 percentage point gap).

Table 17: Digital literacy in Oregon covered populations[288]

Online activity	Covered group	Non-covered group	Gap
Uses text messaging or instant messaging	93.0%	97.9%	-4.9%
Uses email	92.9%	97.7%	-4.8%
Uses online social networks	67.5%	77.9%	-10.4%
Shops, makes travel reservations, or uses other consumer services online	78.1%	89.7%	-11.6%
Uses online financial services like banking, investing, paying bills	76.1%	90.9%	-14.8%
Watches videos online	70.8%	87.7%	-16.9%
Participates in online video or voice calls or conferencing	67.8%	79.3%	-11.4%
Streams or downloads music, radio, podcasts, etc.	60.2%	82.5%	-22.4%
Requests services provided by other people via the internet	40.4%	60.8%	-20.5%
Accessing government services	42.0%	47.4%	-5.4%
Takes class or participates in job training online	26.4%	37.4%	-11.0%
Interacts with household equipment using the internet	18.7%	31.7%	-13.0%
Telecommutes using the internet	16.6%	41.9%	-25.3%
Searches for a job online	17.2%	25.6%	-8.4%
Posts or uploads blog posts, videos, or other original content	14.7%	18.4%	-3.7%
Uses the internet to sell goods	11.4%	17.7%	-6.3%
Offers services for sale via the internet	6.7%	7.1%	-0.4%

[287] NTIA, 2021 Internet Use Survey. Accessed August 29, 2023.
[288] U.S. Census Bureau, Current Population Survey Public Use Microdata, 2021. Accessed August 29, 2023.

Of all covered populations in the State of Oregon, the digital skills discrepancies are greatest for individuals who are at or above 60 years of age. The online activity where this group trails its non-covered counterpart the most is in streaming or downloading music, radio, and podcasts—with a gap of 36.7 percentage points. However, the disproportionate nature of this figure is not an exception; of the 17 total online activities, individuals who are at or above 60 years of age underperformed younger individuals by gaps of greater than 20 percentage points for eight activities (three of which exceeded 30 percent). As such, these data demonstrate that individuals at or above the age of 60 in Oregon urgently need digital skills training.

Table 18: Digital literacy in aging and younger populations[289]

Online activity	Aging adults	Younger	Gap
Uses text messaging or instant messaging	87.5%	97.9%	-10.5%
Uses email	89.1%	97.1%	-8.0%
Uses online social networks	51.0%	79.7%	-28.7%
Shops, makes travel reservations, or uses other consumer services online	75.8%	85.2%	-9.4%
Uses online financial services like banking, investing, paying bills	67.8%	86.9%	-19.1%
Watches videos online	56.0%	86.3%	-30.3%
Participates in online video or voice calls or conferencing	54.4%	79.8%	-25.4%
Streams or downloads music, radio, podcasts, etc.	42.4%	79.0%	-36.7%
Requests services provided by other people via the internet	26.5%	56.8%	-30.3%
Accessing government services	40.0%	45.4%	-5.5%
Takes class or participates in job training online	12.2%	38.7%	-26.5%
Interacts with household equipment using the internet	9.9%	29.2%	-19.3%
Telecommutes using the internet	9.4%	33.1%	-23.7%
Searches for a job online	5.2%	26.5%	-21.3%
Posts or uploads blog posts, videos, or other original content	7.4%	19.5%	-12.0%
Uses the internet to sell goods	8.9%	15.7%	-6.8%
Offers services for sale via the internet	5.9%	7.2%	-1.3%

People with disabilities almost uniformly practice digital skills at lower rates than people without disabilities. Further, the largest gaps are found in activities such as streaming or downloading music, radio, podcasts, etc. (21.0 percentage points), telecommuting using the internet (17.6 percentage points), requesting services

[289] U.S. Census Bureau, Current Population Survey Public Use Microdata, 2021. Accessed August 29, 2023.

provided by other people via the internet (16.2 percentage points), and participating in online video or voice calls or conferencing (15.2 percentage points).

The only online activity for which people with disabilities in Oregon outpace their counterparts is in offering services for sale via the internet, which 7.5 percent performed recently compared to 6.7 percent of individuals without disabilities. The relatively small nature of this gap and the overwhelming discrepancies for many other digital skills indicate that people with disabilities in Oregon would greatly benefit from digital skills training.

Table 19: Digital literacy in people with disabilities and people without disabilities[290]

Online activity	With disabilities	Without disabilities	Gap
Uses text messaging or instant messaging	89.4%	95.9%	-6.5%
Uses email	89.9%	95.7%	-5.8%
Uses online social networks	67.6%	72.0%	-4.4%
Shops, makes travel reservations, or uses other consumer services online	78.3%	83.2%	-4.9%
Uses online financial services like banking, investing, paying bills	74.9%	82.5%	-7.6%
Watches videos online	69.6%	78.9%	-9.3%
Participates in online video or voice calls or conferencing	59.5%	74.7%	-15.2%
Streams or downloads music, radio, podcasts, etc.	50.6%	71.6%	-21.0%
Requests services provided by other people via the internet	34.3%	50.5%	-16.2%
Accessing government services	40.3%	44.5%	-4.1%
Takes class or participates in job training online	27.9%	31.6%	-3.8%
Interacts with household equipment using the internet	21.1%	24.0%	-3.0%
Telecommutes using the internet	11.3%	28.9%	-17.6%
Searches for a job online	16.4%	21.0%	-4.6%
Posts or uploads blog posts, videos, or other original content	13.3%	16.5%	-3.1%
Uses the internet to sell goods	5.4%	15.3%	-9.8%
Offers services for sale via the internet	7.5%	6.7%	0.8%

Despite outpacing their counterparts in a couple of online activities, overall, individuals living in rural areas use other digital skills significantly less frequently than their metropolitan counterparts—most notably in requesting services provided by other people via the internet with a gap of 25.7 percentage points. It is possible that some online services are less accessible as a result of living in a rural area and, in turn, could explain this large gap.

[290] U.S. Census Bureau, Current Population Survey Public Use Microdata, 2021. Accessed August 29, 2023.

For example, using rideshare apps such as Uber or Lyft for personal transportation or food delivery is frequently not possible in rural areas because of a limited pool of individuals offering to drive in very rural areas. However, there are many other online activities where individuals in rural areas fall behind that would be difficult to explain by location—such as accessing government services (registering to vote, for example). As such, individuals living in rural areas may greatly benefit from digital skills training.

Table 20: Digital literacy in rural and metropolitan populations[291]

Online activity	Rural	Metropolitan	Gap
Uses text messaging or instant messaging	90.0%	95.4%	-5.4%
Uses email	92.6%	95.0%	-2.4%
Uses online social networks	71.2%	71.4%	-0.2%
Shops, makes travel reservations, or uses other consumer services online	75.0%	83.2%	-8.2%
Uses online financial services like banking, investing, paying bills	68.2%	82.7%	-14.5%
Watches videos online	58.0%	79.5%	-21.5%
Participates in online video or voice calls or conferencing	52.9%	74.4%	-21.5%
Streams or downloads music, radio, podcasts, etc.	62.6%	69.0%	-6.4%
Requests services provided by other people via the internet	24.7%	50.4%	-25.7%
Accessing government services	21.8%	46.1%	-24.3%
Takes class or participates in job training online	18.9%	32.3%	-13.4%
Interacts with household equipment using the internet	20.2%	23.9%	-3.7%
Telecommutes using the internet	7.5%	28.1%	-20.6%
Searches for a job online	25.1%	19.8%	5.3%
Posts or uploads blog posts, videos, or other original content	28.1%	14.8%	13.3%
Uses the internet to sell goods	7.7%	14.4%	-6.6%
Offers services for sale via the internet	2.8%	7.2%	-4.4%

Low-income individuals perform about half of the measured online activities more frequently than higher-income individuals—indicating a less urgent need for digital skills training for this covered population. However, there are much larger gaps for many of the digital skills that low-income individuals perform less frequently than their counterparts. For example, low-income individuals are 14.6 percentage points less likely to telecommute using the internet and 11.7 percentage points less likely to shop, make travel reservations, or use other consumer services online.

[291] U.S. Census Bureau, Current Population Survey Public Use Microdata, 2021. Accessed August 29, 2023.

Comparatively, the greatest gap by which low-income populations outperform higher-income populations is in posting or uploading blog posts, videos, or other original content, where low-income individuals lead by 7.0 percentage points. Nevertheless, the disparity in the size of the gaps can possibly be explained by the nature of the digital skills being performed, such as telecommuting—an online activity that would not be applicable for many jobs performed by low-income individuals.

Table 21: Digital literacy in low and higher-income populations[292]

Online activity	Low-income	Higher-income	Gap
Uses text messaging or instant messaging	95.8%	94.7%	1.1%
Uses email	91.5%	95.5%	-4.0%
Uses online social networks	72.8%	71.0%	1.8%
Shops, makes travel reservations, or uses other consumer services online	72.8%	84.5%	-11.7%
Uses online financial services like banking, investing, paying bills	72.4%	83.3%	-10.9%
Watches videos online	76.2%	77.7%	-1.5%
Participates in online video or voice calls or conferencing	72.6%	72.4%	0.2%
Streams or downloads music, radio, podcasts, etc.	65.8%	69.0%	-3.2%
Requests services provided by other people via the internet	43.6%	48.9%	-5.4%
Accessing government services	48.1%	42.9%	5.2%
Takes class or participates in job training online	31.7%	30.9%	0.8%
Interacts with household equipment using the internet	16.4%	25.1%	-8.7%
Telecommutes using the internet	14.2%	28.8%	-14.6%
Searches for a job online	21.8%	20.0%	1.8%
Posts or uploads blog posts, videos, or other original content	21.8%	14.7%	7.0%
Uses the internet to sell goods	13.0%	13.9%	-0.9%
Offers services for sale via the internet	9.7%	6.2%	3.4%

Veterans are another covered population that could greatly benefit from—and urgently need—digital skills training. Compared to their non-veteran counterparts, veterans consistently underperform online activities—with the sole exception of using the internet to sell goods, where veterans outperform non-veterans by 0.3 percentage points. Accordingly, of the 17 measured online activities, veterans

[292] U.S. Census Bureau, Current Population Survey Public Use Microdata, 2021. Accessed August 29, 2023.

trailed behind non-veterans by margins of greater than 10 percentage points in nine activities—demonstrating the need for digital skills education for the group.

Table 22: Digital literacy in veteran and non-veteran populations[293]

Online activity	Veteran	Non-veteran	Gap
Uses text messaging or instant messaging	91.1%	95.1%	-4.0%
Uses email	85.8%	96.0%	-10.2%
Uses online social networks	63.6%	72.0%	-8.4%
Shops, makes travel reservations, or uses other consumer services online	79.6%	83.3%	-3.7%
Uses online financial services like banking, investing, paying bills	76.7%	83.4%	-6.7%
Watches videos online	62.4%	78.4%	-16.0%
Participates in online video or voice calls or conferencing	57.1%	73.6%	-16.5%
Streams or downloads music, radio, podcasts, etc.	49.5%	70.4%	-20.9%
Requests services provided by other people via the internet	29.9%	50.9%	-21.0%
Accessing government services	34.0%	45.8%	-11.8%
Takes class or participates in job training online	9.6%	31.7%	-22.0%
Interacts with household equipment using the internet	20.5%	24.2%	-3.7%
Telecommutes using the internet	14.1%	28.3%	-14.2%
Searches for a job online	5.3%	22.0%	-16.7%
Posts or uploads blog posts, videos, or other original content	7.0%	16.6%	-9.6%
Uses the internet to sell goods	14.3%	14.1%	0.3%
Offers services for sale via the internet	6.8%	7.0%	-0.2%

Racial or ethnic minorities were also evaluated for digital skills use, although this demographic does not illustrate a particularly urgent need for skills training. Rather, racial or ethnic minorities outperform white Oregonians in more than half the measured online activities.

[293] U.S. Census Bureau, Current Population Survey Public Use Microdata, 2021. Accessed August 29, 2023.

Table 23: Digital literacy in racial/ethnic minority and white populations[294]

Online activity	Ethnic or racial minority	White alone	Gap
Uses text messaging or instant messaging	97.0%	94.5%	2.5%
Uses email	94.8%	94.8%	0.0%
Uses online social networks	79.7%	70.0%	9.8%
Shops, makes travel reservations, or uses other consumer services online	71.8%	84.2%	-12.4%
Uses online financial services like banking, investing, paying bills	80.5%	81.5%	-1.0%
Watches videos online	84.0%	76.4%	7.6%
Participates in online video or voice calls or conferencing	77.4%	71.6%	5.8%
Streams or downloads music, radio, podcasts, etc.	80.9%	66.3%	14.6%
Requests services provided by other people via the internet	44.7%	48.5%	-3.9%
Accessing government services	41.1%	44.3%	-3.2%
Takes class or participates in job training online	41.0%	29.4%	11.5%
Interacts with household equipment using the internet	31.9%	22.2%	9.8%
Telecommutes using the internet	18.9%	27.4%	-8.4%
Searches for a job online	26.3%	19.3%	7.0%
Posts or uploads blog posts, videos, or other original content	17.0%	15.8%	1.2%
Uses the internet to sell goods	12.0%	14.0%	-2.0%
Offers services for sale via the internet	5.0%	7.1%	-2.2%

3.2.4 Telemedicine

Increasingly, there is a use and need for a distinguished set of digital skills involved in telemedicine and remote healthcare. These activities include communicating with health professionals over the internet, researching health information online, using an electronic health monitoring device (for example, sending data to a provider from a smart watch or pacemaker), and accessing health or health insurance records online. Oregon significantly outpaces the nation in frequency of performance of each of these telemedicine activities; the only exception is in using an electronic health monitoring service, where the state slightly lags behind (2.4 percentage point gap).

[294] U.S. Census Bureau, Current Population Survey Public Use Microdata, 2021. Accessed August 29, 2023.

Table 24: Telemedicine digital literacy in Oregon and the U.S.[295]

Telemedicine activity	Oregon	Nation	Gap
Communicates with a health professional over the internet	65.7%	48.1%	17.6%
Researches health information online	70.1%	52.9%	17.2%
Uses an electronic health monitoring service	6.1%	8.4%	-2.4%
Accesses health or insurance records online	71.2%	53.1%	18.1%

Among people in Oregon belonging to covered populations, telemedicine is less frequently practiced compared to non-covered populations. These gaps are especially prevalent in researching health information online (13.5 percentage point gap) and accessing health or insurance records online (10.4 percentage point gap). Individuals in covered populations do just outpace non-covered populations in the rate of use of electronic health monitoring services (0.9 percentage point gap), but this outcome may be skewed by a higher rate of medical needs among covered populations rather than a higher degree of digital literacy.

Table 25: Telemedicine digital literacy in covered and non-covered populations[296]

Telemedicine activity	Covered groups	Non-covered groups	Gap
Communicates with a health professional over the internet	62.6%	70.7%	-8.1%
Researches health information online	64.7%	78.2%	-13.5%
Uses an electronic health monitoring service	6.5%	5.5%	0.9%
Accesses health or insurance records online	67.0%	77.4%	-10.4%

Among the covered populations, individuals living in rural areas and areas adults at or above 60 years of age exhibit the most urgent needs for increased telemedicine skills—based on both their reported frequency of participation in telemedicine (which is notably low) and given the difficulties in traveling long distances and at inconvenient times for rural individuals and given older adults' increased risk for medical needs. Low-income individuals, people with disabilities, and veterans also would greatly benefit from specific telemedicine education, as each of these populations also noticeably lag their counterparts in telemedicine participation.

[295] U.S. Census Bureau, Current Population Survey Public Use Microdata, 2021. Accessed August 29, 2023.
[296] U.S. Census Bureau, Current Population Survey Public Use Microdata, 2021. Accessed August 29, 2023.

Table 26: Telemedicine digital literacy in various covered populations[297]

	Telemedicine activity	Low-income	Higher-income	Gap
Income	Communicates with a health professional over the internet	61.2%	66.6%	-5.4%
	Researches health information online	65.1%	71.2%	-6.1%
	Uses an electronic health monitoring service	6.4%	6.0%	0.4%
	Accesses health or insurance records online	64.3%	72.7%	-8.3%
	Telemedicine activity	**Aging adults**	**Younger**	**Gap**
Age	Communicates with a health professional over the internet	58.4%	68.7%	-10.3%
	Researches health information online	59.4%	74.4%	-15.0%
	Uses an electronic health monitoring service	7.9%	5.3%	2.6%
	Accesses health or insurance records online	64.5%	73.9%	-9.4%
	Telemedicine activity	**Veteran**	**Non-veteran**	**Gap**
Veteran status	Communicates with a health professional over the internet	58.4%	66.1%	-7.7%
	Researches health information online	59.5%	70.6%	-11.1%
	Uses an electronic health monitoring service	4.4%	6.4%	-2.0%
	Accesses health or insurance records online	69.1%	71.1%	-2.1%
	Telemedicine activity	**With disabilities**	**Without disabilities**	**Gap**
Disability	Communicates with a health professional over the internet	63.4%	66.1%	-2.7%
	Researches health information online	59.1%	72.1%	-13.0%
	Uses an electronic health monitoring service	10.0%	5.3%	4.6%
	Accesses health or insurance records online	59.4%	73.3%	-13.9%
	Telemedicine activity	**Ethnic or racial minority**	**White alone**	**Gap**
Race	Communicates with a health professional over the internet	66.3%	65.6%	0.7%
	Researches health information online	72.2%	69.7%	2.4%
	Uses an electronic health monitoring service	3.7%	6.4%	-2.7%
	Accesses health or insurance records online	65.7%	72.1%	-6.4%
	Telemedicine activity	**Rural**	**Metropolitan**	**Gap**
Rurality	Communicates with a health professional over the internet	46.0%	67.7%	-21.7%
	Researches health information online	52.3%	71.9%	-19.6%
	Uses an electronic health monitoring service	4.7%	6.2%	-1.5%
	Accesses health or insurance records online	59.2%	72.4%	-13.3%

3.2.5 Online security and privacy

Theft, fraud, phishing, and misinformation are all commonplace on the internet, and fully realizing digital equity in Oregon requires users to be safe from such online risks. In Oregon, only 1 percent of all households that do not use the internet at home cited online security or privacy concerns as a reason for their lack of use. However, in the past year, 20.3 percent of individuals in covered populations report having been the victim of an online security or privacy breach.

Therefore, the State of Oregon used data from the Current Population Survey and the NTIA Internet Use Survey to evaluate the extents to which various covered

[297] U.S. Census Bureau, Current Population Survey Public Use Microdata, 2021. Accessed August 29, 2023.

populations perceive and feel confident in their ability to disarm online security and privacy threats. The key findings are as follows:

1. Oregon residents are similarly concerned by online security and privacy concerns when compared against the nation.
2. Identity theft and credit card fraud are the two online security breaches that are concerning to most Oregon residents.
3. Covered populations are similarly concerned by online security and privacy risks when compared against non-covered populations.
4. Members of covered populations do not appear meaningfully more dissuaded than non-covered populations to undertake various online activities because of security or privacy concerns.

Oregon residents tended to be slightly less concerned overall about online security or privacy than the nation, though not significantly so. Identity theft and credit card fraud were the two online security risks that concerned the most Oregon residents. This is in line with the national ranking. Other concerns such as third-party tracking, government tracking, and online threats were of less concern.

Table 27: Main online security or privacy concerns in Oregon and the U.S.[298]

(Non-exclusive) main online security or privacy concerns	Oregon	Nation	Gap
Identity theft	45.7%	50.7%	-5.0%
Credit card fraud	39.8%	42.1%	-2.3%
Third party tracking	25.8%	26.4%	-0.6%
Government tracking	16.6%	19.0%	-2.4%
Online threats	23.7%	23.1%	0.5%
Other	10.1%	13.1%	-3.0%

Individuals belonging to covered populations and non-covered individuals were similarly concerned about online security or privacy risks in Oregon. However, the relative similarities in rates of online security or privacy concerns do not necessarily indicate sufficient awareness of extant risks for either population. The

[298] U.S. Census Bureau, Current Population Survey Public Use Microdata, 2021. Accessed August 29, 2023.

data indicate that both covered and non-covered populations could benefit from additional educational programming.

Table 28: Primary online security or privacy concerns in covered and non-covered populations[299]

(Non-exclusive) main online security or privacy concerns	Covered groups	Non-covered groups	Gap
Identity theft	44.4%	47.0%	-2.7%
Credit card fraud	39.9%	39.4%	0.5%
Third party tracking	25.1%	27.4%	-2.3%
Government tracking	17.4%	15.4%	2.0%
Online threats	21.8%	27.0%	-5.2%
Other	10.2%	10.1%	0.1%

Among the specific covered populations, people with disabilities tended to be the most concerned about these risks. Lower-income individuals and veterans expressed the least concern over these issues. Online security education may increase awareness of these concerns in a positive way, especially for lower-income households and veterans.

[299] U.S. Census Bureau, Current Population Survey Public Use Microdata, 2021. Accessed August 29, 2023.

Table 29: Main online security or privacy concerns in various covered populations[300]

	(Non-exclusive) main online security or privacy concerns	Low-income	Higher-income	Gap
Income	Identity theft	38.2%	47.3%	-9.1%
	Credit card fraud	33.7%	41.1%	-7.3%
	Third party tracking	20.7%	27.0%	-6.3%
	Government tracking	14.9%	16.9%	-2.0%
	Online threats	20.1%	24.5%	-4.3%
	Other	8.9%	10.3%	-1.4%
	(Non-exclusive) main online security or privacy concerns	**Aging adults**	**Younger**	**Gap**
Age	Identity theft	47.6%	44.9%	2.7%
	Credit card fraud	45.0%	37.7%	7.3%
	Third party tracking	26.1%	25.8%	0.3%
	Government tracking	17.2%	16.3%	0.9%
	Online threats	20.7%	24.9%	-4.3%
	Other	8.0%	10.9%	-2.9%
	(Non-exclusive) main online security or privacy concerns	**Veterans**	**Non-veterans**	**Gap**
Veteran status	Identity theft	41.1%	45.7%	-4.6%
	Credit card fraud	34.5%	40.2%	-5.7%
	Third party tracking	23.0%	26.5%	-3.5%
	Government tracking	18.2%	16.5%	1.8%
	Online threats	18.1%	24.6%	-6.5%
	Other	8.6%	9.6%	-1.0%
	(Non-exclusive) main online security or privacy concerns	**With disabilities**	**Without disabilities**	**Gap**
Disability	Identity theft	48.5%	45.2%	3.3%
	Credit card fraud	45.7%	38.7%	7.0%
	Third party tracking	29.3%	25.2%	4.1%
	Government tracking	19.2%	16.1%	3.1%
	Online threats	20.9%	24.2%	-3.3%
	Other	10.8%	9.9%	0.9%
	(Non-exclusive) main online security or privacy concerns	**Ethnic or racial minority**	**White alone**	**Gap**
Race	Identity theft	39.8%	46.7%	-6.8%
	Credit card fraud	40.0%	39.7%	0.2%
	Third party tracking	22.9%	26.3%	-3.4%
	Government tracking	15.4%	16.7%	-1.3%
	Online threats	27.9%	23.0%	4.8%
	Other	15.3%	9.2%	6.2%
	(Non-exclusive) main online security or privacy concerns	**Rural**	**Metropolitan**	**Gap**
Rurality	Identity theft	47.8%	45.5%	2.3%
	Credit card fraud	45.8%	39.2%	6.6%
	Third party tracking	23.2%	26.1%	-2.9%
	Government tracking	19.1%	16.3%	2.8%
	Online threats	16.0%	24.5%	-8.4%
	Other	9.7%	10.1%	-0.4%

[300] U.S. Census Bureau, Current Population Survey Public Use Microdata, 2021. Accessed August 29, 2023.

It may be more meaningful for the identification of barriers to examine the impacts of concern rather than level of concern. An estimated 17.4 percent of Oregon residents chose not to buy goods or services online in the past year because of concerns regarding privacy or security. Similarly, 17.4 percent chose not to search for information on a web search engine for these reasons. Oregon residents appear slightly more or similarly dissuaded from online activities (depending on activity) because of security concerns than the rest of the nation. While the goal is for all individuals to feel safe and confident in their performance of online activities, it remains possible that this data is more suggestive of the level of information or awareness rather than capacity for self-protection.

Table 30: Portion of individuals dissuaded from performing online activities by privacy or security concerns in Oregon and the U.S.[301]

Concerns about privacy or security stopped someone in your household from:	Oregon	Nation	Gap
Conducting financial transactions online	7.3%	3.2%	4.1%
Buying goods or services online	17.4%	18.0%	-0.6%
Posting photos or other information to social media	13.4%	13.5%	-0.1%
Expressing an opinion on a controversial or political issue online	17.1%	13.7%	3.5%
Searching for infromation on a web search engine	17.4%	13.0%	4.4%

Members of covered populations do not meaningfully differ from non-covered populations by these metrics—with the exception of expressing an opinion on a controversial or political issue online, where covered populations were 8 percent less likely to be dissuaded than non-covered populations. Nevertheless, it is likely that security and privacy-based educational programming may be similarly beneficial to covered and non-covered populations.

Table 31: Portion of individuals dissuaded from performing online activities by privacy or security concerns in covered and non-covered populations[302]

Concerns about privacy or security stopped someone in your household from:	Covered groups	Non-covered groups	Gap
Conducting financial transactions online	8.0%	6.2%	1.8%
Buying goods or services online	18.8%	14.0%	4.8%
Posting photos or other information to social media	14.3%	11.5%	2.8%
Expressing an opinion on a controversial or political issue online	14.1%	22.2%	-8.0%
Searching for infromation on a web search engine	16.2%	18.8%	-2.5%

[301] U.S. Census Bureau, Current Population Survey Public Use Microdata, 2021. Accessed August 29, 2023.

[302] U.S. Census Bureau, Current Population Survey Public Use Microdata, 2021. Accessed August 29, 2023.

3.2.6 Device adoption

Meaningful use of the internet requires the meaningful use of internet-enabled modern devices such as desktop and laptop computers, tablets, and, in some instances, smartphones. While Oregon residents who do not use internet at home did not self-identify adequate computer device access as a substantial barrier to their households' connectivity, other data suggests a computer device ownership gap among covered populations. Therefore, the State of Oregon used data from the American Community Survey to evaluate the extent to which Oregon residents as a whole, and various covered populations specifically, have access to computer devices in their homes. The key findings are as follows:

1. Oregon outperforms the national average in desktop or laptop access rates.
2. Device access rates are uniformly lower for members of covered populations compared to non-covered populations.
3. Low-income households are in the most urgent need for increased desktop or laptop computer access. However, all covered populations lag behind their non-covered counterparts in desktop or laptop ownership (to varying degrees) and would benefit from increased device access.

The State of Oregon performs similarly to the nation in computer device ownership of any kind, with 95.9 percent of individuals claiming to have access to a computer in the house compared to 95.0 percent nationally. However, these devices are not uniformly capable. While tablets and smartphones are increasingly effective for many online tasks, they are still ultimately not adequate for full realization of achieving digital equity. In Oregon, 86.3 percent of individuals have access to a desktop or laptop in their home, which is 5.8 percentage points more than the national rate of 80.5 percent. Device adoption statistics for the state and nation are presented in Table 31 below:

Table 32: Device adoption rates in Oregon and the U.S.[303]

Computer in the house	Oregon	Nation	Gap
Computer device of any kind	95.9%	95.0%	0.9%
Desktop or laptop	86.3%	80.5%	5.8%
Tablet	71.8%	63.8%	8.0%
Smartphone only	5.3%	9.1%	-3.8%

Evidently, device ownership is affected by membership in covered populations. For example, 99.5 percent of individuals not belonging to a covered population have access to a computer at home, while only 93.8 percent of individuals belonging to covered populations report the same access. This device gap grows when limiting the inquiry to tablets, or to desktop or laptop devices, to which members of covered populations are reportedly 14.0 and 13.3 percentage points less likely to have access at the home, respectively.

Additionally, 6.8 percent of members of covered populations (compared to 2.6 percent of non-covered populations) report only having access to a smartphone at home. While this is technically counted as a computer device of any kind, a smartphone alone is insufficient for a myriad of key online activities. These data suggest that device ownership is still a meaningful barrier to connectivity for members of covered populations in Oregon.

Table 33: Device adoption rates in Oregon covered populations[304]

Computer in the house	Covered groups	Non-covered groups	Gap
Computer device of any kind	93.8%	99.5%	-5.7%
Desktop or laptop	81.4%	94.8%	-13.3%
Tablet	66.6%	80.7%	-14.0%
Smartphone only	6.8%	2.6%	4.2%

Among various covered populations, individuals living in low-income households display the most urgent needs for adequate computer devices. Low-income individuals underperformed every other covered population in ownership of computer devices of any kind, desktop or laptop computers, and tablet computers.

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[303] U.S. Census Bureau, American Community Survey Public Use Microdata, 2021. Accessed August 29, 2023.

[304] U.S. Census Bureau, American Community Survey Public Use Microdata, 2021. Accessed August 29, 2023.

People with disabilities also demonstrate relatively urgent needs for adequate computer devices—with gaps between people with and without disabilities of 13.7 percentage points for laptop or desktop device ownership and 14.9 percentage points for tablet ownership. Aging individuals also lagged younger individuals by significant gaps in device adoption—9.0 percentage points for desktop or laptop ownership and 16.8 percentage points for tablets. This data might be explained by accessibility concerns regarding various devices, which only serve to reemphasize the need for adequate devices.

English language learners also exhibit a need in device adoption. In addition to being 10.5 percent less likely to own a desktop or laptop device than fluent English speakers, a notably outsized portion of English language learners only use a smartphone at the home (12.0 percent). This is related to their tendency to only subscribe to cellular data plans, although it is unclear which factor influences the other. In either case, smartphone only use is not sufficient for fully realizing the benefits of internet use.

Table 34: Device adoption rates in various covered populations[305]

	Computer in the house	Low-income	Higher-income	Gap
Income	Computer device of any kind	87.0%	98.4%	-11.4%
	Desktop or laptop	70.1%	90.9%	-20.7%
	Tablet	57.3%	75.8%	-18.6%
	Smartphone only	9.5%	4.1%	5.4%
	Computer in the house	**Ethnic or racial minority**	**White alone**	**Gap**
Race	Computer device of any kind	96.0%	95.9%	0.1%
	Desktop or laptop	83.4%	87.3%	-3.9%
	Tablet	73.6%	71.1%	2.4%
	Smartphone only	6.6%	4.8%	1.8%
	Computer in the house	**Aging adults**	**Younger**	**Gap**
Age	Computer device of any kind	92.1%	97.2%	-5.0%
	Desktop or laptop	79.6%	88.6%	-9.0%
	Tablet	59.2%	76.0%	-16.8%
	Smartphone only	6.7%	4.8%	1.9%
	Computer in the house	**With disabilities**	**Without disabilities**	**Gap**
Disability	Computer device of any kind	88.4%	97.3%	-8.8%
	Desktop or laptop	74.7%	88.4%	-13.7%
	Tablet	59.2%	74.1%	-14.9%
	Smartphone only	7.6%	4.9%	2.8%
	Computer in the house	**English learner**	**English fluency**	**Gap**
English proficiency	Computer device of any kind	96.7%	95.9%	0.8%
	Desktop or laptop	76.4%	86.9%	-10.5%
	Tablet	64.7%	72.2%	-7.4%
	Smartphone only	12.0%	4.9%	7.0%
	Computer in the house	**Veteran**	**Non-veteran**	**Gap**
Veteran status	Computer device of any kind	92.7%	96.1%	-3.4%
	Desktop or laptop	82.3%	86.6%	-4.3%
	Tablet	63.3%	72.3%	-9.0%
	Smartphone only	5.7%	5.3%	0.5%

In addition to the need for devices, many of the above groups may have needs for access to device repair and tech support programs. For many individuals learning how to use a computer for the first time, a lack of proper training or support may dissuade continued digital adoption. This data unfortunately does not suggest meaningful insights on those needs.

[305] U.S. Census Bureau, American Community Survey Public Use Microdata, 2021. Accessed August 29, 2023.

3.2.7 Online accessibility and inclusivity of public resources and services

The promise of internet accessibility for all requires the use of universal design principles that embrace people with disabilities and those with low levels of digital literacy and digital skills. These groups include people with disabilities, older adults, those with lower levels of literacy, and those who are English language learners. These design principles encompass cultural and linguistic considerations.[306]

Without universal, inclusive, and accessible online content and resources, many individuals will be precluded from meaningfully using the internet to access resources critical to health, emergency services, and civic engagement opportunities, to name a few. The accessibility of online content and services is an essential measurement for benchmarking digital equity.

Oregon is committed to providing all populations, including individuals with disabilities, equal access to web-based information and services and is continually engaged in the process of improving the web experience for all constituencies.[307]

Oregon's Electronic Government Program (E-Government Program) [308] provides residents, businesses, and visitors with online access to government services through a desktop or mobile device. The Program consists of more than 300 State agency services as of December 2022, including the Oregon.gov website and agency, board, and commission websites that use this domain.[309] Enterprise Information Services (EIS)[310] manages the program with input from the Electronic Government Portal Advisory Board (EPAB), established by State statute,[311] and contracts with an

[306] See, e.g., "Guidance on Web Accessibility and the ADA," U.S. Department of Justice, Civil Rights Division, March 18, 2022, https://www.ada.gov/resources/web-guidance/.
[307] "Website Accessibility," Oregon.gov, https://www.oregon.gov/pages/accessibility.aspx.
[308] "About Oregon's E-Government Program," EIS, https://www.oregon.gov/eis/shared-services/Pages/e-government-program.aspx.
[309] "Enterprise Information Services' Biennial Report on Electronic Government Portal Activities for January 2021 – December 2022," EIS, January 2023, https://www.oregon.gov/epab/Documents/2022-EPAB-Legislative-Report.pdf.
[310] Enterprise Information Services, https://www.oregon.gov/eis/Pages/default.aspx.
[311] The EPAB consists of 13 members, staffed by EIS, and was established by ORS 276A.273; see, https://www.oregonlegislature.gov/bills_laws/ors/ors276A.html.

e-government portal provider to offer a secure solution that meets industry standards and the standards for usability developed with the EPAB.

In 2022, EIS initiated two initiatives to improve the accessibility of E-Government Program services: the publication of a guidance document[312] to improve usability and accessibility for end-users and the selection of an enterprise tool that scans State websites to identify and fix accessibility issues.

A 2022 survey of Oregonians about their use of online State services sponsored by EPAB[313] found that while accessing government services online, particularly from a mobile device, is becoming increasingly important for Oregonians, disparities in access exist for some communities—particularly among individuals with disabilities and individuals with a language barrier. Of the approximately 11 percent of respondents who indicated that a member of their household experiences a barrier to accessing the State of Oregon website, "discomfort with technology" was the most commonly reported barrier (51.9 percent) followed by "other" (36 percent) and a "barrier due to disability" (22.3 percent). (Respondents could choose more than one response.) The survey report recommended further engagement with residents who are immigrants, refugees, and asylees and those who speak a language other than English to identify barriers they experience.

In 2023, the research team conducted a follow-up series of focus groups and interviews with individuals from immigrant communities and communities of color to better understand their experiences with online State services.[314] While "many people found the website easy to navigate and straightforward," key recommendations included more translation of chat and audio resources in addition to text, making more resources available in multiple languages, greater

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[312] "Guidance on Accessibility for E-Government Program Services," EIS, March 22, 2022, https://www.oregon.gov/eis/shared-services/Documents/eis-ss-guidance-egov-accessibility.pdf.
[313] "Oregon E-Government Program & NICUSA 2022 Benchmark Survey Report," Portland State University, https://www.oregon.gov/epab/Documents/2022-PSU-Research-Benchmark-Survey-6-28-2022.pdf.
[314] Nishishiba, Masami, Ph.D. et al, "The experiences among communities of color with the State of Oregon's online services: A qualitative analysis," prepared by the Center For Public Service, Mark O. Hatfield School Of Government, Portland State University, July 2023, https://www.oregon.gov/epab/Documents/Oregon%20Resident%20E-Government%20Survey%20Phase%202%20Report_20230809.pdf.

continuity across State websites, and outreach to community partners to help make new immigrants, in particular, aware of resources available online.

An audit of government websites would organize, document, and measure the accessibility of the various resources and services offered online. There are low-burden means by which state or local agencies can review individual websites via online accessibility calculators. These calculators examine source code for websites to check against the most recent WCAG 2.1[315] online accessibility standards. These standards include best practices for content perceivability, resource operability, information understandability, and tool robustness.

As emphasized by the findings of the 2022 E-Government Program Benchmark Survey, mobile apps are increasingly important in accessing government services. "Sometimes, inaccessible websites and mobile apps can keep people with disabilities from joining civic or other community events like town meetings or programs at their child's school, or make it harder for them to join," the U.S. Department of Justice (DOJ) stated in a Notice of Proposed Rulemaking directed at state and local governments. The Oregon Health Authority (OHA) first engaged digital accessibility expert consultants in 2021 during the COVID-19 vaccine response in Oregon. These experts identified the need for immediate digital accessibility improvements, including training and programming at OHA and Oregon Department of Human Services (ODHS) as part of regular operations. As part of the post-emergency transition, OHA and ODHS convened a Digital Accessibility Workgroup sponsored by the OHA Chief Operating Officer and the Chief Information Officer. The workgroup includes representation from agency and division level leads, and observers from state-level administrative and information services. The workgroup has proposed two agency-level policies that are in draft phases—one to address Hardware, Software and Systems and a companion policy to address Content Creation and Sharing. The workgroup paused policy development to respond to the DOJ and HHS proposed rules and recent change to WCAG 2.2 standards; upon submitting these responses, the workgroup will complete the policy proposal process, plan a digital accessibility maturity assessment, and conduct a preliminary inventory of digital materials to estimate the potential

[315] W3C, Web Content Accessibility Guidelines (WCAG) 2.1. https://www.w3.org/TR/WCAG21/. Accessed August 19, 2023.

remediation workload. OHA continues to pursue funding to establish a centralized digital accessibility program that will move the agencies towards conformance to WCAG guidelines and compliance with federal law.[316],[317] The DOJ proposes WCAG Version 2.1, Level AA[318] as the technical standard for web content and mobile apps that state and local governments would be required to follow and notes that any "technical standard says specifically what is required for something to be accessible."[319]

Further guidance is provided by Section 508 of the Rehabilitation Act,[320] the Plain Writing Act of 2010 (which applies to federal agencies but provides useful guidance),[321] and EIS.[322]

Also of note, the Oregon Department of Human Services is conducting a pilot project to incorporate technology solutions to improve the accessibility of on-site services for community and staff members. The Department has found that communication between Deaf and Hard-of-Hearing individuals and hearing individuals can be challenging when in-person interpretation and captioning is not available, which happens more often in rural areas—and some workarounds in use, such as passing written notes, introduce a further barrier for individuals with limited written English skills. The Department is conducting a pilot of assistive technology tools at five Aging & People with Disabilities (APD) sites to improve ease of communication, noting that "use of these tools is one example of how we can guide our agency closer to [its] goals of equity and inclusion by making our services and workplaces more

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[316] Information in regard to OHA DOJ NPRM activities provided to OBO.
[317] "Fact Sheet: Notice of Proposed Rulemaking on Accessibility of Web Information and Services of State and Local Government Entities," DOJ, July 20, 2023, https://www.ada.gov/notices/2023/07/20/web-nprm/.
[318] W3C, Web Content Accessibility Guidelines (WCAG) 2.1. https://www.w3.org/TR/WCAG21/. Accessed August 19, 2023.
[319] "Fact Sheet: Notice of Proposed Rulemaking on Accessibility of Web Information and Services of State and Local Government Entities," DOJ, July 20, 2023, https://www.ada.gov/notices/2023/07/20/web-nprm/.
[320] "Section 508 Home Page," U.S. Department of Justice, Civil Rights Division, https://www.justice.gov/crt/section-508-home-page-0. See also "Section 508.gov," General Services Administration, https://www.section508.gov/.
[321] "Plain Language," U.S. Department of Labor, https://www.dol.gov/general/plainwriting.
[322] "Shared Services," EIS, https://www.oregon.gov/eis/shared-services/Pages/e-governance-guidance.aspx; "State Agencies' Website Guidelines for Usability and Accessibility," EIS, https://www.oregon.gov/eis/shared-services/Documents/eis-ss-website-style-guidelines.pdf.

accessible and welcoming." The pilot is expected to conclude at the end of 2023 and the Department anticipates expanding use of these tools based on the results.[323]

[323] "Assistive Technology for On-Demand Sign Language Interpreting, Captioning, and Amplification," presentation by a representative of Oregon Deaf and Hard of Hearing Services, Oregon Department of Human Services, shared with OBO.

4 COLLABORATION AND PARTNER ENGAGEMENT

This section of the Plan describes OBO's approach to engaging and collaborating with key stakeholders and partners throughout Oregon engaging in a thorough, extensive, inclusive, and transparent engagement process. To develop this Digital Equity Plan, as well as the plans required for the Broadband Equity, Access, and Deployment (BEAD) Program, OBO undertook the activities described below.

4.1 Coordination and outreach strategy

OBO staff have worked to build trusting relationships with stakeholders and the public through longstanding collaboration and advocacy to ensure broadband needs are heard. As part of Business Oregon, OBO works with the Regional Development Officers in each of the Business Oregon regional offices to reach local stakeholders across the state.

OBO's outreach approach includes:

- **In-person engagements** in dozens of local communities and with tribal authorities to solicit input, insights, priorities, and guidance.
- **Partner organization engagement** through virtual workshops and distribution of online surveys for government agencies, nonprofit entities, internet service providers, community anchor institutions, and other institutional stakeholders.
- **Scientific phone survey** of Oregon households on digital equity topics.
- **Ongoing meetings** with state agencies and community organizations that represent covered populations.
- **Lived Experience Expert Focus Groups** with covered population serving nonprofit organizations statewide.

OBO conducted a series of virtual workshops with government agencies and anchor institutions, community-based organizations representing covered populations, and internet service providers. In parallel to outreach through in-person engagements, OBO used a statistically valid data collection methodology to conduct a statewide residential phone survey to inform this Plan and capture resident input across the state. OBO continues to conduct ongoing outreach to tribal governments

and state agencies serving covered populations and collaboration with higher education and workforce organizations in workforce development.

Much of this outreach was conducted leading up to the state's submission of the BEAD Five-Year Action Plan in August 2023 and is included in detail in that Plan. Additional outreach to state agencies and community organization partners has continued and is highlighted in this Digital Equity Plan. (Appendix B lists the organizations with which OBO collaborated in developing the Plan.)

4.1.1 In-person engagement

OBO engaged with the public in open meetings in 12 locations around the state to ensure regional diversity was core to the engagement efforts. Engagement with partners and tribal governments continues through ongoing virtual and in-person meetings. Invitations for the regional meetings were sent to regional partners and stakeholders, such as libraries and local governments, to help distribute the promotional flyer along with local radio spots and social media posts on OBO's Facebook, Twitter, and LinkedIn pages. In May, OBO had 12 posts on each of OBO's three social media sites. In June OBO had eight posts on each site and had four posts on each site in July. In addition, Business Oregon representatives in each of its 12 regions also invited diverse groups of local stakeholders to join these meetings.[324]

During the month of July 2023, OBO held five Lived Experience Expert Focus Group discussions to understand the lived experiences of specific population groups in the state. OBO identified and engaged representatives from stakeholder organizations that serve covered populations to attend the sessions:[325]

- Urban Lived Experience Expert Focus Group: Hybrid, Portland, July 11, 2023
- Rural Lived Experience Expert Focus Group: Hybrid, Lakeview, July 13, 2023

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[324] See "Regional Service Areas," Business Oregon, https://www.oregon.gov/biz/aboutus/regions/Pages/default.aspx.

[325] As defined in NTIA's Digital Equity Notice of Funding Opportunities (last accessed July 28, 2023), covered populations includes the following groups: individuals who live in covered households (i.e., low-income); aging individuals (60 and above); incarcerated individuals, other than individuals who are incarcerated in a Federal correctional facility; veterans; individuals with disabilities; individuals with a language barrier, including individuals who are English learners; and have low levels of literacy; individuals who are members of a racial or ethnic minority groups; and individuals who primarily reside in a rural area.

- Tribal Lived Experience Expert Focus Group: Virtual, July 19, 2023
- Seniors ([Older Adults] Lived Experience Expert Focus Group: Virtual, July 21, 2023
- Persons with Disabilities Lived Experience Expert Focus Group: Virtual, July 23, 2023

OBO ensured that each Lived Experience Expert Focus Group was not only designed to obtain information and learn about specific lived experiences of each noted covered population but also included representatives who serve multiple covered populations (for example, older adults, veterans, persons with disabilities) and could speak to that intersection. OBO recognizes that these groups not only have unique barriers to full digital equity, but they also have intersecting barriers that the state will look to address in its Digital Equity Plan. OBO also worked to ensure that each Lived Experience Expert Focus Group was fully accessible for attendees by offering native language translations and accommodations such as sign language interpreters.

Previously, OBO had prepared for this Plan and the BEAD Five-Year Action Plan during 2022 with a series of listening sessions designed to elicit relevant information at an early stage of the planning process. In April 2022, OBO held five community listening sessions[326] with the intended purpose of gaining insight into how to provide broadband access and services to specific groups.

4.1.2 Partner organization engagement

During spring 2023, OBO conducted a series of virtual workshops with government agencies, anchor institutions, community-based organizations representing covered populations, and internet service providers. These facilitated workshops captured knowledge from a range of engaged professionals throughout the state. Through these sessions, OBO collected input on digital equity needs and issues, and how existing programs could be improved with additional resources.

[326] "Oregon Broadband Community Listening Sessions," OBO, https://www.oregon.gov/biz/programs/oregon_broadband_office/pages/oregon_broadband_community_listening_sessions.aspx.

In addition to these partner workshops, OBO captured information through a series of questionnaires (Appendix D):

- **Oregon agency asset inventory**—requested information about agency type, agency assets that could spur broadband deployment, agency broadband access and digital inclusion programs and covered populations served, the impact of broadband access upon the communities served, and agency workforce development programs.
- **Community anchor institution broadband access**—requested information about organization type, services to covered populations, types of programs offered, the organization's own use and need for access to broadband, and workforce readiness and workforce development programs.
- **Internet service providers**—requested information about sources used for hiring workers for broadband service deployment, workforce development or apprenticeship programs, participation in the ACP and subsidized service offerings speeds and costs, internet skills and adoption programs, collaboration with communities to close the digital divide, approaches to deploying broadband in areas most expensive to serve, and continuity and disaster recovery plans.
- **Digital equity program inventory**—requested information from tribal governments, covered population-serving organizations, local governments, state agencies, and other partners about current programs that provide community members with the skills and tools needed to participate in broadband-related and digital equity opportunities.
- **Covered populations broadband barriers analysis**—requested information from organizations that serve or represent unserved and underserved populations, with a focus on covered populations' access to services and devices; digital literacy; inclusive and accessible content; data privacy.
- **Oregon workforce development opportunity**—requested information from labor unions, trade associations, workforce development agencies, economic development entities, and educational entities about opportunities for workforce training and readiness programs to prepare residents for opportunities in the broadband field.

4.1.3 Residential phone survey

Along with virtual sessions and in-person engagements, OBO conducted a statewide phone survey to inform the plan and capture input from residents across the state. The survey aimed to inform the needs and gaps analysis by gathering data on the residents' perceived reliability of home internet, household monthly internet expenses, device access, and other topics. The survey collected a total of 1,605 responses, supporting estimation of true population proportions within ±2.5 percent.

OBO conducted surveys over the phone to better reach those without internet access. Calls were made from the morning through the early evening to capture input from those with various hours of availability.

Survey results are summarized in Appendix C, and inform the strategies and objectives outlined in this Plan.

4.1.4 Tribal outreach

OBO met with the following tribes and attended the following tribal gatherings:

- 1st NTIA Tribal Broadband Leaders Network Summit, March 23, 2023
- Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians, March 27, 2023
- Coquille Indian Tribe, March 30, 2023
- Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians, March 31, 2023
- Native American Advisory Council (Chiloquin, OR), April 5, 2023
- Burns Paiute Tribe, April 7, 2023
- Confederated Tribes of Umatilla Reservation, April 19, 2023
- Affiliated Tribes of the Northwest Indians, May 7, 2023
- Legislative Commission on Indian Services, May 17, 2023
- Confederated Tribes of Siletz Indians, August 2, 2023; tribal consultation.
- Economic Development and Community Services State-Tribal Cluster, August 25, 2023

- Confederated Tribes of the Umatilla Indian Reservation, October 12, 2023; tribal consultation.
- Confederated Tribes of Grande Ronde, October 20, 2023; tribal consultation.
- Cow Creek Band of Umpqua Tribe of Indians, October 20, 2023; tribal consultation.

4.2 Collaboration to implement this Plan

As described above and in accordance with the NOFO, OBO collaborated with key partners in the state in the development of this Plan and will continue to collaborate with such partners to achieve the measurable objectives for digital equity identified in the Plan. Comprehensive, continued engagement with partners will be key to the Plan's implementation, as discussed further in Section 5. Implementation of the Plan anticipates engaging and/or partnering with: (a) workforce agencies such as state workforce agencies and workforce organizations; (b) labor organizations and community-based organizations; and (c) institutions of higher learning, including but not limited to four-year colleges and universities, community colleges, education and training providers, and educational service agencies. OBO plans to connect and engage with additional stakeholder organizations suggested in NTIA's guidance (i.e. civil rights organizations and public housing authorities) during the public comment period and throughout the rest of the process to gather feedback and ensure the equitable and effective implementation of this Plan.

As described in Section 2.2, this Plan is also aligned with the efforts and priorities of state agencies, including the following agencies involved in workforce development and higher education: Business Oregon, Oregon Corrections Enterprises, the Oregon Employment Department, the Oregon Department of Education, and the Higher Education Coordinating Commission. OBO has also gathered a collection of organizations and programs dedicated to digital equity, listed in Section 3.1.1, Section 3.1.3, and Appendix B, that they may draw upon to implement this plan.

OBO, in coordination with the Oregon Business Development Department's (OBDD) tribal liaison, continues a longstanding coordination approach. This approach includes presenting at quarterly Economic Development and Community Services State-Tribal Cluster meetings, Legislative Commission on Indian Services, and

Affiliated Tribes of the Northwest Indians; formal tribal consultations; informal meetings (virtual and in person); monthly office hours since July 2023; sponsorship of the first Tribal Broadband Bootcamp at University of Oregon in July 2022; and the annual preparation of a government-to-government report. OBO has worked diligently to seek input and feedback from these partners and will continue to engage these organizations as it implements this Plan. For example, it may seek expertise from organizations representing covered populations to help build capacity on barrier reduction opportunities across the state by convening these partners, as noted in Section 5. OBO's plans for its State Digital Equity Capacity Grant Program will be informed by input from its partners, including state and local governments and nonprofits.

5 IMPLEMENTATION

This section of the Plan describes, at a high level, the implementation strategy and potential future initiatives that relate to each of the key strategies of the Plan, as well as potential timelines.

Digital equity in Oregon will likely involve multiple initiatives and efforts associated with each strategy and objective. OBO looks forward to the opportunity to use its Digital Equity Capacity Grant to support and develop further digital equity capacity in Oregon, in partnership, as feasible and when aligned with this Plan, with the many local and regional entities that have participated in OBO's community engagement work.

At the same time, OBO notes that the ability to develop and sustain these initiatives depends on the availability of resources and the many other priorities policymakers have for those resources and determination of how state priorities for economic development, education, health, civic and social engagement, and the delivery of other essential services may be augmented by digital equity investments. For that reason, these potential initiatives are offered as examples of what may be possible if resources are available.

Consistent with its efforts to expand broadband, OBO has designed these initiatives in the most pragmatic way possible—to be actionable, measurable, and sustainable—rather than risk designing more ambitious initiatives that are not financially or practically actionable.

5.1 Implementation strategy and key activities

The following are potential strategies, initiatives, and timelines tied to the digital equity barriers described in the sections above:

5.1.1 Critical barrier: Lack of broadband availability

5.1.1.1 Strategy 1: Increase access to residential broadband internet

Activity	Description	Timeline
Execute Capital Projects Fund Program	Extend last-mile broadband infrastructure throughout Oregon.	2023 to 2026 (consistent with ARPA requirements)

Activity	Description	Timeline
Execute BEAD Program	Extend last-mile broadband infrastructure throughout Oregon.	2023 to 2030 (consistent with IIJA BEAD requirements)

5.1.2 Critical barrier: Low-income households struggle to consistently afford home broadband internet services, devices, and technical support

5.1.2.1 Strategy 1: Increase Affordable Connectivity Program[327] and ISP low-cost program enrollment among eligible households

Activity	Description	Timeline
Develop educational materials	Provide content and support for educational campaigns among organizations that focus on ACP and ISPs' low-cost programs as well as for localities, CAIs, and nonprofits that have not previously worked to extend ACP and ISP-offered discount program enrollment.	2023 and thereafter
Encourage ISP partnerships for ACP enrollment drives	Encourage ISPs to partner with localities, CAIs, and nonprofits to develop ACP and low-cost ISP program enrollment drives and initiatives (and alternatives if ACP is not reauthorized).	2023 and thereafter
Fund library-based ACP enrollment drives	Provide funding for libraries to offer ACP/ISP low-cost program	2024 to 2029, based on availability/allocation

[327] ACP or a successor program. As of the writing of this Plan, participants have claimed $8.5 billion of the $14.2 billion allocated to the program, according to the most recent data published by the Universal Service Administrative Corp. *See:* "EBB & ACP Funding Summary," USAC, https://www.usac.org/about/affordable-connectivity-program/acp-enrollment-and-claims-tracker/ (accessed October 9, 2023). The ACP could run out of funding by mid-2024 if Congress does not allocate additional funds. *See:* "Time Is Ticking on the Affordable Connectivity Program," *GovTech*, July 21, 2023, https://www.govtech.com/network/time-is-ticking-on-the-affordable-connectivity-program.

Activity	Description	Timeline
	enrollment drives for eligible households.	of Digital Equity Capacity Grant

5.1.2.2 Strategy 2: Increase low-cost service offerings

Activity	Description	Timeline
Require grantee low-cost offerings	Build requirements and enhanced scoring for affordable service offerings into BEAD grant program.	2023 to 2025, with monitoring and enforcement consistent with BEAD Final Proposal
Encourage ISP low-cost offerings	Work with ISPs throughout the state to encourage adoption and expansion of low-cost broadband internet service and modern computing device (i.e., laptop or desktop) offerings for lower-income households.	2023 and thereafter

5.1.2.3 Strategy 3: Expand access to affordable computing devices and technical support

Activity	Description	Timeline
Provide information	Provide guidance regarding best practices, expertise, and partnership opportunities to localities and nonprofits to develop and expand existing programs that provide free or low-cost devices[328] to lower-income households.	2024 and thereafter

[328] There is no single definition of a "low-cost device." The ACP offers participants a one-time $100 discount on a laptop or desktop computer "if they contribute more than $10 and less than $50 toward the purchase price" (https://www.fcc.gov/acp). Eligible low-income subscribers to

Activity	Description	Timeline
Support ACP enrollment	Work with partners to support eligible households to purchase computing devices under ACP.	Ongoing
Fund community anchor-based tech support	Provide funding for libraries, K-12 schools (particularly Title I schools), and institutions of higher education to offer language-inclusive technical support.	2024 to 2029, based on availability of Digital Equity Capacity Grant

5.1.2.4 Strategy 4: Develop data and informational resources to enable application of a digital equity lens to infrastructure and program decisions

Activity	Description	Timeline
Provide asset information	Update OBO's Digital Equity Asset Inventory periodically so that communities have access to resources for identifying partners and best practices.	2023 and thereafter
Develop education and informational resources	Work with collaborators to design and share data and informational resources promoting internet safety, ACP awareness, and device donation and refurbishment (including basic software with all devices) and develop online resources on digital equity best practices for reference by stakeholders statewide.	2023 and thereafter

Comcast's Internet Essentials program can purchase a laptop for $149.99 (https://www.xfinity.com/learn/internet-service/internet-essentials/low-cost-computer), which would qualify for the $100 ACP discount and result in a $49.99 total price.

5.1.3 Critical barrier: Members of covered populations need support to develop digital skills

5.1.3.1 Strategy 1: Enable digital literacy skills development through training courses

Activity	Description	Timeline
Enable partnerships	Connect communities with expert partners that have established training courses, working with a full range of stakeholders that are engaged in digital equity efforts to enable partners to benefit from each other's expertise and lessons learned.	2023 and thereafter
Fund nonprofit and agency skills centers	Provide funding for organizations that bring expertise and employing best practices in offering digital skills training, based on standardized and tested curricula that reflect cultural appropriateness.	2024 to 2029, based on availability of Digital Equity Capacity Grant
Provide informational resources and guidance	Distribute relevant materials to share expertise and guidance so that communities have access to resources for identifying partners and best practices.	2023 and thereafter

5.1.3.2 Strategy 2: Expand opportunity to learn digital literacy skills for persons with disabilities and persons with English as a second language

Activity	Description	Timeline
Enable partnerships	Use OBO's convening capabilities to connect communities with expert partners that have established training courses, to enable	2023 and thereafter

Activity	Description	Timeline
	stakeholders to benefit from each other's expertise and lessons learned.	
Provide informational resources and expert data and guidance	Develop and distribute relevant materials to share expertise and guidance so that communities have access to resources for identifying cost-effective strategies and best practices.	2023 and thereafter
Fund library-based training	Provide funding for libraries to offer training at the local level regarding online safety and privacy, based on standardized and tested curricula that reflect cultural appropriateness.	2024 to 2029, based on availability of Digital Equity Capacity Grant

5.1.3.3 Strategy 3: Promote information about the availability of digital literacy programming

Activity	Description	Timeline
Promote and encourage the development and distribution of accessibility guidance	Promote the development and distribution of best practices and guidance materials regarding website design that aligns with accessibility standards.	2023 and thereafter

5.1.3.4 Strategy 4: Promote information about online safety and privacy to covered populations.

Activity	Description	Timeline
Promote and encourage the development and distribution of online safety and privacy guidance for	Promote the development and distribution of best practices and guidance materials regarding online safety and privacy, especially focused on older adults.	2023 and thereafter

Activity	Description	Timeline
all covered populations, including older adults.		

5.1.4 Critical barrier: Local communities require resources and expertise for digital equity efforts

5.1.4.1 Strategy 1: Build collaboration among state, local, and nonprofit entities

Activity	Description	Timeline
Convene stakeholders	Build structures to enable stakeholders to work together across the state and across different demographics, to enable shared lessons and resources to support those who face the greatest barriers to digital equity, as well as to help organizations leverage others' capabilities and help stakeholders serving specific covered populations to share best practices and digital equity expertise.	2024 and thereafter
Enable funders to connect with program experts	Convene stakeholders to enable organizations that run digital equity programs to request resources from private sector partners, ISPs, philanthropic entities, and other potential funding organizations.	2024 and thereafter

5.1.4.2 Strategy 2: Support and develop local capacity

Community needs are best understood—and community members are best able to effect change—at the local level. OBO therefore seeks to support development at the local level of expertise and staffing to work on digital equity initiatives and to enable

communities to prioritize the efforts and goals that are best suited to their unique circumstances.

Activity	Description	Timeline
Convene funders	Use OBO's convening capabilities to connect local communities and organizations with philanthropy and other potential digital equity funding sources.	2024 and thereafter
Promote technical assistance	Promote technical assistance to localities, nonprofits, and Anchors that seek to compete for NTIA's Digital Equity Competitive Grant funds in 2025.	2025

5.1.4.3 Strategy 3: Sustain and grow the state's efforts in digital equity

Oregon's commitment to digital equity means a significant commitment of resources to sustain the initiatives contemplated in this Plan. To sustain these efforts over time, Oregon will require resources beyond what NTIA will provide under the Digital Equity Capacity grant program. OBO will develop strategies for continuing the work launched under this Plan by partnering with philanthropy, seeking other funding sources, and tracking the impact of Oregon's digital equity efforts to quantify the business case for further digital equity program investment.

Activity	Description	Timeline
Infuse digital equity considerations into related areas	Develop materials to enable understanding by the state on how to use digital equity as a lens when making program decisions and prioritizing investments.	2024
Convene nonprofit and philanthropy partners	Use OBO's convening ability and outreach capabilities to encourage collaboration and communications among organizations that operate	2024 and thereafter

Activity	Description	Timeline
	digital equity programs and philanthropic funders.	
Collect, analyze, and publish relevant data to demonstrate changes in digital equity metrics and outcomes	Publish relevant data analytics to guide nonprofits, ISPs, and philanthropy regarding potential impactful investments.	2023 and thereafter (this effort is already underway)
Promote technical assistance	Promote technical assistance to localities, nonprofits, and CAIs that will compete for NTIA's Digital Equity Competitive Grant funds in 2025.	2025

5.2 Timeline

This timeline of potential implementation activities is an estimate, contingent on the availability of state and federal government resources, and subject to change depending on conditions that could extend or escalate the state's ability to develop and sustain these initiatives.

Challenge	Strategy	Key activities	2022	2023	2024	2025	2026	2027	2028	2029	2030
Lack of broadband availability	Increase access to residential broadband infrastructure	Execute Capital Projects Fund Program									
		Execute BEAD Program									
Low-income households struggle to afford home broadband services, devices, and technical support	Increase Affordable Connectivity Program and ISP low-cost program enrollment among eligible households	Develop educational materials									
		Encourage ISP partnerships for ACP enrollment drives									
		Fund library-based ACP enrollment drives									
	Increase low-cost service offerings	Require grantee low-cost offerings									
		Encourage ISP low-cost offerings									

Challenge	Strategy	Key activities	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Expand access to computing devices and tech support	Provide information									
		Support ACP enrollment	Ongoing								
		Fund community anchor-based tech support									
	Develop data and informational resources to enable application of a Digital Opportunity lens to infrastructure and program decisions	Provide asset information									
		Develop education and informational resources									
Members of covered populations need support to develop digital skills	Enable digital literacy skills development through training courses	Enable partnerships									
		Fund nonprofit and agency skills centers									
		Provide informational resources and guidance									

Challenge	Strategy	Key activities	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Expand opportunity to learn digital literacy skills for persons with disabilities and persons with English as a second language	Enable partnerships									
		Provide informational resources and expert data and guidance									
		Fund library-based training									
	Expand/promote information about the availability of digital literacy programming	Promote and encourage the development and distribution of accessibility guidance									
	Promote information about online safety and privacy to covered populations, including older adults	Promote and encourage the development and distribution of online safety and privacy guidance, especially focused on older adults									
Local communities	Build collaboration	Convene stakeholders									

Challenge	Strategy	Key activities	2022	2023	2024	2025	2026	2027	2028	2029	2030
require resources and expertise for digital equity efforts	among state, local, and nonprofit entities	Enable funders to connect with program experts									
	Support and develop local capacity	Convene funders									
		Promote technical assistance									
	Sustain and grow the state's efforts in digital opportunity	Infuse digital equity considerations into related areas									
		Convene nonprofit and philanthropy partners									
		Collect, analyze, and publish relevant data to demonstrate changes in digital equity metrics and outcomes									
		Promote technical assistance									

6 CONCLUSION

Broadband is the infrastructure investment of the future and a critical platform for economic and community development in the 21st century just as electricity and phone service were in the 20th century.

The state's commitment arises from Oregon's recognition of the criticality of digital equity to the well-being of the many diverse people of Oregon. Meaningful access to the internet is an essential ingredient for thriving in the 21st century. Digital equity supports economic opportunity, education, healthcare, and civic and social participation goals.

It is the vision of the State of Oregon that all people in Oregon will have access to affordable and reliable high-speed broadband internet to attain positive economic, educational, and health outcomes and to participate in social and civic life.

Achieving digital equity allows all people to fully participate in the economy of innovation and creativity, which helps to foster the goal of economic opportunity. Civic participation goals can be achieved because digital equity allows all people to have the tools to register to vote, engage in meaningful online discourse, and be better connected to the communities in which they live. The goal of healthcare access for all people is fostered by digital equity because of the knowledge and confidence that is gained from learning new digital skillsets that can be applied to telemedicine and to access personal healthcare information more easily. Digital equity inherently supports educational goals, bringing learning to the home and on the go for all people of Oregon. To achieve this vision for digital equity, the State of Oregon will work with its local, tribal, nonprofit, and institutional partners toward five key goals:

1. Universal access to affordable and reliable high-speed home internet.
2. Universal access to an affordable, quality, internet-enabled computing device that meets the person's needs.
3. Universal access to digital literacy skills and quality technical support in culturally and linguistically diverse in-community spaces.
4. Universal access to the tools and information needed to protect themselves online.

5. Universal access to inclusive state resources and online content to essential services and programs.

The state will achieve its vision of digital equity through the coordinated efforts of key constituencies and stakeholders across Oregon—and through ongoing engagement and collaboration with partners working together toward shared goals.

APPENDIX A: ISPS THAT PARTICIPATE IN THE ACP

The following table lists ISPs in the state (including mobile service providers) that participate in the ACP.[329] The table also indicates providers that offer a plan that provides service at effectively no cost with the application of the ACP subsidy ("no cost with ACP"), and whether the provider offers eligible customers the option to purchase a device at a discount.[330]

Table 35: ISPs participating in the ACP (including no-cost plans and device discounts)

Provider name	Service type	No cost with ACP	Device discount
Access Wireless*	Mobile Internet	Yes	
AFNET, LLC	Mobile Internet		Yes
Airtalk Wireless	Mobile Internet		Yes
Althea – Hawk Networks, Inc.	Home Internet		Yes
Alyrica Networks Inc	Home Internet		
Anthem Broadband	Home Internet		
Assurance Wireless*	Mobile Internet	Yes	
Astound Broadband powered by Wave	Mobile Internet	Yes	
Astound Broadband powered by Wave	Home Internet	Yes	
AT&T Mobility LLC*	Mobile Internet	Yes	
Beacon Broadband, Inc.	Home Internet		
Beaver Creek Cooperative Telephone Company*	Home Internet		
blazinghog	Mobile Internet		
Boomerang Wireless, LLC*	Mobile Internet		Yes
Boost Mobile	Mobile Internet		Yes
Cal-Ore Communications	Home Internet		
Canby Telephone Association	Home Internet		
Canby Telephone Association*	Home Internet		
Casco Communications, Inc.	Home Internet		
CenturyLink or Quantum Fiber	Home Internet		
Cintex Wireless, LLC	Mobile Internet	Yes	Yes

[329] Based on data provided to USAC by service providers, available at https://cnm.universalservice.org/ (accessed August 30, 2023).
[330] Per USAC, customers must pay more than $10 but not more than $50 and must purchase the device through the provider; "Companies Near Me," USAC, https://cnm.universalservice.org/.

Provider name	Service type	No cost with ACP	Device discount
Clear Creek Communications*	Home Internet		
Clear Wireless, LLC	Home Internet		Yes
Clear Wireless, LLC	Mobile Internet		Yes
Colton Telephone Company*	Home Internet		
Columbia iConnect	Home Internet		Yes
Comcast Xfinity	Home Internet	Yes	
Comcast Xfinity	Mobile Internet	Yes	
Comlink Total Solutions Corp	Mobile Internet		
Connect Us Wireless	Mobile Internet	Yes	
CresComm Broadband	Home Internet	Yes	
Cricket Wireless	Mobile Internet	Yes	
CTC Telecom	Mobile Internet		
Culture Wireless	Home Internet		Yes
Culture Wireless	Mobile Internet		Yes
Culture Wireless Group, LLC	Mobile Internet		Yes
Dailytel Inc.	Mobile Internet		
Datavision Communications, LLC*	Home Internet		
Digital Aid, LLC	Mobile Internet		Yes
Douglas Services, Inc.	Home Internet		
E4 Connect, Inc.*	Home Internet		
EARTHLINK, LLC	Home Internet		
Eastern Oregon Telecom	Home Internet		
Easy Wireless	Mobile Internet	Yes	
ECOMOBILE, INC.	Mobile Internet		Yes
ECOMOBILE, INC.	Home Internet		Yes
Emerald Broadband, LLC	Home Internet		
Excess Telecom, Inc.	Mobile Internet	Yes	Yes
Farmers Mutual Telephone Company	Home Internet		
FastMesh LLC	Home Internet		Yes
Fidelity Cablevision, LLC	Home Internet		
Figgers Communication Inc.	Home Internet		Yes
Freemo	Mobile Internet		Yes
Global Connection Inc. of America	Mobile Internet	Yes	Yes
GO MD USA LLC	Mobile Internet		Yes
Go Technology Management, LLC	Mobile Internet		Yes
Gorge Networks LLC	Home Internet		
Helio Broadband	Home Internet		

Provider name	Service type	No cost with ACP	Device discount
Helix Telephone*	Home Internet		
Hello Mobile Telecom LLC	Mobile Internet	Yes	
Home Telephone*	Home Internet		
Hood River Electric Co-op	Home Internet		
Hoop Wireless, LLC	Mobile Internet	Yes	Yes
Hughes Network Systems, LLC	Home Internet		
humanIT	Mobile Internet		Yes
Hunter Communications	Home Internet		
Hyak	Home Internet		
IDT Domestic Telecom, Inc.	Mobile Internet		Yes
IJ Wireless	Home Internet		Yes
IJ Wireless	Mobile Internet		Yes
Illinois Valley Data Center, LLC	Home Internet		
Infiniti Mobile	Mobile Internet	Yes	Yes
Insight Mobile, Inc.	Mobile Internet		Yes
Integrated Path Communications, LLC	Home Internet	Yes	
InterConnection	Mobile Internet		Yes
K20 Wireless	Mobile Internet	Yes	Yes
Lane Fi	Home Internet		
Life Wireless	Mobile Internet		
Lingo	Home Internet		
LTE Wireless	Mobile Internet		Yes
Maxsip Telecom Corporation	Home Internet		
Metro by T-Mobile	Home Internet	Yes	
Metro by T-Mobile	Mobile Internet	Yes	
MINET	Home Internet		
Molalla Telephone Company*	Home Internet		
Monitor Cooperative Telephone Company*	Home Internet		
Monroe Telephone Company*	Home Internet		
National Wireless	Mobile Internet		Yes
Native Network, Inc.	Home Internet		Yes
NewPhone Wireless, LLC	Mobile Internet	Yes	Yes
Nexus Telecom	Home Internet		Yes
Nexus Telecom	Mobile Internet		Yes
North American Local, LLC	Mobile Internet	Yes	Yes
North-State Telephone*	Home Internet		

Provider name	Service type	No cost with ACP	Device discount
Oregon Telephone Corporation*	Home Internet		
Oregon-Idaho Utilities, Inc.*	Home Internet		
PDTFast	Home Internet		
Pendleton Fiber	Home Internet		
Pine Telephone System Inc.*	Home Internet		
Pioneer Telephone Cooperative*	Home Internet		
PocketiNet Communications, Inc.	Home Internet		
PTC	Home Internet		
Public Wireless, LLC	Home Internet		Yes
Q Link Wireless LLC	Mobile Internet	Yes	Yes
Red Pocket & FreedomPop	Mobile Internet		Yes
Reliance Connects	Home Internet		Yes
Reliance Connects*	Home Internet		Yes
Rogue Mobile Inc.	Mobile Internet	Yes	Yes
Roome Telecommunications Inc.*	Home Internet		
RTI*	Home Internet	Yes	
Rural4G	Mobile Internet	Yes	Yes
SafetyNet Wireless	Mobile Internet	Yes	Yes
SandyNet	Home Internet		
Sano Health LLC	Mobile Internet	Yes	Yes
Sarver Wireless	Mobile Internet	Yes	Yes
SCTC*	Home Internet		
Selectel Wireless	Mobile Internet	Yes	Yes
Sherwood Broadband	Home Internet	Yes	
Skybeam, LLC	Home Internet		
SMTA, SMT-Net*	Home Internet		
Snapfon	Mobile Internet	Yes	Yes
Sparklight	Home Internet		
Spectrum (Charter Communications Operating, LLC)	Home Internet	Yes	
Spot On Networks, LLC	Home Internet		
Straight Talk, Total Wireless, Simple Mobile, Walmart Family Mobile, TracFone, Net10, Page Plus & Go Smart	Mobile Internet		Yes
SWA Connect, LLC	Home Internet		Yes
Tablet Mobile	Mobile Internet		Yes
TDS	Home Internet		

Provider name	Service type	No cost with ACP	Device discount
TDS Telecommunications Corporation	Home Internet		
Telispire, Affinity Cellular, Club Cellular, Flex Cellular	Home Internet	Yes	Yes
Tone Communication Services LLC	Mobile Internet		
Torch Wireless	Mobile Internet		
TruConnect Communications, Inc.	Mobile Internet	Yes	Yes
Twigby	Mobile Internet		
U2 CONNECT NOW	Home Internet		
United States Cellular Corporation*	Home Internet		
United States Cellular Corporation*	Mobile Internet		
Unity Wireless Inc.	Mobile Internet	Yes	Yes
Uprise Fiber	Home Internet		
Upward Mobile LLC	Mobile Internet		Yes
Verizon Wireless	Mobile Internet		
Verizon Wireless	Home Internet		
Via Wireless, LLC	Mobile Internet		Yes
Viasat	Home Internet		
VOLT MOBILE INC.	Home Internet	Yes	Yes
VOLT MOBILE INC.	Mobile Internet	Yes	Yes
Warm Springs Telecom*	Home Internet		
Whoop Connect Inc.	Mobile Internet		Yes
Wrazzle, Inc.	Mobile Internet		Yes
Yellowknife Wireless	Home Internet		
Ziply Fiber	Home Internet		
Ziply Fiber*	Home Internet		
Ztar Mobile, Inc.	Mobile Internet		Yes

APPENDIX B: ORGANIZATIONS WITH WHICH OBO COLLABORATED IN DEVELOPING THE PLAN

The following tables list the partners and others who provided input and insights to OBO through a range of engagement mechanisms, including in-person meetings, follow-up calls, and online questionnaires.

Stakeholder engagement session 1: Government

Organization
InterMountain ESD
League of Oregon Cities
Oregon Department of Education
City of Sherwood
USBS Cloud Consulting

Stakeholder engagement session 2: ISPs

Organization
ACC/Josephine County IT
Beacon Broadband
City of Eugene
Clear Creek Communications
Colton Telephone and Monitor Telecom
Columbia Fiber LLC
Datavision Communications
DirectLink BCT
Douglas Fast Net (DFN)
Eagle Telephone System, Inc.
HiLight fiber (City of Hillsboro)
Hunter Communications
Hyak
Lane ESD
Link Oregon (dba Oregon Fiber Partnership)

Organization
Lumen (CenturyLink, Quantum Fiber)
Molalla Communications
Monmouth Independence Networks
National Telecommunications and Information Administration (NTIA)
Oregon Telecommunications Association
PEAK Internet
Pioneer Connect
Rally Networks
Reliance Connects
Rogue Broadband/Umpqua Broadband
Room Telecommunications Inc./VARCOMM
Sandy, city of
Stayton Cooperative Telephone Company (SCTC)
St Paul Telephone Cooperative Association
TNET Broadband Internet
USBS Cloud Consulting
Wtechlink Inc, Pendleton Fiber, Layer 7 LLC
Ziply Fiber

Stakeholder engagement session 3: Workforce development

Organization
American Connection Corps/Josephine County IT
Beacon Broadband
Clear Creek
Douglas Fast Net
Hunter Communications
Link Oregon (Oregon Fiber Partnership)
Monmouth Independence Networks
MTC
Oregon Cascades West Council of Governments (OCWCOG)
Oregon Coast Community College

Organization
Oregon State University
Pioneer Connect
TNET Broadband Internet
USBS Cloud Consulting
Ziply Fiber

Stakeholder engagement session 4: Community anchor institutions

Organization
Central Oregon Community College – Barber Library
Centro Cultural
Chemeketa Community College
Clackamas County
COIC
COIC/Little River Strategies, Inc
Curry Public Library
City of Eugene
Free Geek
Hillsboro Public Library
Jackson County Library Services
Lake County Library District
Lane Education Service District
Link Oregon (dba for Oregon Fiber Partnership)
Linn-Benton Community College
NTIA
OBC
OHSU
Oregon State University
Portland, city of
City of Sherwood
Solarity
State Library of Oregon
USDA Rural Development
Willamette Education Service District

Stakeholder engagement session 5: Public

Organization
Alyrica Networks
Axiom Connectivity
Charter Communications
Columbia Pacific Economic Development District
Comcast Cable
EOCIL
Eugene, city of
Farallon Consulting LLC
Global Grant Service
Indian Country Broadband LLC
Link Oregon
Marion County
Marion County Board of Commissioners
Mighty.net LLC – Business Technology Consulting
MINET
Morrow County Broadband Project
City of Mt. Vernon
NWAX
Oregon Advocacy Commissions Office (OACO)
Oregon State Treasury
Oregon State University
Oregon State University Libraries and Press
Rep. Andrea Salinas
Rockaway Beach Planning Commission
South Umpqua Rural Community Partnership
Southern Oregon ESD
Suma
The Greater Eastern Oregon Network LLC
Tigard Public Library
VCTI[331]
Ziply Fiber

[331] VCTI, https://www.vcti.io/.

Stakeholder engagement session 6: General sectors

Organization
Alyrica Networks
American Connection Corps/Josephine County IT
Beacon Broadband
Centro Cultural
Chemeketa Community College
Clackamas County
Clear Creek Communications
COIC/Little River Strategies, Inc
Columbia Basin Electric Cooperative
Comcast
Community for Positive Aging
Consolidated Business Services
Converge Communications
Creswell, city of
Douglas Fast Net
City of Eugene
Free Geek
Guerreras Latinas
HiLight fiber (City of Hillsboro)
Housing Authority of Jackson County
Hunter Communications
Hyak
Indian Country Broadband LLC
Jackson County Oregon
Klamath County Economic Development Association (KCEDA)
Lake County
Link Oregon (Oregon Fiber Partnership)
Linn-Benton Community College
Monmouth Independence Networks
City of Mt. Vernon
Multnomah County
NTIA

Organization
OBC
ODOT
Oregon Department of Education
Oregon State University
OSU Extension Service
Pioneer Connect
Portland Community College
Qlife
Sequoia Consulting
True North Marketing
University of Oregon
USBS Cloud Consulting
Ziply Fiber

Stakeholder engagement session 7: Government (part 2)

Organization
City of Amity
Burns Paiute Tribe
City of Carlton
City of Cave Junction
City of Chiloquin
Confederated Tribes of Siletz Indians
Confederated Tribes of the Umatilla Indian Reservation
City of Coos Bay
City of Eugene
Global Grant Services
City of Halfway
City of Hermiston
City of Hillsboro
City of Hines
City of Hubbard
City of Klamath Falls
League of Oregon Cities
City of Lincoln City

Organization
Link Oregon (Oregon Fiber Partnership)
LOC
Marion County
City of McMinnville
Mitchell Oregon City Council
City of Mt. Vernon
MWVCOG
NTIA
City of Oakland
Oregon City Economic Development
Oregon House of Representatives
Oregon Racing Commission
Polk County
City of Portland
City of Sherwood
City of Stanfield
City of Veneta
City of Yamhill

Stakeholder survey respondents: Agency asset inventory

Organization
City of Condon
Gilliam County Court
Klamath County
Multnomah County
City of Toledo

Stakeholder survey respondents: Community anchor institutions (CAI)

Organization
Amity Public Library
Astoria Public Library

Organization
Athena Public Library
Baker County Library District
Bandon Public Library
Bushnell University
Central Oregon Community College
Central Oregon Intergovernmental Council (COIC)
Clatsop Community College
Clatsop Community College Library
Cook Memorial Library
Coquille School District 8
Cornelius Library
Corvallis-Benton County Public Library
Cottage Grove Public Library
Crook County Library
Curry Public Library
Dora Public Library
Driftwood Public Library
Eagle Point School District 9
Elgin Public Library
Flora M. Laird Memorial Library
Hermiston School District
High Desert Education Service District
Hillsboro Public Library, City of Hillsboro
Independence Public Library
Jackson County Library Services
Josephine Community Library District
Lake County Library District
Lebanon Public Library
Maggie Osgood Library
Marion County
Marion County Community Services Department
Multnomah County
Multnomah County Library
Multnomah University
North Bend Public Library
North Plains Public Library
Northwest Regional Educational Service District

Organization
Oakland Public Library
Oregon Trail Library District
Personal Telco Project
Portland Bureau of Planning & Sustainability – Community Technology Team
Portland Community College
Salem Public Library
Sandy and Hoodland Public Libraries
Scappoose Public Library
Sherwood Public Library
Silver Falls Library District
St. Helens Public Library
Stayton Public Library
Sweet Home Public Library
The Confederated Tribes of Grand Ronde Tribal Library
Tillamook Bay Community College
Tillamook County Library
Umatilla County Special Library District
University of Oregon Libraries
Warrenton Hammond School District
Western Oregon University
Weston Public Library
Yoncalla Public Library

Stakeholder survey respondents: Covered populations

Organization
211info
AGE+
City of Eugene
First Church Love & Love and Unity in the Community
Historic Parkrose
Lane Community College
Marion County – Community Services Department
City of Mt. Vernon

Organization
NE STEAM Coalition
Oregon Department of Human Services
Portland Bureau of Planning & Sustainability – Community Technology Team
Portland Community College
City of Sandy
City of Wilsonville
YourTechQ

Stakeholder survey respondents: Digital equity

Organization
AGE+
Barber Library – Central Oregon Community College
Beacon Broadband
Coquille School District 8
Eagle Point School District 9
Eugene, city of
Evergreen Virtual Academy
Forest Grove School District
Gladstone School District
Hermiston School District 8R
High Desert Education Service District
HiLight broadband (City of Hillsboro)
Hillsboro Public Library
Jackson County Library Services
Klamath Community College
Lake County Library District
Lane Education Service District
Learning.com
Lumen (Quantum Fiber)
Marion County – Community Services Department
McKenzie School District #68
Medford School District 549c
Metropolitan Family Service

Organization
MiWave
Mt. Hood Community College
City of Mt. Vernon
Multnomah County
Multnomah County Library
Northeast Oregon Economic Development District
Northwest Regional Educational Service District
Portland Bureau of Planning & Sustainability – Community Technology Team
Portland Community College
Redmond School District
Rogue Community College
Sheridan AllPrep Academy
State Library of Oregon
City of Veneta
Willamette Education Service District
YourTechQ

Stakeholder survey respondents: Internet service providers (ISP)

Organization
Astound Broadband
Beacon Broadband
Gervais Telephone Company dba Datavision Communications
HiLight broadband (City of Hillsboro)
Lane Workforce Partnership
Link Oregon
Monitor Cooperative Telephone Company
Stayton Cooperative Telephone Company (SCTC)
TDS
The Greater Eastern Oregon Network (The GEO)
Viser
Wtechlink

Stakeholder survey respondents: Workforce development organizations

Organization
City of Eugene
Lumen (Quantum Fiber)
City of Mt. Vernon
Northeast Oregon Economic Development District
Oregon State University
Portland Bureau of Planning & Sustainability – Community Technology Team
City of Portland
Stayton Cooperative Telephone Company (SCTC)
TDS
City of Woodburn

APPENDIX C: RESIDENTIAL BROADBAND AND DIGITAL EQUITY NEEDS ASSESSMENT SURVEY RESULTS

The results presented in this appendix are based on analysis of information provided by 1,605 residents of Oregon, from an estimated 1,702,599 households. Results are representative of the set of households with a confidence interval of ±2.5 percent at the aggregate level.

The survey responses were entered into SPSS[332] software and the entries were coded and labeled. SPSS databases were formatted, cleaned, and verified prior to the data analysis. The survey data was evaluated using techniques in SPSS including frequency tables, cross-tabulations, and means functions. Statistically significant differences between subgroups of response categories are highlighted and discussed where relevant.

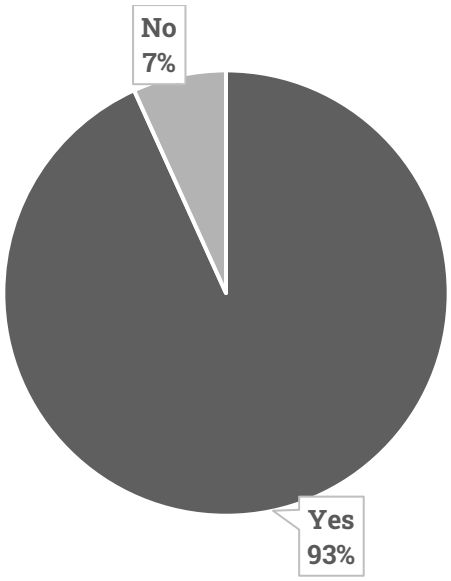
The survey responses were weighted based on household income, respondent age, and ethnicity. Since respondents in lower income households, racial or ethnic minorities, and younger individuals were less likely to respond, the weighting corrects for the potential bias based on the household income, ethnicity, and age of the respondent. In this manner, the results more closely reflect the opinions of the state's adult population.

Unless otherwise indicated, the percentages reported are based on the "valid" responses from those who provided a definite answer and do not reflect individuals who said "don't know" or otherwise did not supply an answer because the question did not apply to them. Key statistically significant results ($p \leq 0.05$) are noted where appropriate.

[332] Statistical Package for the Social Sciences (http://www-01.ibm.com/software/analytics/spss/).

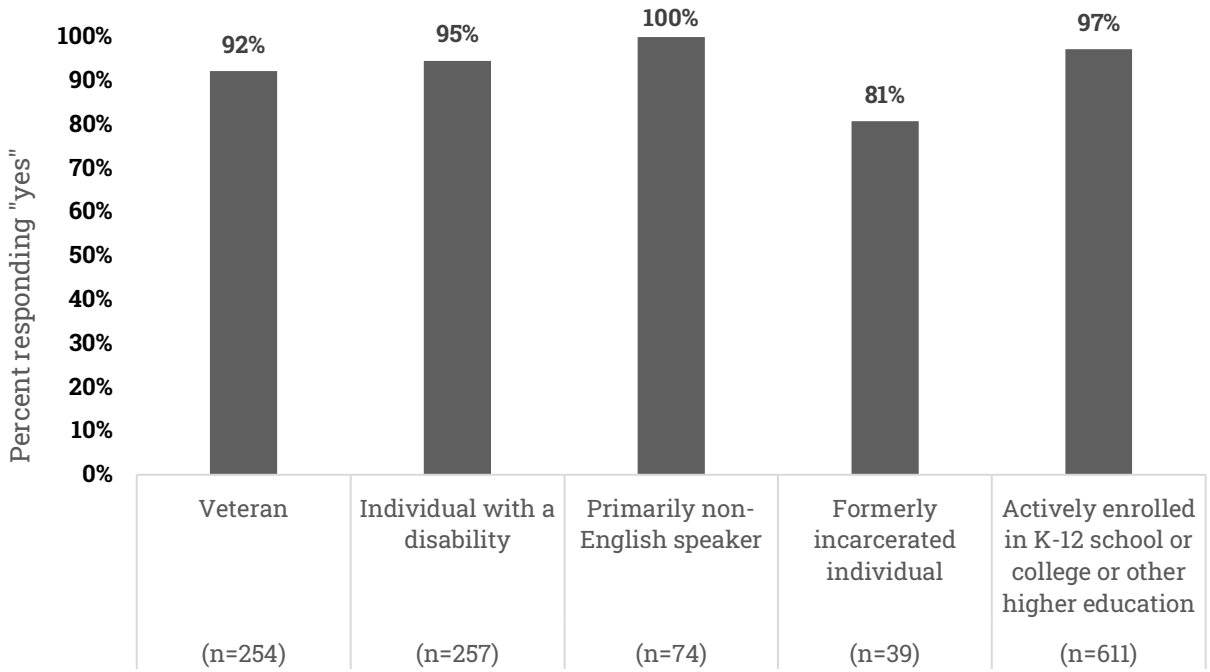
Seven percent of surveyed households report not having home internet service.

Figure 5: Percent of households with home internet service



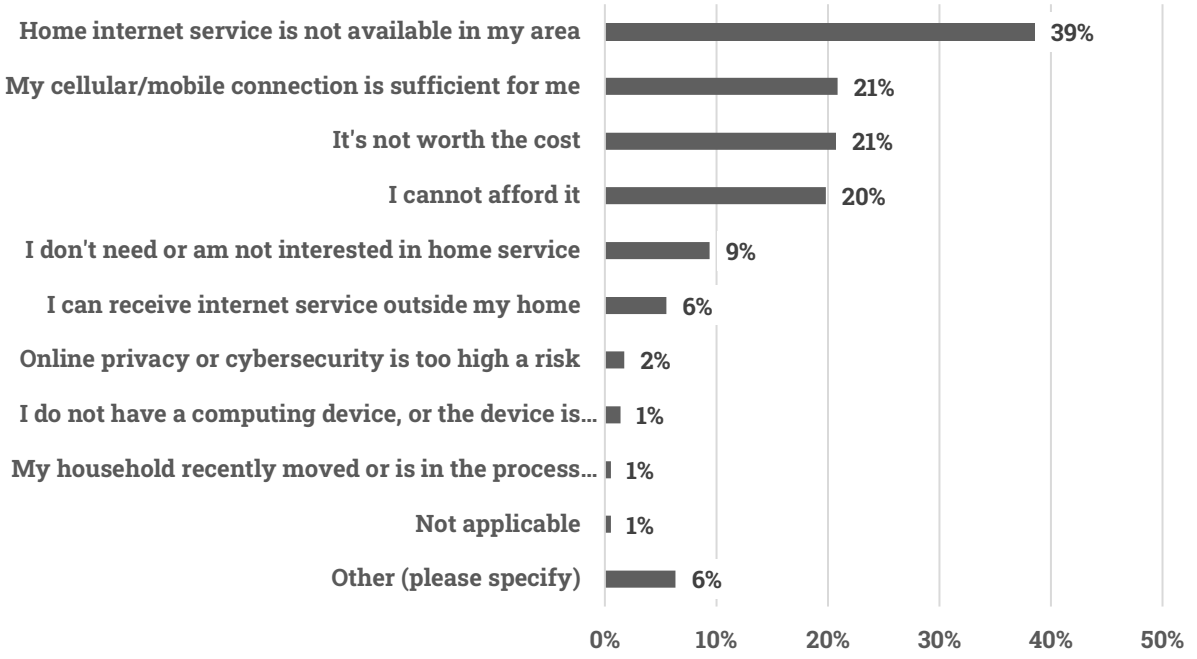
19 percent of households with a formerly incarcerated individual report not having home internet service, compared to the 5 percent of households with an individual with a disability. 100 percent of surveyed households with a primary language other than English report having home internet service.

Figure 6: Percent of covered population households that receive home internet service



Of the households who report they do not purchase home internet service, the most common reason is that home internet service is not available in the area (39 percent). Secondary reasons are that a mobile connection is sufficient, and that home internet service is not worth the cost.

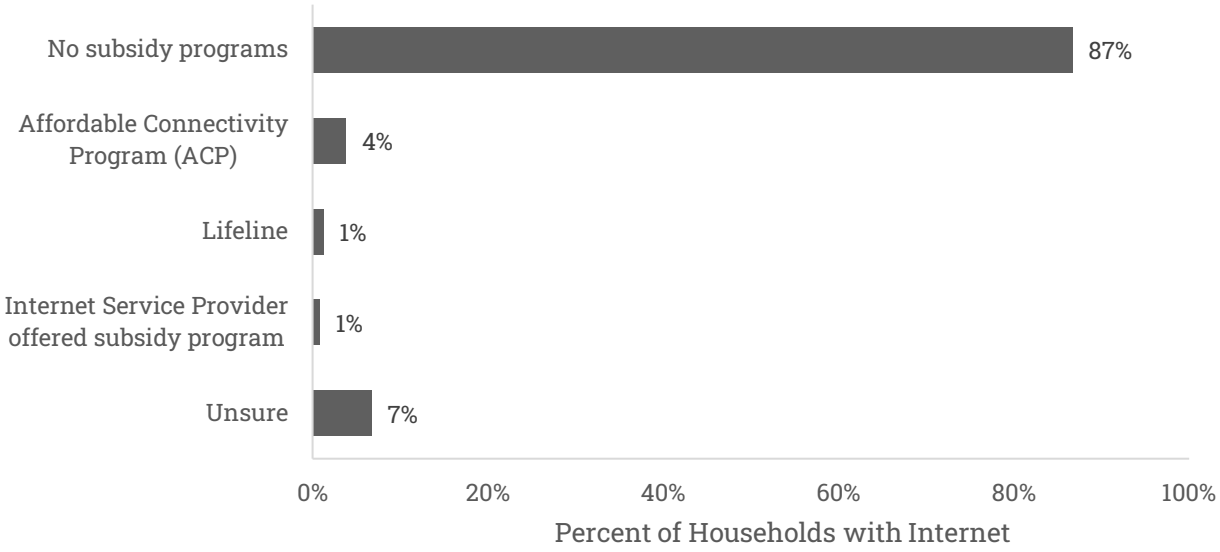
Figure 7: Reasons households do not purchase home internet service



Percent of respondents (out of 119 who do not purchase home internet)

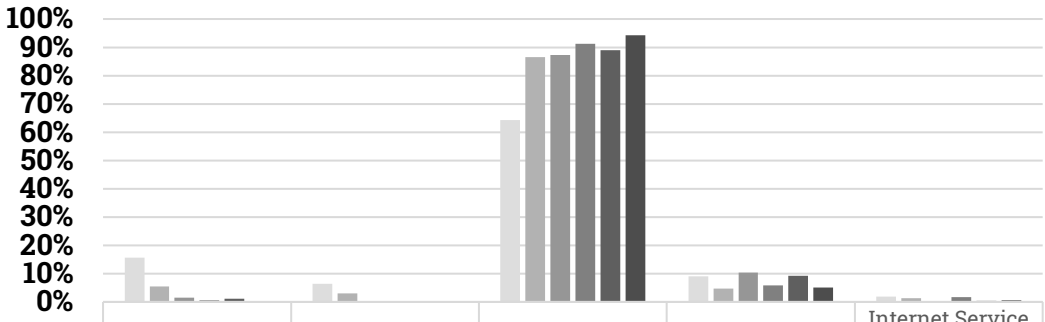
Only 4 percent of households with internet report being enrolled in the federal Affordable Connectivity Program (ACP) while an additional 1 percent report being enrolled in an internet service provider offered subsidy program.

Figure 8: Percent of households with home internet service that are enrolled in subsidy programs



Only 16 percent of households earning less than $25,000 report being enrolled in the ACP and 6 percent of households with an income between $25,000 to $49,999 report being enrolled.

Figure 9: Percent of households with internet service that are enrolled in subsidy programs by household income



	Affordable Connectivity Program	Lifeline	No subsidy programs	Unsure	Internet Service Provider offered subsidy program
Less than $25,000	16%	6%	64%	9%	2%
$25,000 to $49,999	6%	3%	87%	5%	1%
$50,000 to $74,999	2%	0%	87%	10%	0%
$75,000 to $99,999	1%	0%	91%	6%	2%
$100,000 to $149,999	1%	0%	89%	9%	0%
$150,000 to $199,999	0%	0%	94%	5%	1%

27 percent of households earning less than $25,000 report they have no computers. 20 percent of households earning between $25,000 and $49,999 report they have no computers. For high-income households earning between $100,000 and $149,999, only 7 percent report not having a single computer.

Table 36: Number of computers by household income

Computers	<$25k	$25-$49k	$50-$74k	$75-$99k	$100-$149k	$150-$199k	$200k +
None	27%	20%	18%	9%	7%	11%	4%
One	38%	47%	39%	37%	25%	21%	15%
Two	21%	22%	27%	28%	42%	34%	46%
Three or more	13%	11%	16%	26%	26%	34%	35%
Total weighted count	215	261	241	192	247	110	119

32 percent of surveyed Black households report not owning a single computer, compared to the 15 percent of surveyed White households.

Table 37: Number of computers by race/ethnicity

Computers	Black/African American	White	Other
None	32%	15%	14%
One	36%	36%	30%
Two	27%	29%	32%
Three or more	5%	20%	23%
Total weighted count	26	1,071	350

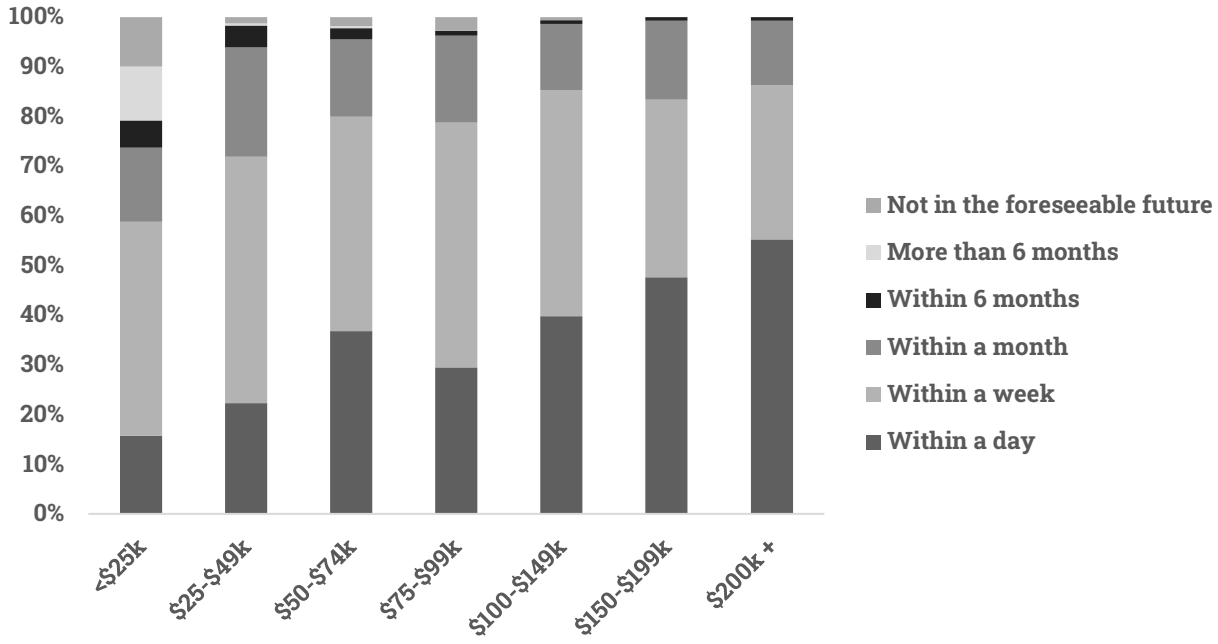
37 percent of surveyed households with a formerly incarcerated individual report not owning a single computer, compared to 10 percent of households whose language is not primarily English. 21 percent of households with a veteran report not owning a single computer.

Table 38: Number of computers in covered population households

Computers	Veteran	Individual with a disability	Primarily non-English speaker	Formerly incarcerated individual	Actively enrolled in K-12 school or college or other higher education
None	21%	17%	10%	37%	5%
One	29%	41%	8%	30%	24%
Two	30%	27%	72%	21%	41%
Three or more	20%	14%	9%	13%	30%
Total weighted count	254	257	74	39	611

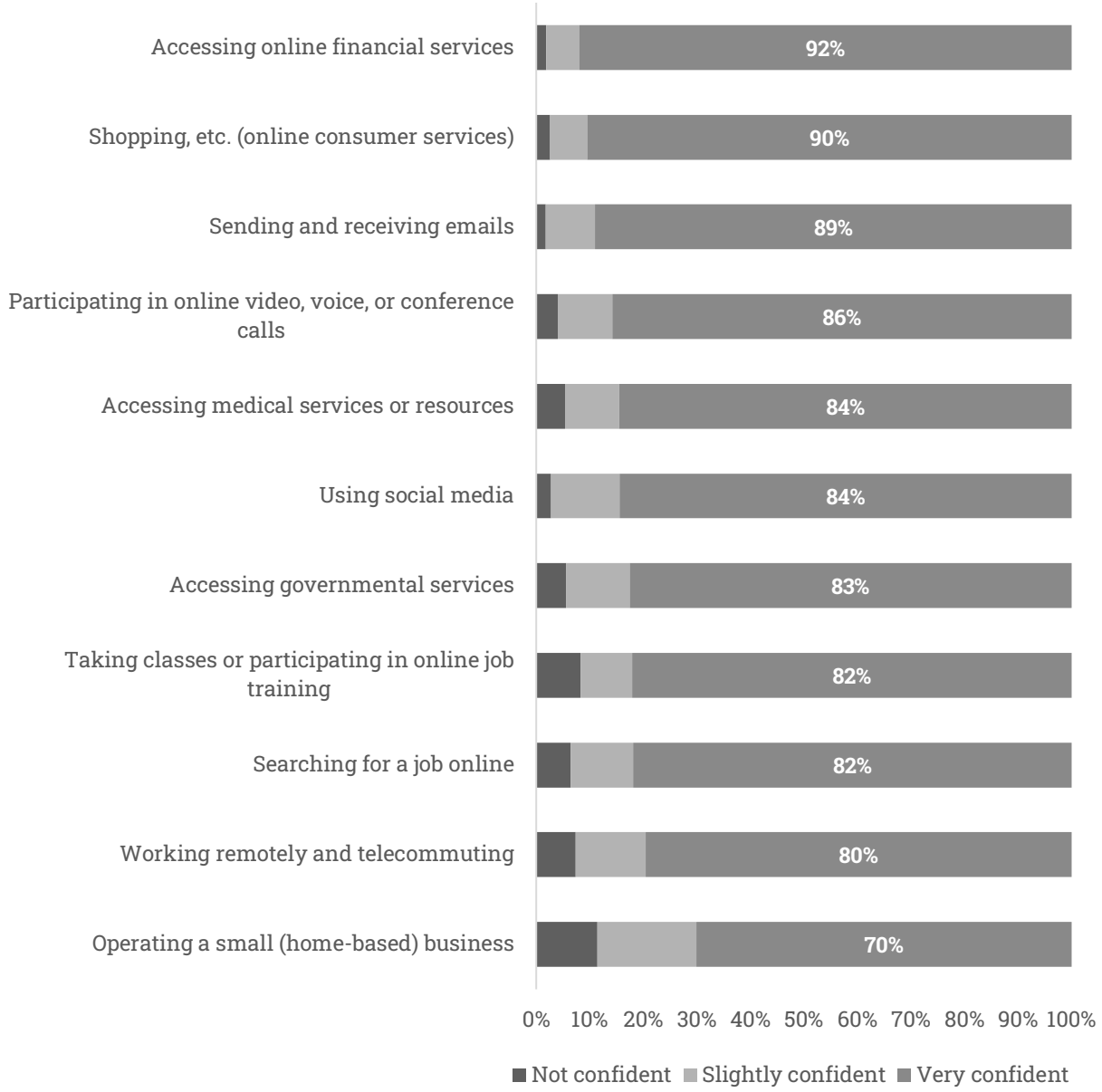
20 percent of households earning less than $25,000 report they could not replace a lost or damaged device within 6 months.

Figure 10: How long it would take to replace a lost or damaged computing device by household income



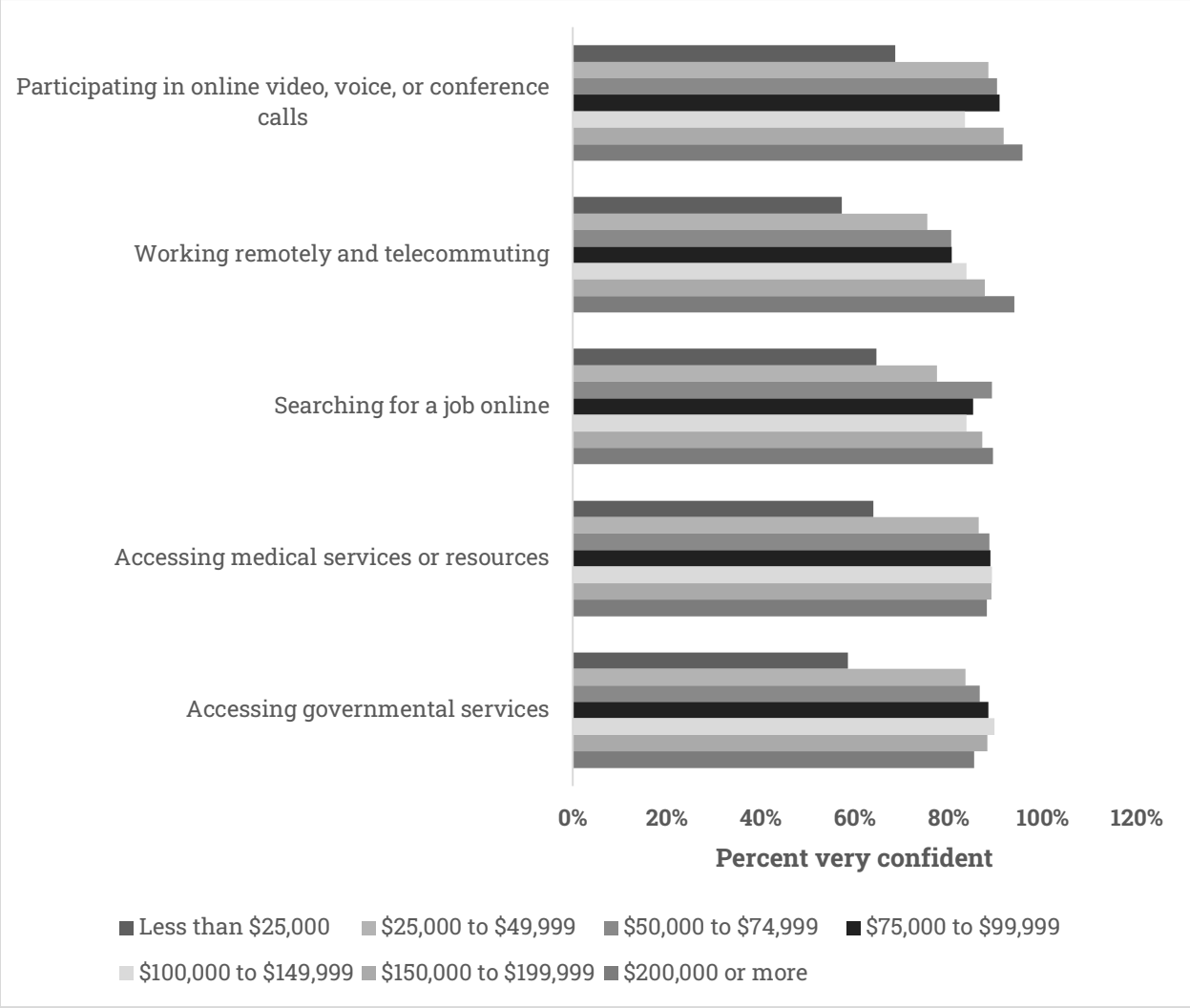
Households generally report feeling more confident in their ability to access online financial services and send/receive emails in comparison to activities such as searching for jobs online or working remotely.

Figure 11: Confidence in using the internet for various activities



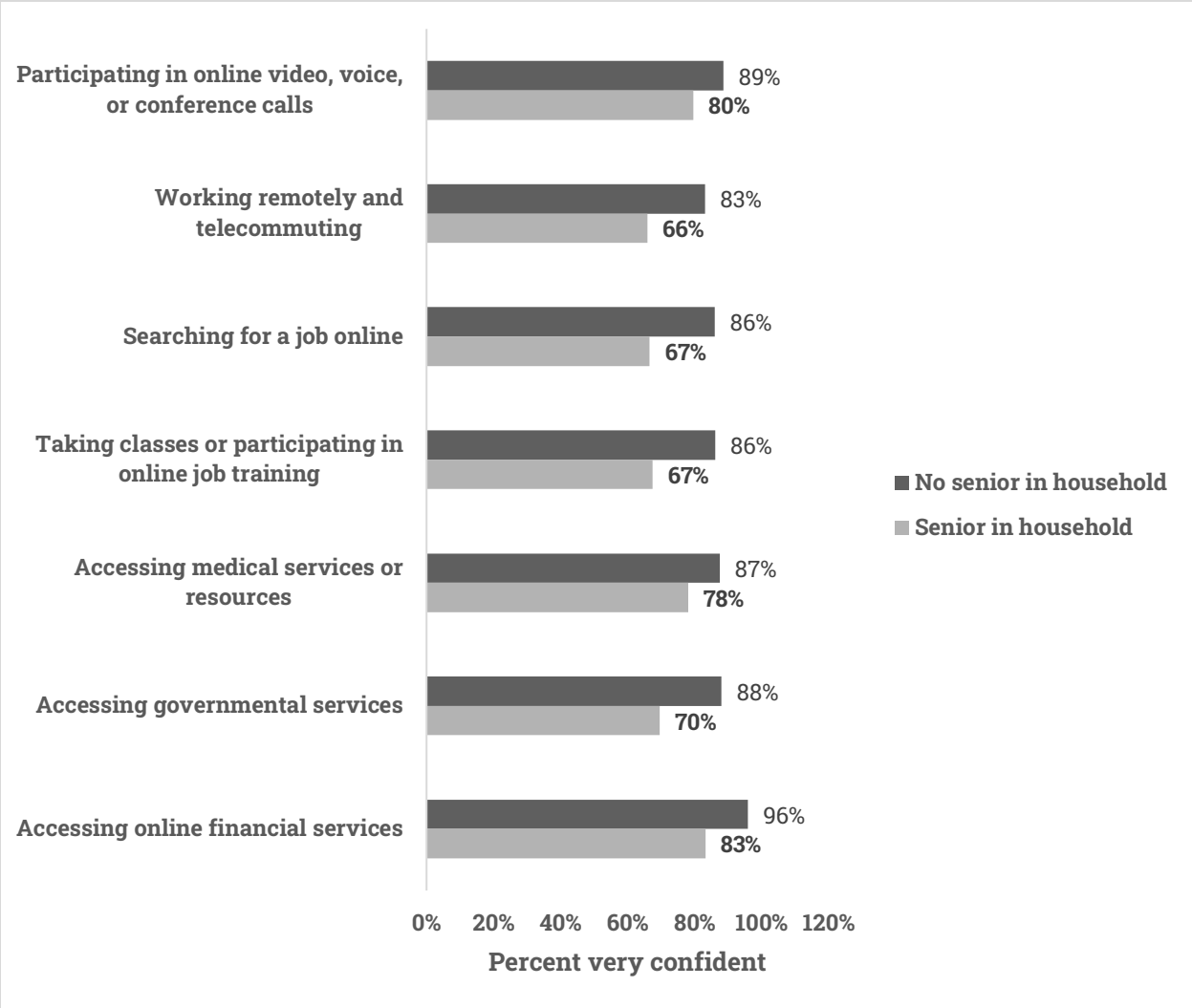
For all critical online activities, low-income households report feeling less confident in their ability to complete tasks than high-income households.

Figure 12: Very confident in using the internet for various activities by household income



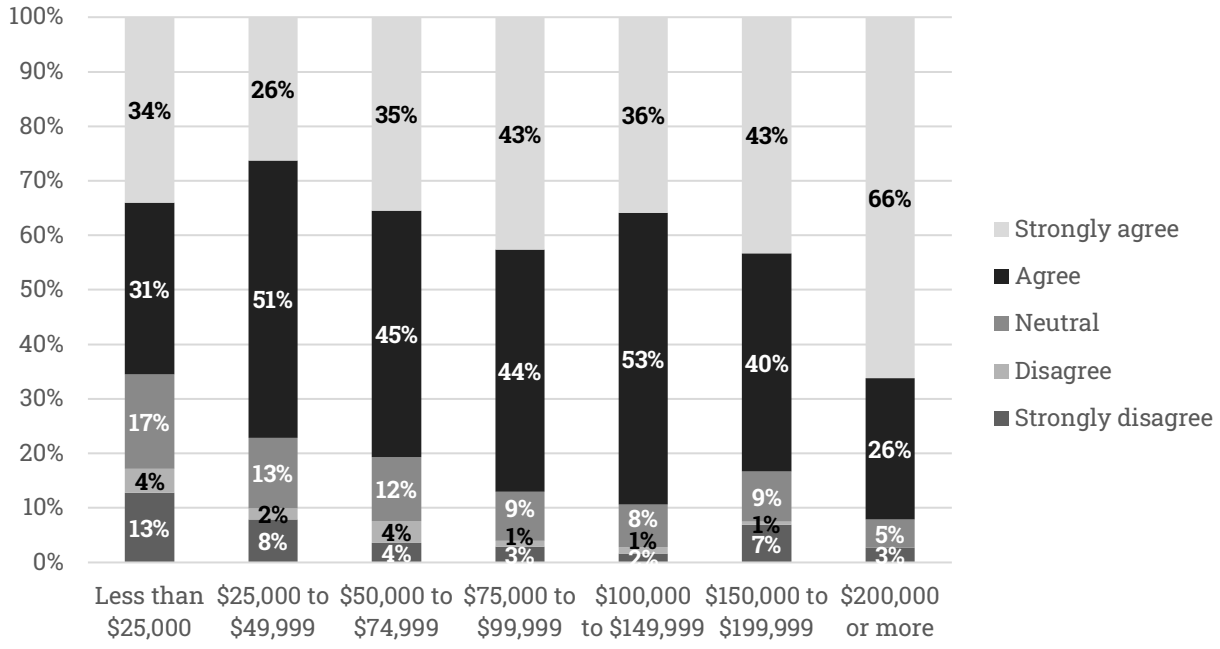
For all critical online activities, households with an older adult report feeling less confident than households without an older adult. Only 67 percent of households with an older adult feel very confident with searching for a job online, compared to 86 percent of households without an older adult. 88 percent of households without an older adult feel very confident in accessing governmental services whereas only 70 percent of households with an older adult feel very confident in the same task.

Figure 13: Very confident in using the internet for various activities by older adults in households



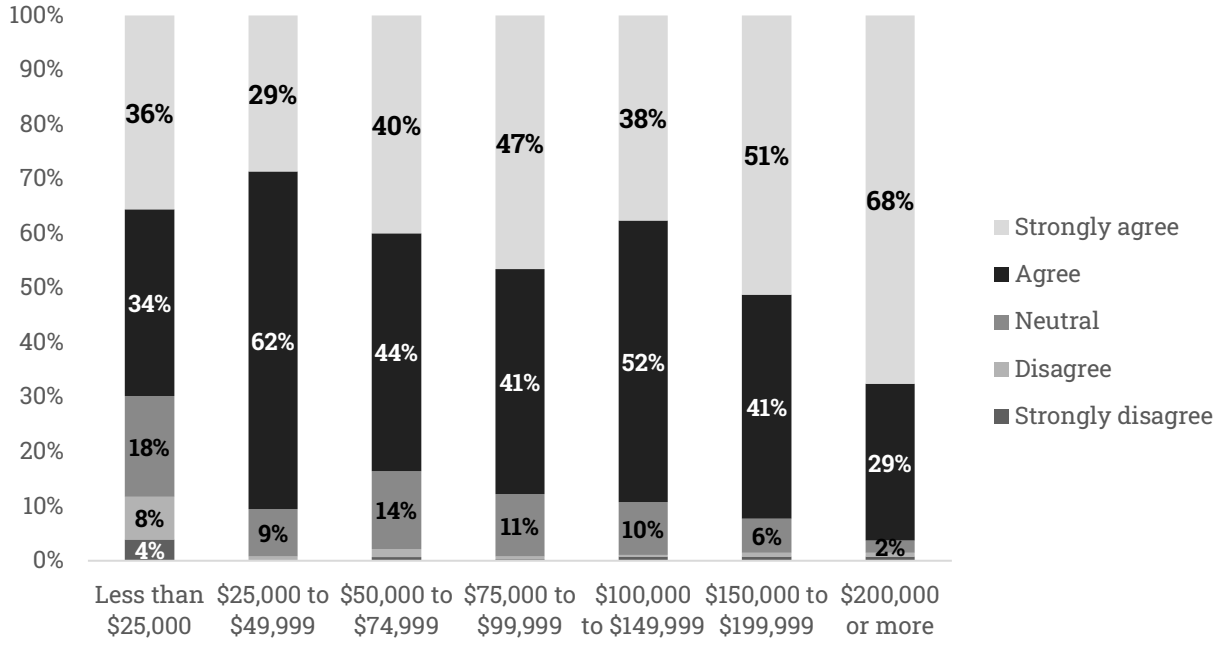
Low-income households report they are less likely to be able to use and adjust privacy settings on social media than high-income households. Only 26 percent of households earning between $25,000 and $49,999 strongly agree as compared to 66 percent of households earning $200,000 or more.

Figure 14: Response to "I can use and adjust privacy settings on social media" by household income



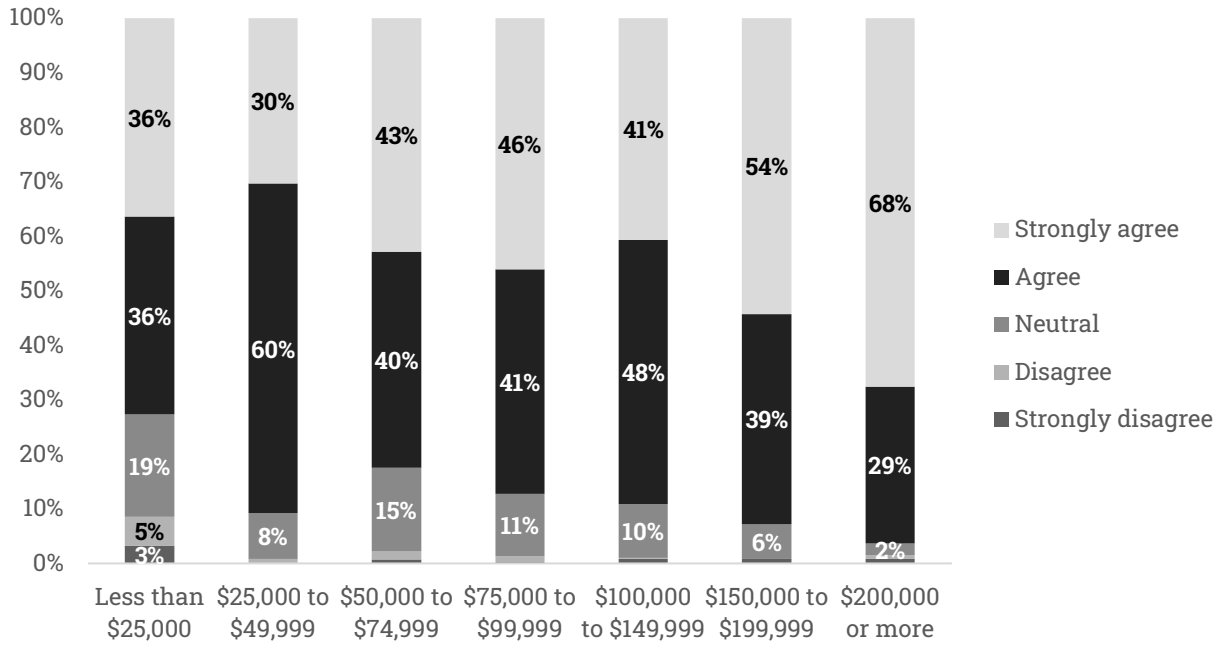
High-income households report they are more likely to be able to recognize and avoid online fraud. 47 percent of households earning between $75,000 and $99,999 strongly agree versus only 29 percent of households earning between $25,000 and $49,999.

Figure 15: Response to "I can recognize and avoid online fraud" by household income



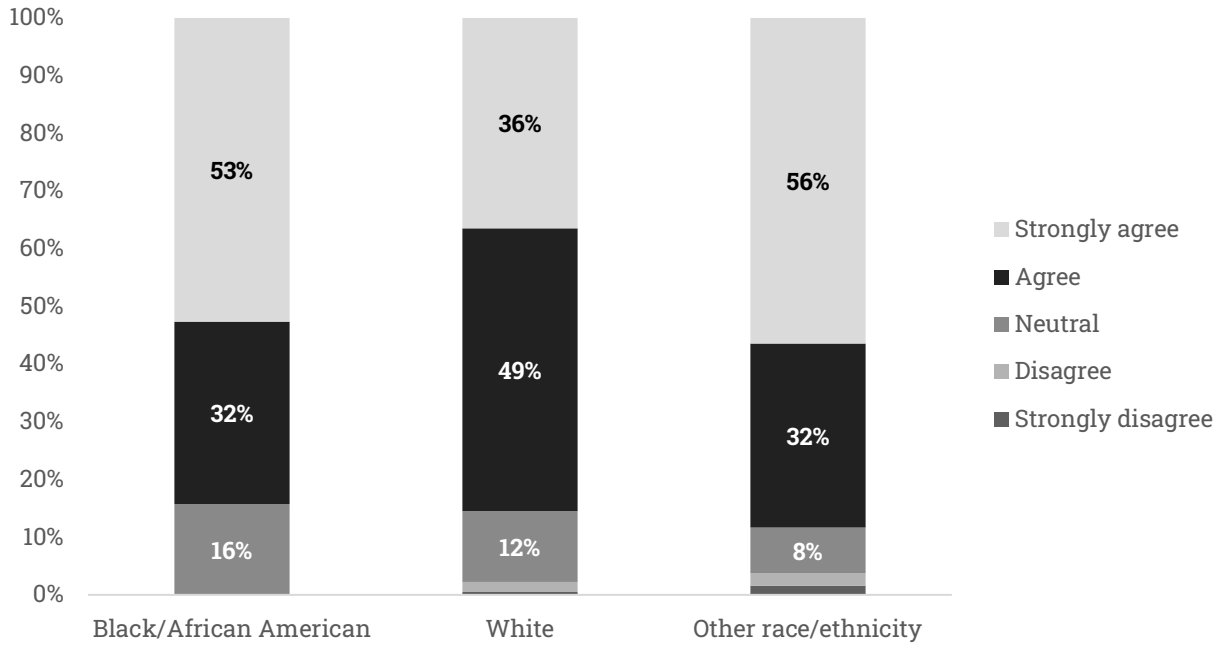
8 percent of households earning less than $25,000 report they are unable to identify false or misleading information. Comparatively, 46 percent of households earning between $75,000 and $99,999 strongly agree they can identify false or misleading information.

Figure 16: Response to "I can identify false or misleading information" by household income



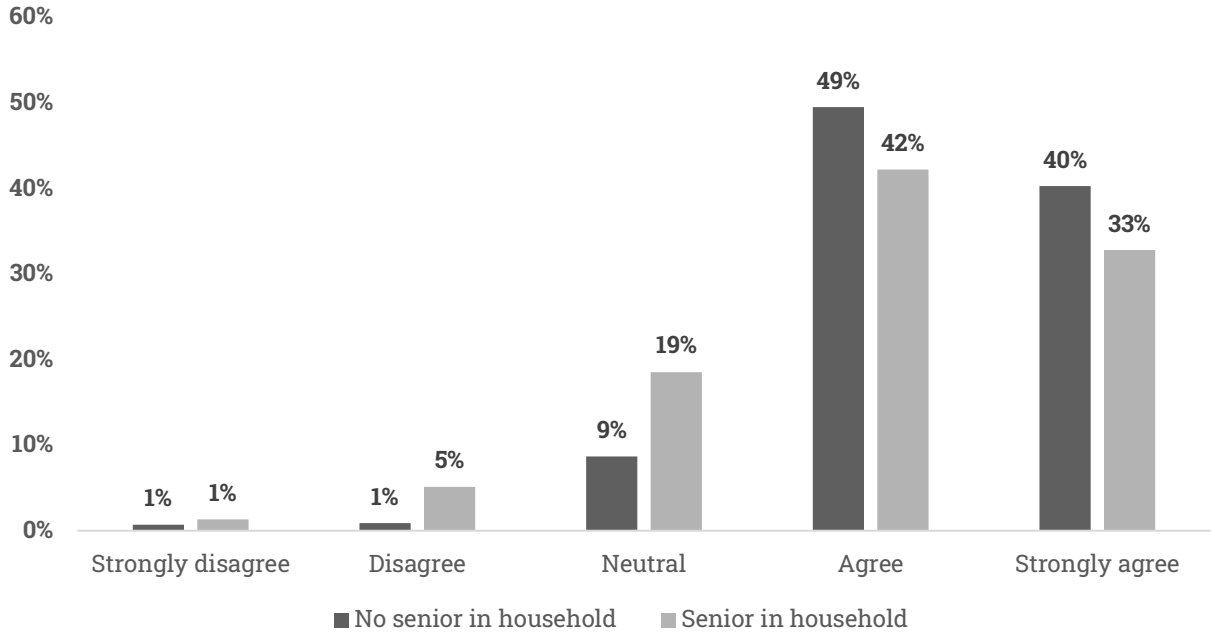
53 percent of Black households responded "strongly agree" when asked if they could identify false or misleading information and 36 percent of White households responded similarly.

Figure 17: Response to "I can identify false or misleading information" by race/ethnicity



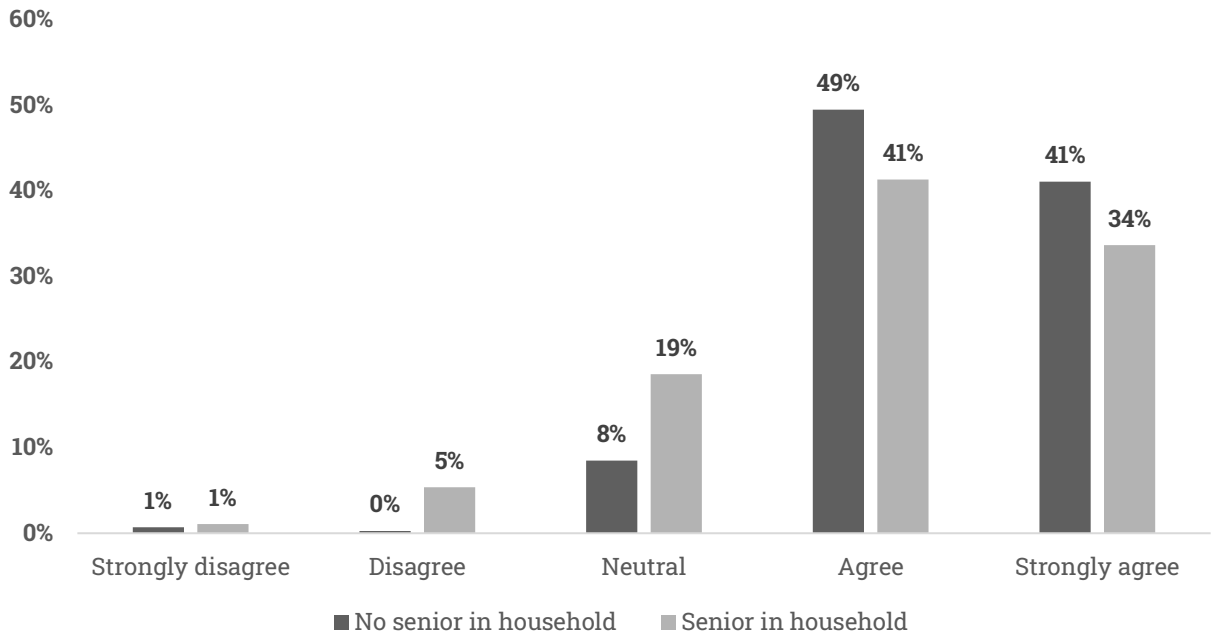
89 percent of households without an older adult report they can recognize and avoid online fraud, in comparison to 75 percent of households with an older adult.

Figure 18: Response to "I can recognize and avoid online fraud" by older adults in household



90 percent of households without an older adult report that they can identify false and misleading information, compared to 75 percent of households with an older adult.

Figure 19: Response to "I can identify false and misleading information" by older adults in household



APPENDIX D: RESIDENTIAL SURVEY INSTRUMENT AND STAKEHOLDER QUESTIONNAIRES

Survey instrument 1: BEAD/Digital Equity Needs Assessment

BEAD/DE Needs Assessment Survey

Hello, my name is ____. I'm calling on behalf of the Oregon Broadband Office. They are seeking your help to improve internet accessibility and affordability throughout the state. The information gathered will not be used to sell you anything and your responses will be kept strictly confidential. We will not ask you for your name or other identifying information.

Even if you do not have home internet service, please answer the relevant questions as your opinions are important to us.

1. [Input the phone number called] ____
2. Are you 18 or older?
    a. Yes
    b. No [ask for someone else in the household who is over 18]
    c. Refuse [thank and terminate]

First, we have a few questions to understand what kinds of internet services you use and subscribe to.

3. Does your household receive home internet service - not mobile data?
    a. Yes
    b. No
4. Does your household purchase home internet service from an internet service provider? [if they answer yes, proceed to Q8. If they answer no, proceed to Q5]
    a. Yes
    b. No
5. We understand that you don't purchase a home internet service. If you access the internet at home in other ways, which of the following about your service at home is correct:
    a. My household uses cellular/mobile connection
    b. My household uses a mobile hotspot, provided to us by a school, library, or other party
    c. My household uses free WiFi in the building or from a neighbor
    d. I don't have any internet service at my home
    e. I don't know
6. What are the main reasons why your household does not purchase home internet service? Please say yes, no, or don't know to the following statements [check only where respondent says yes]

a. I can receive free internet service at home [if yes here, skip to devices Q11]
b. My cellular/mobile connection is sufficient for me
c. I don't need or am not interested in home service
d. I cannot afford it
e. It's not worth the cost
f. I can receive internet service outside my home
g. Home internet service is not available in my area
h. I do not have a computing device, or the device is inadequate or broken
i. Online privacy or cybersecurity is too high a risk
j. I have serious personal safety concerns
k. My household recently moved or is in the process of moving
l. Not applicable
m. Other (please specify) ____

[If only a single reason was picked, skip to Q8]

7. Of the reasons you picked for not purchasing a home internet service, which do you and the members of your household consider to be the most important? [If needed, read reasons that respondent gave; select best match or enter verbatim response if other]

a. I can receive free internet service at home
b. My cellular/mobile connection is sufficient for me
c. I don't need or am not interested in home service
d. I cannot afford it
e. It's not worth the cost
f. I can receive internet service outside my home
g. Home internet service is not available in my area
h. I do not have a computing device, or the device is inadequate or broken
i. Online privacy or cybersecurity is too high a risk
j. I have serious personal safety concerns
k. My household recently moved or is in the process of moving

l. Not applicable

m. Other reason that I listed

8. How reliable is your home internet service? - for example, unreliable service could mean that the service is not available, or experience sudden drops in speed

   a. Not at all reliable

   b. Slightly reliable

   c. Moderately reliable

   d. Very reliable

   e. Extremely reliable

   f. Unsure

9. Are you currently enrolled in the Affordable Connectivity Program, Lifeline, or a subsidy program offered by your Internet Service Provider? [if needed, give the following background dialogue on ACP: The Affordable Connectivity Program is a federal subsidy program providing up to $30 per month for a fixed home internet subscription to qualifying households] - Please indicate with a yes if any of the following apply

   a. Affordable Connectivity Program (ACP)

   b. Lifeline

   c. No subsidy programs

   d. Unsure

   e. Internet Service Provider offered subsidy program _____

10. Please estimate how much you pay per month for your home internet service

    a. $0 - $19

    b. $20 - $39

    c. $40 - $59

    d. $60 - $79

    e. $80 - $99

    f. $100 or more

    g. Unsure

11. Please estimate how much you are willing to pay per month for high-speed, reliable home internet service.
    a. $0 - $19
    b. $20 - $39
    c. $40 - $59
    d. $60 - $79
    e. $80 - $99
    f. $100 or more
    g. Unsure

To use the internet, people need devices like laptops or smartphones. These next questions are about what types of devices you have and how well they work.

12. For each of the following devices, how many does your household use that are in good working condition? Laptop or desktop computer, tablet, smartphone

Computer (laptop or desktop)	
Tablet	
Smartphone	

13. Thinking about the computing device you primarily use, if it were lost or damaged beyond repair, how long do you think it would take you to replace it?
    a. Within a day
    b. Within a week
    c. Within a month
    d. Within 6 months
    e. More than 6 months
    f. I could not do so in the foreseeable future

To make the best use of the internet, people need a range of skills in using computers and navigating websites. This next question is about digital literacy and digital skills.

14. Please rate how confident you or the primary use are in doing the following activities on the internet:

	Not confident	Slightly confident	Very confident	Not applicable
Send and receive emails?				
Use social media?				
Participate in online video, voice, or conference calls (such as Zoom, Skype)				
Operate a small (home-based) business?				
Work remotely or telecommute?				
Search for a job online?				
Take classes or participate in online job training?				
Access medical service or resource?				
Access governmental services (such as DMV, benefits enrollments, etc.)?				
Shop, make travel reservations, or use other online consumer services?				
Access online financial services such as banking and paying bills?				

15. To what extent do you agree or disagree with the following statements about your internet and computer skills?

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I can use and adjust privacy settings on social media					
I can identify false or misleading information					

I can recognize and avoid online fraud (or phishing schemes).					

The remaining questions are meant to capture household demographic information. This information will be anonymized so you cannot be individually identified.

16. How many people live in your household, and what are their approximate ages?

Under 18	
18-29	
30-39	
40-49	
50-64	
65+	

17. What is your approximate annual household income? [begin to read answers]
    a. Less than $25,000
    b. $25,000 to $49,999
    c. $50,000 to $74,999
    d. $75,000 to $99,999
    e. $100,000 to $124,999
    f. $125,000 to $149,999
    g. $150,000 to $174,999
    h. $175,000to $199,999
    i. $200,000 or more
    j. Prefer not to answer
18. What races/ethnicities are represented in your household? [Check all that apply, do not read answers]
    a. Black/African American
    b. Asian/Asian American
    c. Hispanic/Latino –
    d. Native American/Indigenous American

e. White
f. Middle Eastern/Arab American
g. Native Hawaiian/Pacific Islander
h. Prefer not to answer

19. Are you or anyone else living in your household a(n): [read and check all that apply]

a. Veteran
b. Individual with a disability
c. Primarily non-English speaking
d. Formerly incarcerated individual
e. Actively enrolled in K-12 school or college or other higher education

Survey instrument 2: Oregon Agency Asset Inventory

Oregon Agency Asset Inventory Questionnaire

By completing this short questionnaire, you will help the Oregon Broadband Office (OBO) identify infrastructure-related assets that may facilitate broadband deployment in Oregon. As the State engages with internet service providers (ISPs) to extend their networks and services, this information will support Oregon's goal of optimizing federal Broadband Equity, Access, and Deployment (BEAD) funding to achieve statewide universal access to high-speed broadband.

1. Please provide your contact information
   - Agency name
   - Government level (state, regional, county, local, tribal)
   - Name of jurisdiction
   - First and last name
   - Title
   - Email
   - Phone number
   - Agency website URL (if any)

2. Does your agency own or manage physical assets (e.g., conduit, fiber, structures, real estate, poles) that are available for lease to ISPs to enable broadband deployment? (Yes/No)
    A. What information about these leasable assets would you like the State to include in its broadband planning and communications with ISPs? [text box]
3. Will your agency oversee capital construction projects between now and 2027 that include opportunities for the placement of communications facilities by your agency, other state or local agencies, regional or local consortia, or ISPs? (Yes/No)
    A. What information about these projects (i.e., scope, location, schedule) would you like included in State broadband planning and in communications with ISPs? [text box]
4. Has your agency analyzed workforce readiness (i.e., the availability of skilled labor) in Oregon as it may impact State broadband policies and deployment goals? (Yes/No)
    A. Please provide a URL link where relevant documents, presentations, or analyses are located or email to [insert email address]. [text box]
5. Does your agency have a role in workforce development that would support wired or wireless broadband deployment (including training and recruitment for equipment technicians, cable installation and repair, and construction jobs)? (Yes/No)
    A. Please describe programs or initiatives that your agency operates or supports or relevant programs operated by other agencies (text box)
6. Are you aware of, or does your agency have reason to track and monitor, frequent or widespread broadband or other communications outages that have significant impact on your community (or, if you represent a statewide organization, on the communities in Oregon)? (Yes/No)

A. If yes, please describe your agency's role in monitoring or tracking communications reliability in your community and discuss the impact of significant outages. [text box]

7. Are you aware of, or is your agency involved in, planning efforts or development of regulations related to reliable and resilient emergency-level broadband or other communications services, especially services for critical facilities in Oregon (e.g., hospitals, schools, evacuation sites, utilities, data centers, public safety locations)? (Yes/No)
    A. Please provide a URL link to any publicly available materials relating to these issues and briefly describe the relevant issues related to critical facilities, including planning for climate and weather-related hazards. You may also email these materials to [insert email address]. [text box]

8. Has your agency developed any policies, regulations, or guidance regarding emergency communications, network redundancy, climate resilience, disaster preparedness, or disaster recovery planning applicable to the broadband and communications industry in Oregon? (Yes/No)
    A. Please provide a URL link to any publicly available documents and briefly describe policies and other materials that you believe would be helpful to Oregon's broadband planning efforts. You may also email these materials to [insert email address]. [text box]

9. Has your agency developed policies or strategic planning documents that will facilitate broadband access efforts in Oregon (e.g., publicly available information that directly addresses digital equity, infrastructure deployment, economic development, network resilience, partnerships, business planning, or other related efforts)? (Yes/No)
    A. Please briefly summarize the material and provide a URL link or email information to [insert email address]. [text box]

10. If applicable, please share information regarding broadband-related planning efforts of other Oregon state and local agencies or contact information for agencies involved in broadband-related planning efforts that you believe would be helpful to OBAC's broadband planning efforts. [text box]

11. Please describe how your agency can collaborate with OBAC and participate in its efforts to achieve statewide universal access to high-speed broadband. [text box]

Survey instrument 3: Community Anchor Institution Broadband Access

Oregon Community Anchor Institution Broadband Access Questionnaire

Community anchor institutions play a critical role in facilitating greater use of broadband by unserved and underserved populations. Your responses to this brief questionnaire will help the Oregon Broadband Office (OBO) identify programs to advance all Oregonians to use broadband to work, learn, receive health care, and participate in civic events. This information will be an important part of Oregon's work toward achieving statewide universal access to high-speed broadband with federal funding through the Broadband, Equity, Access, and Deployment (BEAD) and Digital Equity Act programs.

1. Contact Information

- Your name
- Your job title
- Your e-mail
- Your phone number
- Organization name
- Organization address
- Organization website URL
- Organization's number of employees
- Please indicate if your organization serves statewide, regionally, or locally

2. Choose the option that best describes your organization (Select the one that best applies)

a. K-12 school

b. Higher education entity

c. Library

d. Health clinic, health center, hospital, or other medical provider

e. Public safety entity

f. Public housing organization (including HUD-assisted housing and Tribal housing organizations)

g. Neighborhood organization or community center

h. Faith-based organization

i. Community support organization that facilitates use of broadband service by low-income or other underserved populations

3. Which of the following programs or services do you offer to facilitate the use of broadband services by your constituents or clients? (Select all that apply)
   a. Support for applicants to broadband subsidy programs such as the Affordable Connectivity Program (ACP)
   b. Lifeline
   c. Loans or donations of devices (computers, tablets) to access the internet
   d. Hotspots and free or subsidized internet access
   e. Cybersecurity training
   f. Other digital skills or digital literacy training
   g. Training, equipment, subsidized services, or other resources to facilitate access to telehealth and telemedicine services
   h. Training teachers in broadband skills and digital literacy
   i. Developing and distributing accessible online content or devices designed for use by persons with disabilities
   j. Developing and distributing accessible online content directed at populations with specific needs, such as seniors, low-income residents, those with low-literacy, and those whose first language is not English
   k. Broadband internet access services at community centers or other gathering spaces used by clients and constituents
   l. Funding of programs that provide any of the above programs, including broadband infrastructure, devices, and subsidies to support affordability
   m. Program development and planning of broadband-related services
   n. Advocacy for digital inclusion, affordability, and the broadband-related needs of vulnerable populations
   o. Emergency and disaster relief services such as evacuation centers, charging stations, replacement equipment, and information on grants, loans, and services to those impacted by disasters
   p. Other (please specify)
   q. My organization does not offer programs that facilitate the use of broadband services

4. Is your organization located on Tribal land, affiliated with a Tribal or Native entity, or primarily serving Tribal or Native populations? (Yes/No)

5. Does your organization conduct outreach or tailor its broadband-related services to the needs of any of the following communities or groups? (Select all that apply)
   a. Veterans or current military personnel
   b. People with disabilities
   c. Seniors
   d. Incarcerated or formerly incarcerated residents
   e. Those in low-income households or without reliable housing
   f. Those with a language barrier including English learners
   g. Those with a low level of literacy
   h. Specific racial or ethnic minority group(s)
   i. Those living in rural communities
   j. Other (please specify)
   k. Not applicable

6. Based on your organization's observations and experience, please describe the barriers and obstacles (e.g., affordability, lack of digital literacy, language barriers) that prevent members of the communities your organization serves, including Tribal and Native populations, from accessing or using broadband internet services.

7. Do all of your organization's locations, offices, or community centers have access to broadband internet services at speeds of at least 1 Gigabit per second (Gbps) symmetrical (both upload and download)? (Yes/No/Don't Know)
   A. If no, please provide the addresses of the locations where your organization does not have access to broadband internet services of at least 1 Gbps symmetrical.

8. If your organization does not have access to, or does not purchase, service with symmetrical speeds of at least 1 Gbps, please describe why. (Select all that apply)
    a. Service is unavailable
    b. Service is unreliable
    c. Service is too expensive
    d. Customer service is inadequate
    e. Our operations do not require Gigabit-level services
    f. I do not know if 1 Gbps service is available to my location
    g. Other. Please specify:

9. Does your current internet service meet the needs of your organization to deliver broadband-related programs to your clients and constituents?
    a. Yes
    b. No, service is too slow
    c. No, service is unreliable
    d. No, service is too expensive
    e. No, customer service is inadequate
    f. No, service is too complicated to set up and/or maintain
    g. No, redundant connectivity necessary for our operations is too expensive/unavailable
    h. Other (please specify)

10. How essential is symmetrical Gigabit connectivity at your facilities to your ability to deliver your broadband-related services?

Not important				*Critically important*
☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

11. Does your organization provide access to broadband internet services to clients, constituents, or visitors at each of your locations? (Yes/No)
    - If yes, does your broadband internet service provide sufficient capacity to accommodate peak demand for such services at all of your locations? If no, is a lack of access to adequate broadband internet services at your location preventing you from serving users? [text box]

12. Is it critical to your organization's mission and service delivery to maintain communications with **critical facilities** such as hospitals, schools, data centers, and public safety agencies during natural disasters and emergencies? (Yes/No)
    A. If yes, please briefly describe your organization's need to remain connected to critical facilities and whether you believe your organization's current communications services meet this need. (text box)

13. Has your organization been consulted on disaster planning, emergency communications, or disaster recovery by your communications service provider or a local/regional government agency? (Yes/No)
    A. If yes, please briefly describe any plans or reports you think would be useful to the State's broadband and emergency communications planning efforts. (text box)

14. If your organization operates or sponsors any workforce development or training programs in the fields of telecommunications or technology, select all that apply:
    a. We do not sponsor or operate these programs
    b. Mentorships
    c. Certification programs

d. Registered apprenticeships
e. Unregistered apprenticeships
f. Pre-apprenticeships
g. Internships
h. Digital literacy trainings for specific employment opportunities
i. Job placement and recruitment services
j. Sponsorships/scholarships for third-party training and classes
k. Other. Please specify:

15. Would your organization offer additional broadband-related services or programs to its constituents or clients if it had additional resources? (Yes/No)
    A. If yes, please describe those additional broadband-related services and the additional resources your organization would need to offer them (e.g., funding, skilled workforce, access to broadband internet services with faster speeds or more capacity).

16. Please describe how your organization can collaborate with The Oregon Broadband Office and participate in its efforts to achieve statewide universal access to high-speed broadband.

Survey instrument 4: Internet Service Provider Engagement

Internet Service Provider Engagement Questionnaire

The Oregon Broadband Office (OBO) seeks your input on a range of broadband-related issues. Your responses to this brief questionnaire will be an important part of Oregon's work toward achieving statewide universal access to high-speed broadband with federal funding through the Broadband, Equity, Access, and Deployment (BEAD) and Digital Equity Planning programs.

1. Contact Information

- Your name
- Your job title
- Your e-mail
- Your phone number
- Organization name
- Organization address
- Organization website URL
- Organization's number of employees (number)

2. Choose the option that best describes your organization and the services it offers:

Internet service provider (ISP)

a. Telephone company or cooperative
b. Cable company
c. Fiber internet provider
d. Municipal provider
e. Electric / utility provider
f. Wireless internet service provider (WISP) / fixed wireless access provider
g. Mobile internet provider
h. Satellite internet provider

Other provider

i. Middle-mile provider

j. Construction company
k. Internet equipment provider
l. Data center operator
m. Cloud services provider
n. Engineering and design services

3. What recruitment and hiring sources does your organization use to hire technicians, lineworkers, engineers, construction laborers and managers, and similar positions? (Select all that apply)
   a. Internet-based employment posting sites
   b. Workforce development and community job placement centers
   c. Communications industry-specific training classes
   d. Third-party hiring and recruitment firms
   e. Advertisements in trade association publications and websites
   f. Incentivizing employee referrals
4. Does your organization offer, sponsor, or participate in any workforce development or apprenticeship programs? (Yes/No)
5. If you answered yes to Q.4, please specify the type of programs. (select all that apply)
   a. Mentorship
   b. Certification programs
   c. Apprenticeship
   d. Internship
   e. Sponsorships/scholarships for third-party training and classes
   f. Other (please describe) [text box]

6. How would you propose to work with Oregon on workforce development issues related to broadband deployment, including programs to support diversity among your organization's employees? (Text box reply)
7. Does your organization participate in the Affordable Connectivity Program (ACP)? (Yes/No)
8. What is the monthly post-subsidy price of your lowest-price ACP-eligible tier for participating subscribers?
    a. $0
    b. $1 - $10
    c. $11 - $20
    d. $21 - $30
    e. More than $30
9. What is the speed of your lowest-price ACP-eligible tier?
    a. 25/3 Mbps
    b. Up to 50/5 Mbps
    c. Up to 100/20 Mbps
    d. Greater than 100/20 Mbps but less than 100/100 Mbps
    e. 100/100 Mbps or more
10. How do you advertise or promote your participation in the ACP? (text box)
11. Does your organization offer other programs for low-income customers? (Yes/No)

A. Please provide service speeds, monthly pricing, and a description of your low-income or discounted offerings. (text box reply)

12. Does your organization have programs to support consumer broadband skills or use of the internet? (Yes/No)

A. If yes, please describe and provide URL links to relevant materials. (text box reply)

13. Does your organization have programs to support internet adoption? (Yes/No)

A. If yes, please describe and provide URL links to relevant materials. (text box reply)

14. Please describe how your organization can collaborate with local communities on efforts to close the digital divide and, if applicable, please provide specific examples where you have done this successfully. (text box reply)

15. What strategies has your organization used to deploy broadband in the areas of Oregon that are most expensive to serve? (text box reply)

16. Please discuss your continuity and disaster recovery plans in the event of a natural disaster or human error, such as a fiber cut, and whether any of your plans target specific geographic areas. (text box reply)

Survey instrument 5: Digital Equity Program Inventory

Digital Equity Program Inventory

Introduction

Hello! Your responses to this brief questionnaire will help the Oregon Broadband Office (OBO) identify current and active programs that provide community members the skills and tools to participate in broadband-related and Digital Equity opportunities that supports community development goals.

This information will be an important part of Oregon's work toward achieving statewide universal access to high-speed broadband with federal funding through the Broadband, Equity, Access, and Deployment (BEAD) and Digital Equity ACT programs.

1. Which category best describes your organization? Please select all that apply
   - ❑ Public Schools
   - ❑ Community colleges and institutions of higher education
   - ❑ Libraries
   - ❑ Medical and health care providers
   - ❑ State government
   - ❑ County government
   - ❑ Municipal government
   - ❑ Council of governments (COG) or regional authority
   - ❑ Tribal governments
   - ❑ Public housing authorities
   - ❑ Civil rights organizations
   - ❑ Workforce development and adult literacy organizations
   - ❑ Internet Service Provider (ISP)
   - ❑ Nonprofit organization that represents persons with disabilities
   - ❑ Nonprofit organization that represents veterans
   - ❑ Nonprofit organization that represents aging individuals
   - ❑ Nonprofit organization that represents incarcerated or formerly incarcerated individuals
   - ❑ Nonprofit organization that represents English learners

2. Has your organization created a broadband and/or digital equity plan?
    - Yes (Include Text Box)
    - No

3. Is your organization part of a broadband coalition?
    - Yes (If yes, list the coalitions involved) (Include Text Box)
    - No

4. Please provide the information for a point of contact in your organization

Name

Organization name

Address

Address 2

City/Town

State/Province

ZIP/Postal Code

Email Address

Phone Number

Program Details

Digital equity programs aim to ensure that communities have the skills, technology, and capacity to fully engage in the digital economy. Certain programs may target priority populations which include low-income households, seniors, veterans, people with disabilities, incarcerated, English learners, ethnic minorities, and people in rural areas. Examples of digital equity programs include those that promote computer skills, internet access, and computing device access.

5. Does your organization offer digital equity programs? (If no, skip to question 38)
   - ○ Yes
   - ○ No

6. What is the name of the program?

   Program Name

7. *What aspects of digital equity does the program address? Please select at least one.
   - ❑ Availability and affordability of internet

- ❑ Digital literacy
- ❑ Cybersecurity
- ❑ Devices and technical support
- ❑ Online accessibility and inclusivity

8. Does the program focus on certain populations? Check all that apply.
    - ❑ Individuals with disabilities
    - ❑ Veterans
    - ❑ Aging individuals (60 and above)
    - ❑ Incarcerated individuals
    - ❑ Individuals with a language barrier, including individuals who are English learners; and have low levels of literacy
    - ❑ Individuals who primarily reside in a rural area
    - ❑ Individuals who are members of a racial or ethnic minority group
    - ❑ Individuals who live in a covered household (household income is lower than 150% of the poverty level)
    - ❑ No particular focus on a population
    - ❑ Other (please specify)

9. What is the program budget?
    - ○ $1 to $24,999
    - ○ $25,000 to $49,999
    - ○ $50,000 to $99,999
    - ○ $100,000 to $249,999
    - ○ $250,000 to $499,999
    - ○ Over $500,000

10. How much does the program cost the participant?

Cost in dollars:

11. Please give us a sense of the geography you serve.
    - ○ State-wide

- ▫ County-wide
- ▫ City-wide
- ▫ Neighborhood-wide
- ▫ Other (please specify)

12. How long has the program been active, in months?

    Program length in months:

13. How many people were served by the program in the last fiscal year?
    - ▫ Under 25 people
    - ▫ 26 to 50 people
    - ▫ 51 to 100 people
    - ▫ More than 100 people
14. How many users do you expect to serve over the life of the program?
    - ▫ 1 to 50
    - ▫ 51 to 100 people
    - ▫ 101 to 250 people
    - ▫ 251 to 500 people
    - ▫ More than 500 people
15. If you had the resources, would you want to scale the project to serve more communities and people?
    - ▫ Yes
    - ▫ No
16. Does your organization have another digital equity program? (If no, skip to question 39)
    - ▫ Yes
    - ▫ No

(NEXT PROGRAM)

17. What is the name of the program? [ ]
18. *What aspects of digital equity does the program address? Please select at least one.
    - ❑ Availability and affordability of internet

- ❑ Digital literacy
- ❑ Cybersecurity
- ❑ Devices and technical support
- ❑ Online accessibility and inclusivity

19. Does the program focus on certain populations? Check all that apply.

- ❑ Individuals with disabilities
- ❑ Veterans
- ❑ Aging individuals (60 and above)
- ❑ Incarcerated individuals
- ❑ Individuals with a language barrier, including individuals who are English learners; and have low levels of literacy
- ❑ Individuals who primarily reside in a rural area
- ❑ Individuals who are members of a racial or ethnic minority group
- ❑ Individuals who live in a covered household (household income is lower than 150% of the poverty level)
- ❑ No particular focus on a population
- ❑ Other (please specify)

20. What is the program budget?

- ○ $1 to $24,999
- ○ $25,000 to $49,999
- ○ $50,000 to $99,999
- ○ $100,000 to $249,999
- ○ $250,000 to $499,999
- ○ Over $500,000

21. How much does the program cost the participant?

Cost in dollars:

22. Please give us a sense of the geography you serve.

- ○ State-wide
- ○ County-wide

- ▫ City-wide
- ▫ Neighborhood-wide
- ▫ Other (please specify)

23. How long has the program been active, in months?

Program length in months: [ ]

24. How many people were served by the program in the last fiscal year?

- ▫ Under 25 people
- ▫ 26 to 50 people
- ▫ 51 to 100 people
- ▫ More than 100 people

25. How many users do you expect to serve over the life of the program?

- ▫ 1 to 50
- ▫ 51 to 100 people
- ▫ 101 to 250 people
- ▫ 251 to 500 people
- ▫ More than 500 people

26. If you had the resources, would you want to scale the project to serve more communities and people?

- ▫ Yes
- ▫ No

27. Does your organization have another digital equity program? (If no, skip to question 39)

- ▫ Yes
- ▫ No

[NEXT PROGRAM]

28. What is the name of the program?

Program Name [ ]

29. *What aspects of digital equity does the program address? Please select at least one.

- ❑ Availability and affordability of internet

- ❑ Digital literacy
- ❑ Cybersecurity
- ❑ Devices and technical support
- ❑ Online accessibility and inclusivity

30. Does the program focus on certain populations? Check all that apply.

- ❑ Individuals with disabilities
- ❑ Veterans
- ❑ Aging individuals (60 and above)
- ❑ Incarcerated individuals
- ❑ Individuals with a language barrier, including individuals who are English learners; and have low levels of literacy
- ❑ Individuals who primarily reside in a rural area
- ❑ Individuals who are members of a racial or ethnic minority group
- ❑ Individuals who live in a covered household (household income is lower than 150% of the poverty level)
- ❑ No particular focus on a population
- ❑ Other (please specify)

31. What is the program budget?

- ○ $1 to $24,999
- ○ $25,000 to $49,999
- ○ $50,000 to $99,999
- ○ $100,000 to $249,999
- ○ $250,000 to $499,999
- ○ Over $500,000

32. How much does the program cost the participant?

Cost in dollars:

33. Please give us a sense of the geography you serve.

- ○ State-wide
- ○ County-wide

- City-wide
- Neighborhood-wide
- Other (please specify)

34. How long has the program been active, in months?

    Program length in months:

35. How many people were served by the program in the last fiscal year?
    - Under 25 people
    - 26 to 50 people
    - 51 to 100 people
    - More than 100 people

36. How many users do you expect to serve over the life of the program?
    - 1 to 50
    - 51 to 100 people
    - 101 to 250 people
    - 251 to 500 people
    - More than 500 people

37. If you had the resources, would you want to scale the project to serve more communities and people?
    - Yes
    - No

Planned Programs

38. Is your organization in the process of developing a digital equity program?
    - Yes
    - No

39. What kind of digital equity program(s) is your organization developing? Please select the categories that best fit the program type.
    - ❑ Digital skills and literacy
    - ❑ Data privacy and cybersecurity

- ❑ Devices (laptops, computers, tablets)
- ❑ Technical support
- ❑ Digital navigators
- ❑ Broadband access
- ❑ Creating accessible and inclusive internet content
- ❑ Other (please specify) [text box]

40. Does your organization want to develop a digital equity program?
    - ○ Yes
    - ○ No
41. What kind of digital equity program(s) is your organization interested in developing? Please select the categories that best fit the program type.
    - ❑ Digital skills and literacy
    - ❑ Data privacy and cybersecurity
    - ❑ Devices (laptops, computers, tablets)
    - ❑ Technical support
    - ❑ Digital navigators
    - ❑ Broadband access
    - ❑ Creating accessible and inclusive internet content

Programmatic Impact of Broadband Access

42. Please describe how access to affordable, reliable, and secure high-speed broadband by the communities that you serve may impact programmatic outcomes of your organization? [text box]

43. Do you have metrics to measure progress on your programmatic outcomes? (yes/no)

    a. If yes, please describe or provide a URL link with documentation. [text box]

Please provide examples or a discussion of metrics that you believe would be useful to track broadband-related inputs and outcomes for areas that are relevant to your mission, programs, and services:

44. Economic and workforce development outcomes – input and outcome metrics [text box]

45. Educational outcomes – input and outcome metrics [text box]

46. Health outcomes – input and outcome metrics [text box]

47. Civic and social engagement outcomes – input and outcome metrics [text box]

48. Delivery of other essential services outcomes – input and outcome metrics [text box]

Survey instrument 6: Covered Populations Broadband Barriers Analysis

Oregon Covered Populations Broadband Barriers Analysis Questionnaire

Organizations that serve or represent unserved and underserved populations have a critical role in shedding light on the unique barriers such populations face, and how their unique needs can best be addressed. Your responses to this brief questionnaire will help the Oregon Broadband Office (OBO) identify opportunities for programs to advance vulnerable residents' full participation in broadband-related opportunities to work, learn, receive health care, and participate in civic events. This information will be an important part of Oregon's work toward achieving statewide universal access to high-speed broadband with federal funding through the Broadband, Equity, Access, and Deployment (BEAD) and Digital Equity Act Planning programs.

1. Contact Information

- Your name
- Your job title
- Your e-mail
- Your phone number
- Organization name
- Organization address
- Organization website URL
- Organization's number of employees (number)

2. Does your organization provide programs and services that are primarily targeted to any of the following communities? (Select all that apply)

- Individuals with disabilities
- Veterans or current military personnel
- Aging individuals
- Incarcerated or formally incarcerated individuals
- Individuals with low levels of literacy
- Individuals with a language barrier
- Individuals who primarily reside in a rural area
- Individuals who are members of a racial or ethnic minority group

- No particular focus on a population or community
- Other (please specify)

Internet Service

3. Please indicate your agreement or disagreement with the following statements describing individuals from the population(s) you serve or represent. On a scale of 1 – 5, where 1 is "strongly agree" and 5 is "strongly disagree" as represented on this spectrum:

	1	2	3	4	5
Their households have access to some type of home internet service.					
The available internet service is high-speed, sufficient for their needs, and reliable.					
The available internet service is affordable.					
Their households can choose from among more than one provider for high-speed, reliable, and affordable broadband service					

4. Are there any unique barriers to reliable, affordable, and high-speed internet service for the population(s) you serve? (Yes/No)

   Please describe these barriers to accessing reliable, affordable, and high-speed internet service:

Access to Computers

5. Please indicate your agreement or disagreement with the following statements describing households from the population you serve or represent. On a scale of 1 – 5, where 1 is "strongly agree" and 5 is "strongly disagree" as represented on this spectrum:

	1	2	3	4	5
There are computers in the households of the populations we serve or represent					
The households can troubleshoot computer issues					

The households can afford computer repairs or service					
The households have enough devices to serve their needs					
There are public computers that are convenient to use and close by to these households					

6. Are there any unique barriers to accessing home computers for the population(s) you serve? (Yes/No)

   Please describe these barriers to accessing computers and similar devices:

Digital Literacy and Digital Skills

7. Please indicate your agreement or disagreement with the following statements describing individuals from the population you serve or represent. On a scale of 1 – 5, where 1 is "strongly agree" and 5 is "strongly disagree" as represented on this spectrum:

	1	2	3	4	5
Individuals can find, understand, evaluate, create, and communicate digital information					
Individuals can use technologies appropriately and effectively to retrieve information, interpret results, and judge the quality of that information					
Individuals can use the internet to support education, employment, health, and personal needs					
Individuals have access to convenient and comprehensive digital literacy training					

8. Are there any unique barriers to acquiring or learning digital skills for the population(s) you serve? (Yes/No)

   Please describe these barriers to acquiring necessary digital skills:

Inclusive and Accessible Content

9. Please indicate your agreement or disagreement with the following statements describing individuals from the population you serve or represent. On a scale of 1 – 5, where 1 is "strongly agree" and 5 is "strongly disagree" as represented on this spectrum:

	1	2	3	4	5
Individuals have access to meaningful website content that is written in plain language and is appropriate for the targeted user or audience					
Individuals have access to meaningful website content that is accurately translated into necessary languages					
Individuals have access to meaningful website content that can be read by a screen reader					
Individuals have access to meaningful website content with closed captioning					
Individuals have access to adequate and appropriate assistive technologies to support access to the internet and use of website content by people with disabilities					

10. Are there any unique barriers to inclusive and accessible content for the population(s) you serve? (Yes/No)

    Please describe these barriers to inclusive and accessible content:

Data Privacy and Cyber Security

11. Please indicate your agreement or disagreement with the following statements describing individuals from the population you serve or represent. On a scale of 1 – 5, where 1 is
    strongly agree" and 5 is "strongly disagree" as represented on this spectrum:

	1	2	3	4	5
Individuals know how to protect their information online					
Individuals can recognize a phishing scam or other types of scams and illegal activity					
Individuals use anti-virus and anti-malware software on their computers					

12. Are there any unique barriers to data privacy and cyber security for the population(s) you serve? (Yes/No)

Please describe these barriers to acquiring knowledge in data privacy and cyber security literacy:

Initiatives to Address Barriers

Thinking about the unique barriers you discussed

13. What types of programs and initiatives would you recommend addressing these barriers?

14. Does your organization currently offer any of these types of programs or initiatives? (Yes/No)

    a. If yes, please describe if you are interested in expanding your programs and, if so, what types of resources would you need to expand

15. Would your organization be interested in adding new programs to its current portfolio? (Yes/No)

    b. If yes, what types of resources do you believe would be necessary to add new programs to your current portfolio?

Programmatic Impact of Broadband Access

16. Please describe how access to affordable, reliable, and secure high-speed broadband by the communities that you serve may impact the programmatic outcomes of your organization. [text box]

17. Do you have metrics to measure progress on your programmatic outcomes? (yes/no)

    c. If yes, please describe [text box]

Please provide examples or a discussion of metrics that you believe would be useful to track broadband-related inputs and outcomes that are relevant to your mission, programs, and services, such as:

18. Economic and workforce development outcomes – input and outcome metrics

19. Educational outcomes – input and outcome metrics

20. Health outcomes – input and outcome metrics

21. Civic and social engagement outcomes – input and outcome metrics

22. Delivery of other essential services outcomes – input and outcome metrics

Survey instrument 7: Oregon Workforce Development Opportunity

Oregon Workforce Development Opportunity Questionnaire

Broadband infrastructure deployment and network operations require a highly skilled workforce. Your responses to this brief questionnaire will help the Oregon Broadband Office (OBO) identify opportunities for workforce training and readiness programs to prepare residents for new job opportunities in this field. This information will be an important part of Oregon's work toward achieving statewide universal access to high-speed broadband with federal funding through the Broadband, Equity, Access, and Deployment (BEAD) and Digital Equity Act Planning programs.

1. Contact Information

- Your name
- Your job title
- Your e-mail
- Your phone number
- Organization name
- Organization address
- Organization website URL

2. Type of organization (one selection only)

1. Internet service provider (ISP) (Skip to Questions 14-18)
2. Labor union
3. Trade association
4. Industry certification or standards body
5. Government agency (state, county, local, tribal, or regional consortia)
6. Economic development association or agency
7. Regional or local workforce development board or agency
8. K-12 education (private, charter, public)
9. Higher education organization (all levels, public or private)
10. Trade, technical or vocational school (public, nonprofit, or for-profit)
11. Community based or nonprofit organization

3. **Do you offer workforce development programs for job placement and training in the communications industry in Oregon? (Yes/No) (If Yes, skip Q5; if no, end survey after Q5)**

4. **Do you offer training in any of the following industries that have transferable skills that can be applied to communications network deployment? (Select all that apply)**
    1. Utilities such as electricity
    2. HVAC
    3. Computer science
    4. Cybersecurity
    5. General electrician
    6. General construction
    7. Other

5. **If you answered no to Question 3, are you interested in developing programs specifically targeted at employment opportunities in the communications industry? (Yes/No) (Please skip this question if you answered "yes" to Question 3.)**
    A. **Please describe your interest in developing these programs [text box]**

6. **What type of workforce development programs do you offer? (Select all that apply)**
    1. On-the-job training placement
    2. Standards certification and safety programs
    3. Training programs through a public or private K-12 school
    4. Training programs through a school of higher education
    5. Trade or vocational certificate programs
    6. Job placement and recruiting services
    7. Formal apprenticeship opportunities

7. **Which of the following communications professional designations are included in your programs? (Select all that apply)**
   1. Construction laborers and heavy equipment operators
   2. Tower, line, equipment, maintenance, and testing specialists
   3. Supervisors / project managers
   4. Network design roles
   5. Locators

8. **Does your program specifically reach out to any of the following populations for participation in your programs? (Select all that apply)**
   1. Veterans or current military personnel
   2. People with disabilities
   3. Seniors
   4. Incarcerated or formerly incarcerated individuals
   5. Those in low-income households or without reliable housing
   6. Those with a language barrier including English learners
   7. Those with a low level of literacy
   8. Specific racial or ethnic minority group(s)
   9. Those living in rural communities

9. **How would you characterize your current capacity for developing and offering training programs to meet current workforce demands in the communications industry? (Select one)**
   1. Underutilized
   2. Adequately utilized
   3. At capacity

10. **How would you characterize your plans for developing and offering additional programs to meet future workforce demands in the communications industry? (Select one)**
    1. We have plans to add capacity

2. We have no plans to add capacity
3. We are reducing our training capacity
4. We are interested in adding capacity, but do not have resources to do so

A. Please describe your plans for additional or expanded programs or explain what additional resources you would need to add capacity. [text box]

11. What are the sources of funding for your training programs? (Select all that apply)

1. Federal agencies and programs
2. State agencies and programs
3. County or local funding and programs
4. Private foundations
5. Fundraising and community grants
6. Partnerships with employers
7. Partnerships with unions or trade associations
8. Fee-based services
9. Other – specify [text box]

12. Do you serve rural communities? (Yes/No)

A. What types of incentives are effective to recruit both skilled and manual labor to your rural community? [text box]

13. Describe barriers to developing a diverse, skilled workforce in your community that can fill employment opportunities in the communications industry. [text box]

14. Provide examples or ideas of incentives and programs that can mitigate those barriers to create a diverse pool of highly skilled workers. [text box]

For ISPs only:

15. Do you provide any in-house skills training, workforce development, or apprenticeship programs for your employees to support a highly skilled workforce? (Yes/No)

16. If yes, please identify the types of programs (Select all that apply)

a. Mentorship
b. Certification programs
c. Apprenticeship
d. Internship
e. Sponsorships/scholarships for third-party training and classes
f. Other (Please describe) [text box]

17. In addition to any programs you directly provide, what other sources or programs do you use in Oregon to train and support workforce readiness among your employees? (Select all that apply)

a. Standards certification and safety programs
b. Training programs through a public or private K-12 school
c. Training programs through a school of higher education
d. Trade or vocational certificate programs
e. Formal apprenticeship programs

18. What sources or programs do you use to recruit and hire employees, including technicians, linemen, construction laborers and managers, and similar positions? (Select all that apply)

a. Internet-based employment posting sites
b. Workforce development and community job placement centers
c. Communications industry specific training classes
d. Third-party hiring and recruitment firms
e. Advertisements in relevant trade association publications and websites
f. Incentivizing employee referrals

19. Do you have programs or incentives to support diversity among your employees when considering methods to attract, retain, and promote a skilled workforce? **[text box]**

20. Please describe your vision for workforce readiness programs, recruitment practices, and wrap around services to support broadband expansion in Oregon over the next five years. **[text box]**

Appendix E: Anecdotal barriers identified through outreach sessions

The following table lists barriers described in outreach sessions OBO conducted during the development of this Plan. As some sessions included representation from multiple defined covered populations and barriers mentioned are intersectional, barriers are listed by the session in which they were identified.

Table 39: Barriers identified through OBO's outreach

Outreach session type	Barriers described

Urban lived experience expert focus group (participants represented refugees, immigrants, Latino communities, low-income families, veterans)	• Access to high-speed internet is a major issue for all.
	• Cost for internet service is prohibitive.
	• Internet literacy is a barrier—mostly for parents rather than youth.
	• Many students lack devices needed for remote learning.
	• Access to devices can be difficult with families that are seven or more (common with some refugees and immigrant families).
	  o Additionally, there is no support when devices break or need other troubleshooting help. Families lack the knowledge to fix their devices.
	• Many people use their phone for internet access.
	• Some agencies are communicating with their constituency via telephones (rather than internet) because it's more accessible for their community.
	• Refugees also experience language barriers with accessing information.
	• Providing access to information is key (especially for refugees) and providing information in multiple languages is preferred.
	  o Even if someone speaks English as a second language, many people

Outreach session type	Barriers described
	prefer to read information in their own language.

Rural lived experience (participants served areas across Oregon and within populations such as refugees, immigrants, Latino communities, low-income families, veterans)	• One person noted that their Wi-Fi bandwidth hits capacity with three people using it.
	• Many Lakeview residents do not have internet in their home (and use mobile devices instead).
	• Lakeview broadband is not always dependable.
	• Rural areas have very limited access to internet.
	• Coverage is sporadic in the Mid-Willamette Valley.
	• Online schooling was difficult during the Covid-19 pandemic. Some students did not have internet access.
	• Many individuals cannot afford devices.
	• Some providers and clinicians do not have reliable access to telementoring or education opportunities.
	  ▪ Seeing fewer rural participants for telementoring but they are unsure what the actual barrier is– marketing, internet access, capacity, etc.
	• Lake County is low income, which creates barriers for online access.
	• Low-income households do not have the internet services they need, especially for multi-person households.
	• There are also language barriers for accessing information in order to participate in online meetings, work, school, etc.
	  ▪ There is also a language barrier for individuals who speak a specific dialect of a language.

Outreach session type	Barriers described
	• Chromebooks were purchased for students during the pandemic. However, they are not able to run Zoom. • Rural areas (predominantly agriculture and processing plants) are increasing and have low pay, poor internet signal, and lack of reliable services and coverage. There is a monopoly on the service provider options. • Latino students are missing school assignments due to lack of internet service at their home (family cannot afford it). • Accessing online resources and information for seniors who need to navigate paperwork. • In Mid-Willamette Valley and Josephine County, availability and access of internet services is a barrier. • In Josephine County, there is a need for meeting spaces with high-speed internet for virtual meetings.

Seniors lived experience expert focus group	• Cost is prohibitive; people cannot afford internet services or devices.
	• Many of the affordability programs only offer internet or cell phone (many clients chose phone instead).
	  ▪ Many choose a flip phone (instead of smartphone) for lack of knowledge on how to use those devices.
	  ▪ Survey in 2020 showed only 53% of low-income people in downtown Portland had internet services and only 67% have a smart phone.
	• These issues are worse for individuals who live in rural areas who may not have access to internet or have a poor connection.

Outreach session type	Barriers described

	• Not all people are aware of existing resources. It depends on if their social circle is aware of the resources.
	• Some feel uncomfortable calling their ISP and asking for discounted service. Others distrust government services or have a mixed perception of welfare programs.
	• Many lack information because the information is not available in their native language.
	  ▪ CBOs are having to translate information to share with their communities (especially Asian communities).
	• Funding streams change and service program names change, which can cause confusion when people are trying to find out information about services (referring to their former name).
	  ▪ This also causes another round of paperwork and additional set up support.
	• The application process is difficult and cumbersome, which is another barrier for access.
	• In some instances, people need to have SNAP to qualify for some internet programs. However, not all people who qualify for SNAP sign up for it, which causes ineligibility for the internet services program.
	  ▪ Others are just above the poverty line (and/or do not meet SSI limits), but they still need access to the programs. Internet is seen as a bonus to their monthly budget, rather than a necessity.
	• The state needs to understand concepts around the aging community. Many are

Outreach session type	Barriers described
	socially isolated, and this means everything in terms of planning. Planning needs to be framed within this language and understanding. • Some aging adults also face other barriers e.g., cognitive challenges. This can make it even more difficult to learn new skills. ▪ Another additional barrier is hearing challenges.

Persons with disabilities lived experience expert focus group	• The disabled community is more likely to be in a low-income category; therefore, affordability is the biggest barrier.
	  ▪ This is heavily connected to employment issues.
	• The second barrier is digital literacy. Some groups are currently offering technology resources to help people gain access.
	  ▪ They are seeing a need for support on how to use devices.
	• Some households have multiple users and need more access to speed and bandwidth since they are using multiple devices at once.
	• Access to devices is also a barrier (e.g., computers, iPads, laptops, etc.)
	  ▪ This can be a major barrier for some members of the disability community who use devices to communicate.
	  ▪ Some devices do not have accessibility features, or they are not reliable.
	  ▪ Many communication apps are expensive.
	• Additionally, some members of the disability community also have a language barrier. Therefore, TV

Outreach session type	Barriers described

	programming in their native language could be cost prohibitive.
	• Those who are hard of hearing/blind also have a language barrier. Some have a less than fourth grade reading level. Some members may not know ASL or other signed languages.
	  ▪ Visual support is great for those with a literacy barrier.
	• Another concern is whether tech resources are accessible.
	  ▪ There needs to be more intention around physical features of media—high contrast for readability, plain language, less distracting graphics, etc.
	  ▪ This is especially true for individuals who have cognitive processing disabilities and those who are deaf, hard of hearing, or blind.
	  ▪ Sometimes the translation is not accurate.
	• For those experiencing houselessness, the main barrier is access. They likely do not have money to pay for internet services, and they face discrimination when trying to use public Wi-Fi.
	• Reliability of internet (especially in rural areas) is also an issue. The services that do provide reliable internet are cost prohibitive.
	• Lack of internet means individuals are cut off from what is needed to be functional in today's society.
	• Another barrier is many people do not know where to find resources.
	• Some people have a perception of getting help and feel embarrassed for asking.

Outreach session type	Barriers described
	▪ Developing trusted places and advocates that people can connect with can help mitigate this need. • Another thing to consider with this community is understanding the vulnerability of people who have intellectual disability. Many are not aware of scams/fraudulent activity. • People on SSI can be targeted for scams. SSI is a common monetary resource for the Deaf and Deaf/senior community. • For the Deaf community, frauds/scams can have a huge impact as they are already low-income. They also experience despair after being a victim.
Tribal lived experience expert focus group	• The first barrier to high-speed internet is the cost of devices. • Cost of service is prohibitive. ▪ $110 per month for high-speed internet service. • Private providers either do not offer high speeds or their services are too expensive. ▪ There are currently no language/requirements around providing affordable alternatives. • Digital literacy is a barrier for elders. ▪ They need tech support as well as education on how to use devices. • There are geographical and topographical challenges to serving these areas; some are rural and some are checkerboarded across an area. • Tribal areas need more fiber infrastructure to be able to serve their communities. ▪ Some only have access to low speeds (1.5 or 2 Mbps)

Outreach session type	Barriers described

	• Multi-generational houses need more bandwidth. Some are averaging at least 100 Mbps per month.
	• Some places do not have internet service at all. They should be serviced first.
	• The ACP process is difficult to navigate. Many faced a challenge with the application process.
	  ▪ The burden is put on the tribes to get people signed up for the program.
	  ▪ Many tribal members are experiencing application fatigue. These services should just be automatically offered to tribal members.
	• Others are not aware of ACP and other program opportunities.
	• Tribes are seeing grant money go to large companies rather than offering that funding to tribes that have greater needs.
	• Currently, some tribes do not offer broadband programs as part of their services.
	  ▪ During Covid-19, the City of Portland provided funding for internet and devices, but the funding went fast and they were not able to serve all who needed assistance.
	  ▪ There is currently a waiting list if additional funding becomes available.
	• Generally, people are not aware of the assistance programs and skills training that may be available.
	• They may have an elder call and say they feel socially isolated and are wanting resources to reduce those barriers.

Outreach session type	Barriers described
	• Some tribes are not on federally-recognized tribal lands, which creates a problem for funding eligibility. • There is a lack of understanding and technical skills that creates a barrier in addition to the affordability and availability of internet. • Online scams are a barrier but secondary to affordability and availability of internet. Fear of online scams is not preventing people from accessing the internet.

APPENDIX F: ALIGNMENT OF PLAN WITH DIGITAL EQUITY ACT REQUIREMENTS

The following table displays this Plan's fulfilment of all requirements of the Digital Equity Act as outlined in the NOFO and in other guidance from the NTIA.

Table 40: Digital Equity Act requirements corresponding to sections of this Plan

	Requirement	Details	Section
Requirement 1			
1	Identification of digital equity barriers for each covered population	Individuals who live in covered households	3.2
		Aging individuals	3.2
		Incarcerated individuals	3.2
		Veterans	3.2
		Individuals with disabilities	3.2
		Individuals with a language barrier	3.2
		Individuals who are members of a racial or ethnic minority group	3.2
		Individuals who primarily reside in a rural area.	3.2
Requirement 2			
2a	**Measurable objectives** for documenting and promoting the **availability of, and affordability of access to, fixed and wireless broadband technology**	Individuals who live in covered households	2.2.2.1
		Aging individuals	2.2.2.1
		Incarcerated individuals	2.2.2.1
		Veterans	2.2.2.1
		Individuals with disabilities	2.2.2.1
		Individuals with a language barrier	2.2.2.1
		Individuals who are members of a racial or ethnic minority group	2.2.2.1
		Individuals who primarily reside in a rural area.	2.2.2.1
2b	**Measurable objectives** for documenting and promoting the **online**	Individuals who live in covered households	2.2.2.3
		Aging individuals	2.2.2.3

	Requirement	Details	Section
	accessibility and inclusivity of public resources and services	Incarcerated individuals	2.2.2.3
		Veterans	2.2.2.3
		Individuals with disabilities	2.2.2.3
		Individuals with a language barrier	2.2.2.3
		Individuals who are members of a racial or ethnic minority group	2.2.2.3
		Individuals who primarily reside in a rural area.	2.2.2.3
2c	**Measurable objectives** for documenting and promoting **digital literacy**	Individuals who live in covered households	2.2.2.3
		Aging individuals	2.2.2.3
		Incarcerated individuals	2.2.2.3
		Veterans	2.2.2.3
		Individuals with disabilities	2.2.2.3
		Individuals with a language barrier	2.2.2.3
		Individuals who are members of a racial or ethnic minority group	2.2.2.3
		Individuals who primarily reside in a rural area.	2.2.2.3
2d	**Measurable objectives** for documenting and promoting awareness of and use of, measures to secure **the online privacy of, and cybersecurity** with respect to an individual.	Individuals who live in covered households	2.2.2.3
		Aging individuals	2.2.2.3
		Incarcerated individuals	2.2.2.3
		Veterans	2.2.2.3
		Individuals with disabilities	2.2.2.3
		Individuals with a language barrier	2.2.2.3
		Individuals who are members of a racial or ethnic minority group	2.2.2.3
		Individuals who primarily reside in a rural area.	2.2.2.3
2e	**Measurable objectives** for documenting and	Individuals who live in covered households	2.2.2.2

	Requirement	Details	Section
	promoting **availability and affordability of consumer devices and technical support for those devices**	Aging individuals	2.2.2.2
		Incarcerated individuals	2.2.2.2
		Veterans	2.2.2.2
		Individuals with disabilities	2.2.2.2
		Individuals with a language barrier	2.2.2.2
		Individuals who are members of a racial or ethnic minority group	2.2.2.2
		Individuals who primarily reside in a rural area.	2.2.2.2
	Measurable objectives are all:	Future focused	2.2.2
		Quantifiable	2.2.2
Requirement 3			
3	Assessment of how aforementioned measurable objectives interact with States's outcomes, including:	Economic and workforce development goals, plans, and outcomes	2.1 2.1.1
		Educational outcomes	2.1 2.1.2
		Health outcomes	2.2 2.1.3
		Civic and social engagement	2.1 2.1.4
		Delivery of other essential services	2.1 2.1.5
		All five items are mentioned for each covered population	2.1
Requirement 4			
4	A description of how the State plans to **collaborate with key stakeholders** in the State, which may include:	Community anchor institutions	4.2 5.2
		County and municipal governments	4.2 2.1.1
		Local education agencies	3.1.1 3.1.3 5.2
		Where applicable, Indian Tribes, Alaska Native entities,	4.1.4 4.2

	Requirement	Details	Section
		or Native Hawaiian organizations	
		Nonprofit organizations	3.1.1 3.1.3 4.2 5.3
		Organizations that represent:	
		Individuals with disabilities, including organizations that represent children with disabilities	4.2
		Aging individuals	4.2
		Individuals with language barriers	4.2
		Veterans	4.2
		Individuals in Oregon who are incarcerated	4.2
		Civil rights organizations	4.2
		Entities that carry out workforce development programs	4.1.2 4.2
		Agencies of the State that are responsible for administering or supervising adult education and literacy activities in the State	4.2
		Public housing authorities in Oregon	4.2
		A partnership between any of the above entities	5.2 5.3
Requirement 5			
5	A list of organizations with which OBO collaborated in developing the Plan		Appendix B
Programmatic Requirements			
1	A stated **vision for digital equity**	Vision is stated and defines digital opportunity within Oregon	2.1

	Requirement	Details	Section
2	A digital equity **needs assessment**, including:	A comprehensive assessment of the baseline from which the State is working	3.2
		The State's identification of the barriers to digital equity faced generally	3.2
	The State's identification of **the barriers to digital equity** faced by:	Individuals who live in covered households	3.2.1
		Aging individuals	3.2.1
		Incarcerated individuals	3.2.1
		Veterans;	3.2.1
		Individuals with disabilities;	3.2.1
		Individuals with a language barrier	3.2.1
		Individuals who are members of a racial or ethnic minority group	3.2.1
		Individuals who primarily reside in a rural area.	3.2.1
3	An **asset inventory**, including current resources, programs, and strategies that promote digital equity, whether publicly or privately funded, for:	Individuals who live in covered households	3.1.1 3.1.3
		Aging individuals	3.1.1
		Incarcerated individuals	3.1.1 3.1.3
		Veterans	3.1.1 3.1.3
		Individuals with disabilities	3.1.1 3.1.3
		Individuals with a language barrier	3.1.1 3.1.3
		Individuals who are members of a racial or ethnic minority group	3.1.1 3.1.3
		Individuals who primarily reside in a rural area.	3.1.1 3.1.3
	An asset inventory including existing digital plans and programs already in place among municipal, regional, and Tribal governments		3.1.2 3.1.3

	Requirement	Details	Section
4	A **coordination and outreach strategy**, including opportunities for public comment by, collaboration with, and ongoing engagement with representatives of:	Individuals who live in covered households	4.1
		Aging individuals	4.1
		Incarcerated individuals	4.1
		Veterans	4.1
		Individuals with disabilities	4.1
		Individuals with a language barrier	4.1
		Individuals who are members of a racial or ethnic minority group	4.1.4
		Individuals who primarily reside in a rural area.	4.1.1
		The full range of stakeholders within the State	4.1.1 4.1.2 4.1.3
5	A description of how **municipal, regional, and/or Tribal digital equity plans** will be incorporated into the State Digital Equity Plan		3.1.2
6	An **implementation strategy** that:	Is holistic	5
		Addresses barriers to participation in the digital world, including affordability, devices, digital skills, technical support, and digital navigation	5.1 5.2 5.3
		Establishes measurable goals and objectives	5.1 2.2.2
		Establishes proposed core activities to address the needs of covered populations	5.1 5.2 5.3
		Sets out measures ensuring the plan's sustainability and effectiveness across State communities	5.4
		Adopts mechanisms to ensure that the plan is regularly evaluated and updated	5.4.3

	Requirement	Details	Section
7	An explanation of how the implementation strategy addresses gaps in existing state, local, and private efforts to address barriers identified pursuant to NOFO Section IV.C.1.b.i, item 1.		5.1 5.2 5.3
8	A description of how the State intends to accomplish the implementation strategy by **engaging or partnering** with:	Workforce agencies such as state workforce agencies and state/local workforce boards and workforce organizations	4.2
		Labor organizations and community-based organizations	4.2
		Institutions of higher learning, including but not limited to four-year colleges and universities, community colleges, education and training providers, and educational service agencies	4.2
9	A **timeline** for implementation of the plan		5.1 5.2
10	A description of how the State will **coordinate its use of State Digital Equity Capacity Grant funding** and its use of any funds it receives in connection with the BEAD Program, other federal or private digital equity funding		2.2 5.1 5.2