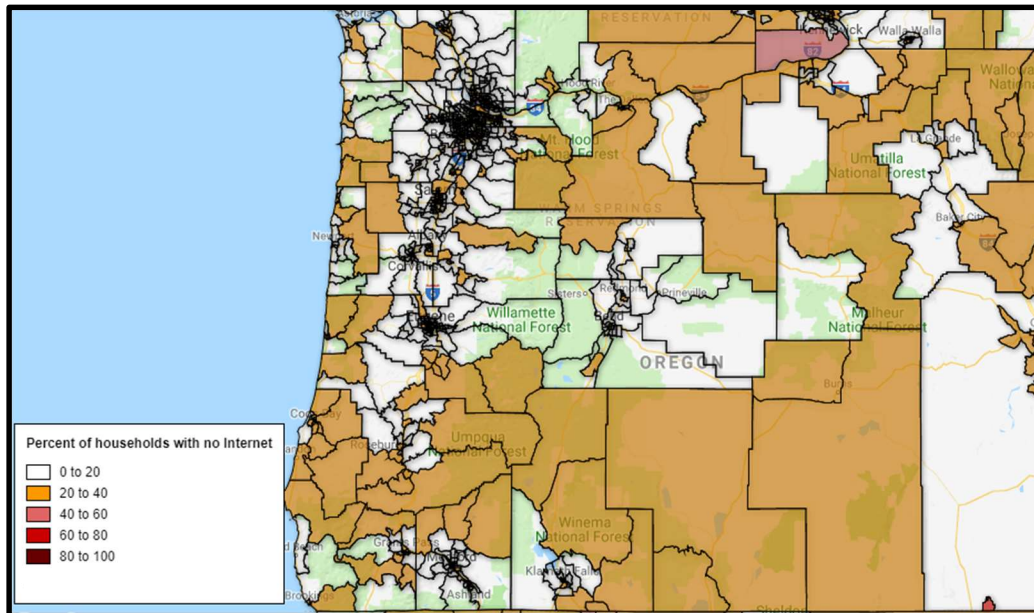


Broadband for All Oregonians - Closing Our Digital Divide

Accessible, affordable broadband technology is needed throughout Oregon to meet the needs of residents and businesses, including healthcare, education, economic development, agriculture, public safety and civic engagement. Broadband infrastructure supports and enables every aspect of work and life, with **>\$1,850 per household per year in economic benefits**. Currently, **at least 400,000 Oregonians do not have internet at home**.



Percent of households with no home internet of any kind, 2017

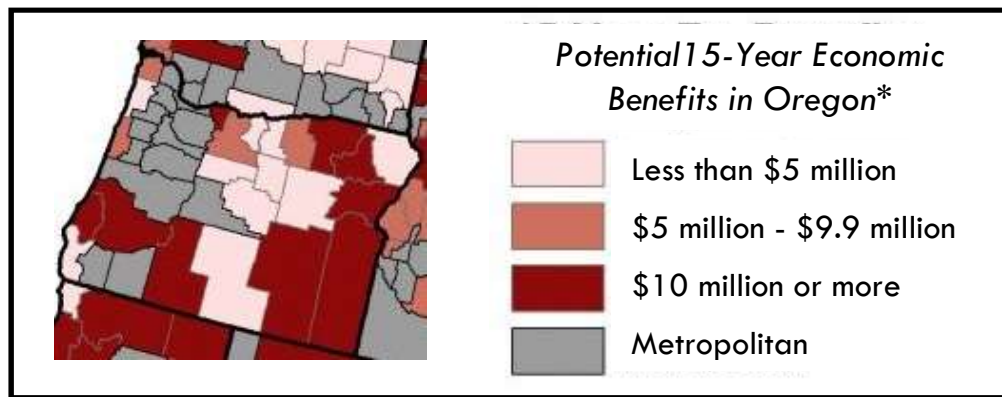
Education: At least 26 districts across Oregon lack robust and reliable high-speed Internet, and in many communities, libraries provide the only public internet access. Our educational institutions are positioned to realize significant economic, workforce and community development benefits through the utilization of broadband networks and applications. The state's Connecting Oregon Schools Fund (e-rate fund) has been established, though all projects will require a 10% state match to realize 90% federal funding. Benefits of broadband connectivity include:

- Enhanced career and college ready standards
- Closure of the "homework gap," the difference in ability for students to complete homework based on internet access at home
- Access to high-quality digital content and courses through distance learning
- Real-time tracking of student progress
- More efficient planning and preparation
- Online access to professional learning resources
- Increased access to education and jobs among local communities

Generational Transition: Research suggests that rural areas with widely available broadband are more likely to attract and retain young adults.

Economic Development: A survey of Oregon Economic Development Association members, with 88% of respondents from rural communities, were asked about the role of broadband in local economies:

- 92% stated broadband had high, somewhat high, or moderate importance in economic development
- 89% stated that broadband enables entrepreneurship, starting and growing businesses and job creation
- 96% said "Yes" or "Quite Likely" when asked if broadband access stimulates home-based businesses
- 62% said that broadband is discussed or implicated as an issue when talking with local businesses



*Assume 20 percent unserved households adopt broadband; benefits calculated at >\$1,850 per household

Agriculture: Contributing more than \$8.25 billion to Oregon’s economy each year, agriculture is a driver for broadband infrastructure deployment in rural areas of the state.

- Lack of rural high-speed internet infrastructure is the main barrier for farmers to adopt new technologies and equipment, resulting in status-quo practices that are less efficient and result in ripple effects leading to higher food costs and unnecessary environmental impacts.
- Smart farm technology uses equipment that can be precisely controlled through GPS, and sensors that inform decisions about crops, fertilizers, pesticides and water

Public Health: Telehealth, the delivery of health care remotely using telecommunication technologies (i.e. video-conferencing equipment), is increasingly part of the solution to the current healthcare access, outcomes, and financing issues, improving care delivery for Oregonians:

- Access to specialists in areas where they are not otherwise physically available
- Cost savings from reduced patient transports
- Remote Patient Monitoring enables routine, proactive manner care for those with chronic diseases
- Improved public health education, public health administration and patient outcomes

Public Safety: Broadband improves public safety communications, giving first responders the ability to send and receive voice, text, images and video. Oregon’s emergency services are at a transition point for migration to new broadband Internet Protocol (IP) technologies, advancing from legacy systems to Next Generation 911 and to interoperable wireless broadband communications systems.

Energy Management: Broadband helps Oregon utilities move to a smarter electrical grid where power outages are identified, responded to, and repaired more quickly. Smart meters are one step towards modernizing the electric grid from generation to consumption. Requirements for the speed of such communications are encompassed by broadband, allowing more content to be carried through information networks.

E-government: Nearly every agency, board, commission and branch of state government participates in the centralized Oregon E-Government service, including websites, applications, payments and open data.

- A survey of Oregon residents showed that online services are faster (64%), more convenient (72%) and more useful (57%) than traditional services
- Rural and underserved communities will have better access to public information and more opportunity for civic participation

Network Interconnection: Oregon needs to develop near-term strategies to improve the state’s connectivity to national and global networks and support the growth of network enabled datacenters and e-commerce.

Digital Inclusion & Equity: Oregon needs state-level strategies and programs to ensure all individuals and communities have access to affordable broadband communications services. Digital Inclusion fosters Digital Equity in which everyone has adequate access to information and communications technologies regardless of socioeconomic status, physical disability, language, race or gender. It is necessary for, civic and cultural participation, employment and workforce development, lifelong learning, access to essential services.