

# MINNESOTA GOVERNOR'S TASK FORCE ON BROADBAND



**2024**  
Annual Report

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## Letter from the Chair

Broadband connectivity is a cornerstone of Minnesota's economic prosperity, educational advancement, healthcare delivery, and overall community well-being. As Chair of the Governor's Task Force on Broadband, I am proud to present our 2024 report, which identifies critical challenges in achieving Minnesota's statutory broadband goals and provides actionable recommendations to address these barriers.

While Minnesota has made significant progress toward expanding broadband access, challenges persist. More than **162,000 households lack access to basic broadband speeds** of 25/3 Mbps, and an additional **229,000 remain underserved** without access to 100/20 Mbps speeds. With the discontinuation of the Affordable Connectivity Program (ACP), nearly **245,000 low-income households** risk losing essential access to high-speed internet, further exacerbating the digital divide. Workforce shortages, permitting delays, and policy gaps, including the lack of sales tax exemptions for broadband materials, are compounding these challenges, particularly in rural areas where deployment costs are highest.

The recommendations in this report outline a clear path forward to ensure equitable broadband access across Minnesota. Key actions include reinstating a program similar to the ACP, supporting local workforce training initiatives, streamlining permitting processes, and addressing funding gaps to meet the state's broadband goals by 2026. Sustaining and expanding programs like the Line Extension Connection Program will ensure that no community is left behind in this critical effort.

The Task Force recognizes that broadband access is more than just infrastructure—it is a lifeline for economic opportunity, education, and healthcare. With your support, Minnesota can bridge the digital divide and solidify its position as a leader in connectivity and digital equity. I urge you to act swiftly on the recommendations presented in this report to ensure that every Minnesotan, regardless of location, has access to reliable, affordable broadband.

Thank you for your continued leadership and commitment to broadband access. Together, we can make broadband a reality for all Minnesotans.

Sincerely,



Teddy Bekele  
Chair, Governor's Broadband Task Force

Task Force Members: Ini Augustine, Bruce Crane, Steve Fenske, Gail Hedstrom, Brian Hood, Adam Hutchens, Marc Johnson, Daniel Lightfoot, Paul McDonald, Board Chair, Briana Mumme, Phil Stalboereger, John Twiest, David Wolf, and Melissa Wolf.

## Executive Summary

The Governor’s Task Force on Broadband, composed of 15 members representing diverse sectors across Minnesota, annually evaluates the state’s progress toward achieving statutory broadband goals. These goals include ensuring that every home and business in Minnesota has access to high-speed internet of at least 100 megabits per second (Mbps) download and 20 Mbps upload by 2026. An annual report is required under the Governor’s Executive Order (EO19-10) that continues the work of the Task Force, which is to evaluate the State’s progress toward achieving the goals stipulated in the Minnesota broadband statute, section 237.012.<sup>1</sup> This report identifies persistent **challenges** that threaten these goals and provides targeted **recommendations** for addressing critical gaps in affordability, workforce development, mapping, and policy funding.

Despite progress, Minnesota faces significant barriers to broadband equity. Access to high-speed internet remains uneven, with over 162,000 households lacking even basic broadband speeds of 25/3 Mbps, and an additional 229,000 households underserved without access to 100/20 Mbps speeds. The digital divide is further exacerbated by the discontinuation of the Affordable Connectivity Program (ACP), which had previously enabled nearly 245,000 low-income households to afford broadband. Without immediate intervention, these households risk losing access to essential services, including education, healthcare, and employment opportunities. Workforce shortages present another major hurdle, as the rapid influx of federal and state funding has intensified demand for skilled workers across the nation. Minnesota is particularly vulnerable due to its reliance on out-of-state contractors, whose availability will decrease as other states ramp up their own broadband initiatives. Seasonal disruptions and unfinished projects have already highlighted the strain on the current workforce, which lacks sufficient training programs for critical roles like fiber-optic splicers and technicians. Compounding this issue is the absence of a robust local pipeline for developing and retaining skilled broadband workers. In addition to workforce limitations, permitting delays and overlapping regulatory requirements continue to hinder broadband deployment timelines, especially for the BEAD-funded projects that will aim to connect all unserved homes within four years. Minnesota’s sales tax on broadband materials, an oversight in the current tax code, inflates deployment costs, particularly in rural areas where construction expenses are already higher due to challenging geography and lower population density. Local governments and communities also struggle with limited resources and expertise to plan broadband projects or implement digital equity initiatives, further slowing progress toward universal access.

To address these critical challenges, the Task Force urges the Governor and Legislature to act on the following priorities:

### Affordability and Digital Equity

- **Reinstate a Program Similar to ACP:** Develop a statewide program or advocate for federal solutions to provide affordable broadband access, targeting low-income households.
- **Modernize Federal Lifeline Benefits:** Support reform to increase the Lifeline subsidy to match ACP levels—\$30 for most households and \$75 for those on Tribal lands.
- **Support Digital Literacy:** Standardize digital literacy definitions across agencies and fund **Digital Navigators** for anchor institutions to teach digital skills and connect residents to resources. Create a **searchable digital literacy resource directory** available in multiple languages and accessible formats. Provide greater opportunities for partner organizations to build capacity, and work to strengthen existing relationships.

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<sup>1</sup> [Minnesota Governor’s Executive Order \(EO19-10\)](#)

### Economic Opportunity and Workforce Development

- **Build Local Training Pipelines:** Invest in programs through **DEED** to train broadband technicians, splicers, and engineers, focusing on local talent development.
- **Incentivize Best Practices:** Encourage grant recipients to implement workforce best practices outlined in **Minnesota Statutes 2022, section 116J.395**, ensuring jobs created are family-supporting with fair wages and benefits.
- **Promote K-12 and Higher Education Collaboration:** Develop **Career and Technical Education (CTE)** programs with Minnesota schools and colleges to address broadband labor shortages.

### Mapping, Policy, and Funding

- **Support Statewide Mapping:** Fund ongoing mapping initiatives to ensure accuracy in identifying unserved and underserved areas. Conduct a **post-BEAD evaluation** to measure program success and remaining gaps.
- **Address Sales Tax Barriers:** Enact legislation clarifying that broadband materials (fiber and conduit) qualify for **sales tax exemption**, reducing costs for high-speed deployment.
- **Sustain the Line Extension Program:** Provide **continued funding in 2025** to connect smaller groups or individual homes, avoiding project delays as BEAD funding rolls out.
- **Expand Local Capacity:** Establish a fund for local governments and nonprofits to **hire digital prosperity experts**. These experts would assist with broadband planning, grant applications, and outreach in underserved communities.

Broadband access is foundational for Minnesota’s economic resilience, workforce development, and digital inclusion. Immediate action on these recommendations will help Minnesota overcome the significant challenges it faces—ensuring that no household or community is left behind. By addressing affordability, workforce gaps, and funding barriers, Minnesota can achieve its broadband goals and solidify its position as a leader in digital opportunity and connectivity.

## Task Force Members and Report Vote

<i>Teddy Bekele</i> (Chair), Senior VP/CTO, Land O'Lakes	Approve
<i>Ini Augustine</i> , Chief Executive Officer, Technologist Computers	Approve
<i>Bruce Crane</i> , Area Vice President, Communications Workers of America	Approve
<i>Steve Fenske</i> , General Counsel, Minnesota Association of Townships	Approve
<i>Gail Hedstrom</i> , Director of Fergus Falls Public Library	Approve
<i>Brian Hood</i> , Operations Manager, Fond du Lac Communications	Approve
<i>Adam Hutchens</i> , Marketing Representative, Laborers' International Union of North America	Approve
<i>Marc Johnson</i> , Executive Director, East Central Minnesota Educational Cable Cooperative	Approve
<i>Daniel Lightfoot</i> , Intergovernmental Relationships Representative/Federal Relations Manager, League of Minnesota Cities	Approve
<i>Paul McDonald</i> , Board Chair, St. Louis County Commissioners	Approve
<i>Briana Mumme</i> , Economic Development Manager, Southwest Initiative Foundation	Approve
<i>Phil Stalboereger</i> , Senior VP, Medical Transportation Management	Approve
<i>John Twiest</i> , CEO/General Manager, Arrowhead Electric Cooperative	Approve
<i>David Wolf</i> , CEO, Gardonville Coop Telephone Association	Approve
<i>Melissa Wolf</i> , Executive Director, Minnesota Cable Communications Association	Abstain

## Introduction

The Governor's Task Force is composed of 15 appointed members from across the state representing multiple sectors. Meeting monthly, the Task Force reviews the current state of broadband deployment, access, adoption, and affordability relative to the **Minnesota statutory goals to serve 100% of Minnesota homes and businesses.**

An annual report is required under the Governor's Executive Order (EO19-10) that continues the work of the Task Force to evaluate the State's progress toward achieving the goals stipulated in the Minnesota broadband statute, M.S. 237.012.<sup>2,3</sup> The Governor's EO19-10 also established that the annual report, in addition to updated recommendations on state-level actions, must include an inventory and assessment of:

- a. The needs, barriers, issues, and goals for broadband access;
- b. The needs and use of broadband in Minnesota's education systems, health care system, agriculture and energy sectors, industries and businesses, libraries, governmental operations, federally designated tribal nations, public safety, and other key economic sectors;
- c. Digital inclusion definitions, along with benefits, needs, and strategies for addressing identified gaps;
- d. Broadband availability and accessibility for unserved and underserved populations;
- e. Advances in technologies used to deploy services;
- f. Opportunities to coordinate with federal, state, and local agencies; and
- g. A review of the continued adequacy and appropriateness of the existing statutory broadband goals.

Combined, this report and the work of the Task Force look to improve the likelihood the state achieving its broadband goals.

<sup>2</sup> [Minnesota Governor's Executive Order \(EO19-10\)](#)

<sup>3</sup> [Minn. Stat. § 237.012.](#)

## Statutory Goals Review

According to Minnesota’s 2023 statutes, M.S. 237.012, the state’s broadband goals are:

### **Subdivision 1. Universal access and high-speed goal. It is a state goal that:**

- (1) no later than 2022, all Minnesota businesses and homes have access to high-speed broadband that provides minimum download speeds of at least 25 megabits per second and minimum upload speeds of at least three megabits per second; and
- (2) no later than 2026, all Minnesota businesses and homes have access to at least one provider of broadband with download speeds of at least 100 megabits per second and upload speeds of at least 20 megabits per second.<sup>4</sup>

Goal	Status	Source
(1) no later than 2022, all Minnesota businesses and homes have access to high-speed broadband that provides minimum download speeds of at least 25 megabits per second (Mbps) and minimum upload speeds of at least three Mbps.	As of 2023, 92% of homes and businesses statewide have access to broadband with speeds of 25/3 Mbps.	Office of Broadband Development, <a href="#">2023 Annual Report</a>
(2) no later than 2026, all Minnesota businesses and homes have access to at least one provider of broadband with download speeds of at least 100 Mbps and upload speeds of at least 20 Mbps.	As of 2023, 88% of homes and businesses statewide have access to broadband speeds of 100/20 Mbps.	Office of Broadband Development, <a href="#">2023 Annual Report</a>

### **Subdivision 2. State broadband leadership position. It is a goal of the state that by 2022 and thereafter, the state be in:**

- (1) the top five states of the United States for broadband speed universally accessible to residents and businesses;
- (2) the top five states for broadband access; and
- (3) the top 15 when compared to countries globally for broadband penetration.

The status as of 2023 related to comparative goals in Subdivision 2 above are as follows:

Goal	Status	Source
(1) the top five states of the United States for broadband speed universally accessible to residents and businesses	Minnesota ranks 32 <sup>nd</sup> with an average maximum available download speed of 304.2 Mbps.	M-Labs via Wisevoter, 2023, “Average Internet Speed by State.”
(2) the top five states for broadband access.	Minnesota ranks 21 <sup>st</sup> nationally for broadband coverage, speed, and availability.	BroadbandNow, <a href="#">Minnesota Internet &amp; Coverage Availability in 2024</a> .
(3) the top 15 when compared to countries globally for broadband penetration.	Compared to countries globally, the state of Minnesota ranks 25 <sup>th</sup> for median broadband speeds reported in Ookla’s Speedtest.	Ookla, 2024, “Speedtest Global Index.”

<sup>4</sup> [Minn. Stat. § 237.012](#).

Between 2022 and 2023, homes and businesses outside of the 7-county Metro have seen availability of broadband speeds at or above 100/20 Mbps increase by 11% and broadband speeds of 25/3 Mbps increased by over 5% ([Appendix C](#)).<sup>5</sup> Data for broadband speeds of 1/1 Gbps was not consistently available before 2022 and increased from 24% (2022) to 29% (2023) of homes and businesses covered statewide.<sup>6</sup>

The Department of Employment and Economic Development's (DEED) Office of Broadband Development (OBD) staff lead and manage key parts of the state's broadband program and work with other state agencies and bodies to do so. **Notably, OBD provides administrative support for the work of the Governor's Task Force on Broadband.** Other work includes:

- Conducts and administers the Border-to-Border Broadband Development Grant Program, the Low-Density Pilot Program, and the Line Extension Connection Program
- Coordinates and oversees the state's broadband mapping program Plans and manages digital opportunity initiatives
- Works directly with the National Telecommunications and Information Administration (NTIA) to ensure effective design and implementation of the Broadband Equity, Access and Deployment (BEAD) and Digital Equity Act programs
- Advises DEED senior leaders and the legislature on broadband policy and funding issues

Worth noting, substantial mandates built into new federal BEAD program, and changes in the 2024 legislature ([Appendix D](#)), will mean even greater levels of coordination and collaboration statewide to ensure funds are wisely invested in meeting the needs of communities yet unserved and underserved.

To determine the amount of funding needed to serve the state under BEAD, OBD issued a Request for Proposal (RFP) for a consultant to perform a broadband cost gap analysis study for the state of Minnesota. The purpose of the analysis was two-fold, and the second purpose was to determine the cost if all locations in the state were to be served with a minimum 100/20 Mbps upload wireline connection, as is the goal under state law.

CTC Technology and Energy, a consulting firm who has performed similar analysis for other states, was selected to complete the cost-gap analysis. CTC used CostQuest data, NTIA data, and data from OBD's past state Border-to-Border and Line Extension Connection Program grant rounds to perform a set of cost modeling exercises. CTC's findings were:

- 1) to cover every location in Minnesota with fiber would require \$2.08 Billion in funding;
- 2) to reach all BEAD-eligible locations with the state's allocated funding of \$628 Million, the optimal technology mix is 90.8% fiber, 0.7% fixed wireless, and 8.5% satellite.<sup>7</sup>

Further, CTC found that an "incumbent expansion" model scenario results in less required funding than new entrants, largely due to incumbent cost benefits around existing network infrastructure, pole attachments, existing conduit, etc. CTC's analysis also determined that there are small numbers of extremely remote and high-cost areas that may require up-to \$64,000 in funding per location.

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<sup>5</sup> Office of Broadband Development, "[2023 Annual Report](#)."

<sup>6</sup> Minnesota Office of Broadband, [General Maps](#)

<sup>7</sup> CTC Technology and Energy, "[2024 Cost-Analysis Report](#)."



## Affordability and Digital Equity

### *Background and Challenges*

Adopting a definition from [NTIA's Digital Equity Notice of Funding Opportunity](#) (NOFO), digital opportunity describes “**a 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.**” Digital opportunity is achieved through several digital inclusion activities, also provided in the NOFO:

- a. reliable and affordable broadband internet service;<sup>8</sup>
- b. internet-enabled devices that meet the needs of the user;
- c. applications and online content designed to enable and encourage self-sufficiency, participation, and collaboration;<sup>9</sup>
- d. access to digital literacy training;<sup>10</sup>
- e. quality technical support; and
- f. basic awareness of measures to ensure online privacy and cybersecurity.

### **Affordability**

The loss of the Affordable Connectivity Program (ACP) has had an immediate and significant impact on broadband accessibility for low-income households in Minnesota. The final full disbursement from the program occurred on April 30, 2024, and funding was exhausted in May 2024. In some areas of Minnesota, 8% of ACP customers have disconnected from broadband services with 4.7%, or over half of these disconnections, occurring due to non-payment.<sup>11</sup> This demonstrates the financial burden faced by households reliant on subsidies to maintain their internet access.

Minnesota is working to address affordability for schools and public libraries by exploring how **e-rate discounts** can be re-aligned with new measures of household poverty to support connectivity in educational and public library settings. However, there could be impending changes to this program at the national level that would have state and local implications.<sup>12</sup>

Similar efforts in the state highlight the potential of existing programs to fill gaps in broadband affordability. For instance, the **Telephone Assistance Program** has provided support for landline services, and efforts to modernize the **Low-Income Home Energy Assistance Program** for utilities two years ago demonstrate the value of updating traditional assistance programs to meet modern needs. These examples underscore the need for continued innovation and funding to address broadband affordability challenges and ensure that essential services remain accessible for all Minnesotans.

### **Digital Literacy**

Digital literacy skills are the skills that allow individuals to access, navigate, organize and utilize information from digital or technology resources.<sup>13</sup> Currently, agencies have their own definitions of digital literacy, making it difficult to assess and measure digital literacy.

<sup>8</sup> Word added from NTIA NOFO definition by the Broadband Task Force's **Affordability and Digital Equity** subgroup.

<sup>9</sup> Mossberger, Tolbert, and Franko, [Digital Citizenship: The Internet, Society, and Participation](#)

<sup>10</sup> This language is from the NOFO. OBD elects to use the phrase “digital skills” in place of “digital literacy.”

<sup>11</sup> According to data from Gardenville Cooperative Telephone Association.

<sup>12</sup> New York Times, [“Supreme Court Agrees to Hear Fresh Challenge to Agency Power.”](#)

<sup>13</sup> Minnesota Adult Basic Education, [“Digital Literacy.”](#)

## Lack of Funding

There is inadequate funding and resources provided to remove these barriers to digital literacy. Barriers to improving digital literacy include:

- Lack of access to broadband internet connectivity;
- Lack of access to the internet due to income insecurity;
- Lack of technology such as computers or tablets;
- Lack of transportation to locations where devices and the internet are available;
- Lack of skills training opportunities;
- Lack of childcare;
- Lack of trust in government agencies;
- Illiteracy;
- Language barriers.

## Recommendations

### Affordability

1. The Affordable Connectivity Program (ACP) provided a short-term solution to help low-income consumers get connectivity to the internet. Efforts should be taken to apply the positive aspects of ACP to the federal Lifeline program. The State of Minnesota should support bicameral, bipartisan efforts to reform the federal Universal Service Fund (USF), which includes the Lifeline Program. The current Lifeline benefit of \$9.25/month for household broadband access (up to \$34.25 on certain Tribal lands) is inadequate and should be increased to match the ACP benefit of \$30 (\$75 for Tribal lands). To accomplish this, the USF contribution mechanism must also be revamped.

2. In determining e-rate funding, consider alternate measurements to free and reduced lunch eligibility, such as those recommend by the Universal Service Administrative Company.<sup>14</sup>

3. Replace lost American Rescue Plan Act (ARPA) dollars with multi-year grants to support community organizations who are doing digital literacy work. Grant funding should also include removing some of these barriers as fundable activities.

### Digital Literacy and Lack of Funding

1. A standard definition of digital literacy should be established and used consistently across organizations and agencies. A standard definition would provide clarity and allow for measurable outcomes. Such as this definition provided on the Northstar Digital Literacy webpage.<sup>15</sup>

2. Opportunities should be provided for partner organizations to purchase equipment and hotspots, as well as hiring educators, or digital navigators with regularly scheduled hours. Partnering with existing organizations such as Community Education, Career Force Centers, public libraries, Community Action Partnerships, state colleges and technological schools, senior citizen centers, AmeriCorps programs, local internet service providers, and in-home visits would reduce the transportation barrier and provide education opportunities closer to home and in places where people already have existing relationships. This work also includes the promotion of online or hybrid digital literacy courses in Minnesota, such as those provided by Northstar, Literacy Minnesota, and area Adult Basic Education systems.

3. To increase access to digital skills learning opportunities, an online database of resources—searchable by ZIP code along with a printed list of learning opportunities—should be created and distributed to communities.

4. There is a need for funding to provide access to digital navigators for anchor institutions. Funding should be provided for a defined role, such as employee or contractor, who is responsible for teaching digital literacy.

<sup>14</sup> [Universal Service Administrative Co.](#)

<sup>15</sup> Northstar, "[Digital Literacy Assessment.](#)"

## Economic Opportunity and Work Force Development

### Background

#### Economic Benefits

Access to high-speed broadband is increasingly recognized as essential for fostering economic growth in communities. Research indicates that the expansion of broadband access positively impacts business creation and growth, particularly in urban and near-urban areas, where causal links have been established between broadband expansion and the emergence of new businesses.<sup>16</sup> In addition, studies suggest that rural broadband improvements also contribute to business growth, especially in knowledge-intensive sectors, effectively enabling smaller cities and rural areas to "borrow size" by leveraging the advantages typically associated with larger urban markets without incurring the related costs.<sup>17</sup>

The economic benefits of initiatives aimed at enhancing broadband access, such as ACP, are well-documented. This program, before it was discontinued, not only aided approximately 23 million households in affording high-speed internet but also generated broader benefits for all Americans through the strengthening of small businesses and fostering stable economic growth.<sup>18</sup> The increase in online sales—accounting for 15.9% of total retail sales, a significant rise from the previous year—further emphasizes the critical role of internet access in modern business operations and job seeking.<sup>19</sup> Broadband expansion is linked to productivity gains, although the extent of these gains may vary across different sectors and typically develops over time in conjunction with strategic organizational investments.<sup>20</sup>

Further, the COVID-19 pandemic underscored the importance of digital infrastructures for economic resilience, enabling work-from-home arrangements that not only improved labor productivity but also enhanced leisure time for workers, thus increasing overall consumer utility.<sup>21</sup> Studies have shown that broadband access correlates with favorable labor market outcomes, although some research notes variability in employment effects, particularly influenced by urbanization and workforce skill levels.<sup>22</sup> For instance, while high-skilled workers experience significant benefits, rural areas may catch up with urban counterparts as sufficient broadband infrastructure is established, indicating the critical nature of connectivity for equitable economic development.<sup>23</sup>

A Telecompetitor article on a 2024 report from the Fiber Broadband Association and The Brattle Group, commissioned by Frontier Communication reported that:

...deploying fiber to the 56 million households that currently don't have access to it could generate at least \$3.24 trillion in net present value (NPV) in incremental economic impact. Housing values would benefit, with fiber increasing housing values as much as \$1.64 trillion (in NPV terms), with the average household value rising 14% to 17% depending on non-urban versus urban areas, an average increase in value of \$27,000 to \$41,000 per house per year.<sup>24,25</sup>

<sup>16</sup> White House Blog, "[Affordable High-Speed Internet is Spurring Economic Growth and Boosting Small Businesses.](#)"

<sup>17</sup> White House Blog, "[Affordable High-Speed Internet is Spurring Economic Growth and Boosting Small Businesses.](#)"

<sup>18</sup> White House Blog, "[Affordable High-Speed Internet is Spurring Economic Growth and Boosting Small Businesses.](#)"

<sup>19</sup> White House Blog, "[Affordable High-Speed Internet is Spurring Economic Growth and Boosting Small Businesses.](#)"

<sup>20</sup> Blandin Foundation, "[New research on socioeconomic benefits of high-speed broadband.](#)"

<sup>21</sup> Blandin Foundation, "[New research on socioeconomic benefits of high-speed broadband.](#)"

<sup>22</sup> Blandin Foundation, "[New research on socioeconomic benefits of high-speed broadband.](#)"

<sup>23</sup> Blandin Foundation, "[New research on socioeconomic benefits of high-speed broadband.](#)"

<sup>24</sup> The Brattle Group, "[2024 Economic Benefits Report.](#)"

<sup>25</sup> Telecompetitor, "[Universal Fiber Access Could Add \\$3T to U.S. Economy.](#)"

## Social Benefits

Broadband access has emerged as a critical factor in enhancing various social outcomes within communities, particularly those that are underserved. The availability of high-speed internet significantly impacts education, healthcare, civic engagement, and quality of life.

- **Educational Advancements:** Access to broadband in underserved school districts has notably transformed educational outcomes. For instance, in New Mexico, investments in broadband for remote and tribal schools have markedly increased students' access to digital learning tools, leading to improved educational performance and better workforce preparation.<sup>26</sup> Additionally, the presence of broadband allows students to apply online for college and student aid, which can influence academic success and future opportunities.<sup>27</sup>
- **Healthcare Improvements:** Telemedicine has benefited immensely from broadband expansion, especially in rural areas where healthcare services are limited. Rural clinics and hospitals can now offer remote consultations, improving patient outcomes by granting access to specialists. This shift not only enhances healthcare delivery but also contributes to local economies by keeping healthcare services and spending local.<sup>28</sup>
- **Civic Engagement and Public Safety:** Broadband connectivity facilitates civic engagement by enabling voters to contact local officials and access important information online. This digital engagement is crucial for informed participation in the democratic process. Furthermore, broadband supports public safety initiatives by allowing first responders to communicate efficiently with dispatch services, thus enhancing response times during emergencies.<sup>29</sup>
- **Quality of Life and Cultural Enrichment:** Broadband access enriches the quality of life by enabling residents to connect with family and friends through platforms like FaceTime, to engage in online shopping, and to access entertainment. This connectivity became particularly vital during the COVID-19 pandemic, where many relied on digital tools for social interaction and commerce.<sup>13</sup> For Indigenous communities, broadband offers the opportunity to stream cultural and traditional events, thereby preserving and promoting cultural heritage.<sup>30</sup>

## Overcoming Digital Divides

Despite the advantages of broadband, significant barriers remain. Access to high-speed internet depends on physical availability, affordability of services, and the digital skill levels of residents. Many U.S. adults possess low levels of digital skills and exhibit hesitancy toward new technologies, complicating their ability to fully benefit from broadband.<sup>31</sup> Addressing these challenges requires collaborative efforts across public, private, and civic sectors to foster digital literacy, affordability, and universal access, ensuring that all can engage meaningfully in the digital age.<sup>32</sup>

A study commissioned by the Blandin Foundation in 2017 looked to examine the impact of broadband in five rural Minnesota counties.<sup>33</sup> The study, which used established formulas and looked at county data, found that in three counties the annual collective economic benefit for residents would surpass the public/community investment in one year. The study also showed that broadband is essential for rural communities to thrive and that smart communities plan for technology development. The study's findings indicate that broadband is a

<sup>26</sup> OECD SME and Entrepreneurship Outlook, "[2019 Report](#)."

<sup>27</sup> Dine and Kane, "[The State of Broadband in 2022: Reassessing the Whole Picture](#)."

<sup>28</sup> OECD SME and Entrepreneurship Outlook, "[2019 Report](#)."

<sup>29</sup> Dine and Kane, "[The State of Broadband in 2022: Reassessing the Whole Picture](#)."

<sup>30</sup> [2024 interview with Professor Christopher Ali](#)

<sup>31</sup> [2024 interview with Professor Christopher Ali](#)

<sup>32</sup> [2024 interview with Professor Christopher Ali](#)

<sup>33</sup> Blandin Foundation, "[Measuring Impact of Broadband in 5 Rural MN Communities](#)."

sound investment for rural communities and that it can lead to increased economic activity and population growth. Other notable findings include:

- **Increased Economic Benefits for Residents:** Using formulas from previous studies, the study found that residents in counties with robust broadband access experience significant annual economic benefits. These benefits are calculated by considering the potential economic opportunities missed by households without broadband access and the positive impact of broadband on home values. For instance, Beltrami County residents see an estimated annual economic benefit of \$38,631,700, while Crow Wing County residents experience a benefit of \$67,412,150. These benefits stem from factors such as increased opportunities for remote work, online business ventures, and access to education and healthcare services.
- **Rapid Return on Investment:** In counties with mid-sized populations, such as Beltrami, Crow Wing, and Goodhue, the return on public investment in broadband infrastructure is almost immediate. This is attributed to a larger number of residents utilizing and benefiting from the connectivity. While counties with smaller populations may take longer to realize a full return on investment, the study suggests that the economic benefits will ultimately surpass the initial investment. For example, in Sibley County, a positive ROI is projected within a year, while Lake County is expected to see benefits outweigh investments in just over six years.
- **Stimulation of Population Growth and Median Income:** Although data collection lags hinder a comprehensive analysis, one county with long-standing broadband access demonstrated population growth and increased median income. This suggests that broadband infrastructure can contribute to a thriving community and attract new residents.
- **Enhanced Business Opportunities and Property Values:** The presence of reliable broadband access empowers businesses to operate more efficiently, expand their reach, and explore new markets. This can lead to job creation and economic growth within the community. Additionally, the study highlights that access to fiber-delivered internet can boost home values by up to 3.1%, further benefiting homeowners and the overall local economy.
- **Improved Educational Outcomes and Community Services:** Broadband access is essential for modern education, allowing students to access online learning resources, collaborate on projects, and develop digital literacy skills. Furthermore, reliable internet connectivity enables residents to access telehealth services, online government resources, and other essential community services, improving their quality of life and overall well-being.

A fiber apprenticeship formed from partnership between the Communications Workers of America (CWA) and Consolidated Telephone Company (CTC) is currently in progress and serves as an example of how groups can collaborate to solve the workforce shortage. The program recognizes, “As states continue to receive historic federal funding towards a nationwide broadband buildout, it’s critical that we have well-trained broadband technicians leading this work. CWA’s joint apprenticeship program will help lay that groundwork by developing highly skilled broadband workers in Minnesota and the upper Midwest.”<sup>34</sup>

## Challenges

### Economic Impact Challenges

Data from 2023 shows that there were around 162,000 households without access to internet speeds of 25/3 Mbps and 229,000 households without access to 100/20 Mbps, which impedes the economic growth opportunities for those residents and the communities in which they live.<sup>35</sup>

<sup>34</sup> [CTC 2024 Press Release](#).

<sup>35</sup> Office of Broadband Development, “[Celebrating 10 Years of Connecting One Minnesota](#).”

Lack of digital skills diminishes economic impacts for some community members. And the loss of the ACP means nearly 245,000 households in Minnesota may not be able to afford highspeed broadband and thus miss out on the economic and social benefits of broadband.<sup>36</sup>

There is a lack of recent data, especially quantitative, on the economic and social impacts of highspeed broadband deployment in Minnesota. While there is national data (*referenced above*) and some data (mostly qualitative) from previous years provided by the Blandin Foundation, there is limited data available on the economic impact of broadband projects (Border-to-Border, Capital Projects Fund, ReConnect, etc) in the state. This lack of data makes it difficult to advocate for continued funding and deepens aspects of the digital divide.

### **Workforce Challenges**

Minnesota must be proactive and take steps to limit the impact on the already strained workforce and contractor base we experience today, especially given “the unprecedented injection of federal and state funding into the broadband market [will be] a disruptive force [and will require] an extraordinary volume of engineering and construction activity that the market is not prepared to support and will result in broadband deployment delays.”<sup>37</sup>

In 2016, the Power and Communication Contractors Association Board (PCCA) “...identified the shortage of workers in broadband construction as the largest obstacle our members faced, and a subsequent membership survey showed that contractors were short 10 to 17 crews per company.”<sup>38</sup> Just this year in 2024, during a monthly meeting of the Broadband Task Force, a Minnesota Border-to-Border grant recipient presented on the progress on their construction project, and confirmed the issues they faced with contractor shortages. The result of their use of a southern out-of-state contractor was a workforce that left with a project incomplete and behind schedule when the weather dropped below 40 degrees.

Minnesota has a long-standing tradition of utilizing prevailing wage on tax funded capital projects to ensure a fair wage is paid to workers on these projects, which in turn draws workforce and employers to those projects. Without prevailing wage, another avenue to ensure the jobs created from this public investment creates high-value family supporting jobs is to incentivize grant recipients to utilize workforce best practices, as defined in Minnesota Statutes 2022, section 116J.395, subdivision 6.<sup>39</sup> Careers that offer decent retirement, pay, and benefits will build the workforce that the broadband expansion will need as the projects get underway.

Fiberoptic splicers are in short supply currently and will only become more unavailable as the federal dollars expand to all 50 states. As new workers enter the market, they will need training to become proficient and certified. The Government Accountability Office estimated that around 34,000 splicers may be needed this year to support the government’s broadband-expansion programs.<sup>40</sup> With the issue of a current shortage of qualified and trained employees, compounded with an aging workforce, Minnesota, as will all states, will be faced with a bottleneck of work that will slow deployment and impact grant completion timeline requirements.

Minnesota construction contractors are already in short supply, and the current influx of out-of-state contractors will lessen as more contracting opportunities expand in their home states. Minnesota broadband is currently heavily installed by an out of state workforce and contractor base. When the BEAD funding begins to rollout around the country, contractors will likely stay closer to home as the travel and mobilization costs become an unnecessary burden when their home state will also have a boom of installation work.

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<sup>36</sup> Universal Service Administrative Co., “[ACP Enrollment and Claims Tracker](#).”

<sup>37</sup> Fiber Broadband Association, “[Urgent Need to Recruit and Train Nearly 180,000 Workers to Complete Federal- and State-Funded Broadband Networks](#).”

<sup>38</sup> Fiber Broadband Association, “[Urgent Need to Recruit and Train Nearly 180,000 Workers to Complete Federal- and State-Funded Broadband Networks](#).”

<sup>39</sup> [Minn. Stat. § 116J.395](#).

<sup>40</sup> Fierce Network, “[An industry short on enthusiasm: Where are all the fiber technicians?](#)”

### *Recommendations*

#### **Economic impact recommendations**

1. Reinstate, in light of the digital divide persisting across our state/nation, a program similar to ACP. Such a program is essential for ensuring equitable access to high-speed internet, a critical resource for education, employment, healthcare, and civic engagement.
2. Authorize and fund (commission) research in Minnesota communities on the economic impact and social benefits to those who have received public funding (B2B, BEAD, RDOF,<sup>41</sup> ARPA, others) for broadband deployment.

#### **Workforce recommendations**

1. Ensure the market creates family-supporting jobs by incentivizing grant recipients to utilize Workforce best practices as defined in Minnesota Statutes 2022, section 116J.395, subdivision 6.
2. Seek ways to support training and workforce development inside Minnesota through DEED programs focused on workforce training.
3. Explore opportunities for K-12 schools to collaborate with Minnesota higher education institutions to develop career and technical education (CTE) programs that address the broadband construction labor needs, which may include programs to train fiber optic technicians and splicers.

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<sup>41</sup>,RDOF refers to the [Rural Digital Opportunity Fund](#).



## Mapping, Policy, and Funding

### Background

#### Statutory Speed Goals

As of October 2023, **88.03% of households statewide** had access to service that meets or exceeds the state's speed goal for 2026, which is 100 Mbps download by 20 Mbps upload from at least one provider. Broadband funding programs from OBD to address broadband accessibility across the state include:

- **Border-to-Border Broadband Grant Program** has been funded with state general fund revenues (2014-2020) and a combination of both state general fund revenues and federal American Rescue Plan Act (ARPA) Sec. 604 Capital Projects Funds (CPF) for the two grant rounds in 2022 and 2023. In total, this program along with two rounds of the **Low-Density Pilot Program**, have reached a total of **112,342 unserved and underserved locations**. The total funding for these efforts since 2014, including CPF allocations, has been about **\$348,580,000** and over **\$400 million in local match**.
- The **Line Extension Connection Program** first awarded on a rolling basis beginning October 6, 2023, and ending November 9, 2023. The first round of the program awarded **\$4,395,257** to expand wired broadband delivering at least 100 Mbps download and 100 Mbps upload to **843 locations** across **32 counties**. Of these locations, **779 are residences** and **64 are businesses**. Internet providers carrying out the projects matched **\$2,225,747.14** for a total investment of **\$6,621,005**. The second round, awarded between March 29, 2024, to April 22, 2024 contracted **\$4,204,246.02** to **687 locations across 25 counties**. Internet providers carrying out the projects matched **\$1,691,410.22** for a total investment of **\$5,895,656.24**.
- The **BEAD** program provides funding for broadband infrastructure and the preparation of a plan by each eligible entity for how to achieve Internet for All. **Minnesota will receive a total of \$651,839,368**. Individual state amounts were calculated from the number of unserved locations within each state based on new maps that the Federal Communications Commission (FCC) developed as well as the number of such locations in areas deemed to be high cost. With BEAD only able to fund up to 75% of project costs in most cases without a waiver approved by NTIA, the **minimum projected total provider match starts at \$209M**, and some **estimates project up to \$362M**.<sup>42</sup> OBD submitted their Initial Proposal draft for the BEAD program to the NTIA on December 22, 2023. Minnesota's Initial Proposal was approved by NTIA fully October 2024.<sup>43</sup>

#### Policy and Funding

##### Grant Programs

During the 2022 Legislative Session, the Legislature directed OBD to create the Broadband Line Extension Connection Program. The purpose of the program is to award grants for the extension of existing broadband infrastructure to unserved locations. An unserved location is a location that does not have a wired broadband service of at least 25Mbps download and 3 Mbps upload.

The Line Extension Connection Program is a consumer driven program in which both residential and business locations that are unserved (lack access to speeds of at least 25/3 Mbps) can apply by entering their information into the Line Extension Connection portal or by contacting OBD via phone. This initiates their interest in receiving broadband internet service and makes their location available for consideration. By submitting their address into the Line Extension Connection portal, internet service providers have the opportunity to review the location and submit a bid based on the cost to bring service to that location. OBD evaluates these bids and provider documentation, then makes awards to the providers whose bids propose the lowest cost to the State for extension of the service.

Since its inception, the Line Extension program in Minnesota has received over 5,000 address submissions. Through two rounds of grants, over 1,100 homes have been connected to the internet, with nearly \$7.5 million

<sup>42</sup> Cartesian, "[State Broadband Report: Minnesota](#),"

<sup>43</sup> Office of Broadband Development, "[2023 Annual Report](#)."



awarded in grants and \$3.3 million in matching funds from internet service providers. The latest round received bids for over 1,600 locations, requesting a total of \$13.4 million, with \$7.5 million still available.

### *Broadband Policy*

In 2013 the Minnesota Legislature removed the sales tax exemption on telecommunications capital expenditures. It was reinstated in 2017 with the addition of fiber and conduit. Shortly thereafter it was discovered by the Department of Revenue that the exemption only applies for fiber and conduit if they were used primarily for telephone and television. This was not the intent of the legislation that reinstated the exemption and expanded it to include both fiber and conduit. Recognizing the importance of this infrastructure for delivering high speed internet service, this was likely an oversight that can be addressed to help lower the costs of broadband projects across the state, and especially in Greater Minnesota where lower population density, remote geography and challenging topography increase costs to deploy. In addition, taxing any materials that is being purchased with Minnesota grant dollars reduces the cash available to construct broadband.

### *Community Planning Efforts*

Many counties and municipalities in the state lack the local manpower necessary to develop broadband infrastructure projects or promote digital equity initiatives. In these communities, challenges often arise due to limited budgets and resources, leading to gaps in both project development and the expertise required to advance these efforts. Access to digital prosperity services—designed to enhance economic, social, and educational outcomes through digital technologies—could create significant impact. This could include support for community planning of broadband infrastructure, digital literacy programs, digital entrepreneurship services, education and workforce development, and cybersecurity initiatives.

Currently, the American Connection Corps (ACC), an AmeriCorps program under Lead for America, provides these services. Established in 2021, ACC works to close the digital divide by deploying leaders to communities with limited broadband access. The program connects local governments, community organizations, and internet service providers to strengthen broadband infrastructure and promote digital inclusion. ACC Fellows collaborate with these stakeholders to implement tailored, right-sized broadband solutions that address the specific needs and challenges of the communities they serve. By investing in local capacity through initiatives like ACC, we can ensure the long-term success of broadband projects, fostering lasting benefits in economic development, education, healthcare, and quality of life across the state.

### *Challenges*

#### **Permitting**

Permitting delays and costs continue to slow progress of broadband deployment throughout the state. BEAD funded projects will not only require the state to connect every currently unserved home, but also complete arduous construction in four years. Issues affecting permitting range from the complexity of projects to overlapping agency jurisdiction and pressure on staff. Understanding the need for efficiency, we need to encourage the streamlining of the state permitting process, reduce duplicative or overlapping regulatory requirements and enforce timely approval of permits for broadband deployment projects.

#### **Workforce**

The simultaneous deployment of broadband infrastructure across every state and US territory will create a nationwide demand for a skilled workforce potentially beyond what the current workforce can support. Relying on experienced broadband providers in the state, with more established workforces, proven success with deployment, network operations and customer experience will ensure BEAD dollars go further.

## *Recommendations*

### **Statutory Speed Goals**

With 88% of Minnesota households meeting or exceeding the state's 2026 speed goal of 100Mbps/20Mbps and several state and federal broadband grant programs in flux that will continue to reach Minnesota's goals, the Task Force recommends the legislature:

1. Continue to monitor how current programs are influencing the state's speed goals and the accuracy of the state's broadband maps. This includes maintaining funding support for OBD's mapping contractors.
2. A post-BEAD evaluation should be provided to the legislature and the Task Force on how many Minnesota households were reached, what type of technology was used, and what speeds were provided to accurately deduce what households remain that do not meet Minnesota's statutory speed goals of *wireline access* of at least 100Mbps down and 20Mbps up.
3. Prior to 2026, when the state's speed goals expire, reevaluate and assess the state's progress towards these goals, the benchmark standards used in federal funding programs, consumer usage patterns and speeds that are available by internet service providers to accurately gauge what, if any adjusting, is necessary.

### **Policy and Funding**

#### *Grant Programs*

The Line Extension program was originally funded through federal Capital Project Funds at \$15M. These funds expire on December 31, 2024 and have been exhausted through three competitive grant rounds in two years.

The Task Force recommends the legislature:

1. Provide funding to the Line Extension program in 2025 to continue reaching smaller groups of homes or individual homes; moving the needle on broadband deployment and avoiding a lull in grant deployment in 2025 while the state waits to receive its portion of BEAD funding.
2. Encourage community and citizen engagement in the Line Extension program to ensure not a single household is left behind.
3. Continue to evaluate and identify during and post-BEAD where any gaps remain and additional state funding will be needed and continue to provide OBD the flexibility to utilize the border-to-border grant program, line extension connection program and low-density program to reach those areas.

#### *Broadband Policy*

The Minnesota Legislature removed a sales tax exemption on telecommunications capital expenditures in 2013 but reinstated it in 2017 to include fiber and conduit. The Department of Revenue later found that the exemption only applied if these materials were used primarily for telephone and television, which was not the legislation's intent. This oversight has increased costs for broadband projects, particularly in Greater Minnesota where deployment is more expensive due to lower population density and challenging geography. Taxing materials purchased with state grants further reduces available funds for broadband construction. The Task Force recommends the Legislature:

1. Address this oversight with legislation to clarify that fiber and conduit utilized for providing telephone, television and broadband are qualifying uses of the exemption to help lower costs and support high-speed internet infrastructure development.

#### *Community Planning Efforts*

Establish a fund to enable local governments and/or community nonprofits to expand capacity in designated unserved or underserved communities. These funds would be used to contract with organizations that offer digital prosperity services, such as the Lead for America's American Connection Corps Fellowship. Assigned individuals would help bridge gaps by conducting local needs assessments, grant applications, reporting, citizen engagement and outreach efforts within their designated communities. Key focus areas include, but are not limited to, project development for broadband infrastructure deployment and initiatives to promote digital equity.

## Appendices

### Appendix A: Technology Updates

Every existing technology installed today continues to improve and advance, from the equipment customers use (the end point) to the hardware and software providers deploy on their networks. Providers are being creative, seeking ways to improve services to existing customers, and expand services to those most in need. Types of technologies in use for high-speed internet include:

- **Fiber Optic.** Fiber-optic technology delivers high-speed internet using light through transparent glass fibers to transmit data from fiber broadband. The download and upload speed for fiber depends on the electronics attached to the fiber and ranges widely from 250 Mbps to 5 Gbps, far exceeding the needs of the typical user. The speed experienced by the user depends on a multitude of factors including transmitters, receivers and amplifiers used in route to connect the “last mile” as well as the in-home connection a user chooses (e.g. Wi-Fi, direct to modem, etc.).
- **Wireless Technologies.** There are increasingly more hi-speed wireless options available to users today, including 4G mobile devices (‘hotspots), and Fixed Wireless systems (tower to home) . While fiber to the home is often considered the ‘gold standard,’ fixed and mobile wireless can offer attractive solutions particularly in areas where there are very low-density populations or where physical barriers make fiber difficult to deploy.
- **Satellite Technologies.** Traditional satellite options (Dish, Direct, Hughes, Viasat, etc.) offer users varying speeds (typically less than 25/3 Mbps). Of the satellite technologies, we are seeing the fast expansion of Low Earth Orbit (LEO) satellite networks by companies like Starlink, OneWeb, Telesat and Amazon. The LEO satellite networks offer lower latency (delay) and 200-300Gb+ speeds as they grow, and perhaps most importantly, the ability to reach very difficult remote (often rural) locations that are currently unserved. As more satellites are deployed, coverage, speed, and reliability have improved.

## Appendix B: Glossary

**Unserved area:** any area of Minnesota in which households or businesses lack access to wire-line broadband service at speeds of 25 megabits per second download and 3 megabits per second upload.

**Underserved area:** an area of Minnesota in which households or businesses do receive service at or above 25/3, but lack access to wire-line broadband service at speeds 100 megabits per second download and 20 megabits per second upload.

**High-speed Internet:** broadband, or high-speed internet (defined by the Federal Communications Commission as 100 megabits per second download and 20 megabits per second upload), commonly refers to access that is always on and faster than the traditional dial-up access.<sup>44</sup>

**Community Anchor Institutions:** Schools, public libraries, medical and healthcare providers, public safety entities, institutions of higher education and other community-support organizations that provide outreach, access, equipment and support services to facilitate greater use of broadband service by the entire population and local governments.<sup>45</sup>

**Digital Opportunity:** Adopting a definition from [NTIA's Digital Equity Notice of Funding Opportunity](#), digital opportunity describes “a 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.” Digital opportunity is achieved through several digital inclusion activities, also provided in the NOFO:

- a. reliable and affordable<sup>46</sup> broadband internet service;
- b. internet-enabled devices that meet the needs of the user;
- c. applications and online content designed to enable and encourage self-sufficiency, participation, and collaboration;<sup>47</sup>
- d. access to digital literacy training;<sup>48</sup>
- e. quality technical support; and
- f. basic awareness of measures to ensure online privacy and cybersecurity.

**Affordable Connectivity Program (ACP):**<sup>49</sup> The Affordable Connectivity Program, which ran from December 2021 to May 2024, helped ensure that households were able to afford the broadband they needed for work, school, healthcare and more. The ACP benefit provided a discount of up to \$30 per month toward internet service for eligible low-income households and up to \$75 per month for households on qualifying Tribal lands. Eligible households could also receive a one-time discount of up to \$100 to purchase a laptop, desktop computer, or tablet from participating providers if they contributed more than \$10 and less than \$50 toward the purchase price. The ACP was limited to one monthly service discount and one device discount per household. Due to a lack of additional funding from Congress, ACP has ended for now, and effective June 1, 2024, households no longer received

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<sup>44</sup> [FCC 2024 Press Release](#).

<sup>45</sup> NTIA, “[Broadband Glossary](#).”

<sup>46</sup> Word added from NTIA NOFO definition by the Broadband Task Force’s Affordability and Digital Equity subgroup

<sup>47</sup> Mossberger, Tolbert, and Franko, [Digital Citizenship: The Internet, Society, and Participation](#)

<sup>48</sup> This language is from the NOFO. OBD elects to use the phrase “digital skills” in place of “digital literacy.”

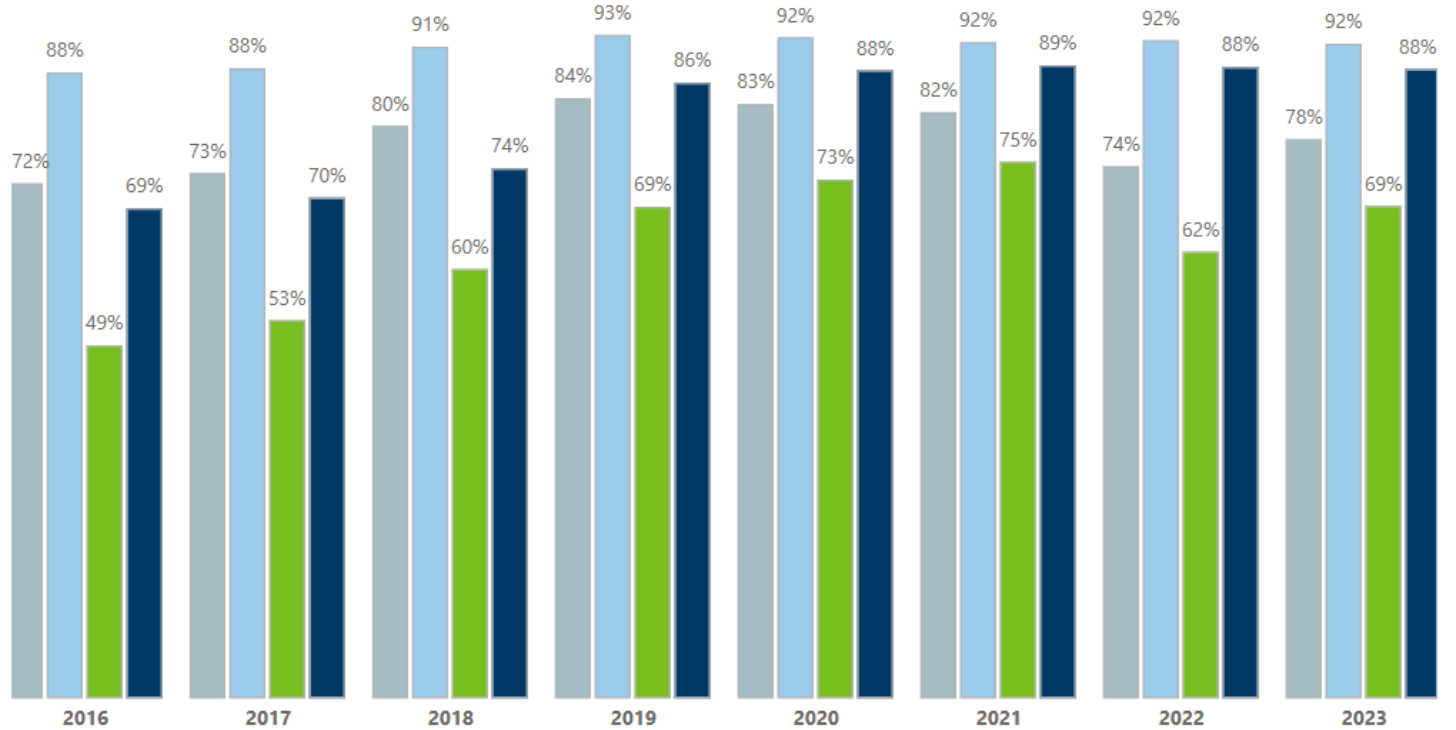
<sup>49</sup> FCC, “[ACP](#).”

Appendix C: Historic Overview of Broadband Availability, 2016-2023

### Minnesota Broadband Access, 2016-2023

**Broadband Speeds**

- 25/3 mbps, % Non-metro households with access
- 25/3 mbps, % Statewide households with access
- 100/20 mbps, % Non-metro households with access
- 100/20 mbps, % Statewide households with access



Data from Office of Broadband Development, "[2023 Annual Report](#)."

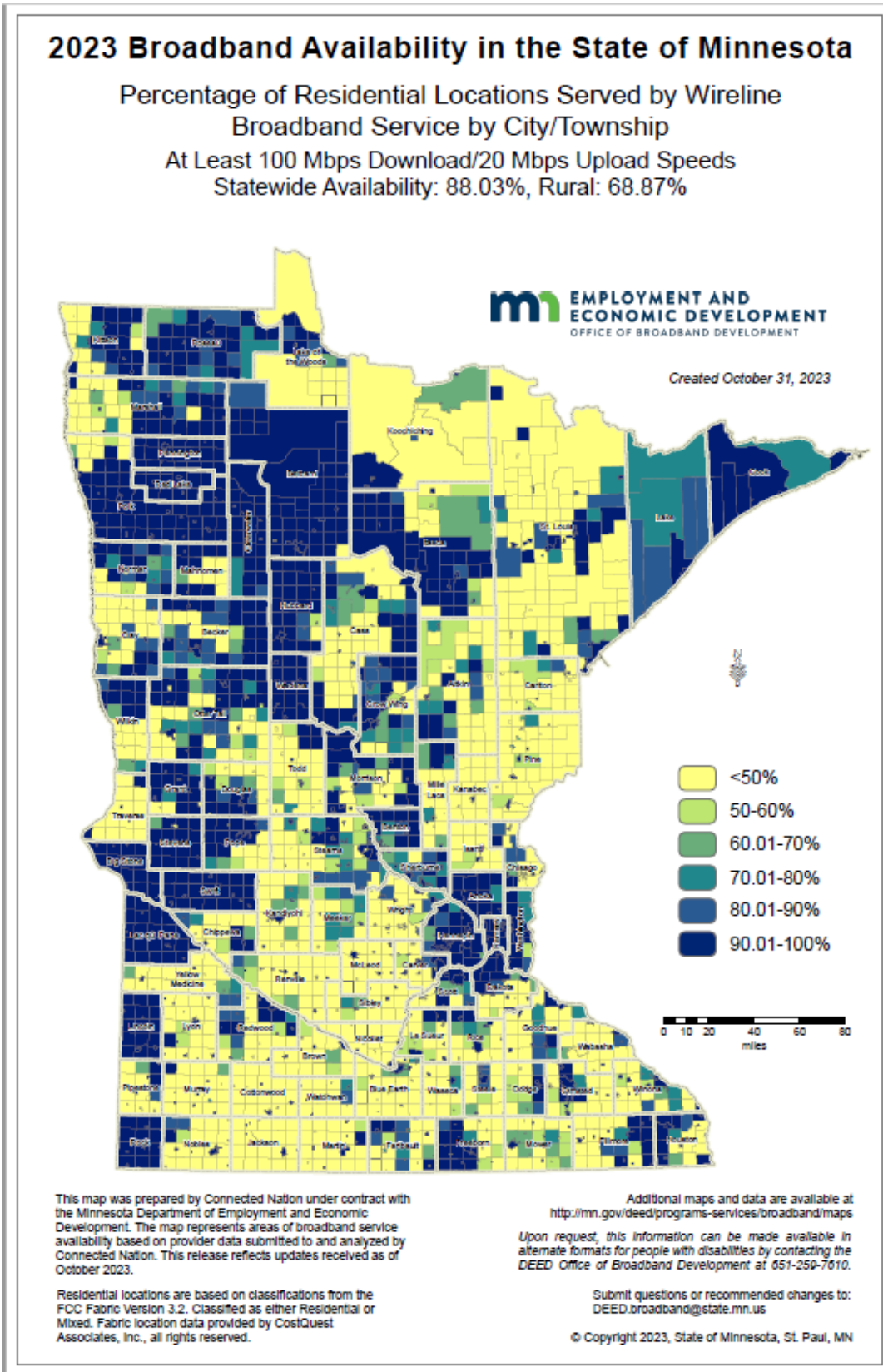
**Appendix D: Summary of 2024 State Legislative Changes Impacting Broadband**  
Relevant changes in 2024 legislation in the state of Minnesota include<sup>50</sup>:

- **Article 4, Appropriations:** \$651,000 to implement Article 13 provisions.
- **Article 13, Broadband and Pipeline Safety**
  - **Section 1:** Minnesota Statutes 2022, section 116J.395 to require the commissioner give priority to grant applicants and award at least 50% of all funds in the border-to-border program to employers that commit to provide: prevailing wage for workers on any grant-funded broadband project, at least 40 hours of hands-on skills training annually, employer-paid family health insurance coverage, and employer-paid retirement benefit payments equal to no less than 15 percent of the employee's total taxable wages. This section is effective on January 1, 2026.
  - **Section 2:** Amends Minnesota Statutes 2022, section 116J.395 to require recipients of border-to-border grants that serve over 10,000 customers to provide additional reporting on the workforce on infrastructure projects. This section is effective January 1, 2026
  - **Section 3:** Amends to Minnesota Statutes 2022, section 116J.395 to require the Commissioner to investigate grantees that fail to meet the requirements or provide false information. This section is effective on January 1, 2026.
  - **Section 4:** Amends Minnesota Statutes 2022, section 216B.17 to provide authority to the Public Utilities Commission to investigate telecommunications carriers, telephone companies, and cable communications system providers if their conduct impacts public utility or cooperative electric association 231.7 infrastructure. This section is effective on the day after enactment.
  - **Section 5:** Creates Minnesota Statute 326B.198 that requires all infrastructure projects be done by safety-qualified worker. It requires the Commissioner of DLI to approve safety training standards in consultation with the Office of Broadband Development. This section is effective the day after enactment.
- **Article 39, Broadband:** Transfer up to \$5,000,000 between B2B, low density, and line extension; and Application for federal funding – direction DEED to submit a digital equity plan.

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<sup>50</sup> [Minnesota HF 5247](#).

Appendix E: 2023 Broadband Availability in the State of Minnesota, map



Appendix F: Previous Years Recommendations and Actions or Results

2022
<i>Task Force Recommendation</i>
<p><b>Funding Goals</b></p> <p>Establish a base Annual Investment that is tied to the "gap funding" needed to reach 100% of unserved/underserved (inclusive of all expected Federal funds - see details on the following page)</p> <p>Amend/update the current Broadband statute to expand flexibility for the Office of Broadband (OBD) to allow for larger state investments needed to support reaching the hardest to reach users (e.g. increase the dollar cap to \$8 million or remove it, reduce the 50% match)</p> <p>Utilize federal funds to increase staff in the Office of Broadband (OBD) in anticipation of additional workload</p> <ul style="list-style-type: none"> <li>• Provide the OBD the opportunity to look at larger projects to "catch up" for two lost years of construction on broadband expansion due to pandemic and funding delays</li> <li>• Continue to focus on using the reference speed of 100/20 (already at the 2026 goal) as most all providers are currently building to that as a minimum</li> <li>• Ensure that there are community and provider voices contributing to the planning process that will shape the amount and approach to utilizing the new Federal dollars coming into the state</li> <li>• Organize an opportunity for the legislature to review and study the overall anticipated costs to reach all Minnesotans (clarify that Federal funding alone will not be enough to fulfill the goal of reaching every Minnesotan)</li> </ul> <p>Address delays in permitting ASAP to help MN meet their goals on connectivity and help mitigate the ever increasing costs</p> <p><b>Mapping Goals</b></p> <p>Provide funding to support engagement, in partnership with the Office of Broadband Development (OBD), with communities, counties, townships or regions, so they are prepared to participate and have the capacity to respond to the challenge process with the FCC updates to the fabric map</p> <p>Organize an immediate direct response to the FCC to extend the initial deadline for submitting challenges to the new fabric map to give providers, agencies, anchor institutions, and the general public time to properly assess deficiencies and have the time to submit their responses to the FCC</p> <p>Ensure OBD has sufficient funding to provide guidance, processes, and support to communities, counties, townships or regions who need their help evaluating and gathering the data they need to submit their challenges to the FCC for updates to the fabric map</p> <p>Maintain funding support for OBD's mapping contractors</p>



**Affordability Goals**

Direct Office of Broadband Development (OBD) to:

- Invest resources and time to prepare materials, or augment existing materials (e.g. online and print, from providers, etc.) that increase awareness of affordability programs
- Prepare and deliver posts about places to get free/low-cost equipment, provider programs and the Affordable Connectivity Program (ACP) options (Facebook, Instagram, TikTok, etc.)

Fully fund the Telecommunications Access Equity Aid (TEA) program (by raising the funding cap to at least \$9 million) in order to allow school districts to equitably procure internet and network bandwidth needed to fully support digital learning. This aid program benefits school districts by making access to broadband more affordable by fully funding the eligible costs of the federal E rate program

- Create new positions & fill vacant positions at MN Dept. of Education (MOE) to support schools to arrange, coordinate, and implement systems to assure that every school/library has affordable broadband connections/subscriptions that are roughly equivalent from place to place around the state

Encourage the OBD to collaborate with broadband provider industry associations to more assertively promote the ACP program with their customers

Fund American Connection Corp (ACC) fellows (\$225,000) to work in rural communities to help bridge the gaps, assist with grant applications, reporting, & help with outreach & engagement efforts

**Adoption Goals**

Create and curate a library of instructional videos to aid usage and increase adoption (e.g. many folks without high-speed internet use cellphones to access information, and video watching is a common activity). Videos available in multiple languages that teach digital navigation skills would help people find internet providers in their area, tell them about the ACP, explain basics and show them how to find more help. (YouTube is good for this):

- Fund the creation of the above resources (including consolidation and organization of these resources)
- Consider how IT classes could be formalized through the state education system - introduce the remote curriculum as a key part of the approach (the following two are intentionally included from the previous slide)

Create new positions & fill vacant positions at MN Dept. of Education (MOE) to support schools to arrange, coordinate, and implement systems to assure that every school/library has affordable broadband connections/subscriptions that are roughly equivalent from place to place around the state

Fund American Connection Corp (ACC) fellows (\$225,000) to work in rural communities to help bridge the gaps, assist with grant applications, reporting, or help with outreach & engagement efforts [4.4] Increase the availability of digital marketing materials (in various languages and formats for ADA) that can be distributed to each county to fill in with the relevant info for their county.

**Usage & Navigation**

Increase digital navigation supports to help address ongoing user challenges. (By connecting with a person individually, they can find out what their barriers are and address them with information and personal connection). Promote, support, expand programs like: Literacy Minnesota; Digital Training; Basic Computer Training

Support the OBD's finalization of their Digital Equity Plan and the development of a digital navigation approach that is closely connected to trusted community based organizations (e.g. libraries, social service nonprofits, schools, etc.) (the following is intentionally included from the previous slide)

Fund American Connection Corp (ACC) fellows (\$225,000) to work in rural communities to help bridge the gaps, assist with grant applications, reporting, or help with outreach & community engagement efforts

2021

*Task Force Recommendation*

**Unserved, Underserved, & Funding**

The total \$180 million Capital Projects Fund allocated to Minnesota from the federal ARPA fund, should be allocated to OBD for funding the Border-to-Border Broadband program over the next 2-3 years to help attain broadband service for all Minnesota residents.

Grant funds should first be focused on unserved areas (~171,000 households fit this category), and the definitions of ‘unserved’ & ‘underserved’ should remain unchanged as they highlight the geographic areas not meeting stated goals.

Geographic considerations should be factored in when allocating broadband grant funds. A “one-size fits all” grant allocation will not secure service in areas of the state where a fiber/cable option is difficult or impossible:

- Unserved areas of the state that are difficult to reach due to low density, tough geography, etc. should receive a higher % of funding match from OBD to increase build out options for wireline projects/solutions

The legislature should require all future projects funded by OBD grant dollars be capable of 100 Mbps download and 100 Mbps upload at the time of deployment (irrespective of whether or not a provider offers a service package of 100/100), and meet network reliability requirements in the Infrastructure Investment and Jobs Act

**Mapping and Speed Goals**

Minnesota should continue to invest in improving broadband maps.

- Strive to achieve ISP cooperation in producing address-level or ‘shapefile’ broadband maps (rather than rely on current FCC census block data)
- Include eligibility data related to the various federal programs supporting broadband infrastructure development
- OBD is encouraged to incorporate, whenever possible, data from reliable 3rd party ‘crowd-sourced’ maps when determining eligibility for Border-to-Border grants

<p>The legislature should continue to make the investments from state general funds necessary to ensure that all Minnesotans, regardless of zip code, have access to broadband at speeds that meet state goals. Federal investments should not be seen as a substitute for ongoing state investment.</p>	
<p><b>Access, Affordability, &amp; Education</b>                  Provide funding to the Office of Broadband Development to promote broadband adoption and use to redress digital inequity.</p> <p>Fully fund the Telecommunications Access Equity Aid (TEA) program (by raising the funding cap to at least \$9 million) in order to allow school districts to equitably procure the internet and network bandwidth needed to fully support digital learning. This aid program benefits school districts by making access to broadband more affordable by fully funding the eligible costs of the federal E-rate program.</p> <p>Establish and fund a position within the MN Department of Education to provide leadership and support to schools (and families) in areas of digital equity, digital literacy, funding (E-rate, etc.), cybersecurity, instructional technology and other areas of education technology.</p> <p>Given expressed needs from city &amp; county leaders to expand the Lead for MN American Connection Corp fellows program (AmeriCorps/Vista), the state should provide supplemental funding of \$225,000 to support work in Minnesota communities on broadband expansion projects (15 more fellows @ \$15,000 per fellow).</p>	
<p>2020</p>	
<p><i>Task Force Recommendation</i></p>	<p><i>Action or Results</i></p>
<p>Continue to fund the Broadband Grant Program at a biennial amount of \$120 million from the base budget each year and ensure that all future expenditures must be on service that meets or exceeds the 2026 speed goal of 100 Mbps download and 20 Mbps upload.</p>	<p>The legislature allocated \$70 million from Federal ARP Capital Projects Budget funds to the Border-to-Border grant program. Because these were federal funds, they could not be utilized until guidance for accessing the funds was issued by Treasury, and application made to release the funds. Consequently, no grant applications could be approved or funded in 2021, and depending on program application approvals from Treasury in 2022, may further</p>

	delay B2B grants being approved / funded.
The Task Force recommends the Office of Broadband Development receive an appropriation of \$700,000 per biennium from the base budget. That figure is OBD's estimate of funding needed to maintain current operations.	The Office of Broadband received an appropriation to maintain current operations.
Create an Office of Broadband operating annual fund of \$1.5 million to promote broadband adoption and use and redress digital inequity.	No action was taken on this recommendation
Given the condensed construction season in Minnesota, it is critical that permits are issued promptly. The state should convene a working group comprised of all state agencies relating to broadband construction permitting to streamline the process, both in time to issue the permits as well as the permit application process.	No action was taken on this recommendation
There needs to be more oversight of railroad facilities by the Office of Pipeline Safety. Railroads need to be required to locate their own facilities and need to be encouraged to issue permits promptly.	No action was taken on this recommendation
2019	
No report due to COVID-19.	
2018	
<i>Task Force Recommendation</i>	<i>Action or Results</i>
Fund the Office of Broadband Development through the base budget at levels sufficient for it to meet its statutory mandates and create an OBD operating fund to advance and promote programs and projects to improve broadband adoption and use and maintain the existing partnership with the Minnesota Department of Commerce.	Broadband grants received \$40 million over 2 years but that appropriation was not placed in the base budget.  <a href="https://blandinonbroadband.org/2019/05/26/special-sessions-ends-40-million-to-broadband/">https://blandinonbroadband.org/2019/05/26/special-sessions-ends-40-million-to-broadband/</a>
Fully fund the Telecommunications Equity Aid (TEA) and Regional Library Telecommunications Aid (RLTA) to facilitate broadband in K-12 education and libraries.	The appropriation for both RLTA and TEA stayed the same. That fully funds RLTA, but not TEA.

2017	
<i>Task Force Recommendation</i>	<i>Action or Results</i>
Provide the Office of Broadband Development with \$500,000 on-going biennial funding and maintain the existing partnership with the Minnesota Department of Commerce, until the state achieves its broadband speed goal.	The Office of Broadband was funded but the broadband weren't when Governor Dayton vetoed the bill that included broadband grants
2016	
<i>Task Force Recommendation</i>	<i>Action or Results</i>
Allocate \$10 million in FY2018-19 to provide the Office of Broadband (OBD) with operating funds to implement a broadband adoption and use program; [and other listed purposes]	The Office of Broadband Development did not get \$10 million in operating funds.
Build computer donation partnerships between state agencies and community-based organizations getting computers into the hands of those who need them. The State could stimulate the effort by encouraging others, especially local governments, to donate their unused computers to community partners. Working through the OBD, the State could provide information on organizations that refurbish computers securely and on opportunities to both donate and receive computers.	The State passed a bill that allowed and minimized liability for local governments donating surplus equipment but this was in 2016. Otherwise no action.
The State should modify the Telephone Assistance Program that provides a \$3.50 discount to local wired telephone service for low-income households by better aligning it with the National Lifeline program, which provides a \$9.25 subsidy (\$34.25 in tribal areas) to qualifying households to offset the cost of broadband.	The State has increased the discount to \$7 per month.
Support continued funding of Regional Library Telecommunications Aid (RLTA) at \$4.6 million over FY2018-19, as recommended by the Minnesota Library Association. RLTA offsets the cost of Internet access for libraries participating in the federal E-Rate program. Cost coverage through E-Rate is incomplete and generates a funding gap between E-Rate payment and actual expenses; RLTA fills this gap.	There was no action on RLTA.
Fully fund the Telecommunications Access Equity Aid by raising its cap. This program offsets the cost of Internet access for schools participating in the federal E-Rate program.	The appropriation for TEA did not change.

2015	
<i>Task Force Recommendation</i>	<i>Action or Results</i>
Create an Office of Broadband operating fund to promote broadband adoption and use – The Task Force recommends that the fund be managed by the Office of Broadband Development, at a specific amount to be determined between the Office of Broadband Development and the legislature, that will allow the Office to advance and support programs and projects aimed at promoting broadband adoption and use.	In 2016, Governor Dayton signed a supplemental bill, which included \$35 million for the Minnesota broadband grant fund. Up to \$1 million was permissible for administrative costs but there were no additional funds to promote adoption or use.
Increase telecommunications aid for schools and libraries – The Task Force recommends funding library telecommunications aid at \$6.6 million in FY2016-17 and increasing the telecommunications aid equity for schools to \$9.75 million in FY2016-17. This funding will expand the impact of the program in underserved areas of the state and help ensure every person has access to reliable broadband service.	No action was taken.