

How States Are Expanding Broadband Access

New research identifies tactics for connecting unserved communities.

By Kathryn de Wit and Anna Read / *The Pew Charitable Trusts*

This article is adapted from a report from Pew Charitable Trusts, available here: www.pewtrusts.org/en/research-and-analysis/reports/2020/02/how-states-are-expanding-broadband-access.

Broadband is increasingly intertwined with the daily functions of modern life. It is transforming agriculture, supports economic development initiatives, and is a critical piece of efforts to improve health care and modernize transportation. But the FCC estimates that 21 million Americans still lack broadband access. Other sources place this number as high as 162 million.

Communities without reliable, high-speed internet service cite a growing gap between the resources and opportunities available to their residents and those in communities that have robust networks. Recognizing the importance of broadband and responding to such frustrations, states are seeking to close this gap. Most have established programs to expand broadband to communities that lack it or are underserved.

The Pew Charitable Trusts examined state broadband programs nationwide and found that although they have many similarities, they also have differences that reflect the political environment, states' resource levels, the geography of the areas that remain unserved by broadband, and the entities that provide service.

It is clear that there is no one-size-fits-all approach for state expansion efforts, but some measures many states have taken are proving effective. For instance, some states, including Colorado, Minnesota, Tennessee, Virginia and

Wisconsin, support broadband deployment in unserved and underserved areas through grant programs that fund a portion of the cost of deployment. They also ensure accountability by requiring that grantees demonstrate they are providing the service they were funded to deliver while also providing states with the data needed to evaluate the program and progress toward defined goals. Policymakers can examine the practices these states use to close gaps in broadband access and adapt them to fit their needs and contexts. This article provides a deeper look at what each state is doing.

COLORADO

Colorado funds middle- and last-mile projects to support broadband deployment in unserved areas. Middle-mile projects are funded through the Department of Local Affairs (DOLA's) middle-mile infrastructure grant program, and last-mile projects are funded through broadband deployment grants from the Department of Regulatory Agencies (DORA).

The DOLA middle-mile infrastructure grants are supported by the Energy/Mineral Impact Assistance Fund Grant, which assists localities affected by energy development and mineral extraction. The middle-mile grants are made to municipalities, counties and other political subdivisions and must be consistent

with regional broadband strategic plans and subplans. Grantees must contribute a 50 percent match, and networks must be open access and competitively neutral. The grants have helped bring fiber to rural communities, said Anthony Neal-Graves of the Colorado Broadband Office (CBO), within the Office of Information Technology (OIT). “It’s not last mile, but at least it gets it closer to the community so that when we started doing some of our last-mile investment programs, we had infrastructure to leverage in a lot of cases.”

For last-mile broadband infrastructure, DORA provides grants through its Broadband Fund. Lawmakers created the fund in 2014 to support broadband expansion by repurposing money from an assessment placed on all telecommunications service providers operating in Colorado. It aims to ensure that every household in the state has access to broadband from at least one nonsatellite provider. Since 2016, the DORA Broadband Fund has awarded nearly \$20 million to 29 projects in rural areas, bringing broadband access to 17,000 households.

Broadband Fund applications, and challenges to them, are independently evaluated by a 16-member board consisting of six gubernatorial appointees and 10 members appointed by legislators. Half the board members represent the broadband industry, and the rest are from local and state government or are public representatives.

The CBO provides mapping and data support to identify areas eligible for grants. The CBO works with providers in the state on a semiannual data-collection cycle and maps wired broadband data on the Public Land Survey quarter-quarter-section (or 40-acre) format, providing more granular analysis than the FCC’s Form 477 data, which is collected at the census block level. This data helps the board evaluate challenges to grant applications.

Colorado has worked to ensure accountability for investments made through its grant programs

Some states are providing funding to support broadband deployment in unserved and underserved areas through grant programs that fund a portion of the cost of deployment in these communities.

with reporting requirements and broader changes to state policy. The DORA program requires grantees to demonstrate that they will be able to operate the broadband network for at least five years and report on network operations and take rates. Grant recipients for both DOLA and DORA funds must share geographic information system data on the location of broadband infrastructure.

In 2019, Colorado added net neutrality requirements for Broadband Fund grant recipients. The requirements preclude ISPs that do not follow the principles of net neutrality from receiving funding from a state broadband fund. The legislation further requires that if a provider is found to have violated these standards, it must refund money it received.

With broadband funds focused on different goals and located in different agencies, projects funded through the two grant programs are not always aligned. Part of this is because DORA funds go directly to for-profit providers and the department does not work directly with communities on planning; DOLA grants are awarded to political subdivisions. However, connection to and consistency with DOLA’s regional broadband plans is one element the Broadband Deployment Board uses to evaluate grant applications. DOLA policies also encourage applicants to work with private-sector ISPs to secure funding through the Broadband Fund.

Coordination between the programs is facilitated by biweekly interagency meetings that include DOLA, DORA, OIT, the Office of Economic Development and International Trade and the Colorado Department

of Transportation (CDOT). Each agency has at least one point person for broadband, which further facilitates coordination. Bob Fifer, manager of the CDOT Intelligent Transportation Systems and Network Services Branch, said the meetings give officials a chance to share the projects they are working on and what their priorities are. “If DORA, DOLA, CDOT, and OIT are all working together and understanding each other’s programs, then ... we become cheerleaders with everybody,” he said.

Key takeaway: Investment in middle-mile infrastructure facilitates last-mile deployment.

MINNESOTA

Minnesota’s Border-to-Border Broadband Development Grant Program, established in 2014, is the state’s primary vehicle for promoting broadband expansion in unserved and underserved areas. Minnesota has invested \$85.2 million and leveraged \$110.6 million in matching funds through the program, connecting more than 34,000 households, 5,200 businesses, and 300 community anchor institutions. The state has made substantial progress toward its universal access goal: that 91 percent of Minnesota households have broadband access at speeds of 25 Mbps/3 Mbps (up from 86 percent in 2015) and 74 percent of households have access at speeds of 100 Mbps/20 Mbps (up from 39 percent in 2015). However, a substantial urban-rural divide remains.

Border-to-Border grants fund middle- and last-mile infrastructure projects, which must be scalable to provide symmetrical speeds of at least

100 Mbps. This means that although these speeds may not currently be delivered over the infrastructure, it must be possible to upgrade it in the future so that it can provide both download and upload speeds of at least 100 Mbps. Stakeholders have identified this as an important requirement, because “it’s keeping an eye on the higher bar,” as technology consultant Bill Coleman put it, and the grant program avoids supporting projects only to see them become obsolete shortly thereafter.

According to statute, the state Office of Broadband Development (OBD) can provide up to \$5 million for as much as half the cost of a project to build broadband infrastructure and must prioritize areas that are unserved or lack wired broadband access. It can also make grants to projects in areas that are underserved, defined as lacking access to broadband at speeds of 100 Mbps/20 Mbps. Grant applicants must submit evidence, such as a map produced with state data on broadband availability or a community survey, to show that the area they wish to serve is either unserved or underserved. The OBD prioritizes projects that have strong community support.

Grant projects often stem from efforts by local governments and community groups to bring broadband connectivity to their areas in partnership with local providers. Local governments may also contribute matching funds to demonstrate community buy-in. By requiring projects to show that they have local support, the OBD ensures that the projects serve the public interest.

Through a statute, Minnesota designed a challenge process to prevent the state from funding infrastructure that is duplicative or serves an area that does not need state assistance. ISPs can challenge applications by demonstrating that they provide service or have begun construction on broadband infrastructure at speeds equal to or greater than the proposed project. To submit challenges, Minnesota requires that providers participate in the state’s mapping efforts, which provides the OBD with

information necessary to substantiate challenges and improves the overall quality of the data on broadband deployment. Despite such safeguards, stakeholders say the process may deny funding to grant applicants and communities even though their areas are unserved or may discourage some from submitting applications that they feel will be unfairly challenged.

Key takeaway: Setting a forward-looking goal focuses state investment on infrastructure that will continue to meet future needs.

TENNESSEE

In 2017, the Tennessee Legislature created the Tennessee Broadband Accessibility Grant Program to support broadband deployment in unserved areas of the state. The program is within the state Department of Economic and Community Development (TNECD) because of that department’s strong relationship with the legislature and experience administering grant programs.

The program provides grants to ISPs that can receive up to half the cost – with a ceiling of \$2 million – to build fixed last-mile broadband infrastructure to unserved parts of the state. The program invested \$10 million in its first year and \$15 million in its second year and was appropriated \$20 million for its third year. The TNECD has focused on building strong partnerships with ISPs that apply for the grants. “They are the ones with their boots on the ground pulling the infrastructure,” said Crystal Ivey, TNECD broadband director. She said it is important to have “a good relationship with them, making sure that the grant program works for them.”

To determine areas eligible for grant funding, the TNECD starts with the FCC’s Form 477 data, gathered from ISPs about where they provide service and widely considered to be at best incomplete and at worst inaccurate. Applicants can then submit supplemental evidence, such as surveys of community members, to demonstrate that a proposed area lacks service. If there is still doubt about whether an area is eligible for a grant, the state will send a contractor

to visit the site and collect data about available infrastructure.

Grant applications are scored on multiple factors, including the speed and scalability of technology, sustainability and implementation readiness, the ability of projects to leverage grant funds to support additional investment from providers, and community support. Including community support, which can take the form of documented support from local government, as well as expressions of support from community members, encourages providers to conduct community outreach. “We send out letters to let residents know we’re going to be in the area, and then we do a tremendous amount of door-knocking,” said Lisa Cope, CEO and general manager of Ben Lomand Connect, a telephone cooperative and TNECD grant recipient. The cooperative also organizes town hall meetings.

Providers can receive additional points on grant applications for projects that include a city or county designated as a broadband-ready community. Created through the 2017 measure, the designation requires communities to pass an ordinance creating a single point of contact for broadband providers to interface with local government, sets a time limit of 30 days for permitting of broadband equipment, and allows permitting to be done electronically. The goal of the designation is to remove potential barriers at the local level and facilitate broadband deployment.

As Tennessee invests in expanding access to broadband infrastructure, it is also addressing the challenge of low adoption rates. A report by the Tennessee Advisory Commission on Intergovernmental Relations that was the foundation for the 2017 law noted that only 40 percent of Tennesseans with access to broadband actually subscribed to the service. This fact prompted adoption efforts to become a component of the TNECD grant program. The grant scoring process incentivizes applicants to develop plans that will increase adoption. Providers receive additional points on their applications by coupling infrastructure

buildouts with digital literacy programs, low-income assistance programs, and awareness campaigns. These efforts maximize the effectiveness of infrastructure investments because they are essential to ensuring that the infrastructure projects TNECD funds have the take rates they need to be successful.

The TNECD also partners with the Tennessee State Library and Archives to administer the Training Opportunities for the Public program, which makes grants of up to \$20,000 to local libraries with the goal of improving digital literacy through training and access to technology. The program is “providing a foundation for the people and their communities to learn more about what [they] can do with computers and software. This opportunity allows them to overcome that fear and want to have more of a connection,” said Jennifer Cowan-Henderson, director of planning and development at the Tennessee State

Library and Archives and manager of the program. “And I really think that that drives them – the ones who don’t have internet in their home – to potentially get it themselves.”

Key takeaway: Investment in infrastructure access and adoption go hand in hand; investing in programs that increase adoption makes infrastructure investments more successful.

VIRGINIA

Virginia has two primary mechanisms for supporting broadband deployment in unserved areas: grants from the Virginia Telecommunications Initiative (VATI) and the Tobacco Region Revitalization Commission (TRRC). Lawmakers are increasingly backing expansion efforts, as evidenced by VATI’s funding, which grew from \$1 million in 2017 and 2018 to \$4 million in 2019, with \$19 million appropriated for 2020. These increases came after

grant applicants consistently applied for more money than was available.

Lawmakers created the VATI in 2016 to provide grants for last-mile broadband infrastructure projects, housing it within the Department of Housing and Community Development (DHCD). It works closely with the TRRC, which the general assembly created in 1999 to administer grants that help tobacco-producing counties recover from the decline of the industry, using money from the state’s tobacco settlement. The TRRC has granted \$130 million to broadband projects. While the agency historically has funded middle-mile and backbone infrastructure projects, the commission set aside \$10 million for grants to support last-mile projects in 2017.

The TRRC and VATI programs are designed to operate similarly: They use the same application and require funded projects to be public-private partnerships, with local government

REGISTER NOW!



The BBC Summit Is Going **VIRTUAL**

September 22 – 24, 2020

Full Conference: \$450	Public Officials: \$350	Exhibits Only: \$150
---	--	---------------------------------------

If you've already registered for the live event that was to be held in August, your registration has been converted into the virtual platform so no need to re-register. Login information will be sent to you shortly before the event dates. If you have not registered, please reserve your seat today.

To Exhibit or Sponsor contact: Irene G. Prescott
irene@bbcmag.com | 505-867-3299

For other inquiries: www.bbcmag.com



Investment in infrastructure access and adoption go hand in hand; investing in programs that increase adoption makes infrastructure investments more successful.

partnering with private-sector ISPs to provide service, something stakeholders identify as key to Virginia's success. The programs also use the same challenge process for grant applications, which allows a provider that claims to serve an area for which a grant application has been submitted to file an affidavit with evidence of the service provided. After reviewing that submission and allowing the grant applicant to provide a rebuttal, the state may determine that the challenge is valid, which would result in the served areas of the proposed project being considered ineligible for funding.

Evan Feinman, Virginia's chief broadband adviser, coordinates the two programs' activities and other broadband efforts across state government. His office is in that of the secretary of commerce and trade.

Together, the TRRC and VATI programs seek to achieve "functionally universal" broadband coverage in Virginia. This means that they will consider broadband problems to be solved "when local governments and citizens are no longer approaching the commonwealth describing serious deficiencies in broadband availability." Lacking sound data on broadband coverage, the state has chosen not to invest heavily in mapping unserved and underserved areas, relying instead on communities to identify where service is lacking. As Feinman put it, communities are "saying, 'OK, you don't know literally every one of us that doesn't have service, but we're telling you we don't have it.' And so we're just going to start hooking them up. And we want to be cautious that we do that in a way that remains sensible, but that doesn't mean that an absence of complete information should hamstring our efforts."

In addition to operating the VATI program, DHCD also administers Virginia's Community Development Block Grant funding, which supports local broadband planning efforts. In 2019, Virginia established an Office of Broadband within the department that oversees the VATI grant program and works with communities to help them achieve local broadband goals through planning support and education about available resources. The office uses a broadband toolkit that includes information on assessing local assets, holding meetings with providers, and preparing requests for proposals to guide local planning. This local outreach, together with the CDBG planning grants, helps put communities in a strong position to apply for grants from VATI and TRRC.

Key takeaway: When broadband funds live in multiple agencies, aligning requirements for these programs can facilitate participation by grant applicants.

WISCONSIN

The Wisconsin Broadband Office (WBO) makes grants to support the deployment of broadband infrastructure in unserved and underserved areas of the state. The legislature created the Broadband Expansion Grant Program in 2013 and awarded more than \$20 million to 138 projects across the state in the following six fiscal years. The state budget for the 2019–2021 biennium includes a substantial increase: \$24 million per year, reflecting growing support for broadband expansion efforts.

The WBO, which is within the state's Public Service Commission, makes grants to multiple entities, including for-profit broadband providers, nonprofit cooperative providers and local governments. The office adds its own

data to that compiled by the FCC to create maps identifying areas eligible for grant funding. The maps are also useful for helping communities understand the local broadband landscape and where investment is needed.

Grant applications are prioritized if they involve a close partnership between a provider and a community, provide matching funds, will bring broadband to areas that are completely unserved, can be scaled to provide services to more people or at a faster speed, support economic development, or serve a greater number of people. WBO staff review the applications and prepare briefing materials for the commissioners. Following a public comment period that allows the public, providers, and other stakeholders to support or oppose grant applications, the commissioners vote in an open meeting on which ones to fund.

Small, independent broadband providers and telephone cooperatives have been active participants in Wisconsin's grant program. These providers, often locally owned, are trusted community partners for expanding broadband access. The grant program's straightforward application process and reporting requirements also make it accessible to small providers.

The WBO also serves as a "central point of contact for folks who are looking for information or resources on broadband expansion projects," says Angie Dickison, its former director. WBO staff hold informational sessions about the grant program, often attend meetings around the state, and connect stakeholders with office resources and potential partners. Forging those relationships among stakeholders within a community, she said, is key to the long-term success of broadband projects. ❖

Kathryn de Wit is the manager and Anna Read is a research officer for The Pew Charitable Trusts' broadband research initiative, which examines issues of internet deployment and access, focusing on how to provide reliable, high-speed broadband to communities that lack coverage and serving as the honest broker between policy, industry and academic stakeholders.