



State-level broadband policies

Executive Summary

State-level broadband policies can determine where high-speed internet service is available, and who actually adopts broadband internet upon its deployment. Laws or regulations can influence broadband deployment by determining what sorts of state-imposed costs or project requirements apply to developers and providers, and what funding or incentives are available to support expansion of service. State programs and rules can also impact broadband adoption by influencing factors such as cost of service and community digital literacy levels. States across the U.S. have adopted a wide variety of broadband-related policies, but empirical research on strategies that reliably increase broadband availability and adoption is sparse.

Highlights

- States have statutory and regulatory authority over many areas that can influence broadband availability and adoption, including **internet-specific rules, funding/incentives, construction, dedicated programs and partnerships.**
- States vary widely in their approaches to facilitating broadband deployment, but **the most well-studied determinants of broadband availability are the presence of a dedicated state broadband office, and dedicated state funds for expansion of service.**

Limitations

- There are very few up-to-date studies of state-level policies associated with increased broadband availability and adoption, so many analyses focus on case studies. Since states may differ in important ways, it is not clear that outcomes of case studies will always apply to states like Missouri.

Research Background

Survey of state-level broadband policy related to deployment, availability, and access

To date, several studies have quantified the effects of federal programs (such as the USDA's [Broadband ReConnect Program](#)) on broadband availability and adoption, but state-level analyses are lacking. This research has been difficult to perform in part because the organizational structures responsible for broadband regulation differ between states, making rigorous comparisons difficult. However, several research groups (namely [Pew Charitable Trusts](#) and the [Pell Center for International Relations and Public Policy](#)) have compiled resources detailing different state-level approaches to broadband governance.¹

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State-level policies break down into roughly four categories: rules and regulations; funding-related policies; construction-related policies; programs and partnerships. A survey of these policy domains is provided below, with research included about the impacts on availability and adoption when possible. Outside of these policy directions, states may also consider different strategies to improve [broadband availability mapping efforts](#).

Rules and regulations

Broadband definitions

States have the ability to set standards as to what kind of internet service constitutes “broadband”. Currently, Missouri defines broadband as service exceeding 25/3 Mbps (download and upload speeds, respectively). Looking forward, 100/100 Mbps service (and even 1 Gb service) is expected to become more widely available, so policymakers may consider using [higher speeds](#) as preconditions for eligibility for certain types of funding and project support. States can also provide definitions for “unserved” and “underserved”, which can also dictate project support eligibility.²

State, municipal, or cooperative broadband

North Dakota has built a state-run broadband network, called [STAGEnet](#), that currently provides gigabit service to all K-12 schools in the state. The network was created in 1999 and upgraded with collaboration between the North Dakota IT Department and Dakota Carrier Network, a broadband provider consisting of 14 rural telecommunications companies.

Some states allow municipalities to own and operate broadband networks. For example, Minnesota allows municipalities to build, own, improve, maintain, and operate broadband networks in areas with no private providers. New Hampshire and Vermont allow multiple municipalities to form joint “communication union districts” to build broadband infrastructure and provide service to residents. Other states, including Missouri, prohibit municipal broadband operation, while others, such as Nevada, place limitations on network ownership based on municipality population size.³ In Missouri, however, electrical cooperatives are permitted to operate broadband networks, and function similarly to municipal/state networks in that they prioritize providing affordable service to unserved and underserved communities (particularly rural communities).

Counties in states that allow municipal broadband operation have 25/3 availability rates that are 2-3% higher than similar counties in states that restrict municipal broadband. Rural fiber availability is also 4% higher in counties that allow municipal broadband.¹

Funding-related policies

State-level funding sources

State governments may offer grant funding (or other types of funds) to support proposals that deliver broadband to unserved and underserved areas. Though broadband development money can come from general revenue, this approach requires one-time or ongoing appropriations. Alternatively, states may establish special designated funds (such as [Minnesota’s](#)

[Border-to-Border Fund](#)), which can provide sustained support over time. States such as Illinois and Indiana raise revenue for designated broadband funds using revenue from civil penalties levied against internet providers and fees collected from toll roads, demonstrating that several streams may be available to maintain such programs. Ten states, including Wisconsin and Nebraska, also maintain universal service funds, which levy fees on telecommunications providers to raise revenue for the expansion of internet connectivity.³

Across the U.S., states with some form of designated broadband funding programs have rates of 25/3 availability and fiber availability that are 1-2% higher than states without such programs. These findings also extend to the county level; counties that receive funds from state programs demonstrate increased 25/3 and fiber availability.¹

The Missouri Broadband Grant Program was created in 2015, and \$5 million in grant funding was appropriated in 2019. This program has been renewed through 2027. It was also recently announced that \$400 million in American Rescue Act Plan funds will be dedicated to expanding broadband availability and adoption in Missouri.

Grant design

State broadband grant programs can be designed in many different ways, depending on the needs and priorities of the state. For example, grants may be restricted to last-mile infrastructure, or require recipients to provide matching funds at a certain level. These matching funds can vary widely: Alabama requires grantees to cover 80% of project costs, while Nebraska requires only a 25% match. Missouri's broadband grant program does not require matching funds, but prioritizes grant applications that can provide matching funds.³ Grant eligibility conditions can determine what types of infrastructure are favored (e.g., fiber vs. fixed wireless) and what populations are served (e.g., unserved vs. underserved).

Tax credits

Some states offer tax credits to incentivize broadband development. For example, [Mississippi's Broadband Technology Tax Credit](#) allows developers to claim up to 15% of broadband deployment costs as a credit against the state franchise or income tax. Maine provides a similar technology investment credit, while Indiana exempts broadband infrastructure from property taxes in certain development zones, and Iowa exempts broadband infrastructure from property taxes for ten years after installation.³ No empirical work currently exists to assess whether these different styles of tax credits result in increased broadband availability, adoption, or affordability.

Other state tax credit programs can be found at the [Council for Community and Economic Research's State Business Incentives Database](#). In addition, broadband deployment projects may be eligible for federal tax credits through the [New Market Tax Credits Program](#), though this credit is currently set to expire in 2021.

E-rate support

Authorized by the Telecommunications Act of 1996, the [E-rate program](#) provides federal funds to schools and libraries to help them access broadband services. States can provide applicants

with training and guidance during the application process, online support, and coordination between applicants. States may also provide matching funds to E-rate funds to further encourage schools and libraries to seek support from this program.²

Consumer subsidies

The [FCC Lifeline Program](#) provides subsidies of \$9.25 (with up to an additional \$25 available on Tribal lands) per month for low-income broadband subscribers. During the COVID-19 pandemic, the [FCC Emergency Broadband Benefit Program](#) also temporarily provides low-income households with monthly subsidies for broadband service and devices.²

The Illinois state legislature has introduced the [Low Income Broadband Assistance Program Act](#), which would provide a credit for internet service of at least \$9.95/month to families with incomes between 135-150% of the federal poverty line.

Construction-related policies

Rights-of-way access

Authorization to use specific pieces of land or facilities to build broadband infrastructure can decrease project costs and accelerate project completion. Several states, including Missouri, have enacted legislation requiring that utility poles must be made available to new entrants (including broadband providers) on a non-discriminatory basis, which includes providing reasonable costs and conditions when applying for pole attachment.⁴ States may also require that right-of-way fees be low and predictable, and that approvals be granted in a timely manner.

In Missouri, [Barfield v. Sho-Me Power Elec. Cooperative](#) found that electrical cooperatives may not install telecommunications infrastructure under easements for providing electrical service; they must gain easements pertaining specifically to providing internet service. In cases similar to these, states may consider allowing expedited easements if a provider has already been granted access to land for other purposes.

Construction permits

As with rights-of-way, states may require that approval for broadband-related construction permits be completed in a timely manner, and that related fees be capped. Similar to rights-of-way rules, construction approval processes must balance development priorities with landowner and public interest considerations.

Dig once

One construction strategy that has been shown to reduce broadband project costs is known as “dig once”. States with dig once statutes may require that all broadband providers be notified of any excavation of a public right-of-way so that multiple providers can potentially gain access to the construction site simultaneously, decreasing deployment costs and minimizing construction-related disruptions. Some dig once statutes may even require that conduit be inserted whenever a public right-of-way is excavated, enabling future fiber pulling.⁴

Preliminary analysis of dig once and timely right-of-way/construction permitting from Iowa indicates that these policies do not measurably increase fiber or fixed wireless service availability.⁵

Programs and partnerships

State-level broadband offices

State broadband offices may exist as an independent agency or within existing state agencies, and serve as an organizational unit for coordination and execution of state broadband plans. Existing state offices serve as repositories of expertise on available broadband infrastructure and best practices, provide recommendations regarding state and local broadband policies, connect stakeholders, coordinate responses to broadband funding opportunities, and operate digital literacy programs.

States with formal broadband offices exhibit several advantages over states without: they contain a higher percentage of households with two or more providers of 25/3 speeds and have higher rates of fiber availability in rural areas.¹

State broadband plans

Some states have enacted statutory requirements to develop a state broadband plan. In 2019, Missouri released its [state broadband plan](#), which provides background information related to broadband challenges in the state, state-level goals and objectives, and recommendations for state action. Having a state broadband plan also provides additional points for evaluations by the U.S. Department of Agriculture's ReConnect Loan and Grant Program.

Broadband commissions

Several states have passed legislation requiring the formation of state-level commissions consisting of government representatives and outside stakeholders for the purpose of providing recommendations and support to state broadband offices and programs. These commissions may consist of members of state broadband offices, public utility commissions, consumer councils, the state IT office, K-12 and higher education institutions, emergency services, healthcare providers, and ISPs.⁴ The National Conference of State Legislatures maintains a [directory of active broadband commissions](#).

Stakeholder engagement

In order to better coordinate between different stakeholders, several states have convened multi-partner groups to advise state broadband offices and commissions. For example, North Carolina has gathered university representatives, nonprofits, and state agencies to coordinate and report their priorities to the state broadband office. They have also formed the [North Carolina Digital Equity and Inclusion Collaborative](#), which brings stakeholders together to work to close the digital divide in the state; this partnership operates in recognition that low-income, rural, and minoritized communities often face additional barriers to broadband access. In addition, North Carolina created an [interagency task force](#) responsible for gauging

progress on the state's broadband plan and coordinating responses to federal funding opportunities across departments.

Several states, including Missouri, have also hosted community events to get feedback from state residents, ISPs, employers, local governments, advocacy groups, and other institutions that rely on high-speed internet to ensure that state-level priorities reflect end user needs (such as desired speeds) and preferences (such as willingness to pay).⁶

Public-private partnerships

The [North Carolina Broadband Infrastructure Office](#) describes several public-private partnership designs that can deliver broadband to unserved and underserved areas. Some programs include cost-sharing agreements (i.e., the municipality funds some portion of a broadband development project), expansion of a community anchor tenant network (e.g., a school system or hospital network), no-cost public rights-of-way leasing for broadband development, and no-cost access to municipal structures (such as large buildings or water towers) for installation of fixed wireless internet equipment.²

Digital literacy

Beyond broadband availability and affordability, familiarity with internet-related hardware (e.g., computers, tablets, routers) and software (e.g., browsers, search engines, email, word processors) is a determinant of broadband adoption. Several states, including North Carolina and [California](#), have established offices of digital literacy within executive branch departments. These offices are tasked with executing statewide awareness campaigns highlighting broadband initiatives, including providing grants to local communities to provide digital literacy programming. Several other states, including Tennessee, Minnesota, and Wisconsin, also provide digital literacy programming in coordination with municipalities and institutions such as libraries.⁷

Feasibility studies

Several states provide funding to broadband-related entities, including for-profit and nonprofit groups, cooperatives, and local governments, to conduct feasibility studies and create business plans for broadband deployment. [Vermont's Broadband Innovation Grant](#) program awards up to \$60,000 per grant; eligible grantees must deliver a feasibility study on a broadband deployment project that delivers 25/3 Mbps internet (at minimum) to an unserved or underserved area; feasibility studies must also take less than six months to complete.

Resource databases

Legislator surveys indicate that the creation and maintenance of databases related to broadband deployment may serve as a helpful resource for developers and stakeholders.⁸ In particular, states could provide a repository of application templates, examples of completed build-out processes, or a database of prior grant or permit applications, allowing new projects to incorporate existing knowledge and see examples of successful projects. In addition, they may compile survey templates or community action guides to help stakeholders gather relevant

information. The [Missouri Broadband Resource Rail](#) currently maintains a repository of similar resources.

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