

The Ohio Case Study

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Introduction

Ohio's name is [derived from the Iroquois word for "good river."](#) Its Indigenous people consisted primarily of three nations, the Erie, Kickapoo, and Shawnee, largely based near modern-day Toledo. Today, 11.75 million people call Ohio home. Those residents are approximately 81% White, 12% African American, and 3% Asian American with 12% of residents identifying as two or more races.

Due to the state being so closely surrounded by Michigan, Indiana, Kentucky, West Virginia, and Pennsylvania, it is estimated that [approximately 50% of the U.S. population](#) lives within a 500 mile radius of Ohio's state capitol, Columbus. While the five most populated cities in the state are **Columbus**, **Cleveland**, **Cincinnati**, **Toledo**, and **Akron**, Ohio has more than [3700 local governments](#), including villages, townships, cities, and counties.

Ohio's nickname has Indigenous roots. Indigenous residents [called the City of Marietta's first sheriff "Hetuck,"](#) which means "Big Buckeye." Buckeye trees bear fruit that resembles a deer's eye, and because the trees are located in the Ohio River Valley, the State declared the buckeye the state tree. Buckeye trees retain cultural significance in the state through candies made to look like the nut and jewelry made from buckeye beads.

Now known for its Rock and Roll Hall of Fame and world-class roller coasters, Ohio is *also* recognized for its stubborn digital divide. For the last decade, it has been a motivating factor for local leaders and community organizations to develop innovative partnerships aimed at expanding broadband access and boosting broadband adoption.

The Digital Divide in Ohio

Ohio's digital divide showcases a stark contrast between those who have a home broadband subscription and those who do not. While many rural areas remain entirely disconnected from necessary broadband infrastructure, even in urban areas where service is available, [affordability remains a challenge](#). At least [10.9% of Ohio households](#) do not have a broadband subscription and 18% lack a home computer. While some households benefited from Coronavirus ("COVID-19") related connectivity programs, [around a million Ohioans](#) still do not have a home broadband connection. [236,026 households](#) do not have wireline infrastructure available that meets minimum broadband speeds.

Federal data glamorize broadband access.

Federal availability data continues to tell a different story about Ohio's digital divide than residents who call the state home. The Federal Communications Commission ("FCC") shows that [97.2% of Ohio residents](#) have service available from three or more providers in their location at minimum broadband speeds of 25 Megabits per second (Mbps) download and 3 Mbps upload. Increased capacity demands from COVID-19 social distancing restrictions have strained home Internet use over the last year, but many Ohio residents do not have the option of purchasing faster service from their current provider.

The [FCC's estimate](#), which [frequently overstates broadband access](#), shows that less than 10% of Ohioans have three providers offering access at higher speeds of 100/10 Mbps. In fact, nearly half do not have a choice in provider because only one offers service at those speeds. Additionally, 5.8% of residents could not subscribe to faster service because no providers offer 100/10 Mbps speeds in their area.

Those estimates only account for infrastructure availability and do not include the number of residents who either cannot afford service or lack the devices and training necessary to connect. Similarly, the FCC's methodology does not clearly measure the demographics of residents who continue to struggle with broadband access. Over the past several years, independent sources have highlighted broadband disparities in Ohio, shedding light on discrepancies in the FCC's conclusions.

Statewide studies shed light on broadband disparities.

[Connecting Appalachia](#) is a consortium of local governments, regional economic development councils, and industry professionals that has advocated for last-mile broadband deployment for the last decade. Broadband access and adoption rates across Appalachia [notably lag behind more urban areas](#). Ohio is no exception.

The 32 Appalachian counties in the southeast corner of the state are home to [80% of the unserved households in Ohio](#). After analyzing the results of 9 million speed tests, [Connecting Appalachia found](#) that in half of Ohio's populated areas, Internet speeds were slower than 10/1 Mbps. Speeds in two-thirds of the state were below 25/3 Mbps, the Federal Communications Commission's ("FCC") current broadband standard. According to Ohio Mid-Eastern Governments Association [Executive Director Jeanette Wierzbicki](#),

“ *This is an economic survival issue for our region and our state. Broadband is like electricity or safe drinking water. Our communities and residents need access to reliable, affordable, high-speed internet in order to be economically competitive and to thrive in the modern world.*

[Council for a Strong America and Ready Nation](#) released a report in March 2021, spotlighting broadband's importance to the state's economy. Internet is increasingly essential to agricultural production, as well as education and employment opportunities. The report points to electric cooperatives and public-private partnerships as two potential solutions and discusses an eight-county study by Buckeye Hills Regional Council and its local partners. That study found that [75% of residents in southeast Ohio](#) lack Internet access at minimum broadband speeds. In part, the study found low levels of connectivity because copper cables have degraded, leaving areas entirely disconnected from high-speed service.

Connect Ohio [released a report in 2017](#) detailing the importance of increasing access to digital skills training, a necessary complement to expanding broadband infrastructure. The report found that 81% of Ohio residents owned a home computer and 72% had a home broadband subscription. While broadband adoption in the state is steadily increasing, one in five people who did not have connectivity cited the cost of devices and service as the primary reason. 14% cited unavailability of infrastructure or inadequate service quality. Updated data from 2019 show that while [89.1% of households](#) statewide have a home computer, only 82% have a home broadband subscription.

In August 2020, the Ohio Latino Affairs Commission released the [Latino Digital Divide Report](#), which discusses disparities in broadband adoption rates for Latino residents. The report notes that a quarter of Ohio's Latino population relies only on a smartphone and do not have a home broadband Internet subscription. This is particularly true for Latino residents living in rural parts of the state who may not only lack a home broadband subscription, but do not have access to digital infrastructure.

The impact of the digital divide is particularly hard-felt in light of the pandemic, where access to real-time information has critical implications for education, economic development, health, and safety. In the words of [Ohio State Senator Jay Hottinger](#):

“ *It has been suggested that the COVID-19 pandemic has caused a digital transformation that would have taken several years to occur in a matter of*

months, but lack of internet access is perhaps the greatest barrier to competing in the 21st century economy. Technology and the way we interact with others is rapidly changing, and we need the infrastructure in Ohio to stay on pace.

Community organizations in Cuyahoga County are battling low connectivity rates.

More than [one in five households](#) in Cuyahoga County do not have broadband of any kind. In county seat Cleveland, more than half of low-income households are completely disconnected from an increasingly digital society. Analysis of the U.S. Census Bureau's 2019 data by the National Digital Inclusion Alliance labeled Cleveland the [seventh worst-connected city in the United States](#).

A 2017 report revealed that while suburbs in Cuyahoga County saw infrastructure upgrades and widespread fiber availability, neighborhoods in Cleveland with poverty rates higher than 35% [were not upgraded to the same degree](#) as higher-income neighborhoods. While some suburban areas in Cuyahoga County are well connected with fiber-to-the-home service, many of Cleveland's residents do not have access to the same infrastructure.

In parts of Ohio, some Internet Service Providers ("ISPs") offer low-priced service options for customers with low incomes. Because the speeds available in some low-income neighborhoods did not meet the minimum broadband speed, residents [were ineligible](#) for some providers' low-priced programs. As a result, residents whose incomes qualified for the program could not take advantage of it solely because the Internet service available at their home was too slow to qualify as broadband.

In June 2019, Connected Insights developed a report titled [Connecting Cuyahoga](#). The report found that nearly one in four Cuyahoga County households lacked any Internet connection at all, including smartphone access. For households with annual incomes below \$20,000, over half lacked access. The report discussed the importance of improving connectivity for the delivery of social service benefits and general economic growth.

While some communities suffer from a lack of infrastructure access, Connecting Cuyahoga found that physical limitations are not the greatest barrier to home Internet availability in the county. The report centralized the importance of improving digital literacy and skills training, affordability, and device access as influencing factors to equitable digital prosperity.

In December 2020, the Cuyahoga County Department of Innovation and Performance [announced a Request for Information](#), seeking ideas for a long-term strategy to address pressing connectivity needs throughout the county. NCC responded to the request, highlighting the importance of prioritizing digital equity, and is working collaboratively to scale workable solutions. Read [NCC's Comment](#) here.

Columbus residents need affordable service, devices, and digital literacy.

Columbus is not only home to Ohio's capital, but also one of the largest universities in the United States. It is the largest city in Ohio by population and the [14th largest city](#) in the United States. In the wake of the pandemic, the City and County, local organizations, and philanthropies joined together to examine connectivity gaps in the city and work toward solutions.

A June 2020 [report commissioned by the Columbus Foundation](#) revealed that disconnectedness in the city was exacerbated by high service prices, inadequate access to devices, and gaps in digital literacy. Following the report, the Columbus Foundation announced the Central Ohio Digital Divide fund, [seeding it with \\$500,000](#) targeted at addressing the digital divide. The funding supported a pilot program to expand wireless service for community members living on the Near East Side.

In addition to philanthropic efforts, the City of Columbus coordinated with the Columbus Partnership on a pilot program that [used \\$500,000 Coronavirus Aid, Relief, and Economic Security \(CARES\) Act dollars](#) to extend wireless service to around 200 households. The wireless network harnesses fiberoptic infrastructure owned by the City and used for internal municipal purposes.

The Franklin County Digital Equity Coalition, made up of a coalition of groups, released [a March 2021 report](#). The report reiterates the importance of centering broadband affordability, device access, digital skills training, and technical support in connectivity strategies. In April 2020, the Coalition began meeting regularly to maintain momentum and coordinate efforts to reduce the digital divide.

Distance learning illustrates the critical importance of ubiquitous broadband access and adoption.

Ohio's digital divide became increasingly apparent at the onset of the COVID-19 pandemic. In some of the most rural parts of the state, residents cannot afford broadband even though digital infrastructure is nearby thus preventing students from being able to participate in remote learning. Additionally, the barriers to broadband eliminate remote employment opportunities for residents and small businesses that are still struggling to recover and greatly interferes with a household's access to healthcare, information, and government services.

In the words of [state Representative Brian Stewart](#),

“ Internet is not a luxury in 2021, it's a necessity. More than a million Ohioans lack access to reliable internet. ... Before COVID we already had issues with students unable to access the internet to do their homework, businesses that couldn't sell their products online, [and] patients who can't access the same telehealth opportunities as their fellow Ohioans who live in better-connected communities.

Communities addressed disparate broadband access through CARES Act funding throughout the past year and a half. Faced with immediate need for connectivity, many schools purchased Chromebooks and hotspots for students in order to increase opportunities for student success. While these solutions improved attendance and provided additional opportunity, gaps in mobile Internet coverage and the inadequacy of home Internet plans [created additional barriers](#) for families who need higher bandwidth than the service available in their area allows.

The unforgiving way in which COVID-19 collided with Ohio's digital divide is best illustrated by its impact on education. The lack of adequate Internet access does not only debilitate the most disadvantaged students but produces a lasting impact that continues to ripple through their communities. Nationwide data show that students from low-income households [experienced greater learning loss](#) each week than their higher-income peers.

Insights from Ohio parents shed light on the struggles that low-income families faced in keeping students connected. One parent [in the Jefferson School District said](#) that the hotspot did not provide enough support for *all* of her children to attend class, stating, "I keep getting attendance phone calls for my one son saying he's not in class. Which he's trying. He's sitting there with his computer open, but he can't log on so he's not getting credit."

Another parent [in one of the Ashtabula Area City Schools stated](#) that the school made Chromebooks available and she subscribes to a service that offers greater bandwidth than the low-income service offered by her provider. Still, her children had to dial in to attend class because their home's Internet was inadequate. This resulted in her children joining class on the phone for six hours each day, while their classmates likely joined via video.

Innovative community broadband solutions fill critical gaps for residents and businesses.

Across Ohio, city and county governments have crafted innovative solutions targeted at improving Internet service for residents and businesses. Even before COVID-19 shifted many aspects of life online, these communities recognized that reliable broadband access could revitalize their local economies and fill longstanding connectivity gaps.

When the pandemic pushed many businesses and vocations online, community-based networks showcased their worth, offering resilience and reliability during a time in which they are more necessary than ever. Still, funding and coordination remain key to helping them expand into neighboring areas.

FairlawnGig's local approach is improving connectivity across the county.

Fairlawn's municipal broadband story started where most community connectivity stories begin—by identifying broadband as a tool for economic revitalization. Prior to constructing its municipal network, Fairlawn was one of the most disconnected communities in Ohio. Recognizing this, local officials began brainstorming ways that they could improve connectivity for residents. Originally, they sought to partner with an existing provider but ultimately found that no provider offered, or would offer, their desired service. So, they built their own.

The first step for the City was assembling a blue ribbon committee of residents and business, which helped socialize the idea of treating broadband as a utility. From there, decisions about the network's governance emerged. One decision was to keep their work in house, utilizing the City's existing engineering talent to keep everything local, including customer service. Another decision was to build the network out of the infrastructure department instead of the IT department, a pivotal move. Their philosophy is that broadband service is part of the city's infrastructure and requires "24/7, 365 days a year support," similar to the need to fill a pothole or any other city infrastructure service. They are responding to their neighbors, which creates an innate system of trust.

FairlawnGig provides a wealth of benefits to the community, both social and economic. In the years since its inception, broadband availability has drawn employment to the area, [increased home values](#), and enabled its residents to more easily transition to distance learning and remote work during the pandemic. As an example, resident Sarah Wagner wrote about the impact the network had on her children's' ability to do school work from home, [stating](#):

“ You guys are the best! The last few months have been a struggle, but the internet has never failed us! Thank you so much for being there! My kids have been doing online school at home and the internet connection hasn't failed us. That's important. I really appreciate you guys. It's affordable as well.

While some municipal providers offer only business or residential service, Fairlawn made the decision to serve *both*. When determining whether or not to start the network, engaged local officials waited outside of the City's centralized trash and recycling site, surveying residents on whether they would subscribe to the service should it exist. One advantage of that survey method is that it allowed residents who did not previously have Internet service at home to provide their feedback, capturing perspectives that online-only surveys cannot.

The City continues collecting customer feedback to help improve their network, which are made available in [business](#) and [residential](#) results. Notably, of the business customers surveyed, 93% say that FairlawnGig service is either “extremely” or “very important” to their business operations. Nearly all residents (96%) reported being “satisfied” with their service and over four in five (82%) reported that they are “very satisfied” with the service. Residential customers were largely happy with the customer service available, with 95% saying that service was either “very good” or “excellent.” Notably, an additional 96% of residents also reported that FairlawnGig is an important factor to living and remaining in the city.

Pricing for FairlawnGig is transparent and readily available on its website. Additionally, the speed tiers offered are symmetrical, meaning that customers can expect incoming Internet traffic to be equally as fast and reliable as outgoing service. Residential service is sold in 300 Mbps, 1000 Mbps, and 2500 Mbps speed tiers. Business service starts at 100 Mbps and goes up to 100 Gigabits per second.

Through strategic planning, thoughtful collaborations, and a customer-centered approach, FairlawnGig has grown from a municipal network into a regional network and boasts a 60% take [rate](#). Since its initial launch at the start of 2017, FairlawnGig has been able to expand its network and collaborate with neighboring communities such as Akron, Medina, and Tallmadge.

Most recently, FairlawnGig [partnered with the Summit County Criminal Justice Technology Project](#) to utilize CARES Act funding to build a fiber ring connecting Akron's jail systems, a project which is now complete. Fairlawn's Director of Public Service, Ernie Staten described the benefits the project brought to Akron, stating:

“ With CARES Act money, Summit County came to us and asked us to put in a private network for their criminal justice system. Criminal justice system including everything from the jails, to the judges, to Summit County's internal working, to the Oriana Houses, and any type of system that has to deal with court usage.

They came to us in August, the CARES Act money had to be spent by December, so that didn't give us a whole lot of time, but we built a 17 mile fiber optic network that connected all 23 buildings, gave them this private network so that they could start doing arraignments from jail, where they weren't bringing someone in. They were trying to do these over Zoom and they were having a hard time because it was two different systems, it was inferior service.

We fixed all that and, starting in January, they started having their virtual court system right here in Summit County. Quite a few counties had already done some type of court system, but that is all done over generally done by some incumbent provider system, whereas we were able to put this in for them. And again, it's 100%

secure because it stays within that network. We're providing the Internet that they need. We host the Zoom server for any Zoom meetings that they may have.

We also handled all of the WiFi within the courts. Their building is old so WiFi was not as easy to pull off as one might think, but we did it in four months. What we were able to put together saves the county roughly \$750,000 a year, just in transport fees. Just shoveling prisoners or anyone to court from the jails. So, the pandemic did a lot that we didn't realize needed to happen.

Now that Summit County's court system is complete, Fairlawn is partnering with other cities throughout the county. With American Rescue Plan funding, FairlawnGig is working on a fiber ring that will connect all 31 communities, improving public safety, offering a secure and resilient network for government use, and providing the infrastructure for cities to offer broadband service themselves.

Supporting city and county solutions across the state can help address the digital divide.

Across Ohio, local governments are developing innovative and collaborative solutions to expand broadband access. These communities have utilized a variety of models to ensure that residents have more reliable, more affordable, and more resilient broadband.

In Hudson, Ohio, the City owns and operates Velocity Broadband. Velocity began as a business fiber and Voice over Internet Protocol (VoIP) service, which [was approved by the City Council](#) in 2015. The City connected its 100th business customer in 2017. Then, in 2019, the City [began offering Gigabit speed \(1000 Mbps symmetrical\) fiber service](#) for \$68 a month to residents living along its existing fiber route through a service named Broadband Blue.

Rather than offering service directly to residents, Medina County took a different approach, building fiber that is leased to providers through an open access model. Open access models, which have also been successful in communities like Eugene, Oregon and Ann Arbor, Michigan, invite private providers to use publicly owned fiber infrastructure to connect to residences. The providers then set prices and contract with customers for service while maintaining leased access to the city-owned fiber.

The City of Dublin is located northwest of Columbus in central Ohio. [Dublink Transport](#) is a 125+ mile fiber network that connects businesses in Dublin and surrounding communities. The City spent around \$5.5 million on the network and estimated that by 2014, [the City received a \\$35 million return on investment](#). Rather than offering service directly, Dublink connects businesses' Internet traffic to a carrier-neutral data center. In April 2019, the City of Dublin Office of the City Manager made [a presentation](#) to the City Council discussing broadband speeds. It revealed

that Dublin residents are served by eight internet service providers, and that 99% of residents have access to multiple providers.

In the northwest corner of the state, the [City of Defiance developed a Strategic Plan](#) that centralizes connectivity, setting a goal that “100% that want access have access to fast, affordable/free internet services.” These are only a few examples of the many communities in Ohio that are making broadband connectivity a priority for residents and businesses.

Ohio counties are coordinating connectivity initiatives.

While some counties had strategies in place before the pandemic, COVID-19 has only emphasized the importance of expanding connectivity to all residents. The National Association of Counties Broadband Task Force discussed the importance of broadband access for counties across the country [in a report released in July 2021](#).

By partnering with philanthropy, non-profit organizations, and other local governments, counties in Ohio are amplifying local connectivity efforts by identifying needs and seeking innovative solutions that ensure that everyone has the tools they need to get and stay online.

Montgomery County

Over [530,000 Ohio residents](#) call Montgomery County home. The county is situated in the southwest corner of the state, north of Cincinnati, and the county seat is Dayton, the [famous starting place of the Wright brothers' aviation career](#) where the pair developed their mechanical expertise owning bicycle shops. No strangers to innovation, county leaders now embark on a different journey, asking what it can do to ensure that every resident has access to the high-speed, affordable broadband access they need to work, learn, and access countless other essential online services.

In July 2017, the City of Dayton released a [Community Technology Action Plan](#), which confirmed that over half of households have access to only one wired broadband provider and that 58.7% of residents who had Internet service were dissatisfied with it. The action plan also included a digital equity assessment, showing that cost was a barrier to adoption for 90.5% of households with incomes below \$35,000 and 85.7% of households with incomes between \$35,000 and \$75,000, though for households with incomes above \$75,000, only 28.6% of households identified cost as an adoption barrier.

The onset of the pandemic exacerbated existing inequities and brought with it an increased urgency and greater resources to address the digital divide.

In Montgomery County Commissioner Debbie Lieberman's words:

“ *The spring of 2020 with the onset of COVID really highlighted the digital divide in our county. And it was in ways that we've never seen before across the whole county.*

It wasn't just in the urban and rural areas – it was across the whole county. Schools sent students home to begin virtual learning. Healthcare facilities ramped up with telehealth. The workplace shifted. You have your iPad and your phone at home, but that might not have been enough.

The other thing that we really noticed was the social service agencies, including our Job and Family Services. It all became virtual those first few months and so we knew immediately that we had to do something more for our community, then the CARES dollars came.

With a \$2 million CARES Act grant and philanthropic support, Montgomery County partnered on [a digital equity initiative](#) that expanded public WiFi and distributed devices to five housing communities and upgraded the fiber network for the Boys and Girls Club. Commissioner Lieberman, who serves on the National Association of Counties' ("NACo") Broadband Task Force, explained:

“ *While we knew we had public availability at community centers and libraries, they were closed too. I saw what somebody in Kansas was doing through the NACo and we set up a hotspot at Job and Family Services so that people could go there and apply for their benefits for unemployment, or any of these things that they weren't able to do from their own home.*

As the world went into total isolation, home access to technology and reliable internet connections really went from being a luxury to a necessity.

The work that has been done since then, I'm really proud of, of course, but it hasn't been fast enough. All the money in the world can't make it happen overnight, but we're working on it.

Montgomery County plans on developing a long-term sustainable solution in cooperation with local stakeholders. In June 2021, Montgomery County announced [plans to form a steering committee](#) which will examine factors that contribute to the digital divide, including infrastructure, speed, affordability, and device accessibility.

Coshocton County

Coshocton County is a rural county with [a population around 36,600](#), located northeast of Columbus and south of Cleveland. In 2007, a local business contacted county commissioners to raise awareness to the need for high-speed Internet access, which is critical for conducting credit card transactions and for other aspects of business management. The County issued a Request for Proposals (“RFP”) and received three responses. Ultimately, it [choose to partner with a small wireless ISP](#), which began deploying in 2009, connecting almost 400 customers in the first month.

Now, over a decade later, Coshocton County Commissioners have not only interest but also funding available to expand broadband access in their community. Commissioner Gary Fisher estimates that between [30 and 40% of residents](#) lack broadband access. Considering that local realtors identify internet availability as the top question that most buyers ask when looking for a home, connectivity gaps have a prevalent impact on whether new residents join and current residents choose to remain in the community.

The American Rescue Plan allows counties like Coshocton to use funding for broadband expansion projects. When deciding how to spend the \$5 million the county had committed to broadband, [Commissioner Dane Shryock said](#):

“ We tried to determine what was the longest term benefit those dollars could be used for. The last thing we wanted to do is spend those dollars on a one-and-done type scenario. We felt the impact of these dollars needed to be generational. It's our opinion not only talking to our local residents, but people with a lot of knowledge of what's happening around the country, that broadband is probably what is holding this region back from expansion.

Clinton County

For Clinton County, which is situated between Cincinnati and Columbus, the COVID-19 pandemic shed a light on the essential need for broadband in light of the pandemic, drawing local support for connectivity improvements. At a Regional Planning Commission (RPC) meeting [in November 2020](#), RPC Executive Director Taylor presented [a 27-page report](#) on the impact of the digital divide on the county.

Since then, interest in broadband expansion throughout the county has only increased. Now, County leaders are getting serious about pursuing broadband solutions, with [Clinton County Commissioners President](#) Mike McCarty urging the development of a broadband plan, stating that there is “going to be a lot of funding come down the pike through the state [via Columbus] for expanding broadband, so the sooner we start to developing that countywide plan, the better.”

Ashtabula County

In Ashtabula County, Commissioner J.P. Druco [identifies inaccurate mapping](#) as one barrier to finding solutions. Though FCC maps show that most of the county is being served, residents rarely receive service that meets the minimum broadband standard. As a result, Ashtabula started a task force and joined with neighboring Mahoning and Trumbull Counties to issue an RFP for feasibility studies that should be complete in Summer 2021.

Ohio's state broadband maps include data collected from providers. Local communities tend to take a different approach and instead rely on the ways residents experience connectivity in their communities, using those insights to inform local solutions.

Ohio's State Broadband Office Plays a Critical Role in Supporting Local Connectivity Initiatives.

With an upstart broadband office and state leadership supportive of broadband expansion efforts, there are tremendous opportunities for coordination. Local governments and community organizations are uniquely situated to partner with state officials. While communities are making tremendous strides to connect residents, tactical state support could bolster those efforts.

Ernie Staten, the City of Fairlawn's Public Services Director says,

“ There's no limit to what we're accomplishing here. If the state were to open up and realize what's going on in these communities and embrace that, allow for funding for communities, we could change the entire outlook of the state of Ohio.

Ohio's state broadband office can support community efforts.

In December 2019, Governor Mike DeWine released [Ohio's Broadband Strategy](#), a report which details a plan for spurring infrastructure investment in the state. In a letter announcing the report, Governor DeWine states that “We want all Ohioans to have the ability to participate in Ohio's economy. Together, we can create a more robust broadband network and achieve this goal.”

Even though Governor DeWine's report evidences his commitment to making universal broadband a reality in Ohio, the plan falls short of aspirational goals by relying on the current, outdated 25/3 Mbps broadband benchmark. Many residents are finding that their current service speeds, which may differ from advertised speeds, inadequate to meet the ongoing demands of working, learning, and accessing healthcare online.

While some states have invested in statewide open access networks, Ohio does not intend to do the same. Instead, the report focuses on leveraging existing projects, explaining that:

“ Ohio must be a partner at coordinating new or existing high-speed internet expansion efforts. The state should be open to exploring new ideas and not focus on picking winners and losers; rather, Ohio must be open to identifying ways to bring high-speed internet to the whole state and creating an overall healthy environment in Ohio conducive to encouraging and incentivizing expansion.

Following the release of the report, in March 2020, Governor Mike DeWine announced the appointment of a state broadband officer. An [increasing number of states](#) across the country have opened broadband offices, and those states have seen improvements in competition, even as [many offices are still getting off the ground](#).

In April 2021, the Governor's Office [announced a pilot program](#) to expand broadband service in East Cleveland supported via a partnership between BroadbandOhio, Cuyahoga County, Greater Cleveland Partnership, InnovateOhio, along with nonprofits and private companies. The program will connect 1,000 households in its first stage with ambitions to scale up to 2,000 households.

Legislative funding can enable local connectivity.

In 2020, the Ohio House of Representatives passed a broadband funding bill, [HB 13](#). Notably, that legislation excluded public and cooperative providers from funding opportunities. This shortcoming drew the attention of the state's local broadband leaders, who are currently engaged in efforts to expand their own networks outward, to reach disconnected residents in their area.

Though HB 13 was [ultimately unsuccessful](#) after the senate did not act on the bill before the end of the legislative session, the trend of excluding public providers in funding legislation continued in 2021 with the introduction of [HB 2](#). Again, local leaders joined in the conversation. For example, Medina, Ohio County Commissioners [sent an email](#) to Columbus legislative committees, emphasizing the importance of community networks as drivers of community connectivity. In part, the email read: “Locally owned municipal and county networks, as well as public-private partnerships are expressly ineligible to apply for the grant funding regardless of their ability to expand adequate, reliable and affordable broadband to residential users.”

HB 2 passed, but \$190 million in funding appropriated by the House of Representatives in Ohio's annual budget was removed by the state Senate. Several weeks before the legislation was set to be finalized, the state Senate also included a municipal broadband restriction, which drew wide criticism that extended beyond Ohio's borders. Next Century Cities worked in

collaboration with Ohio communities and [submitted a letter](#) to the House, Senate, and Governor's Office. After several weeks of outreach and advocacy from municipalities and Ohio residents, [\\$250 million in funding was reinstated](#) and the municipal broadband restriction was removed before the bill's passage.

In order to ensure that every resident in the state of Ohio has access to affordable, high-quality broadband Internet, cities, counties, and cooperatives need not only the legal authority to provide broadband service to residents, but also the financial resources to build infrastructure that ultimately connects residents who remain disconnected from essential services. Access to broadband has a direct impact on a residents' ability to access healthcare, education, employment, and social justice.

Ohio communities offering broadband service are exemplary of public providers that can construct and manage broadband Internet service. While [offering comparably low prices](#) to their communities, they also offer some of the fastest speeds in the country. These communities have been excellent stewards of public resources, effective at meeting their project deadlines and deploying their networks equitably with future expansion in mind.

Supporting Broadband Solutions in the Buckeye State

As cities and counties across the state of Ohio work together to improve service offerings in their communities, state support is critical to achieving ubiquitous broadband connectivity. Widespread connectivity would bring a wealth of benefits to Ohio residents, both quantifiable and immeasurable, and improve overall quality of life.

State agency coordination plays a critical role in supporting communities.

Researchers at the Department of Agriculture at The Ohio State University [released a report](#) in 2017, which found that expanding broadband access to all residents would [generate \\$1-2 billion in benefits over the next 15 years](#). Improving broadband mapping, investing in high-speed, reliable, and resilient networks, and developing resources for communities and channels of communication between the state and community leaders are all important steps for

Supporting communities through resources that help plan and coordinate projects can economic, environmental, and numerous other efficiency benefits. Dig once policies are one example of this.

A BroadbandNow study found that a national dig once policy [could have saved \\$126 billion on broadband deployment](#). At the same time, dig once policies' success requires that agencies

from different disciplines - including transportation, development, and education - coordinate with one another and that the infrastructure is mapped and accessible for those providing service in the vicinity. The State of Ohio can support community efforts by providing templates, identifying best practices, and listening to what local leaders need to actualize these policies.

Several states have developed resources that advance community broadband goals. North Carolina's [Community Broadband Planning Playbook](#) includes technical tools and state-specific recommendations for developing local broadband plans. The Department of Local Affairs in Colorado [works directly with local governments](#), helping them find the best grants to support broadband projects and promoting communication between jurisdictions. Connecticut's [Digital Equity Toolkit](#) offers recommended steps and information to help communities support students who need connectivity for schoolwork.

These resources are a useful starting place for communities who have not undertaken connectivity projects in the past. Working with experienced local governments when developing these tools is critical to ensuring that the information is well-suited to community-driven solutions.

Flexible support ensures that communities can determine their own broadband future.

The digital divide is multifaceted. Thus, there is no one-size-fits-all model for community broadband solutions. Each community faces unique challenges and brings distinctive strengths that can help inform local solutions. Statewide strategies should reflect these nuances, supporting a variety of community models aimed at increasing access and adoption.

Some communities have invested in municipal fiber service, which enables affordable, reliable, and high-speed broadband in communities that might otherwise lack high-quality service. Eighty of Ohio's 936 municipalities provide electric service. While offering broadband may not be the best solution for every one of those communities, municipal electric providers [were early adopters of fiber technology](#). Those who used fiber for internal purposes have similarly been able to support their communities with networks that will remain usable for decades into the future. Some of the advantages to this model include established payment systems and customer service relationships, access to utility poles and rights of way, and lower deployment costs when combined with electricity maintenance and upgrades.

Throughout the pandemic, public wireless networks have supported distance learning, job-seeking, and civic engagement. The U.S. Department of Education [issued a report](#) highlighting a long-term connectivity approach that various communities have deployed successfully, finding that off-campus wireless networks are a particularly good solution for rural areas, where fiber deployment is expensive, and service may not be affordable.

In many communities across the country, public-private partnerships have enabled innovative approaches to broadband deployment. Some communities do not have the resources, political will, or community buy-in necessary to make a fully public network worthwhile. Nonetheless, high-quality broadband service is a necessary component for growing local economies and ensuring equitable opportunities for residents. [Public-private partnerships can bridge connectivity gaps](#) in those communities through collaboration and coordination.

Flexible state funding can bolster each of these models, which are critical to ensure that every Ohio community has the connectivity they need to support their residents and businesses. Providing flexible state funding programs for local governments empowers communities that have few alternatives with an equal chance at securing reliable, affordable service.

Conclusion

Ohio can continue its legacy of innovation by including community solutions in its broadband expansion plans. As local governments continue working together on community strategies, the State of Ohio can join in partnership. Supporting local initiatives, like those outlined above, is a critical step toward achieving high-quality, long-term connectivity for every Ohioan.