



How Telecom Monopolies are Blocking Better Internet Access, and What We Can Do About It

By Christopher Mitchell, January 2021

Monopoly power in the U.S. has reached catastrophic levels, affecting every corner of our economy and society. While this crisis is gaining more attention, particularly in the tech industry, there is much more to understand about how it affects our lives. In this report, we describe the less understood problem of concentrated corporate power in the broadband sector.

High-speed Internet access is core infrastructure for life in the 21st century. Yet lack of broadband access drives a digital divide that leaves tens of millions of Americans unable to fully access the resources they need for their personal, economic, and civic lives. Yet monopoly control of this essential public infrastructure is leaving many Americans – particularly rural communities and communities of color – disconnected, underserved, or, at best, paying too much for substandard service. While community-scaled internet service providers are more effective at delivering fast, affordable, and reliable Internet, monopolies, state-level regulations, and other factors stand in the way of these locally-driven solution to America's broadband challenges.

This report is part of an ILSR series on [Fighting Monopoly Power](#) throughout our economy, coedited by Stacy Mitchell and Susan R. Holmberg. Go to our website to find even more antimonopoly analyses and tools on a wide range of sectors, including Banking, Electricity, Food and Farming, Pharmacy, Small Business, and Waste.

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The Institute for Local Self-Reliance (ILSR) is a national nonprofit research and educational organization founded in 1974. ILSR has a vision of thriving, diverse, equitable communities. To reach this vision, we build local power to fight corporate control. We believe that democracy can only thrive when economic and political power is widely dispersed. Whether it's fighting back against the outsize power of monopolies like Amazon or advocating to keep local renewable energy in the community that produced it, ILSR advocates for solutions that harness the power of citizens and communities. More at www.ilsr.org.

High-speed Internet access is core infrastructure for life in the 21st century. Yet lack of broadband access, either because it is not available or it is not affordable, drives a digital divide that leaves tens of millions of Americans unable to fully access the resources they need for their personal, economic, and civic lives. Poor Internet also impedes and deters businesses from starting up and growing, further driving inequality between prosperous and marginalized communities.

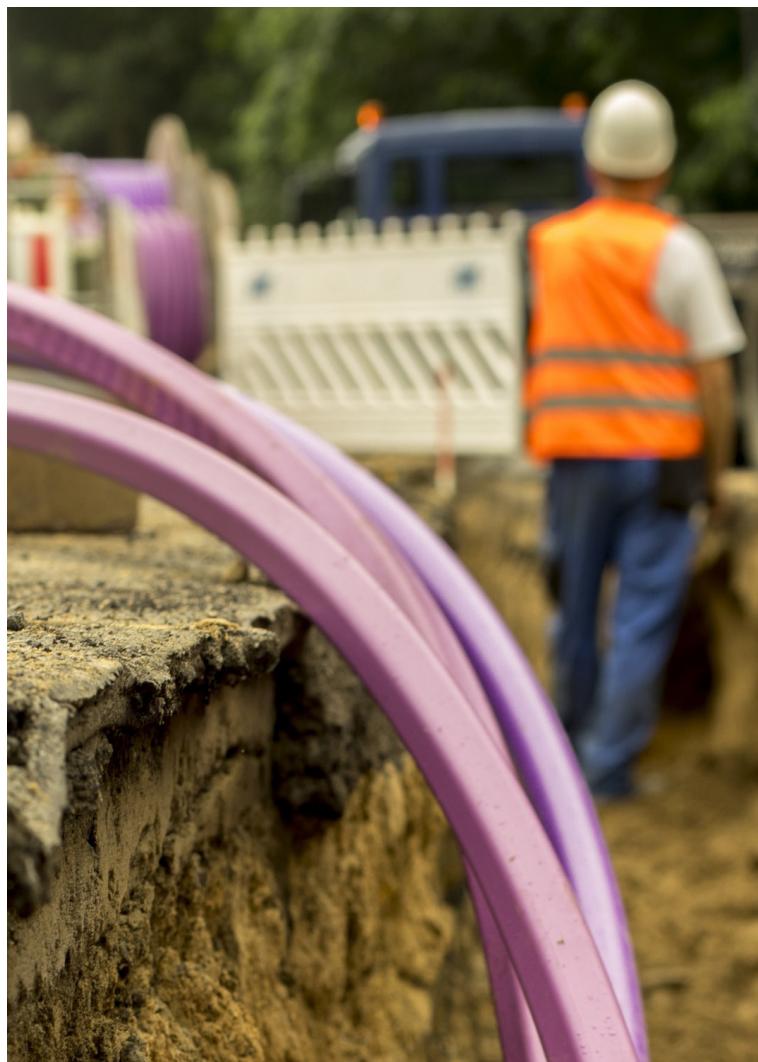
Broadband technology and speed have advanced tremendously since the early days of the Internet. Yet monopoly control of this essential public infrastructure is leaving many Americans – particularly rural communities and communities of color – disconnected, underserved, or, at best, paying too much for substandard service. Community-scaled ISPs are more effective at delivering fast, affordable, and reliable Internet.

Big Telecom and the Digital Divide

To understand how economic and political power in the broadband industry works, it is useful to first understand how broadband technology works. When the Internet first became popular in the 1990s, people used modems that dialed an Internet Service Provider (ISPs) using a telephone line. Over time, we developed much higher capacity connections – the most common being cable modems (provided by cable television companies) and DSL (provided by telephone companies). Those connections allowed people to leave their computers connected to the Internet constantly, rather than intermittently dialing on a slow connection.

These faster connections are commonly termed "broadband." The precise definition of broadband has been a moving target as more advanced applications were developed, became commonplace, and then ceased working well on slower technologies.¹ Most people simply think of broadband as a connection that allows them to use whatever applications they want without congestion hindering their experience. A broadband connection must be fast enough to support an entire household – where each person likely has multiple devices operating concurrently – not just a single computer.²

Amongst different providers, cable companies have dominated broadband access in recent years, largely due to their internal cost advantages. They offer the fastest



speeds in most regions because they have faced lower costs for upgrading their network equipment relative to legacy telephone companies, their main competitors.³ The result has been a steady movement of Internet users from telephone monopolies to cable monopolies. Today, just two cable companies, Comcast-Xfinity and Charter-Spectrum, control more than half of the broadband market. Of 100.5 million total fixed broadband subscribers, the two companies hold 54 million, with AT&T a distant third with 15 million subscribers.⁴

The market power of the biggest cable companies allows them to lock customers in to overpriced, underperforming Internet service contracts for which they don't have an alternative.⁵ A Federal Communications Commission (FCC) study recently found U.S. average Internet access speed ranked a middling 10th of 28 surveyed countries.⁶ Of the 117 million people in areas served by Comcast-Xfinity, 23 million have no other option for a broadband provider. It's a similar story with Charter-Spectrum, which has 27 million "captured customers."

In addition to poor service, Big Telecom explicitly excludes broadband access to many communities, particularly rural communities and communities of color. The biggest telecom companies have focused investment in areas with the highest return, investing less in rural areas or areas with higher poverty. Only 63 percent of rural households said they had home broadband access in 2019, compared to 75 and 79 percent of urban and suburban homes, respectively. Further, a recent analysis found that broadband availability was lower in counties with higher proportions of African American or Native American residents.⁷

Despite the large number of households that cannot subscribe to broadband because it is not available, still more fail to subscribe because of its cost, or the cost of the devices to use it.⁸ In fact, the U.S. has some of the highest broadband prices in the world. This again impacts low-income households and people of color in particular. One report found that adoption of wired home Internet access by Black households was 9.7 percent lower than white households after controlling for other factors. The study noted that Black and Hispanic people were more likely to identify cost as a reason for non-adoption than white respondents.⁹

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Telecom monopolies also result in lost business growth, job creation, and economic opportunity, especially to rural areas.¹⁰ These impacts reverberate far beyond the telecom sector. Telecom monopolies effectively get to pick winners and losers throughout the entire economy. Because virtually all businesses now rely on high-speed Internet access to some degree, this amounts to a form of taxation by way of private business interests. For example, a local trucking or logistics firm with limited or underperforming Internet access cannot fairly compete for minute-to-minute contract bids when they're up against a more well-connected firm, which is already more likely to be a giant conglomerate.

Lacking the service that residents and businesses are expecting, local governments and many states began building their own community networks to ensure modern service at a reasonable price – starting with cable networks many decades ago, then broadband networks in the 90s, and more recently advanced fiber optic networks. In most cases, community investments have added a single competitor to the market, but have disrupted the marketplace by offering transparent pricing, minimal price increases, and multiple speed upgrades. In addition, while monopoly cable and telephone companies use notoriously opaque pricing structures, local providers and community networks have been shown to be both more transparent and affordable in their pricing.¹¹

Driving the Digital Divide: Legacy Infrastructure and Policies

Policymaking in the U.S. has driven the corporate consolidation of telecom companies, while favoring incumbents and raising the cost of new infrastructure. Ironically, U.S. federal policy was designed in 1996 to move away from federally sanctioned monopolies and to a marketplace of competition. It succeeded only in creating competition for telephone service and, more than two decades later, has left most Americans without a real choice in – or even access to – fast, affordable, and reliable Internet access.

The early days of growing Internet adoption saw thousands of ISPs competing for customers. As late as 1998 there were still 4,500 providers in the market.¹² Nearly every home was connected with a telephone and federal policy required the telephone company to share it – allowing entrepreneurs to buy modems, set up a physical location, and advertise a phone number that a person could dial from their computer to connect to the Internet for a monthly fee. Being an ISP had very low barriers to entry. As connection speeds increased, the federal government chose not to require the telephone companies to share access to all the network elements (for example, upgraded lines or equipment that allowed for delivering faster connections), giving the big telephone companies advantages over their entrepreneurial rivals.

In the ensuing years, broadband became the de facto model for Internet connectivity, which allowed the largest incumbents to design the nationwide broadband



infrastructure to entrench their dominance. They swallowed smaller ISP operations, carved up exclusive geographic portions of the U.S. among one another, and influenced policy to shut out local competitors. Today there is a de facto truce between Comcast-Xfinity and Charter-Spectrum, for example, that allows them to compete for fewer than 2.1 million customers in the limited areas where both companies offer service.¹³

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As with monopolies across the economy, regulators and legislators have left the market for Internet Service Providers, telecoms, and media companies largely unchecked, allowing them to become uncompetitive and further concentrated and intertwined. In recent years, the federal government has allowed the mergers of Verizon and AOL (2015), Charter, Bright House, and Time Warner Cable (2015), AT&T and Time Warner (2016), Verizon and XO, CenturyLink and Level 3 (2017), and most recently T-Mobile and Sprint (2018).

Private efforts at creating competitive cable networks ("overbuilding" in industry jargon) have largely failed because the big telecom companies are simply too formidable, and investors have been burned too many times. As with many industries characterized by high up-front capital costs to offer services, building a new network to compete head-to-head with an established incumbent is risky and therefore rare. Once one has committed to spending tens of millions of dollars on a new broadband network, the incumbent provider can simply lower prices temporarily for a few years to ensure the new entrant cannot gain enough subscribers to achieve profitability fast enough for investor expectations. States have largely turned a blind eye to evidence of predatory pricing violations of law because in 1993 the U.S. Supreme made it very difficult to prove these claims.

The power of the conglomerates has also impeded local broadband efforts. Fearing competition from local public options, the big cable and telephone companies have lobbied – often in coordination with the American Legislative Exchange Council – to limit local authority to create broadband networks. Public policy in 19 states deliberately impedes communities' abilities to create public options, strengthening monopoly control, and preventing competition, investment, and a better deal on Internet service. The Federal Communications Commission created an extensive record on these barriers, finding they restricted competition. But the 6th Circuit ruled that the FCC could not strike down state barriers on municipal networks.¹⁴

The Broader Impacts

The novel coronavirus pandemic has further spotlighted the need for community-owned connectivity, and the value of municipal broadband networks over corporate broadband monopolies. In North Carolina, the city of Wilson and its Greenlight fiber network have continued their efforts from before the pandemic to connect underserved and low-income residents to high-quality Internet access. To enable access to online education, telehealth appointments, and other essential services during the public health crisis, Greenlight deployed 30 new public Wi-Fi hotspots, launched a \$10 per month broadband plan for low-income households, and partnered with a local wireless company to offer monthly cellular plans starting at \$10.¹⁵ It also took the initiative to expand its broadband network to connect a local school teacher whose prior poor connectivity was inadequate for online instruction.

More broadly, community-scaled ISPs increase broadband access and diversify the marketplace. These local providers are often more invested and knowledgeable about the communities they serve, and provide some of the fastest Internet service in the country. This fast, affordable, and reliable Internet access is essential to the well-being of communities. It sends a message that they belong and that they are included. It also allows residents and businesses everywhere to contribute and play a role in economic, civic, and public life.

State and Local Policies to Empower Community Broadband

Fast, affordable, and reliable Internet requires a policy environment that encourages competition and empowers community networks. States and cities have the ability to deconcentrate the broadband industry and pave the way for building quality internet access at the local level.

Give Local Governments the Freedom to Connect

Nineteen states limit municipal authority to build broadband networks or partner with local ISPs that are deliberately created to discourage local Internet choice.¹⁶ Many of these state barriers also limit partnerships between communities and small, local, privately owned ISPs, which have limited capital but the expertise to expand networks. For instance, North Carolina and Nebraska communities often have spare fiber optic lines along major transportation corridors, but both states prevent local governments and utilities from leasing them on reasonable terms to ISPs that could significantly reduce the costs of deployment.

State legislatures should remove laws that discourage or prevent local governments from building broadband networks. Local governments have the most knowledge about what the challenges are and what assets are available for broadband deployment, but more importantly, they have the most incentive to take action and will be held responsible by voters for the outcomes of either action or inaction.

Allow Cities to Issue Bonds for Broadband Infrastructure

Without bond authority, local governments have practically no way to finance community networks. State legislatures should ensure that local governments have the authority to

issue bonds for broadband projects if they so choose. For example, New Hampshire municipalities can only bond for networks in areas where there is no service already available, harming business model viability and limiting competition.¹⁷

Support and Guide Smaller Communities

Smaller local governments may not often bond or borrow for infrastructure investments. Consider a program that will help them access capital markets, including by aggregating potential debt or with some form of state guarantee. States can provide planning grants or help organize groups like Maine's Broadband Coalition or the Merit Moonshot in Michigan.¹⁸

Collect ISP Data

The federal government and states do not know where broadband is available, an ongoing failure of the Federal Communications Commission for well over ten years. Neither states nor the FCC have even tried to collect and share pricing data for broadband services.

States and local governments should marshal evidence showing where the ISPs are actually serving customers and what speeds they are actually delivering at what price points. Through collecting ISP data in its state, Georgia has demonstrated that federal data systematically overstates rural broadband coverage, leaving millions of Americans in areas without access and unable to benefit from broadband expansion programs.¹⁹

Build Municipal Networks and Partnerships

Cities should consider building their own networks or making investments to lower the cost of entry for new competitive networks. Where cities are permitted by the state, they can consider the following models:

- Building and operating a network as Wilson, North Carolina; Chattanooga Tennessee; Longmont, Colorado, and dozens of others have done.²⁰ Some networks are citywide from the start, while others are built incrementally and slowly expand.
- Building a network and leasing it to a partner, as Leverett, Massachusetts; Westminster, Maryland; and Urbana-Champaign have done.²¹
- Building a network and opening it to multiple independent ISPs to compete on it as Rio Blanco, Colorado; Grant County, Washington; UTOPIA Networks in Utah; and others have done, and New York City has proposed.²²

- Building a conduit system to lower the cost of deployment as Lincoln, Nebraska has done, creating multiple new competitors downtown and a single new provider to all premises.²³

Procurement Policies

Governments are often the largest purchaser of telecommunications service within their boundaries. They can use that power to shape the market. Governments should prioritize procurement for public agency connections from local providers. On a certain level, the bigger national providers are more convenient to work with because they can connect most locations with a single contract. Yet they fiercely resist the policies suggested below, which ensure broadband networks are not taking advantage of lax regulation and limited competition. Local providers are often already fulfilling them. As a condition of winning contracts or otherwise doing business with the state, states should:

- **Require strong privacy protections** for all subscribers from the ISP.²⁴
- **Require net neutrality** within the state from the ISP.²⁵
- Require the ISP to **make middle mile segments open access** (where any ISPs could lease access at reasonable rates) This may be unpopular among providers of any size, but does encourage competition by lowering barriers to entry.

Establish a Broadband Grant Program

Many of the areas that lack adequate Internet access may require subsidies – ideally one-time grants or loans – to create a sustainable business model. Minnesota developed an early state broadband matching grant program that many other states have used as a model. The state set a requirement that any matching funds be used on future-proof technology (set at 100 Mbps/100 Mbps when established), which resulted in more local firms taking advantage of the program because the big telephone monopolies only want to make the most basic upgrades (for which they received billions from the Federal Communications Commission).

A key lesson from these grant programs is that influential incumbent lobbyists can be very effective at limiting broadband eligibility by setting very low standards for Internet access rather than using the federal broadband

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definition. For instance, many states only subsidize broadband to areas that currently have less than 10/1 Mbps when anything less than 25/3 is not even considered broadband. A higher speed definition to trigger subsidies can help spur investment in areas the big monopolies have refused to upgrade. Colorado revamped its program's rules after monopolies gamed it to benefit themselves, creating the best rules to date for when an incumbent provider wants to block a grant.²⁶

Create "One-Touch Make-Ready" Rules

New ISPs often need to put their network on utility poles to get to subscribers. Getting on a pole may require existing network owners – rivals – to move their lines to create space, but they have little incentive to do it quickly. In these conditions, building a new network can be unpredictable, and therefore more costly. States and cities are embracing "One-Touch Make-Ready" or "climb once" policies that require owners of utility poles to allow one construction crew to work on multiple utility wires. These statutes and local ordinances increase predictability and lower the costs of building a new network.²⁷

Organize a Listening Tour

Incumbent providers will always argue that they are solving problems or deny that there even is a problem. Public hearings and testimonials allow Internet subscribers to voice their concerns or frustrations with their ISP. This can be done through legislative or public regulatory commission listening tours. These tours serve to collect stories and information that will be useful in state legislative action against monopoly providers.²⁸ In Minnesota, the culmination of a similar effort documented many egregious violations of law and standards from just one monopoly provider – Frontier Communications.²⁹ ■

Notes

1. For instance, DSL connections considered cutting edge in 1999 can barely keep up with Gmail now.
2. Basic broadband is currently defined by the Federal Communications Commission to be 25 Megabits (Mbps) downstream and 3 Mbps upstream (when you send information to the Internet like uploading a photo to a platform monopoly). Most DSL connections are slower than basic broadband and most modern cable or fiber optic connections are significantly faster. Fixed broadband is typically a wired connection or a “fixed wireless” connection that requires an antenna attached to a house whereas mobile broadband is the service typically using the cellular network from a provider like AT&T Wireless, Verizon Wireless, or the new T-Mobile/Sprint merger. (For more information, see ILSR’s glossary at MuniNetworks.org/glossary.)
3. Though these telephone companies – such as AT&T, Verizon, and CenturyLink – offer comparatively slower and less reliable Internet access via their copper infrastructure (i.e. the telephone lines), offering higher-capacity connections requires significant investment to extend new fiber optic lines deeper into neighborhoods or all the way to homes.
4. “Press Release: Top Broadband Providers Surpass 100 Million Subscribers,” *Leichtman Research Group*, November 2019.
5. Ibid.
6. “International Broadband Data Report (Sixth),” *Federal Communications Commission*, February 2018.
7. “FCC Reports Broadband Unavailable to 21.3 Million Americans, BroadbandNow Study Indicates 42 Million Do Not Have Access,” John Busby and Julia Tanberk, *BroadbandNow*, February 2020; “Frontier’s Bankruptcy Reveals Why Big ISPs Choose to Deny Fiber to So Much of America,” Ernesto Falcon, Cory Doctorow, and Katherine Trendacosta, *Electronic Frontier Foundation*, April 2020; “AT&T’s Digital Redlining Of Cleveland,” Bill Callahan, *National Digital Inclusion Alliance*, March 2017; Digital gap between rural and nonrural persists,” Andrew Perrin, *Pew Research Group*, May 2019; “The Racial Equality and Economic Opportunity Case for Expanding Broadband,” *Third Way*, February 2019.
8. “Analysis: Digital Divide Isn’t Just a Rural Problem,” John B. Horrigan, *The Daily Yonder*, August 2019.
9. “Digital Denied the Impact of Systemic Racial Discrimination on Home-Internet Adoption,” S. Derek Turner, *FreePress*, December 2016.
10. One 2018 Boston Consulting Group study found that even a 10 percent increase in broadband reach could increase national Gross Domestic Product (GDP) by 1.21 percent. “The Economic Case for Bringing Broadband to the Rural US,” Wolfgang Bock, Derek Kennedy, Maikel Wilms, Simon Bamberger, and Sam Fatoohi, *Boston Consulting Group*, June 2018.
11. “Community-Owned Fiber Networks: Value Leaders in America,” David Talbot and Kiera Hessekiel, *Berkman Klein Center for Internet & Society at Harvard University*, January 2018.
12. Ibid.
13. [ILSR analysis of June 2019 FCC Form 477 data. 2.1 million Americans live in census blocks where Comcast and Charter both report service. In some of these areas, they compete but in others, they may not overlap. FCC statistics are too limited for accurate competition analysis.]
14. “Pssst...Wanna Buy a Law?,” Brendan Greeley and Alison Fitzgerald, *Bloomberg Businessweek*, December 2011; “The State of State Preemption, Nineteen is the Number – Community Broadband Bits Podcast 368,” Lisa Gonzalez, *Community Networks*, August 2019; “Press Release: FCC Releases Order Preempting TN & NC Municipal Broadband Restrictions,” *Federal Communications Commission*, March 2015; Sixth Circuit Court of Appeals Reverses FCC In Disappointing Ruling, Lisa Gonzalez, *Community Broadband Bits*, Lisa Gonzalez, August 2016.
15. “Connecting Wilson,” *Greenlight Community Broadband*, Accessed June 2020.
16. “Preemption Detente: Municipal Broadband Networks Face Barriers in 19 States,” Katie Kienbaum, *Community Networks*, August 2019.
17. “New Hampshire Sets the Example: Expands Local Authority for Broadband Investment,” Lisa Gonzalez, *Community Networks*, June 2018.
18. “Maine Broadband Coalition Website, Accessed June 2020;” “Merit Network Website: *The Michigan Moonshot*, Accessed June 2020.”
19. [19] “Democrats Criticize FCC Broadband Report,” Marguerite Reardon, *CNET*, May 2019; “FCC Urged to Collect Broadband Pricing Information,” Wendy Davis, *DigitalNewsDaily*, January 2020; “Rural broadband is a problem, and Georgia is mapping it,” Emma Hurt, *Marketplace*, October 2019.
20. See MuniNetworks.org for stories about all manner of municipal broadband networks.
21. “Successful Strategies for Broadband Public-Private Partnerships,” Patrick Lucey and Christopher Mitchell, *Institute for Local Self-Reliance*, July 2016.
22. “Open Access,” *Community Networks*, Accessed June 2020; “New York City Releases Visionary Internet Master Plan,” Lisa Gonzalez, *Community Networks*, January 2020.
23. “City of Lincoln Conduit Spurs FTTH, School Network Innovation – Community Broadband Bits Episode 228,” *Community Networks*, November 2016.
24. “2019 Privacy Legislation Related to Internet Service Providers,” *National Conference of State Legislatures*, January 2019.
25. “California Internet Consumer Protection and Net Neutrality Act of 2018,” *Wikipedia*, Accessed June 2020.
26. “Broadband Grant Program,” *Minnesota Office of Broadband Development*, Accessed June 2020; “Colorado Legislature Revamps Incumbent Right Of First Refusal, Blocking Monopoly Battle Tactic,” Lisa Gonzalez, *Community Broadband Networks*, March 2018.
27. “Next Century Cities’ Guide to Pole Attachments,” *Pole Attachments*, February 2017.
28. “Matt Schmit Leading Broadband from Minnesota to Illinois – Community Broadband Bits Podcast 395,” *Community Networks*, Lisa Gonzalez, February 2018.
29. “Minnesota slams Frontier Communications over service failures, MPR News Staff, *Minnesota Public Radio*, January 2019.