Broadband Access Challenges

This is one of a series of short explainers about high-speed Internet access issues. The full series is available here.

BACKGROUND

The vast majority of Americans use the Internet in some way—93 percent of the U.S. population, according to the Pew Research Center. Still, millions of people, families, and businesses face significant challenges in doing so. Black and Hispanic families are less likely to have high-quality home Internet access than white families.

Broadband—shorthand for high-speed, always-on Internet access—has become a big buzzword as the federal government is making massive investments in repairing and rebuilding the nation's infrastructure, which includes unprecedented funding for the expansion of broadband networks as well as investments in digital skills to improve digital equity.

There are a variety of technologies that can be used to access the Internet, both wired and wireless. The benefits and disadvantages between the two vary depending on the needs of individual users, although a wireline fiber-to-the-home connection is generally considered to be the gold standard in terms of reliability and scalability. As many as 50 million Americans access the Internet exclusively through mobile devices such as a smartphone, though older adults are less likely than other age groups to do so.

Nonetheless, broadband has become essential for citizens everywhere to fully participate in modern society. The many benefits and uses of high-speed Internet access touch on nearly every aspect of life today.

For example increasingly, medical professionals are harnessing broadband to improve health outcomes that go far beyond the comfort and convenience of virtual doctor's visits. Facilitating telehealth is of particular importance in rural communities where often health care facilities are far away from home. Telehealth also offers the prospect of better control of infectious illness, more accurate assessments for specialty doctors, and makes it easier to connect with a doctor or nurse practitioner in the management of chronic conditions. All of this facilitates aging at home.

THE PROBLEM

Laying aside the debate over what the minimum speed threshold for broadband ought to be, the broadband access challenge is three-fold: infrastructure, affordability, and adoption.

Infrastructure

Building network infrastructure is not cheap. There are high upfront capital costs to construct what are known as "last-mile" broadband networks that connect residents and businesses.

In sparsely populated (and less wealthy) rural communities, the infrastructure often simply doesn't exist.

According to the FCC, in rural areas nearly one-fourth of the population, or 14.5 million people, do not have access to broadband with speeds of at least 25/3 Mbps: what the federal government defines as the minimum for both download and upload speeds. (However, it is important to note that the FCC's data is notoriously inaccurate as it seriously overestimates broadband availability based on the self-reporting of Internet Service Providers).

Policy makers often draw a parallel between the electrification of rural America and the "broadband-ification" of the nation now underway. In fact, hundreds of rural communities across the nation have turned to their local electric or telephone cooperatives to build broadband infrastructure because, as a 2019 Congressional Research Service report illustrates, previous approaches have failed to deliver the service needed.

Market-driven solutions to broadband investment coupled with ineffective government subsidy programs have left millions without an available connection to their home.

Affordability

Even where broadband is available, a common barrier is affordability, or as some broadband advocates like to say: if it's not affordable, it's not accessible.

Americans already pay high prices for Internet service compared to other developed nations. The problem of high-cost Internet service is particularly acute in rural America but is also a barrier in urban areas where cable companies face little competition.

AARP PROGRAMS

Senior Planet from AARP provides no-cost digital literacy courses, programs, and activities for older adults. A program created and sponsored by national nonprofit Older Adults Technology Services (OATS) from AARP, the age-friendly digital literacy curriculum is available at in-person program locations and also made available for online attendance. The program offers classes in multiple languages, including Spanish, English, and Mandarin. Learn more at SeniorPlanet.org

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A BroadbandNow study on pricing found that "zip codes in the bottom 10 percent of population density pay up to 37 percent more on average for residential wired broadband than those in the top 10 percent."

And according to an AARP survey published in June 2021, suburban residents 50 and older pay more on average than urban and rural residents for home Internet service ($71 vs. urban $65, rural $63). But, those in rural areas report that the cost of high-speed access is a problem for them personally.

Also, while the cost of service is the major concern as it relates to affordability, there is also a need to address getting low-cost (or no-cost) devices into financially-strapped households. See our fact-sheet on devices.

Finally, the Affordable Connectivity Program (ACP) began subsidizing Internet connections for qualifying households in 2022, though the majority of those who qualify for it have not yet signed up.

Adoption

When broadband advocates speak of "adoption" as being a barrier to broadband access, they mean that even where service is available and affordable, not everyone has the devices or digital skills necessary to take advantage of the benefits high-speed Internet connectivity provides. Older adults are adopting connected devices more and more each year, but challenges remain with privacy and digital skills.

The benefits of universal access to broadband are succinctly summarized by Benton Institute for Broadband & Society: "High-performance broadband [being made] available to everyone in America is an important ingredient for a more just America, a healthier society, and an economy that offers true opportunity for everyone."

Reliable and affordable broadband access is not only essential in supporting entrepreneurism, remote work, education, precision agriculture, monitoring the performance and reliability of local utilities, and connecting with family and friends. It has also become increasingly important in healthcare as telehealth initiatives are being launched across the country.

Among the skills needed to increase adoption include how to use a computer (key components, mouse, & keyboard), the basics of navigating, creating, managing and organizing files, using an Internet browser, making sense of social media platforms; connecting virtually via Zoom and other video conferencing apps, managing bank and other online accounts to make purchases, and how to safeguard privacy and protect personal data.

Federal Efforts to Improve Accessibility:

In November 2021, Congress passed the Infrastructure Investment and Jobs Act, which included $42 billion specifically for the deployment of broadband infrastructure that will be allocated to the states to distribute. Because the legislation says the money must prioritize expanding broadband infrastructure in areas that do not have access to broadband with connection speeds of at least 25/3 Mbps, the bulk of that money is expected to fund projects in rural areas.

The legislation also acknowledges that affordability can be a barrier to broadband access and although the final rules have not yet been published, the legislation requires that any new networks built using the funds must have at least one low-cost option.

For more on what the federal government is doing to address expanding broadband infrastructure and tackling the affordability challenge, please see the Affordability Fact Sheet.

ABOUT ILSR

The Institute for Local Self-Reliance (ILSR) is a 48-year-old national nonprofit research and educational organization. ILSR's mission is to provide innovative strategies, working models, and timely information to support strong, community rooted, environmentally sound, and equitable local economies. To this end, ILSR works with citizens, policymakers, and businesses to design systems, policies, and enterprises that meet local needs, to maximize human, material, natural, and financial resources, and to ensure that the benefits of these systems and resources accrue to all local citizens. Learn more at **www.ilsr.org**.

ABOUT AARP

AARP is the United States' largest nonprofit, nonpartisan organization dedicated to empowering people 50 or older to choose how they live as they age. With nearly 38 million members and offices in every state, Washington D.C., Puerto Rico and the U.S. Virgin Islands, AARP strengthens communities and advocates for what matters most to families, with a focus on health security, financial stability and personal fulfillment. The AARP Livable Communities initiative supports the efforts of local leaders and residents throughout the nation to make their communities more livable and age-friendly. Its programs include the AARP Network of Age-Friendly States and Communities and the annual AARP Community Challenge "quick-action" grant program. Learn more at **AARP.org/Livable** and by signing up for the free, weekly AARP Livable Communities e-Newsletter at **AARP.org/LivableSubscribe**.