

Rural broadband deployment has become an urgent policy issue in the United States. The COVID-19 pandemic has demonstrated how important broadband is for work, education, and leisure. Lacking a connection can be socially and educationally crippling. As of 2018, over 14 million Americans living in rural areas lacked access to a fixed 25–megabit per second broadband connection. State and local officials have a menu of options to expand rural broadband coverage without costly new subsidy programs.

CREATE RURAL BROADBAND VOUCHER PROGRAMS

Over the next 10 years, the federal government will spend about \$80 billion in broadband grants and subsidies, much of it overseen for the first time by state officials. State officials should consider creating rural broadband voucher programs of, say, \$30 per month per household with that influx of new funds. Vouchers to rural households are much simpler to create and to monitor than grants to providers. Grant programs typically require time-consuming and error-prone mapping of so-called unserved areas. By contrast, as shown in research from the Mercatus Center at George Mason University, rural broadband vouchers do not require extensive mapping, are tech neutral, and provide a direct benefit to every eligible rural household.¹

PROTECT HOMEOWNERS' AND RENTERS' ABILITY TO INSTALL SMALL OUTDOOR ANTENNAS

State officials should protect homeowners and renters from the local fees and regulations imposed when installing small outdoor antennas on private prop-

erty. In 2021, the Federal Communications Commission (FCC) provided some protection for homeowner installation of outdoor antennas one meter or less in diameter—the so-called pizza box rule.² However, state laws can provide broader and complementary protections for residents wishing to install broadband antennas. A single small outdoor antenna, including 5G antennas, can provide high-speed internet to homeowners and many of their neighbors. Unfortunately, as documented in research from the Mercatus Center, in many towns and counties, rural broadband providers and homeowners face local permits and fees for installing small outdoor antennas. Fixed wireless providers serve high-speed home internet to a growing number of households, 4 and 5G technology has helped transform it into a mass-market service over the past year. Verizon and T-Mobile even ran ads for 5G home internet during Super Bowl LVI.5

CONSTRUCT PASSIVE INFRASTRUCTURE TO HELP EXPAND BROADBAND COVERAGE IN RURAL AREAS

Operating public broadband networks (often called "muni broadband") is a high-risk broadband expansion strategy that often leads cities and states to high debt and default. Public entities such as the state of Kentucky and rural townships in Minnesota find themselves with crippling liabilities for their public networks. 6 Rather than entering the broadband business, state and local officials should consider constructing "passive infrastructure"—that is, long-lasting, low-maintenance utility poles, conduits, and vaults-using the public rights-ofway in rural areas where infrastructure is scarce. One example stands out: Arizona commerce and transportation officials recently began a project to construct passive infrastructure in rural areas. 7 The infrastructure will be used for transportation department data services, and, importantly, excess passive infrastructure will be leased out on a competitive basis to private broadband operators. Infrastructure investment like this lowers the costs to private providers in expanding their rural broadband coverage and avoids distorting the home internet marketplace with a publicly funded competitor.

ENSURE ACCESS TO ROADSIDE UTILITY POLES

State officials should ensure that internet service providers can attach their new fiber-optic lines to roadside utility poles, which are owned by public and private entities, in a timely and reasonable manner. Not doing so leads to situations such as in rural Tennessee, where one internet provider expanding its rural coverage must wait 14 years before beginning construction. The FCC has imposed "shot clocks" to

ensure that pole owners have deadlines to respond to providers. However, states should complement FCC shot clocks with their own shot clocks and processes.

NOTES

- Brent Skorup and Michael Kotrous, "Narrowing the Rural Digital Divide with Consumer Vouchers" (Mercatus Policy Brief, Mercatus Center at George Mason University, Arlington, VA, October 2020).
- 2. Brent Skorup, "FCC Rule Makes It Easier to Self-Provision Home Broadband," *Technology Liberation Front*, January 14, 2021.
- Brent Skorup, "The FCC Should Modernize Over-the-Air-Reception-Device Rules" (Public Interest Comment, Mercatus Center at George Mason University, Arlington, VA, June 17, 2019), 11.
- 4. An Evercore ISI industry analyst notes, "we expect fixed wireless will make up 45% of broadband net adds in 2022...." Jeff Baumgartner, "T-Mobile's Fixed Wireless Service Reach Holds Edge over Verizon–Study," *Light Reading*, February 14, 2022.
- 5. Mike Harrington, "T-Mobile, Verizon Shine Super Bowl Spotlight on 5G Home Internet," AGL Media Group, February 14, 2022.
- 6. Broadband internet sales require large investments in networks, operations, and sales that public agencies are ill-prepared for. An extreme example is the KenturckyWired project. Kentucky officials estimated taxpayer liability for a statewide broadband network at \$30 million. Mismanagement and unforeseen costs led to actual taxpayer liabilities of more than \$1.4 billion. Mark Harmon, Examination of Certain Contracts, Operations, and Activities of the Kentucky Communications Network Authority (Frankfort, KY: Kentucky Auditor of Public Accounts, 2018), 11; Alfred Miller, "How Kentucky Gambled for Hundreds of Millions of Dollars from a Broadband Program It Didn't Qualify for," ProPublica, September 4, 2019. Despite receiving tens of millions of dollars in federal loans and grants, Lake County, Minnesota, "local property taxpayers are still on the hook for more than \$25 million" for a troubled public network. Jamey Malcomb, "Rural Minnesota County Built a Fiber Network, but Now Taxpayers Face Huge Bills," GovTech, 2018.
- 7. Arizona Commerce Authority, *Arizona Broadband Statewide Middle-Mile Strategic Plan*, February 2022.
- Letter from Maureen O'Connell, Vice President of Regul. Aff., Charter Commc'ns, to Marlene H. Dortch, Secretary, Fed. Commc'ns Comm'n. (Nov. 22, 2021) (https://ecfsapi.fcc.gov/file/1122290630682/Charter%20Ex%20Parte%20re%20 RDOF%20Poles%20(11.22.21).pdf).

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