

## Why GAO Did This Study

Broadband is essential for employment, healthcare, public safety, and other vital services. Middle-mile infrastructure plays a key role in keeping Americans connected. Some areas of the country have no middle-mile networks, and other areas are served by only one middle-mile connection. In 2021, the Infrastructure Investment and Jobs Act authorized NTIA to establish a \$1 billion middle-mile grant program.

You asked GAO to examine issues related to middle-mile infrastructure, including its availability. This report (1) describes the challenges stakeholders identified that affect middle-mile coverage and access, and (2) examines the extent to which NTIA established the middle-mile grant program in accordance with selected recommended practices.

GAO conducted case studies in three states and interviewed middle-mile operators, last mile providers, and state officials. GAO also interviewed federal agency officials, academics, and industry participants. GAO assessed NTIA program documentation against recommended practices related to grants management, duplication, and performance management.

## What GAO Recommends

GAO is recommending that NTIA (1) establish performance measures for the middle-mile grant program and ensure the measures have specified targets, and (2) establish a process for developing performance goals and measures during program planning and design. NTIA agreed with GAO's recommendations.

View [GAO-24-106131](#). For more information, contact Andrew Von Ah at (202) 512-2834 or [vonaha@gao.gov](mailto:vonaha@gao.gov).

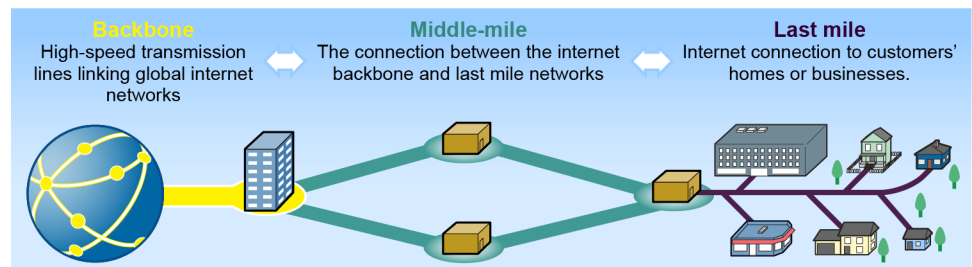
# BROADBAND INFRASTRUCTURE

## Middle-Mile Grant Program Lacked Timely Performance Goals and Targeted Measures

### What GAO Found

An important part of broadband infrastructure is referred to as “middle-mile.” This is the portion of the internet that connects the last mile (internet connections to homes or businesses) with the backbone (transmission lines linking global internet networks), as shown in the figure. Reports GAO reviewed and stakeholders GAO interviewed identified challenges that affect middle-mile network coverage and access. These challenges include the cost of serving areas with low population, deploying infrastructure across challenging terrain, and obtaining permits. Stakeholders also discussed challenges related to providers' ability to access middle-mile networks, such as a lack of redundant networks and lack of competition. For example, providers told GAO that rural areas often lack redundant middle-mile networks—that is, they are served by middle-mile networks with only a single route into a community. If the sole fiber route into a community is damaged, the entire community could lose internet service.

### Infrastructure Components of the Internet



Source: GAO analysis of National Telecommunications and Information Administration data; GAO (icons). | GAO-24-106131

The National Telecommunications and Information Administration (NTIA) established its middle-mile grant program in accordance with most recommended practices. In particular, GAO found NTIA followed all recommended grants management practices, and took steps to ensure program funding did not duplicate other federal funding.

However, NTIA did not follow leading practices and federal regulations related to performance management. Leading practices call for performance goals to be quantifiable and the associated measures to have numerical targets. Federal regulations also require agencies issuing a notice of funding opportunity to develop program performance goals and measures during planning and design, and include this information in the funding notice. GAO found NTIA had not developed such goals or measures prior to issuing its funding notice. By not doing so, NTIA missed the opportunity to inform applicants on how they could contribute to the goals during its applicant review and selection process. GAO reported earlier this year that for two other programs, NTIA also did not develop performance goals and measures during program planning and design as required. By establishing performance measures with specified targets, NTIA can provide Congress with key information on program outcomes. Moreover, by establishing a process to ensure that goals and measures are developed during a program's planning stages NTIA can better target grant funding that links to desired outcomes.