



Highlights of [GAO-06-426](#), a report to congressional committees

Why GAO Did This Study

Both Congress and the President have indicated that access to broadband for all Americans is critically important. Broadband is seen as a critical economic engine, a vehicle for enhanced learning and medicine, and a central component of 21st century news and entertainment. As part of our response to a mandate included in the Internet Tax Nondiscrimination Act of 2004, this report examines the factors that affect the deployment and the adoption of broadband services. In particular, this report provides information on (1) the current status of broadband deployment and adoption; (2) the factors that influence the deployment of broadband networks; (3) the factors that influence the adoption, or purchase, of broadband service by households; and (4) the options that have been suggested to spur greater broadband deployment and adoption.

What GAO Recommends

GAO recommends that FCC develop information regarding the cost and burden that would be associated with various options for improving the information available on broadband deployment and report this information to the relevant Senate and House committees to help them determine what actions, if any, are necessary. FCC provided technical comments on this report, but did not comment on this recommendation.

www.gao.gov/cgi-bin/getrpt?GAO-06-426.

To view the full product, including the scope and methodology, click on the link above. For more information, contact JayEtta Z. Hecker at (202) 512-2834 or heckerj@gao.gov.

TELECOMMUNICATIONS

Broadband Deployment Is Extensive throughout the United States, but It Is Difficult to Assess the Extent of Deployment Gaps in Rural Areas

What GAO Found

About 30 million American households have adopted broadband service, but the Federal Communications Commission's (FCC) data indicating the availability of broadband networks has some weaknesses. FCC conducts an extensive data collection effort using its Form 477 to assess the status of advanced telecommunications service in the United States. For its zip-code level data, FCC collects data based on where *subscribers* are served, not where providers have deployed broadband infrastructure. Although it is clear that the deployment of broadband networks is extensive, the data may not provide a highly accurate depiction of local deployment of broadband infrastructures for residential service, especially in rural areas.

A variety of market and technical factors, government efforts, and access to resources at the local level have influenced the deployment of broadband infrastructure. Areas with low population density and rugged terrain, as well as areas removed from cities, are generally more costly to serve than are densely populated areas and areas with flat terrain. As such, deployment tends to be less developed in more rural parts of the country. Technical factors can also affect deployment. GAO also found that a variety of federal and state efforts, and access to resources at the local level, have influenced the deployment of broadband infrastructure.

A variety of characteristics related to households and services influence whether consumers adopt broadband service. GAO found that consumers with high incomes and college degrees are significantly more likely to adopt broadband. The price of broadband service remains a barrier to adoption for some consumers, although prices have been declining recently. The availability of applications and services that function much more effectively with broadband, such as computer gaming and file sharing, also influences whether consumers purchase broadband service.

Stakeholders identified several options to address the lack of broadband in certain areas. Although the deployment of broadband is widespread, some areas are not served, and it can be costly to serve highly rural areas. Targeted assistance might help facilitate broadband deployment in these areas. GAO found that stakeholders have some concerns about the structure of the Rural Utilities Service's broadband loan program. GAO was also told that modifications to spectrum management might address the lack of broadband infrastructure in rural areas. Also, because the cost of building land-based infrastructure is so high in some rural areas, satellite industry stakeholders noted that satellite broadband technology may be the best for addressing a lack of broadband in those regions. While several options such as these were suggested to GAO, each has some challenges to implementation. Also, a key difficulty for analyzing and targeting federal aid for broadband is a lack of reliable data on the deployment of networks.