



## Bringing Broadband to Rural and Low-Income Families

*By Christen Lara, Pam Greenberg and Robert D. Boerner*

*Broadband benefits rural communities.*

In 2003, Greene County, N.C., was a rural community in crisis. Almost entirely dependent upon tobacco, its economy was crippled when the federal government discontinued tobacco crop subsidies. Faced with this devastating economic downturn, county officials decided to expand the broadband infrastructure. The county provided laptops to all middle and high school students, 75 percent of whom were in the free or reduced lunch program. As a condition of the program, parents were required to take weekly computer classes. After five years, the county has developed free Internet hotspots at schools and fire stations; broadband use has jumped dramatically; and the number of students applying to college has increased significantly.

During the past decade, a similarly dramatic increase has occurred in national broadband adoption—from less than 5 percent of the population in 2000 to more than 50 percent in 2008. Although Internet users still can email and search at slower speeds, newer web applications—such as telemedicine, telecommuting and online education—usually require higher bandwidths.

*Public-private partnerships help expand infrastructure.*

**Changing the Focus of Broadband Initiatives.** The striking economic growth potential of broadband has been felt not only in North Carolina, but across the nation. Federal, state and local governments and the private sector are attempting to ensure that broadband is universally available. States such as Kentucky have led the way by forming public-private partnerships to deploy broadband to underserved areas.

As access expands, the focus of broadband initiatives is changing. Attention currently is focused on the so-called “last mile” markets—underserved or rural areas where the per-customer cost of providing broadband service is extremely high. States also are addressing emerging socioeconomic gaps in broadband adoption rates, most noticeably among those who are older, less educated, earn less and live in rural areas.

The reasons for these gaps are fairly straightforward. Older people tend to have little experience with technology, and learning to use the Internet can be frustrating. Low-income people often cannot afford a monthly broadband subscription in addition to the minimum cost for a computer. These issues are compounded in rural areas, where accessibility often is limited.

*Broadband initiatives help ensure availability.*

**State Action** To narrow broadband gaps, states have begun to assess statewide service availability and expand infrastructure. Some states are attempting to make access truly universal, however, by devoting resources to public-private partnerships, funding programs and tax credits. Four common strategies states use to increase broadband use among rural, low-income families follow.

*States anticipate demand for broadband.*

**State Aggregated Demand.** Because service providers generally build costly broadband infrastructure only in viable markets, several states have worked to 1) assess the number of residences and businesses interested in broadband, 2) spark more interest through broadband demonstrations, and 3) combine local broadband needs and anticipated demand. Armed with this information, states then offer “aggregated demand” packages to service providers as proof of market potential. Pennsylvania and Washington, for example, have guaranteed providers a certain amount of state-purchased broadband to further reduce prices for residents.

**Computer Donation Programs.** A recent Kentucky survey asked residents why they did not have access to the Internet at home. Slightly more than half cited as the main reason not having a computer. In response, Kentucky created No Child Left Offline as part of the Commonwealth’s public-private partnership, ConnectKentucky. Through the program, underprivileged rural, urban and low-income students receive computers, printers and software. The initiative has provided 1,500 computers to students across Kentucky. Modeled after ConnectKentucky, Connected Tennessee recently began a similar program, Computers 4 Kids. Connected Tennessee began under the umbrella of Connected Nation, a nonprofit Washington, D.C., organization that specializes in increasing technology access and literacy.

**Broadband Application Programs.** A recent study by the Pew Internet and American Life Project found that one-third of those who do not use the Internet simply do not wish to give up their dial-up Internet for a higher speed broadband connection. To showcase the many relevant benefits of broadband, states are offering rural communities a wide variety of Internet applications, such as education and telehealth programs. The Missouri Telehealth Network has worked in rural Missouri since 1994 to increase access to medical care and education. The program, initially funded with federal and private money, is now supported by the state.

**Direct Funding Programs.** Many states fund programs to support local broadband initiatives. Pennsylvania’s Broadband Outreach and Aggregation Fund, for example, provides grants to community organizations that identify aggregate demand in underserved areas. In North Carolina, the e-NC Authority supports business and technology telecenters located in the state’s poor rural counties. Each grant-funded telecenter provides free Internet access and technical and business support. As of 2007, the authority had created nearly 1,500 jobs and provided support services to more than 20,000 people.

*Direct funding supports local broadband adoption.*

## **Resource**

Horrigan, John. *Home Broadband Adoption 2008*. Washington, D.C.: Pew Internet and American Life Project, July 2008.

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Connecting America: Broadband Policy Issues  
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