

EXECUTIVE SUMMARY

Rural Broadband Availability and Adoption: Evidence, Policy Challenges, and Options

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Funding

This project was funded through a contract with the National Agricultural and Rural Development Policy Center.

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This is a publication of the National Agricultural & Rural Development Policy Center (NARDeP). NARDeP was formed by the Regional Rural Development Centers in response to the increasingly contentious and complex agricultural and rural development policy issues facing the U.S. NARDeP is funded by USDA National Institute of Food and Agriculture (NIFA) under a competitive grant (Number 2012-70002-19385), and works with the land-grant college and university system and other national organizations, agencies, and experts to develop and deliver timely policy-relevant information. NARDeP is an affirmative action/equal opportunity employer. For information about NARDeP, visit the website: nardep.info.

Rural Broadband Availability and Adoption: Executive Summary

Broadband, or “high-speed” Internet access, has become an integral part of the everyday life of many Americans. Household broadband adoption rates are above 60% as of 2011, providing opportunities for communication, information, income, and entertainment. However, the persistence of a rural – urban “digital divide” in both broadband *availability* and *adoption* has prompted concerns that rural areas might be left behind in terms of the benefits of this technology.

This report uses information on *both* broadband components (availability and adoption) which are now available for the first time. We mesh National Broadband Map (NBM) availability data with household-level adoption information from the Current Population Survey (CPS) and county-level adoption data from the Federal Communication Commission’s (FCC) Form 477. Since we use mostly county-level data, our findings are typically discussed in metro / non-metro terminology.

Key Findings:

- Using CPS household-level data, the broadband adoption gap between metro and non-metro areas remained at 13 percentage points in both 2003 and 2010; however, this gap increased among low income, low education, and elderly
- A significant metro – non-metro broadband availability gap is evident as of 2011; this difference is a large contributor to the adoption gap
- Using FCC county-level data, the most rural (non-core) counties experienced significant improvements in broadband adoption between 2008 and 2011
- Traditional factors – income, education, age, race, and non-metro location – played a role in adopting broadband for both 2003 and 2010; low levels of providers had a negative impact on adoption while higher levels of broadband availability had a positive impact
- In addition to traditional factors, employment in specific industries (real estate and information sectors) as well as broadband speed had an impact on non-metro county-level adoption rates
- Analyses on areas participating in the Connected Nation program found that it had positive results increasing the number of providers in the most rural counties, but did not fare well in terms of increasing broadband adoption in those counties
- Broadband and economic health are linked in rural areas (potentially in a causal direction):
 - Low levels of adoption, providers, and broadband availability were associated with lower median household income, higher levels of poverty, and decreased numbers of firms and total employment in 2011
 - Increases in broadband adoption between 2008 and 2010 resulted in higher levels of median household income and total employment for non-metro counties
 - Broadband adoption thresholds have more impact on changes in economic health indicators between 2001 and 2010 than do broadband availability thresholds in non-metro counties

Key Policy Recommendations:

- Draw broadband infrastructure to less economically robust regions lacking it (via programs such as the FCC’s Connect America Fund)
- Focus adoption programs on populations with lower levels of income and education as well as racial/ethnic minorities; involving community anchor institutions is particularly important
- Build on diffusion factors such as trialability, observability, compatibility to expose non-adopters to the technology
- Though wireless deployment is helpful, many of the productivity gains and economic advantages of broadband are limited through this technology
- Support improved data gathering related to price / affordability (including bundles) and service quality (speed)