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# Consumer Insights to America's Broadband Challenge

A Research Series from  
Connected Nation, Inc.

October 13, 2008

# I. Key Findings

- The largest barrier to broadband adoption is a lack of awareness about broadband's benefits. Nearly one-half (44%) of those with no home broadband connection say "I don't need broadband."
- Likewise, the top barrier to computer ownership is also a perceived lack of need. Nearly two-thirds (62%) of those who do not own a computer say "I don't need a computer."
- Nearly one-fourth (24%) of those who do not own a computer cite the up-front cost as a barrier. Similarly, nearly one-fourth of those without a home broadband connection say broadband is too expensive.
- Four out of ten parents with children who are without a home computer see no need for having a computer in the home. And nearly one-third (30%) of parents with children who do not have a home broadband connection see no need for a broadband connection.
- More than one-half (56%) of people with disabilities who do not own a computer see no need for having a computer in the home. Four out of ten people with disabilities who do not have a home broadband connection see no need for a broadband connection.
- Close to one-half (42%) of rural residents without a home broadband connection say it is because they do not need broadband. This compares with 19% of these rural residents who say they do not subscribe because broadband service is not available in their area. Twenty-two percent of these rural residents say broadband is too expensive.



\* These findings are the result of more than 50,000 consumers surveyed through Connected Nation's research program in Kentucky, Tennessee and Ohio.

## II. Introduction

The United States has entered a new broadband paradigm. With the recent passage of the Broadband Data Improvement Act (S.1492), Congress has set forth a bold national broadband policy to address both the supply and the demand barriers to full broadband adoption. Based on the Connected Nation model for broadband expansion, this legislation will change the broadband framework of the United States by empowering grassroots America to implement the solutions that best meet their needs as they seek to improve their quality of life through technology adoption.

This is the first in a series of Connected Nation reports on America's Broadband Challenge. Over the course of the next few months, these reports will examine extensive survey data from more than 50,000 consumers to identify the real barriers to broadband adoption and computer use, particularly among traditionally underserved demographics. The series will also examine the programs and policies that are working to overcome these barriers.

The reports to follow will examine a number of the issues summarized in this release, delving into the details of the challenges and potential solutions. It is clear that while traditional assumptions sometimes apply, the reality of the broadband landscape at the grassroots level is often unexpected. **Predominantly, even in contexts with reliable supply of broadband, it is consumer demand for broadband that is the tallest barrier to adoption and represents America's competitive vulnerability.** For example, among residents with children at home but without a computer at home, 41% did not see a need for a computer at home and 30% did not see a need for a broadband connection. Any child without access to a broadband-enabled computer for education is extremely disadvantaged in preparing for a global and information-based economy. Fortunately, awareness-building programs such as Connected Nation's Computers 4 Kids have proven successful in reversing this trend.

Connected Nation is committed to providing dependable intelligence that will help the U.S. Congress and policy makers fully and constructively implement the programs as set out in the Broadband Data Improvement Act.



\* S.1492 among other things creates a grant program for states that desire to implement a Connected Nation-like tactical broadband mapping program as well as grassroots demand stimulation programs.

## III. The Study

A critical element of the Connected Nation model is an intensive and localized research campaign to measure and understand the barriers to broadband adoption and computer use in each community and among various demographic groups. Connected Nation conducts telephone surveys which are designed to obtain statistically significant results for every county, and local multi-sector technology planning teams use these data to form targeted, research-based plans for technology growth in each county.

Through Connected Nation's state programs, these surveys are repeated each year, and broadband adoption metrics are tracked over time. Importantly, these annual measurements enable a better understanding of which programs are working (or not working) among various segments of the population and demographic groups. In addition to its usefulness for program development, the yearly data give insight to how states and the federal government should focus broadband policy.

This first report previews the initial findings of the more in-depth analyses which will follow throughout the coming months in subsequent reports. Using data from more than 50,000 individual respondents across more than 1.5 million data points, the research series will seek to answer questions such as:

- Who are the non-adopters, and what are the real barriers to broadband adoption and computer ownership?
- How do we overcome the income, educational, age and cultural barriers to broadband adoption and computer ownership?
- What are the barriers to broadband adoption and computer ownership among people with disabilities?
- What are the remaining barriers to broadband adoption and computer ownership among parents with children?
- How do the broadband challenges of rural residents compare to those of urban residents?
- How do broadband speeds differ across geographies, and how do speeds influence the way people use broadband?
- What prices are residents paying for broadband in rural versus urban areas, and what effect do prices have on adoption?
- How are various groups using broadband differently, and what applications are driving broadband adoption?

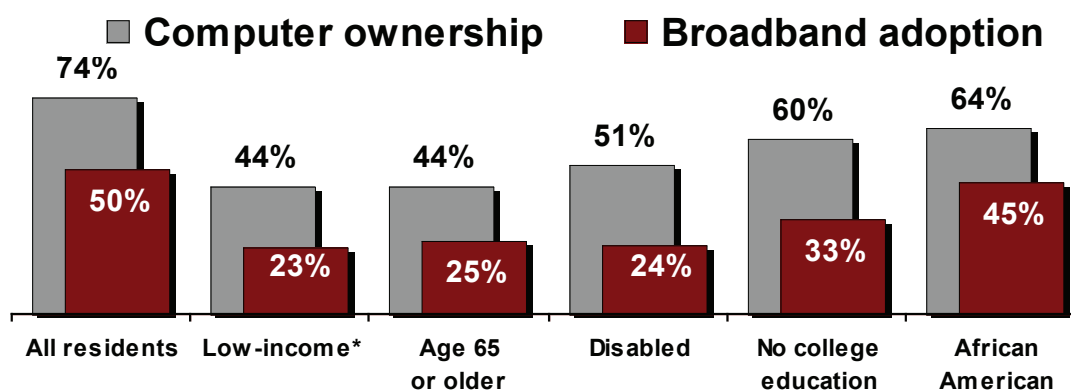
And ultimately, what are those broadband stimulation programs and policies that are transforming the American way of life?

## IV. Who Are the Non-Adopters?

A central question in this research series is, “Who are the people who have not yet adopted broadband?” This, of course, begs the next question, “why?”

When examining various demographic groups, there are specific (and predictable) segments which stand out as having lower than average rates of computer ownership and home broadband adoption. They include minorities, people with disabilities, older age groups, low-income residents, and those who have not attended college. (See Figure 1.)

**Figure 1: Computer Ownership and Broadband Adoption Among Various Demographic Groups**



Q: Does your household have a computer?

Q: Which of the following describe the type of Internet service you have at home?

n = 3,005 residents in Ohio, Tennessee and Kentucky

\*Low-income here is defined as annual household income less than \$25,000



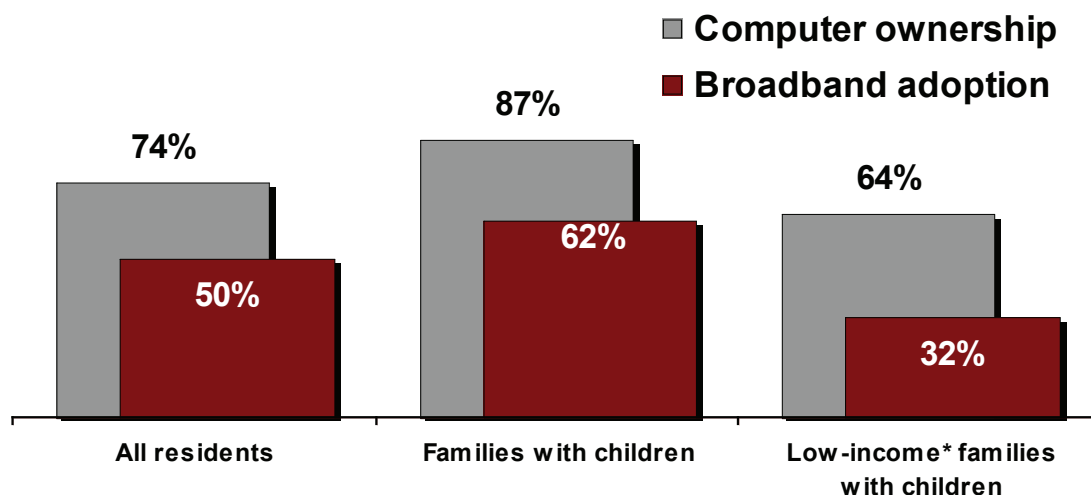
## Children

In contrast, there are specific demographic groups which have a predictably higher propensity for computer ownership and broadband adoption, such as households with children who need access to the Internet for homework. (See Figure 2). Eighty-four percent of households with children own a computer compared to 74% computer ownership among all residents. And 62% of households with children choose to subscribe to broadband services at the home, contrasting with the overall broadband adoption rate of 50%. Parents, therefore, generally recognize the importance of what broadband has to offer their children. However, even among these parents with children at home, 13% still do not own a computer and 38% do not have a home broadband connection -- a demand challenge that must be addressed if we are to ensure that all children are prepared for success in an increasingly information-based and global economy.

Among low-income families with children, home computer ownership rates drop well below the general population average to 64%, and home broadband adoption plummets to 32%. Put differently, more than one-third of low-income children do not have access to a computer at home, and more than two-thirds of low-income children have no broadband connection at home. (See Figure 2.)

Too many American children are at risk of being left behind. Low-income children are twice as likely to be left behind. Policy makers need to address this lagging demand if we are to ensure a level playing field for all American children.

**Figure 2: Computer Ownership and Broadband Adoption  
Among Households With Children**



Q: Does your household have a computer?

Q: Which of the following describe the type of Internet service you have at home?

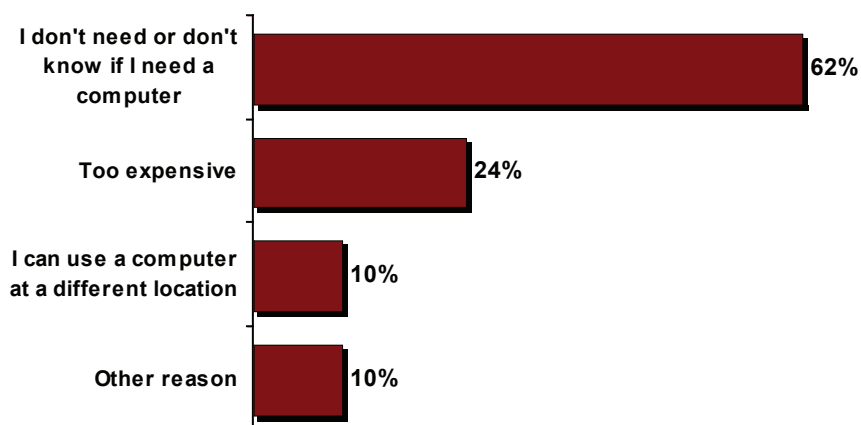
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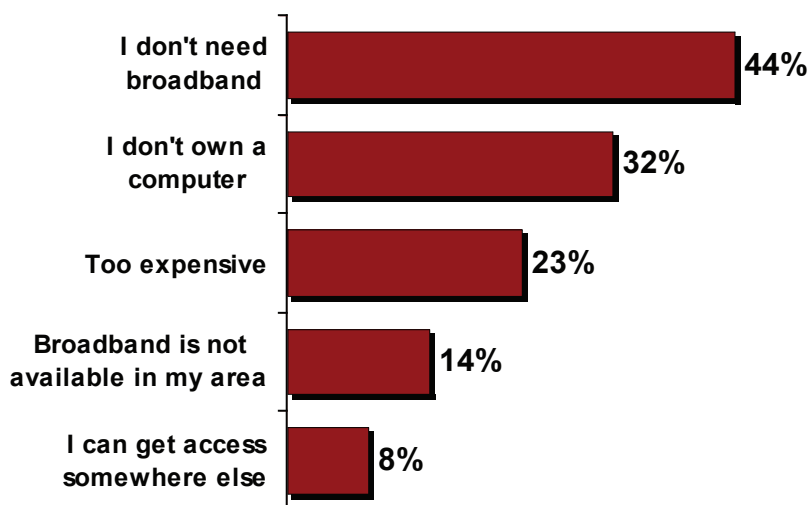
## V. What Are the Barriers to Adoption?

On the surface, there are seemingly simple answers to the follow-up question, “Why are the non-adopters not adopting?” One would suspect it is a simple matter of price and availability. However, according to consumers, the primary barrier to computer ownership and home broadband adoption is not expense or lack of available broadband service — but rather, a perceived lack of need. When asked why they don’t subscribe to broadband or why they don’t own a computer, consumers responded most often with, “I don’t need it.” (See Figures 4 and 5.)

**Figure 4: Barriers to Computer Ownership**



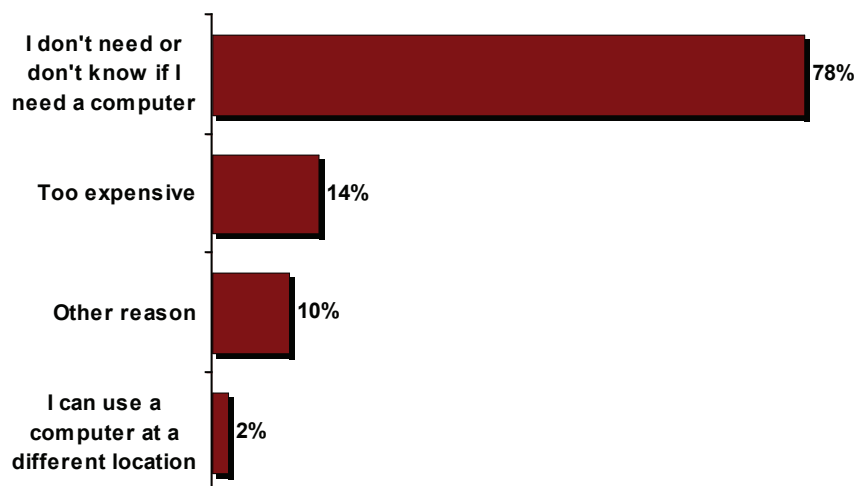
**Figure 5: Barriers to Broadband Adoption**



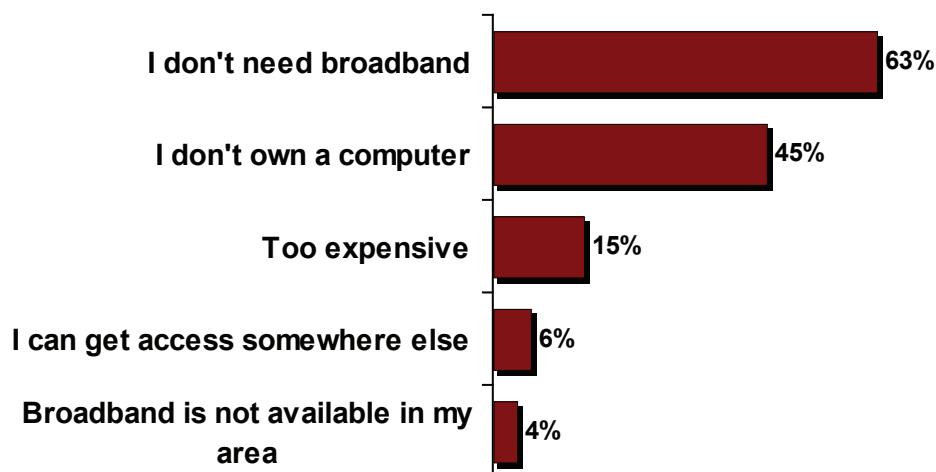
## The Elderly

Among several demographic groups, the “I don’t need it” response is not surprising. For example, among residents over age 65 who do not own a computer, nearly 8 in 10 said it is because they do not need a computer. Among those in this same demographic who do not subscribe to broadband, nearly two-thirds said they do not need broadband. (See Figures 6 and 7.)

**Figure 6: Barriers to Computer Ownership Among Adults 65 or Older**



**Figure 7: Barriers to Broadband Adoption Among Adults 65 or Older**

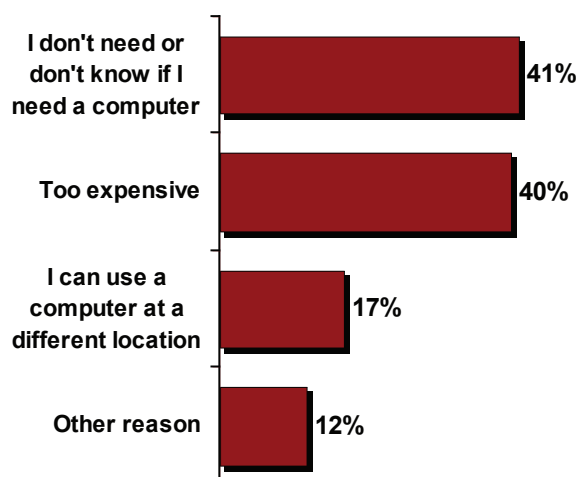




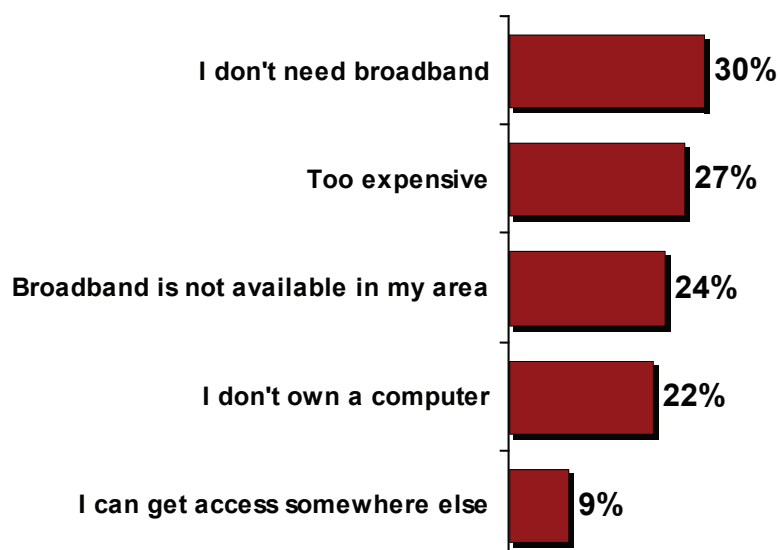
## Households with Children

The data (see Figures 8 and 9 below) show that presence of children in the home is an important driver for demand of both computers and broadband services. In other words, parents are more aware than the general population of the value of being connected to the Internet with an always-on broadband connection. Still, 38% of households with children and 68% of low-income households with children do not subscribe to broadband. Among these non-adopters, expense is reported to be a key barrier. Indeed, four out of ten parents who do not own a computer say a computer is too expensive and more than one-quarter of parents without a home broadband connection say broadband is too expensive. Similarly, supply is an obstacle with these parents — nearly one-quarter say that they do not have a home broadband connection because service is not available at their residence. However, the largest barrier to adoption, even among these parents with children, is a lack of awareness about the benefits of technology. Forty-one percent of parents without a computer said they don't need a computer, even with children at home. And just as remarkably, "I don't need broadband" is the top reason why parents do not subscribe.

**Figure 8: Barriers to Computer Ownership Among Households With Children**

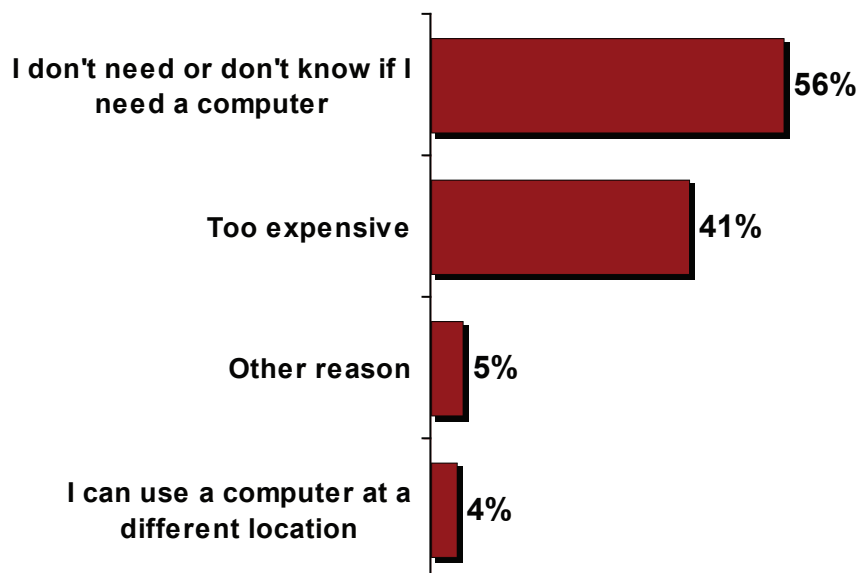


**Figure 9: Barriers to Broadband Adoption Among Households With Children**

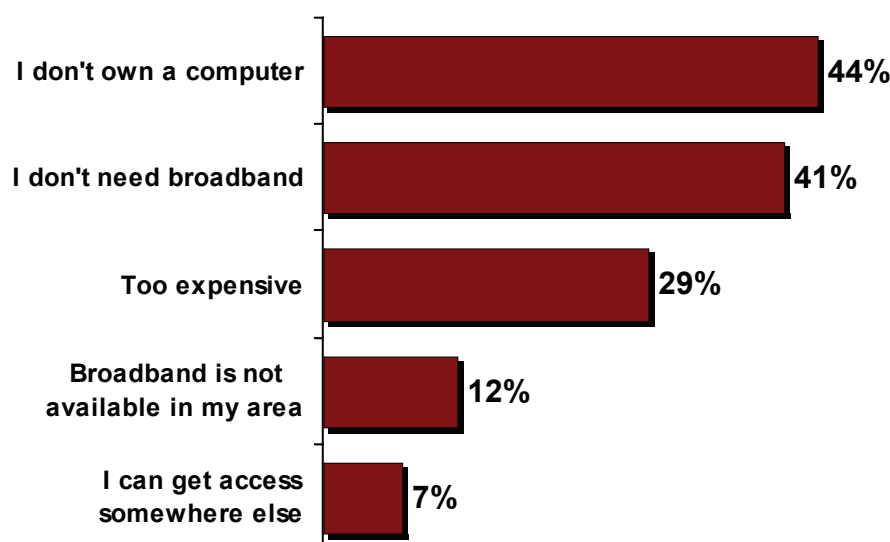


Similarly, people with disabilities are another group with unexpected results. Despite the increased value of technology for people with disabilities, perceived lack of need is again the top barrier to adoption. Well over one-half of disabled residents without a computer at home say they don't need one, and close to half of those without broadband say they don't need it. By contrast, only 12% of disabled residents who do not subscribe to broadband say it is because broadband services are not available where they live. Although expense is not as great a barrier as lack of awareness, expense is a key hurdle among people with disabilities, particularly among disabled residents who do not own a computer. (See Figures 10 and 11.)

**Figure 10: Barriers to Computer Ownership Among People With Disabilities**



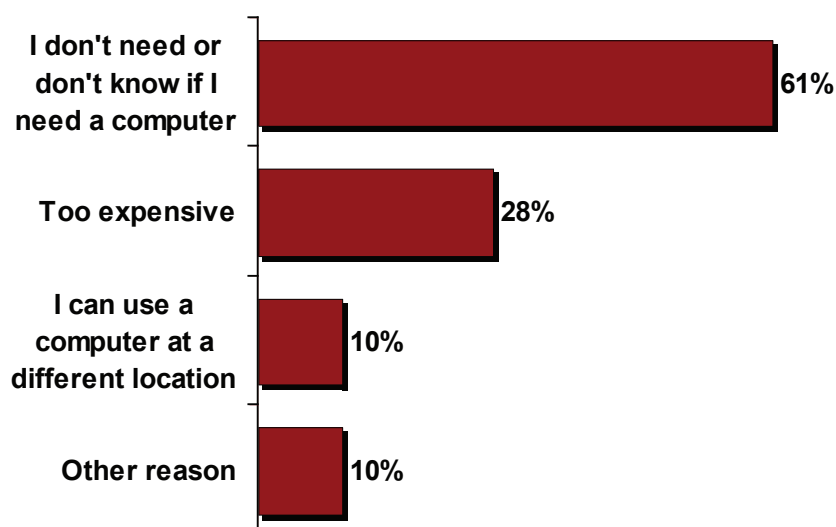
**Figure 11: Barriers to Broadband Adoption Among People With Disabilities**



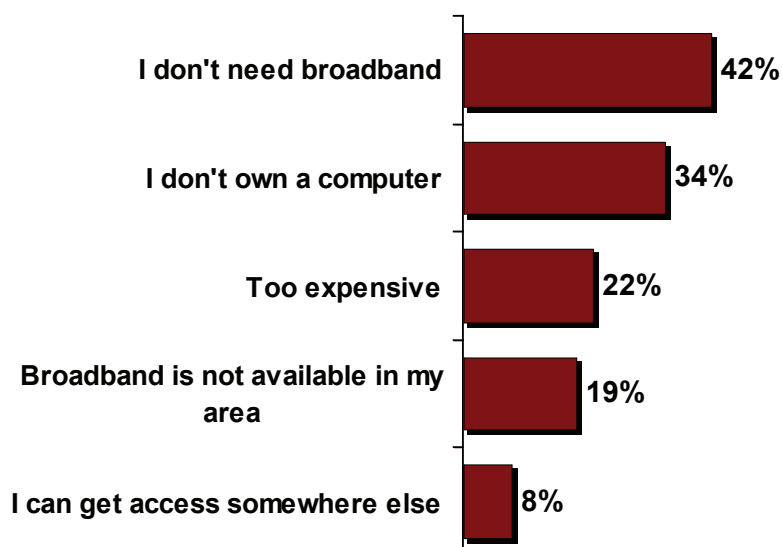
## Rural Households

In rural areas, one might expect lack of broadband availability — in other words, the supply side of the problem — to be the top barrier to broadband adoption. Yet, only 19% of rural residents who do not subscribe to broadband service say it is because broadband is not available at their home. As with other low adoption groups, perceived lack of need is the overwhelming barrier to adoption among rural dwellers. Forty-two percent of rural residents without broadband at home say they don't subscribe because they don't need it, and 34% of these residents report lack of a computer as the reason they don't subscribe to broadband. By contrast, only 22% report the service being too expensive and 8% say they have access to a broadband connection elsewhere. (See Figures 12 and 13.) Interestingly, the barriers to adoption among rural residents are similar to the barriers among residents in urban and suburban areas. Regardless of geography, lack of awareness is the overriding barrier to computer ownership and broadband adoption.

**Figure 12: Barriers to Computer Ownership Among Rural Residents**



**Figure 13: Barriers to Broadband Adoption Among Rural Residents**



## VI. Conclusion

The data suggests that the Broadband Data Improvement Act (S. 1492) is a relevant response to America's challenge in closing the digital divide. It calls for local and tactical data collection regarding availability and use of broadband. It also calls for local demand stimulation programs to reduce the awareness gaps that the data demonstrates stands in the way of adoption.

Connected Nation is committed to providing dependable intelligence that will help the U.S. Congress and policy makers fully and constructively implement the programs as set out in the Broadband Data Improvement Act.

Thus far, it is clear that while traditional assumptions sometimes apply, the reality of the broadband landscape at the grassroots level is often unexpected. And, unexpected realities often require creative solutions. Congress is then to be applauded for their creative solution in the passage of S. 1492. With its passage, Congress has provided the leadership and resources to spur a relevant state and local response. It is now time for states and local communities to act in a manner that addresses their unique needs and challenges. In doing so, America's competitive vulnerability becomes America's competitive advantage.

Congress has taken specific steps to ensure that purpose-driven data will shape our nation's effectiveness. Connected Nation applauds this historic action and looks forward to working within this new broadband paradigm, rooted squarely in useful data and deliberate action.



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