Michigan Home Broadband Non-Adopters

August 2013

Despite the rapid growth of home broadband technology in the United States, many Americans still don't have broadband at home. According to the Pew Internet & American Life Project, 35% of American adults don't have broadband service at home as of December 2012.[1] This means that more than 83 million adult Americans are unable to access the many economic, social, and health benefits that are made available by home broadband service.

For most of these non-adopters, the reasons for not subscribing can be grouped into three main categories. Many believe that broadband service is not relevant to them, or they believe that they are not missing anything important by not having broadband at home. Some are not confident that they have the digital literacy skills needed to successfully navigate the Internet. For others, cost is the main reason why they do not subscribe, as the costs of available broadband service or the computer hardware are prohibitive. Overcoming all of these barriers will be necessary to close the digital divide in America.

As part of this effort, Connect Michigan conducted a random digit dial telephone survey of 1,201 adult heads of households across the state of Michigan in 2012[2] as well as a survey with 2,400 non-adopting households in 2011. Through these two surveys, Connect Michigan investigated some home broadband non-adopters by exploring their reasons for not subscribing to broadband, which populations in Michigan are less likely to subscribe to broadband, and whether Michigan residents would be willing to subscribe to broadband if the price barrier were removed.

As this study shows, not all non-adopters are the same. Connect Michigan found that many Michiganders who do not subscribe to home broadband service still recognize the value of the Internet, as evidenced by their willingness to go online from locations other than home, or by using mobile and dial-up connections at home. Differences between these non-adopters show that while some can be convinced to subscribe through price incentives, other efforts such as digital literacy training and education efforts that introduce individuals to the benefits of home broadband service are also needed.

Among the findings from this survey:

- Nearly **three out of ten** Michigan residents (**29%**) do not subscribe to broadband service at home, representing approximately 2.2 million adults in the state.

- More than **three out of ten** Michigan adults who do not subscribe to home broadband service (**31% or 665,000 adults**) still go online, but only from locales outside of their home, such as work or public computing centers at libraries and community centers.

- Among all home broadband non-adopters in Michigan, the biggest share of non-adopters (**29%**) say that the main reason they do not subscribe to home broadband service is because they do not see enough value in being connected, or they do not consider broadband relevant to their lives.

- Non-adopters who only access the Internet outside the home are the **most likely** to cite the cost of broadband or the ease of accessing the Internet at locations other than home as the main reasons why they do not subscribe at home.

- Only **one-third** (**33%**), or approximately 976,000 Michiganders who did not subscribe to home broadband service, reported that they would be willing to subscribe to broadband if it were offered at a price that they deemed "reasonable."
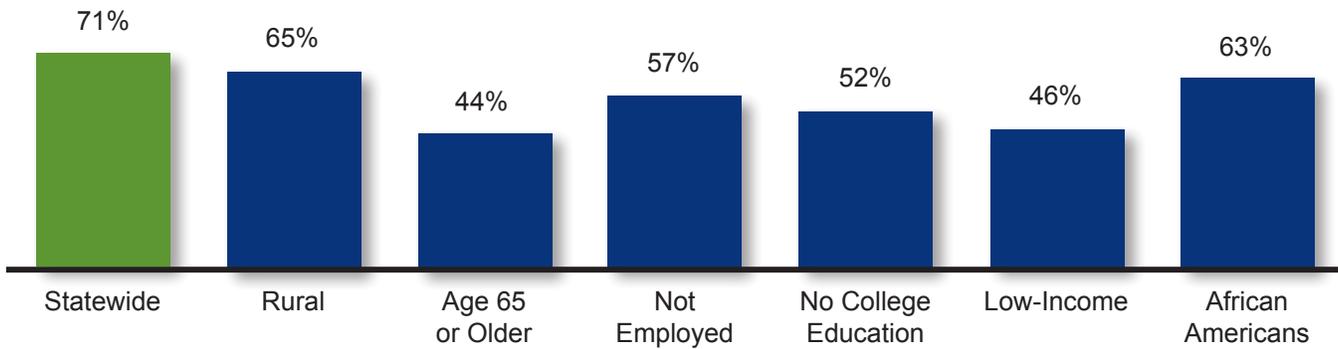
Michigan Adults Who Do Not Subscribe to Home Broadband Service

According to Connect Michigan's 2012 Residential Technology Assessment, 29% of Michigan adults do not subscribe to home broadband service, representing approximately 2.2 million adults in the state. Connect Michigan's research shows that rural residents, Michiganders age 65 or older, those who are not employed, residents with no college education, households with an annual income of less than $25,000, and African Americans in Michigan are less likely to subscribe to home broadband service (Figure 1).

1 Pew Internet American Life & Project, http://www.pewinternet.org/Trend-Data-(Adults)/Home-Broadband-Adoption.aspx
2 Connect Michigan, http://www.connectmi.org/survey-results/residential

Figure 1.
Home Broadband Adoption in Michigan

| Statewide | Rural | Age 65 or Older | Not Employed | No College Education | Low-Income | African Americans |
| 71% | 65% | 44% | 57% | 52% | 46% | 63% |

Almost one-half of Michigan adults who do not subscribe to home broadband service (47%) report that they do not use the Internet at all (Figure 2). This means that over one million Michigan adults do not use the Internet.

Figure 2.
How Michigan Home Broadband Non-adopters
Access the Internet

Only access Internet at home via dial-up or a smartphone
16%

Only access Internet outside of home
31%

Internet access at home via dial-up or a smartphone and outside of home
6%

No Internet access at home or outside of home
47%
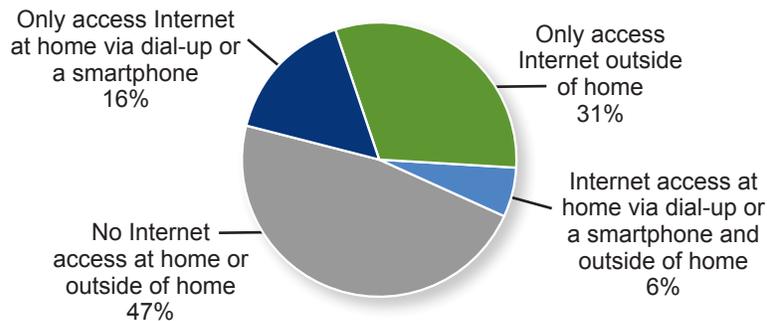
Yet many of those who do not subscribe to home broadband service still go online through other means. Nearly one in six Michigan adults who do not subscribe to home broadband service (16%, approximately 352,000 residents) still only go online from home, but use either by dial-up or a smartphone. More than three out of ten Michigan adults who do not subscribe to home broadband service (31% or 665,000 adults) still go online, but only from locales outside of their home, such as work or public computing centers at libraries and community centers. These non-adopters tend to be younger than other Michigan residents who do not subscribe to broadband at home, and are significantly more likely to have children at home, to be employed, to be minority, and have a college education. In addition, 6% of Michiganders who do not subscribe to home broadband service go online both from home (through connections other than home broadband) and use the Internet while away from home.

These findings suggest that the majority of Michigan residents who do not subscribe to home broadband service still recognize the value of being able to access the Internet, yet choose not to subscribe for other reasons. To attract these residents to be new home broadband adopters, their barriers to broadband adoption must be identified and addressed.

## Barriers to Home Broadband Adoption in Michigan

Among all Michigan residents who do not subscribe to home broadband service, the top five reasons given for not subscribing to broadband are the belief that broadband is not relevant to them (in other words, they are not convinced that it is important or beneficial to have broadband at home); the cost of broadband or the equipment needed to go online; the belief that they do not have the skills necessary to use the Internet safely and effectively; the ability to access broadband at places other than home, such as public computing centers; and a perceived lack of available broadband service where they live (Figure 3).

Figure 3.
Barriers to Home Broadband Adoption in Michigan
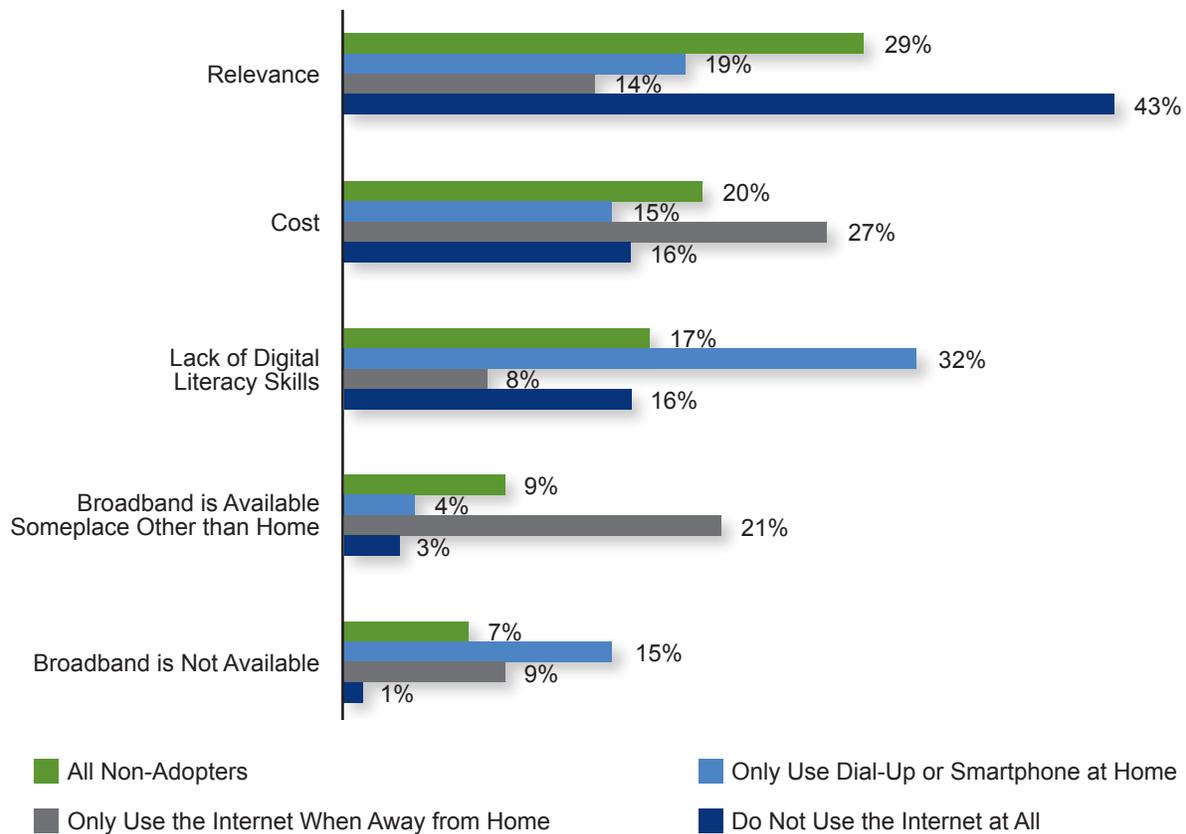
Among all home broadband non-adopters in Michigan, the biggest share of non-adopters (29%) say that the main reason they do not subscribe to home broadband service is because they do not see enough value in being connected, so they do not consider the service relevant to their lives. The monthly cost of broadband service, in addition to the cost of the computer and installation needed to get online, is cited by one in five Michigan households (20%) that do not subscribe to broadband. Nearly one in ten non-adopters (9%) cite the ability to access the Internet someplace other than home, while 7% say they do not subscribe to home broadband service because it is not available where they live.
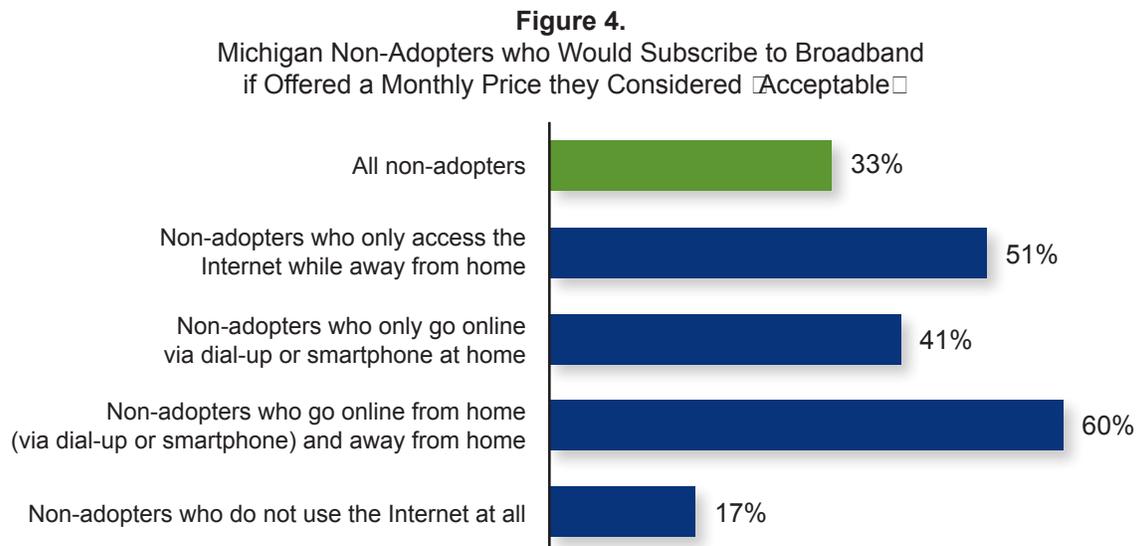
Not all non-adopters cite the same reasons, though. More than two out of five Michigan adults who do not use the Internet at all (43%) say they do not subscribe because broadband is not relevant to them. On the other hand, non-adopters who only access the Internet outside of home are the most likely to cite the cost of broadband or the ease of accessing the Internet at locations other than home as the main reasons why they do not subscribe at home. Non-adopters who only access the Internet at home through dial-up or on a smartphone are the most likely to say they do not subscribe to home broadband service because it is not available.

In addition, nearly one in three of these non-adopters (32%) cite a lack of digital literacy skills, suggesting that many of these Michigan adults perceive smartphones as more "user friendly" and less complicated than accessing the Internet on a traditional computer.

This is true for Patricia Johns who doesn't subscribe to home broadband because high-speed connection is not available in her area. She is a writer for the local newspaper and blog in Hastings, Michigan, and needs to go online often to upload her articles for the blog and access social networks like Facebook. Unfortunately, the submission goes through a slow, dial-up connection. Even worse, some of her e-mails with attachments cannot go through and some websites do not allow her to visit due to a lower connection speed. She hopes that the new developing technology is able to bring high-quality broadband to many rural homes in Michigan, and thinks "The limits of what is available in rural areas does have a growing impact on residents living in those areas."

Price Sensitivity among Michigan Home Broadband Non-Adopters

In 2011, Connect Michigan conducted a survey to identify the reasons that bar many Michiganders from subscribing to broadband. Only one-third (33%) or approximately 976,000 Michiganders who did not subscribe to home broadband service reported that they would be willing to subscribe to broadband even if it were offered at a price that they deemed "reasonable." This includes 41% of non-adopters who only access the Internet at home through means other than a home broadband connection either by dial-up or a mobile connection (accounting for 185,000 Michigan residents), just over one-half of non-adopters (51%, representing approximately 383,000 non-adopters) who only access the Internet from locations outside of their homes, and 60% of non-adopters (representing 172,000 adults) who access the Internet both at home and outside of the home. By comparison, only 17% of Michigan non-adopters (accounting for 235,000 Michigan adults) who do not use the Internet at all said they would subscribe if they were offered a price that they considerable acceptable (Figure 4).[3]

Figure 4.
Michigan Non-Adopters who Would Subscribe to Broadband
if Offered a Monthly Price they Considered "Acceptable"

All non-adopters	33%
Non-adopters who only access the Internet while away from home	51%
Non-adopters who only go online via dial-up or smartphone at home	41%
Non-adopters who go online from home (via dial-up or smartphone) and away from home	60%
Non-adopters who do not use the Internet at all	17%

It should be noted that Michigan rural and minority non-adopters are more likely to be price sensitive. In fact, two out of five rural non-adopters (40%, representing 259,000 rural Michigan residents) and 39% of minority non-adopters (approximately 224,000) would subscribe if offered broadband service at a monthly cost they considered acceptable.

Conclusions

Across Michigan, approximately three out of ten households (29%, or nearly 2.2 million Michigan adults) still do not have broadband service at home. The three main barriers for these non-adopters in Michigan still remain the same: a perceived lack of relevance, the cost, and the need for digital literacy training. However, not all non-adopters face the same issues. For those who rely exclusively on smartphones or a dial-up connection from home, a lack of digital literacy skills is the main barrier, while others do not go online at all because they do not perceive the value of an Internet connection in their lives. Yet cost is not a determining factor for every Michigander, since only one in three non-adopters report being willing to subscribe to broadband, even if cost were not an issue.

These barriers all must be addressed to close the digital divide in Michigan. While expanding access to affordable high-speed networks is important, it is also vital to ensure that Michigan residents have the digital skills they need to go online and are taught how to use the numerous online tools that can improve the quality of their lives. These types of training will help increase the value of home broadband service for all residents, making it more likely that a larger share of Michiganders will subscribe to broadband service at home.

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3 Source: Connect Michigan 2011 Residential Non-Adopters Survey

Methodology

Between October 4 and November 4, 2012, Connect Michigan conducted a random digit dial telephone survey of 1,201 adult heads of households across the state. Phone numbers were chosen randomly, with area codes and telephone prefixes determined by geography per the North America Numbering Plan (NANP), with the last four digits of the telephone numbers randomly selected. Of the 1,201 respondents randomly contacted statewide, 200 were called on their cellular phones, and 1,001 were contacted via landline telephone. Once the respondent agreed to participate, these surveys took approximately 11 minutes to complete.

Multiple attempts were made to reach an adult at each working telephone number on different days of the week and at different times of the day to increase the likelihood of contacting a potential respondent. To ensure that the sample was representative of the state's adult population, quotas were set by age, gender, and county of residence (rural or non-rural), and the results were weighted to coincide with 2010 United States Census population figures. Random sampling, with the inclusion of quotas to reduce bias, were chosen as the most efficient and cost effective method of identifying respondents.

For the purpose of setting quotas and weighting, "rural" respondents are defined as living in a county that is not a part of a Metropolitan Statistical Area (MSA), as designated by the United States Office of Management and Budget. Surveys were conducted by Thoroughbred Research Group, located in Louisville, KY, in English. The effective post-weighting margin of error = ± 3.07% at a 95% level of confidence for the statewide sample. As with any survey, question wording and the practical challenges of data collection may introduce an element of error or bias that is not reflected in this margin of error, and margins of error for sub-sectors of the population will be higher, based on differences in sample sizes.

In addition, Connect Michigan surveyed a total of 2,400 adult heads of households in 2011 who do not subscribe to home broadband service (including 194 adults who were contacted on a cell phone) to explore barriers to broadband adoption and measure these adults' willingness to subscribe at different prices. Once respondents agreed to participate, these surveys took approximately seven (7) minutes to complete. This sample was also weighted by age, gender, and county of residence using a rim weighting process to account for minor variances between the sample and the population of non-adopters, as identified through the residential survey. At a 95% level of confidence, this sample provides a margin of error of ± 2.45% among all residents who do not subscribe to home broadband service.

Rim weighting was applied to correct for minor variations and ensure that the sample matches the most recent U.S. Census estimates of the state's population by age, gender, and urban/rural classification of the respondent's county of residence. Weighting and research consultation were provided by Lucidity Research, LLC. These surveys were also subsequently peer reviewed by an expert from Michigan State University.

These residential surveys were conducted as part of the State Broadband Initiative (SBI) grant program, funded by the National Telecommunications and Information Administration (NTIA). The SBI grant program was created by the Broadband Data Improvement Act (BDIA), unanimously passed by Congress in 2008 and funded by the American Recovery and Reinvestment Act (ARRA) in 2009.

Definitions

Technology Adoption Definition

1. Broadband adopters are defined as respondents who answered "yes" when asked "Do you subscribe to the Internet at home?" and answered "broadband or high speed Internet service" when asked "Which of the following describe the type of Internet service you have at home?"
2. Non-adopters with Internet access only at home are defined as home broadband non-adopters who answered "yes" when asked "Do you subscribe to the Internet at home?" and answered "No" or "Don't know/refused" when asked "Do you use the Internet from any locations outside of your own home?"
3. Non-adopters with Internet access only outside of the home are defined as home broadband non-adopters who answered "yes" when asked "Do you use the Internet from any locations outside of your own home?" and answered "No" or "Don't know/refused" when asked "Do you subscribe to the Internet at home?"
4. Non-adopters with Internet access at home and outside of the home are defined as home broadband non-adopters who answered "yes" when asked "Do you use the Internet from any locations outside of your own home?" and answered "yes" when asked "Do you subscribe to the Internet at home?"
5. Non-Internet users are defined as respondents who answered "No or Don't know/refused" when asked "Do you subscribe to the Internet at home?" and answered "No" or "Don't know/refused" when asked "Do you use the Internet from any locations outside of your own home?"

APPENDIX A:

Select Sample Sizes

Connect Michigan's 2012 Residential Survey

Groups	Sample Size n=
Total respondents	1,201
Home broadband adopters	855
Home broadband non-adopters	346
Home broadband non-adopters who only access Internet at home via connections other than broadband service	59
Home broadband non-adopters who only access Internet outside of home	94
Home broadband non-adopters with no Internet access either at home or outside of home	172

Connect Michigan's 2011 Residential Non-Adopter Survey

	Sample Size n=
Home broadband non-adopters	2,400
Home broadband non-adopters who only access the Internet at home via connections other than broadband service	396
Home broadband non-adopters who only access Internet outside of home	413
Home broadband non-adopters with access to Internet at home via connections other than broadband service and outside of home	215
Home broadband non-adopters with no Internet access either at home or outside of home	1,376