



# Connect Ohio<sup>®</sup> Technology Assessment

## Executive Summary

June 2009

## Key Findings: June 2009

- **Across Ohio, 95% of households have available broadband service. This figure is up from 92% one year ago.**
- **Residential computer ownership in Ohio grew to 79% in the past year since Connect Ohio's inception, an increase of 4%. This growth compares to a 1% estimated national increase in computer use.**
- **In Ohio, 75% of adults report that they subscribe to home Internet service. This figure compares to 72% nationally.**
- **Ohio residential broadband subscribers report an average download speed of 4.1 Mbps, up from 2.1 Mbps in 2008.**
- **The top barrier to broadband adoption continues to be the perception that broadband is not necessary, followed closely by the lack of a home computer.**

## Key Findings: June 2009

- **75% of Ohio businesses report regular computer use, compared to 82% in 2008. This disparity likely reflects the difficult economic times experienced statewide in the past year, with Ohio's quickly growing unemployment rates and declines in several leading economic indicators.**
- **Broadband growth among all Ohio businesses remained unchanged at 59% over the past year. Among computer-using businesses, however, there was an 8% increase in broadband adoption.**
- **Average download speeds among businesses that knew their approximate bandwidth increased over the past year from 2.8 Mbps to 4.7 Mbps.**
- **The lack of a computer continues to be the top barrier to broadband adoption among Ohio businesses, followed by the perception that broadband is not necessary or valuable.**

## Key Findings: June 2009

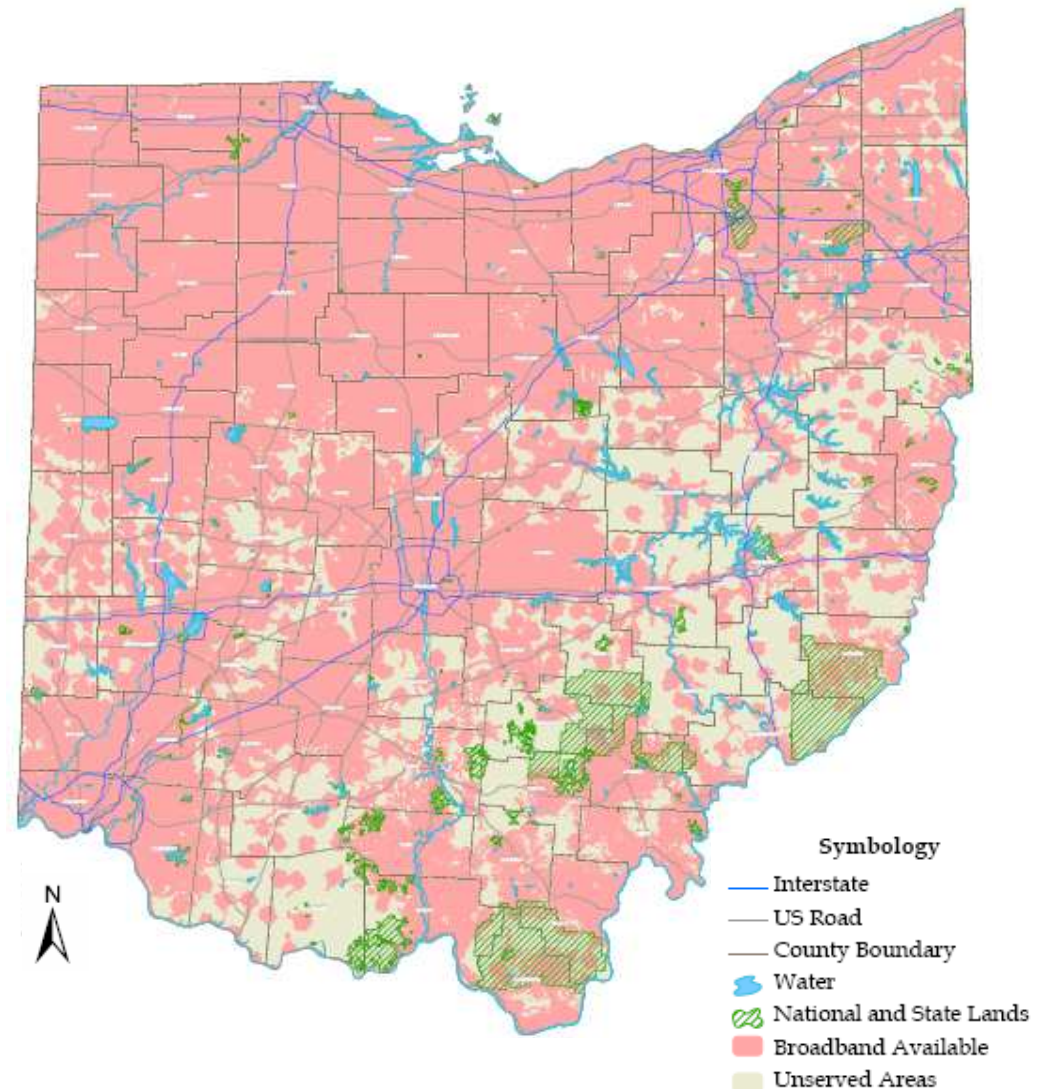
- **Despite the difficult economic times over the past year, the median revenue among broadband-connected businesses grew twice as fast as those that do not use broadband.**
- **Statewide, 15% of employed Ohio adults use their Internet connection to work from home instead of commuting to an office, while an additional 30% say they do not currently telework, but would be willing to do so if their employers allowed it.**
- **Nearly one-fifth of all Ohio businesses allow their employees to work from home. Teleworking is most prevalent in the High Tech industry sector, where nearly one-half (45%) of Ohio businesses allow employees to telework.**

# Ohio Broadband Availability

**Across Ohio, 95% of households have available broadband service. This figure is up from 92% one year ago, representing 154,292 Ohio households that have acquired broadband availability in the past year.\***

\*Source: 2009 Q2 Connect Ohio® Statewide Broadband Inventory Map. The representations contained herein are for informational purposes only. Best efforts are undertaken to insure the correctness and accuracy of this information. However, all warranties regarding the accuracy of this map and any representation or inferences derived therefrom are hereby expressly disclaimed. Connect Ohio® and its partners neither assume nor accept any liability for the accuracy of these data. Those relying upon this information assume the risk of loss exclusively for any potential inaccuracy. All errors and omissions brought to the attention of Connect Ohio® will be promptly corrected. This map does not depict satellite broadband service.

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# Computer Ownership Among Ohio Residents

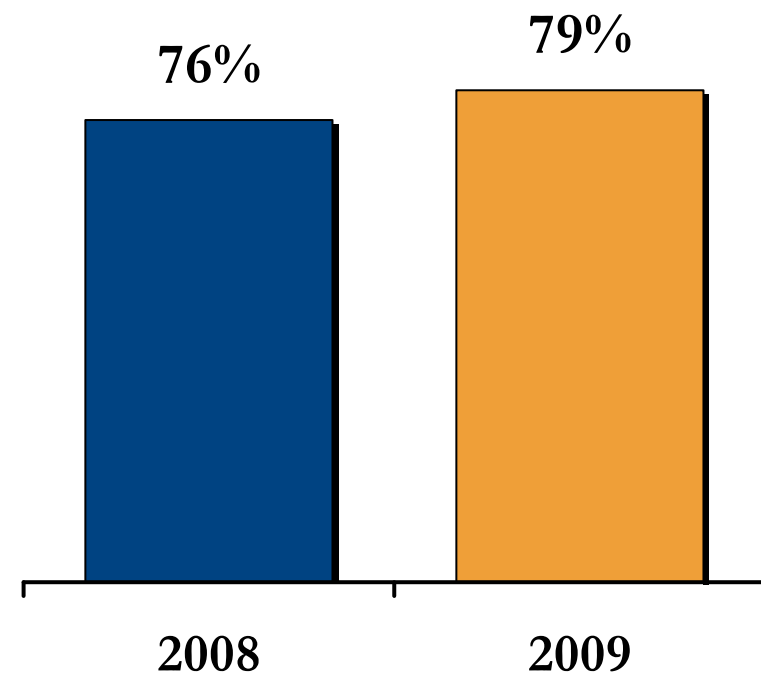
Computer ownership in Ohio grew to 79% since Connect Ohio's® inception, an increase of 4%.

By comparison, forecasts suggest that national computer use increased by only 1% during a similar time period.\*

\*National forecast calculated using double exponential smoothing to account for trends during this time period. Forecasts based on national computer use data reported by the Pew Internet and American Life Project's Usage Over Time from 2002-2008.  
[http://www.pewinternet.org/Data-Tools/Download-Data/~//media/Infographics/Trend%20Data/January%202009%20updates/UsageOverTime\\_Mar\\_11\\_2009%20-%20Read%20Only.zip](http://www.pewinternet.org/Data-Tools/Download-Data/~//media/Infographics/Trend%20Data/January%202009%20updates/UsageOverTime_Mar_11_2009%20-%20Read%20Only.zip) retrieved on June 15,2009.

Q: Do you have a computer at home?  
(n=1,200 OH residents in 2008 and  
n=1,200 OH residents in 2009)  
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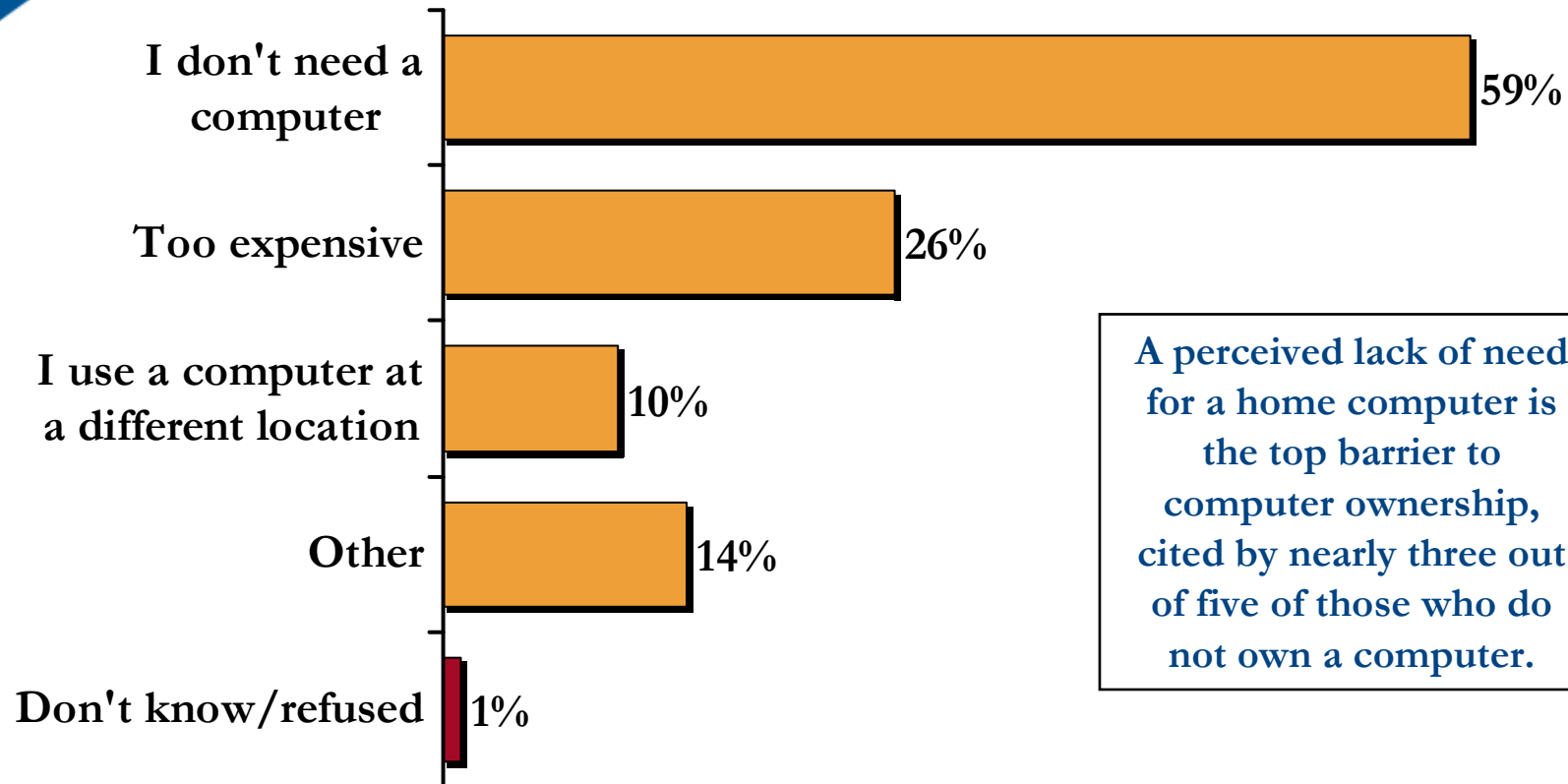
Percent of all Ohio residents who own a computer



Source: 2008 and 2009 Connect Ohio®  
Statewide Residential Technology Assessments  
[www.connectohio.org](http://www.connectohio.org)

# Barriers to Computer Ownership Among Ohio Residents

Percent of Ohio residents who do not own a computer\*



A perceived lack of need for a home computer is the top barrier to computer ownership, cited by nearly three out of five of those who do not own a computer.

\*Percentages do not add up to 100% because respondents could give multiple responses.

Q: Why don't you have a computer at home?  
(n=258 OH residents with no computer in their household)

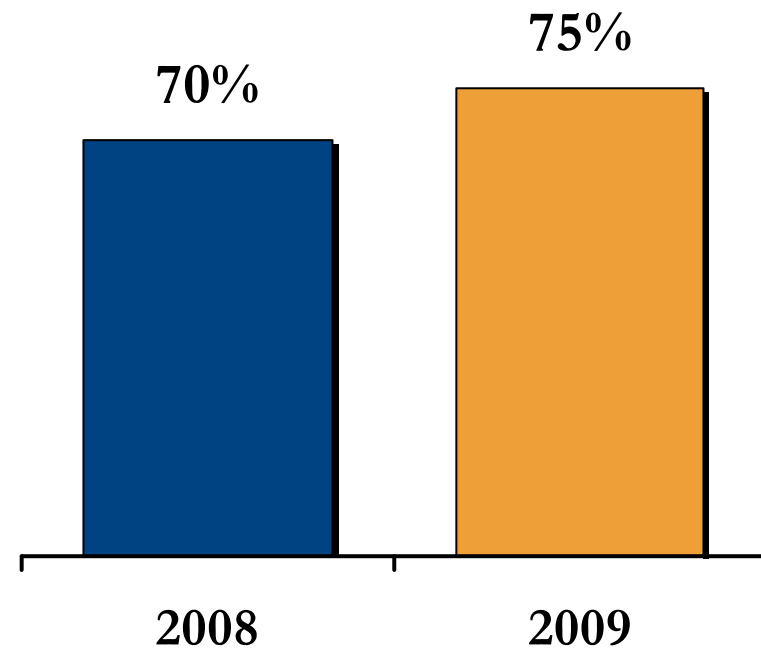
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# Ohio Residents With a Home Internet Connection (Either Dial-Up or Broadband)

Percent of all Ohio residents with either dial-up or broadband Internet service at home

Home Internet adoption across Ohio grew from 70% to 75% during the past year. This is a 7% growth over 2008.

Ohio's 75% home Internet adoption rate compares to the national average of 72% who go online from home.\*



\*Source: Horrigan, John. "Home Broadband Adoption 2009." Pew Internet and the American Life Project, released and retrieved on June 17, 2009.

<http://www.pewinternet.org/Reports/2009/10-Home-Broadband-Adoption-2009.aspx?r=1>

Q: Do you have an Internet connection at home?

(n=1,200 OH residents in 2008 and n=1,200 OH residents in 2009)

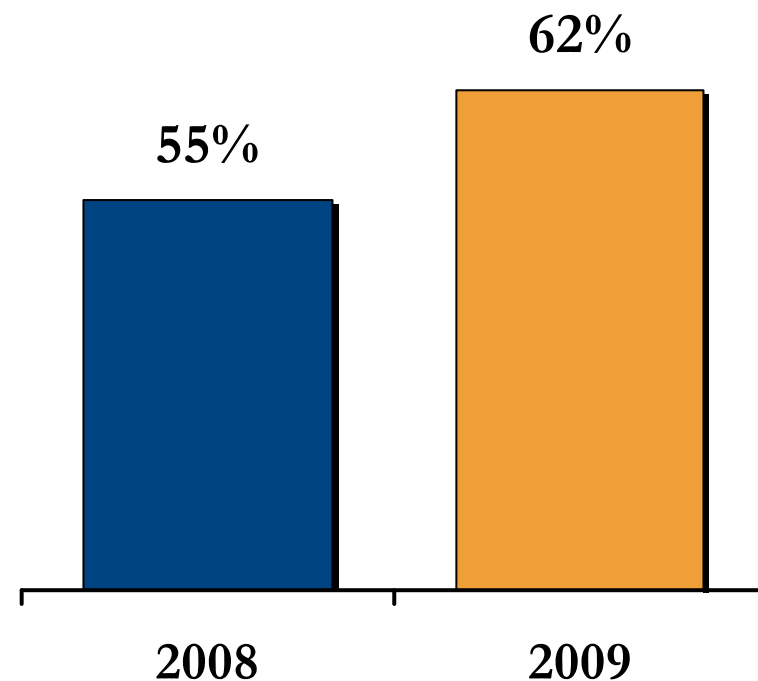
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## Ohio Residents Who Have Broadband Service at Home

In the past year, broadband adoption in Ohio grew from 55% to 62%. This is a 13% increase from 2008, comparable to a 15% growth in broadband adoption nationally.\*

Ohio's positive growth in broadband adoption is especially significant in light of the state's higher-than-average unemployment rate, which has risen faster than the national average over the past year, and stands one full percentage point higher than the rest of the nation.\*\*

Percent of all Ohio residents with  
broadband service at home



\*Source: Horrigan, John. "Home Broadband 2009." Pew Internet and the American Life Project, released and retrieved on June 17, 2009.

<http://www.pewinternet.org/Reports/2009/10-Home-Broadband-Adoption-2009.aspx?r=1>

\*\*U.S. Bureau of Labor Statistics, March 2008-March 2009 unemployment rates.

Q: Which of the following describe the type of Internet service you have at home?  
(n=1,200 OH residents in 2008 and n=1,200 OH residents in 2009) 9

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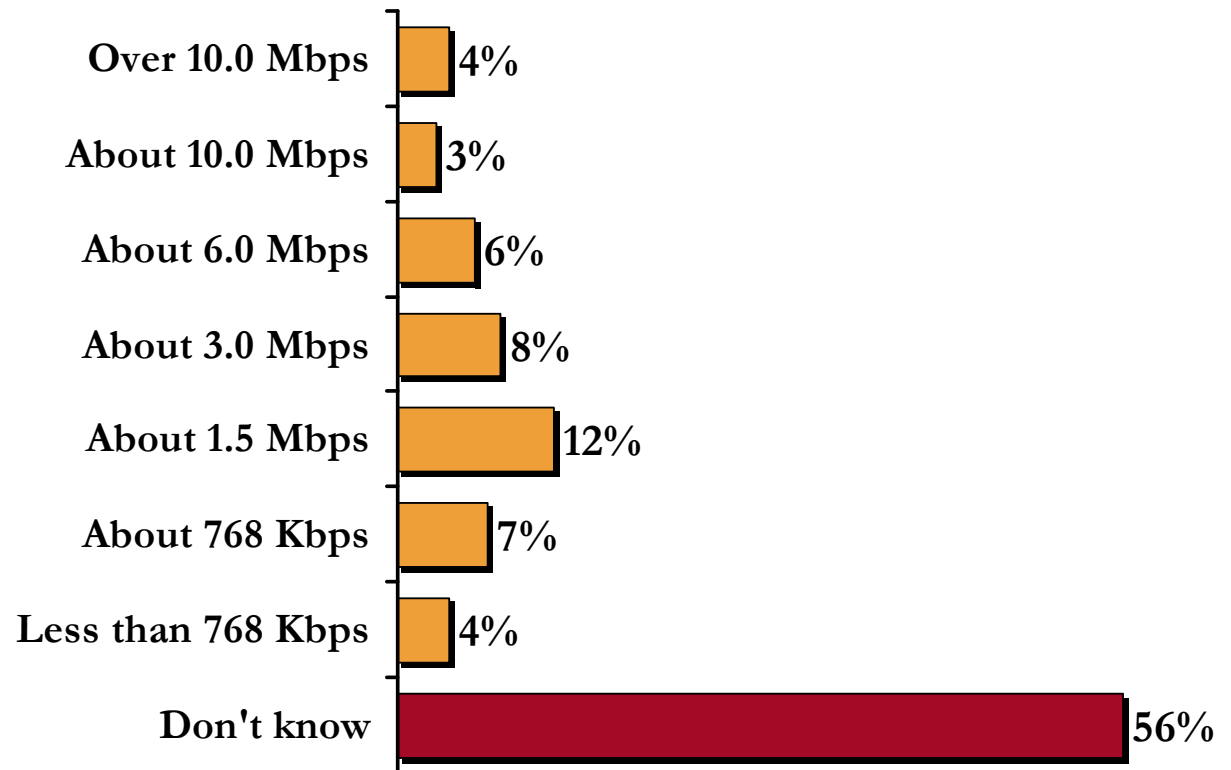
Source: 2008 and 2009 Connect Ohio®  
Statewide Residential Technology Assessments  
[www.connectohio.org](http://www.connectohio.org)

# Broadband Download Speed

Among Ohio residents with home broadband service

Statewide, 44% of residential broadband subscribers know their download speed.

The average download speed among residential broadband subscribers who know their approximate speed is 4.1 Mbps. This is up from an average of 2.1 Mbps in 2008.



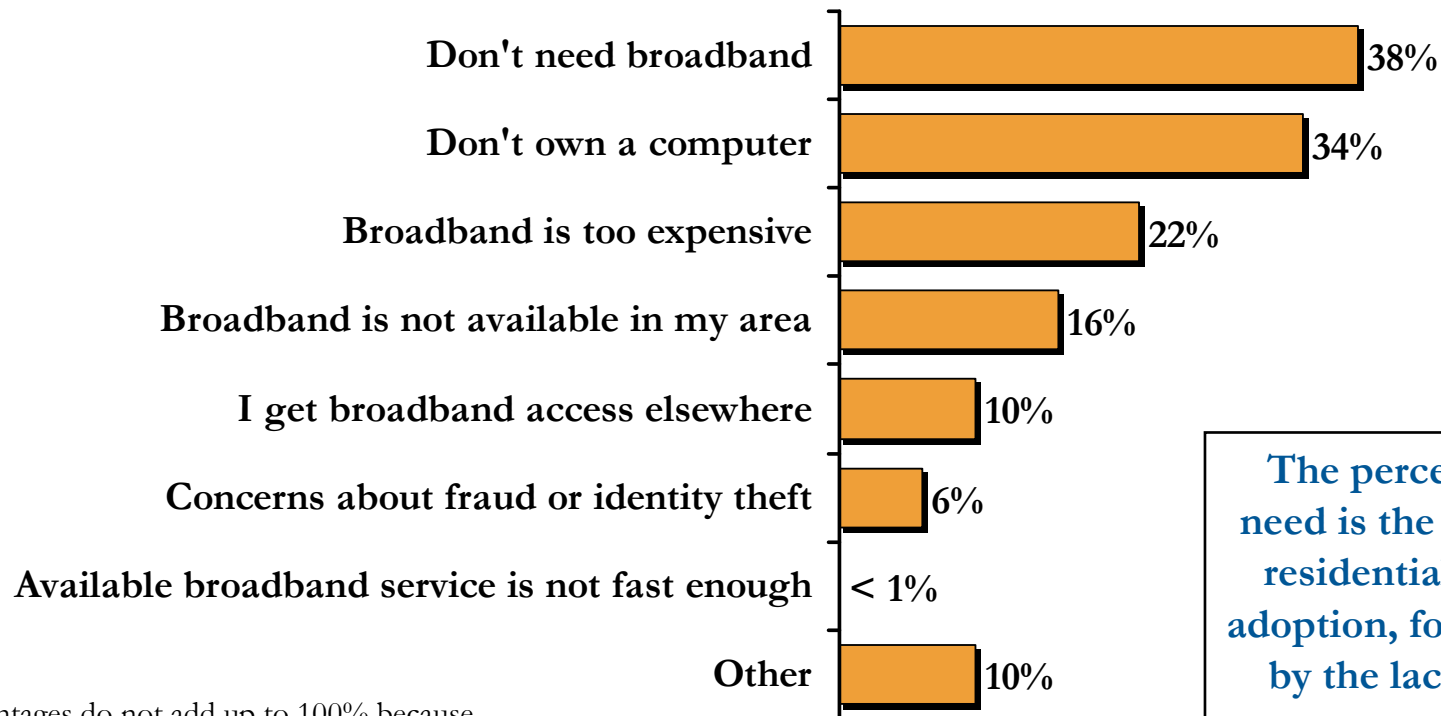
Q: What is the approximate download speed provided by your Internet service provider?

(n=733 OH broadband subscribers in 2009 and n=658 OH broadband subscribers in 2008)

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# Barriers to Broadband Adoption Among Ohio Residents

Among Ohio residents who do not subscribe to home broadband service\*



**The perceived lack of need is the top barrier to residential broadband adoption, followed closely by the lack of a home computer.**

\*Percentages do not add up to 100% because respondents could give multiple responses.

Q: Why don't you subscribe to broadband Internet service?

Or if broadband is not available:

Q: Why wouldn't you subscribe to broadband Internet service?

(n=467 OH residents with no home broadband service)

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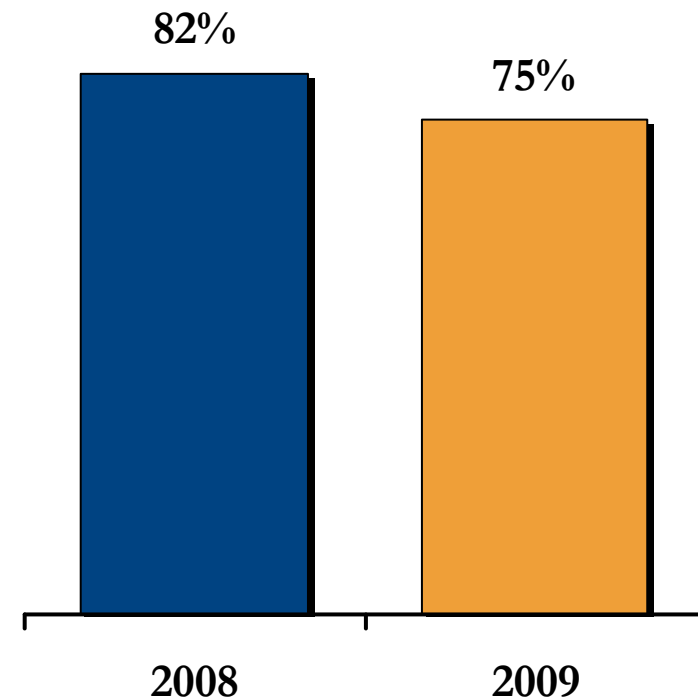
# Trends in Computer Use Among Ohio Businesses

In 2009, 75% of Ohio businesses reported that they use computers for their business functions, compared to 82% in 2008.

Ohio businesses have been hit especially hard in the economic recession. The Ohio Coincident Economic Activity Index, which measures the welfare of businesses in each state, dropped nearly twice as fast as the national average between 2008 and 2009.\*

In addition, Ohio's unemployment rate is one full percentage point higher (10.1%) and has risen faster than the national average in the last year.\*\*

Percent of all Ohio businesses



\*Federal Reserve Bank of Philadelphia's Coincident Economic Activity Index, percent change from April 2008-April 2009.

\*\* US Bureau of Labor Statistics, March 2008-March 2009 unemployment rates.

Q: Does your company use any type computer technology to handle some or all of its business functions (for example: sales, cash receipts, accounting, inventory control or management reporting)?

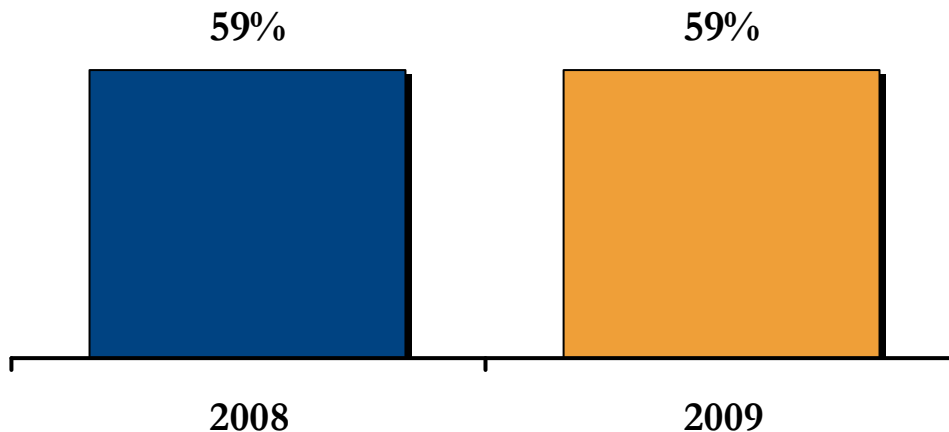
(n=807 Ohio businesses in 2008 and n=802 Ohio businesses in 2009)

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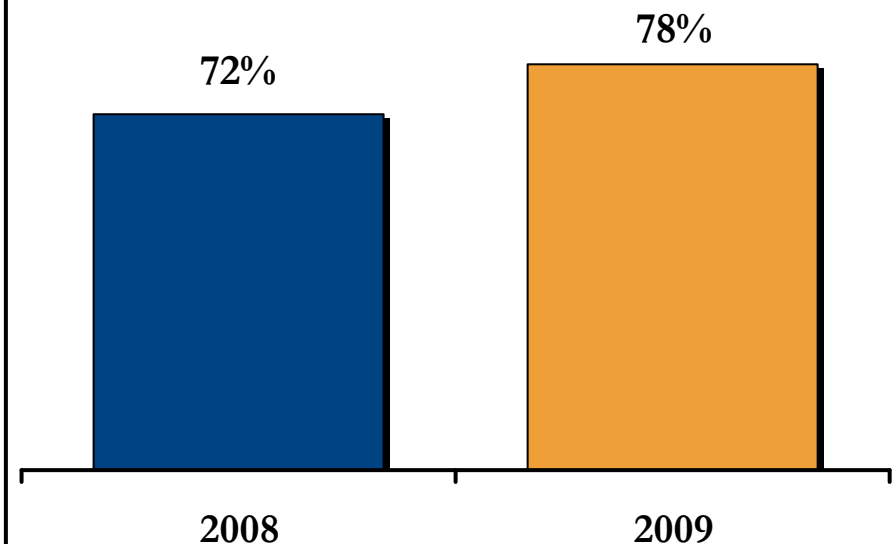
# Broadband Adoption Among Ohio Businesses

Broadband adoption among all Ohio businesses has remained unchanged since 2008; however, broadband adoption among businesses that use computers has increased by 8% in the past year.

Percent of all Ohio businesses



Percent of computer-using Ohio businesses that subscribe to broadband



Q: Which of the following describe the type of Internet access your company has?

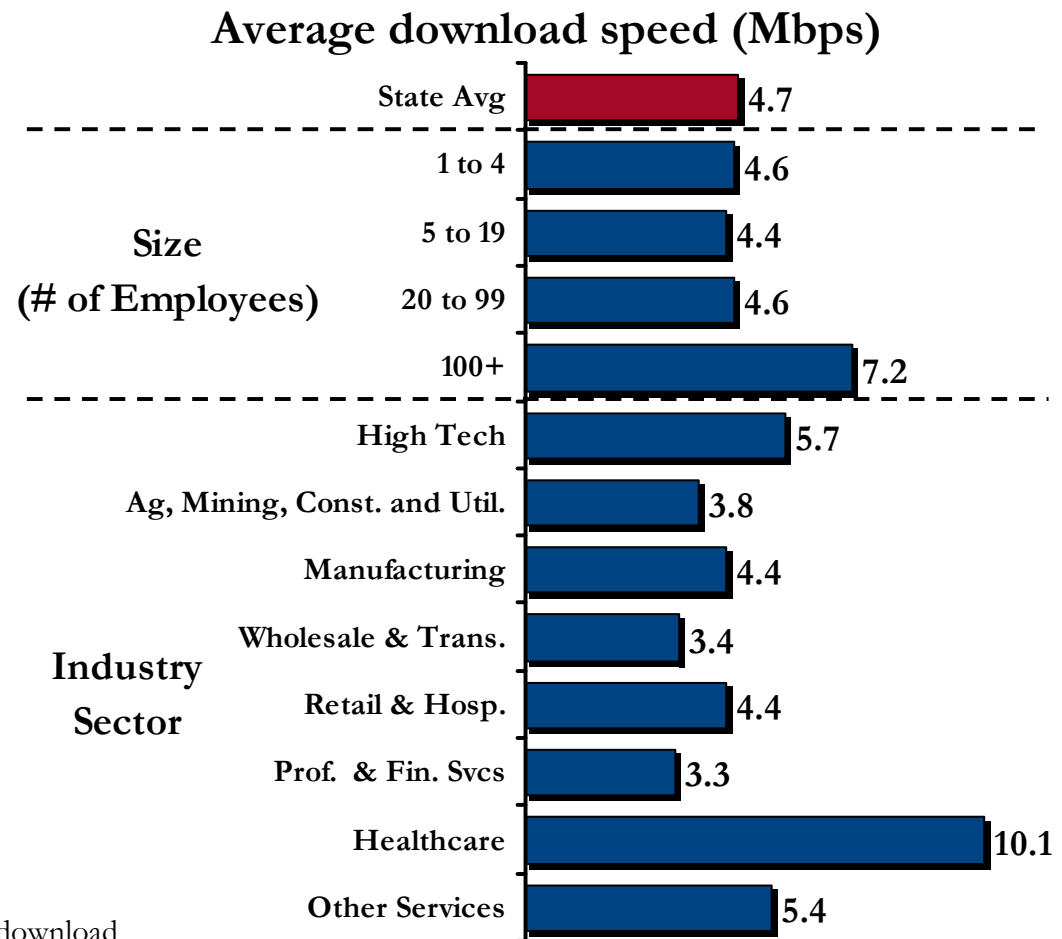
(n=807 Ohio businesses in 2008, 662 of which used computers, and n=802 Ohio businesses in 2009, 673 of which used computers)

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# Broadband Download Speeds by Size and Industry Sector

More than one-half of broadband-connected Ohio businesses do not know their current download speed or bandwidth.

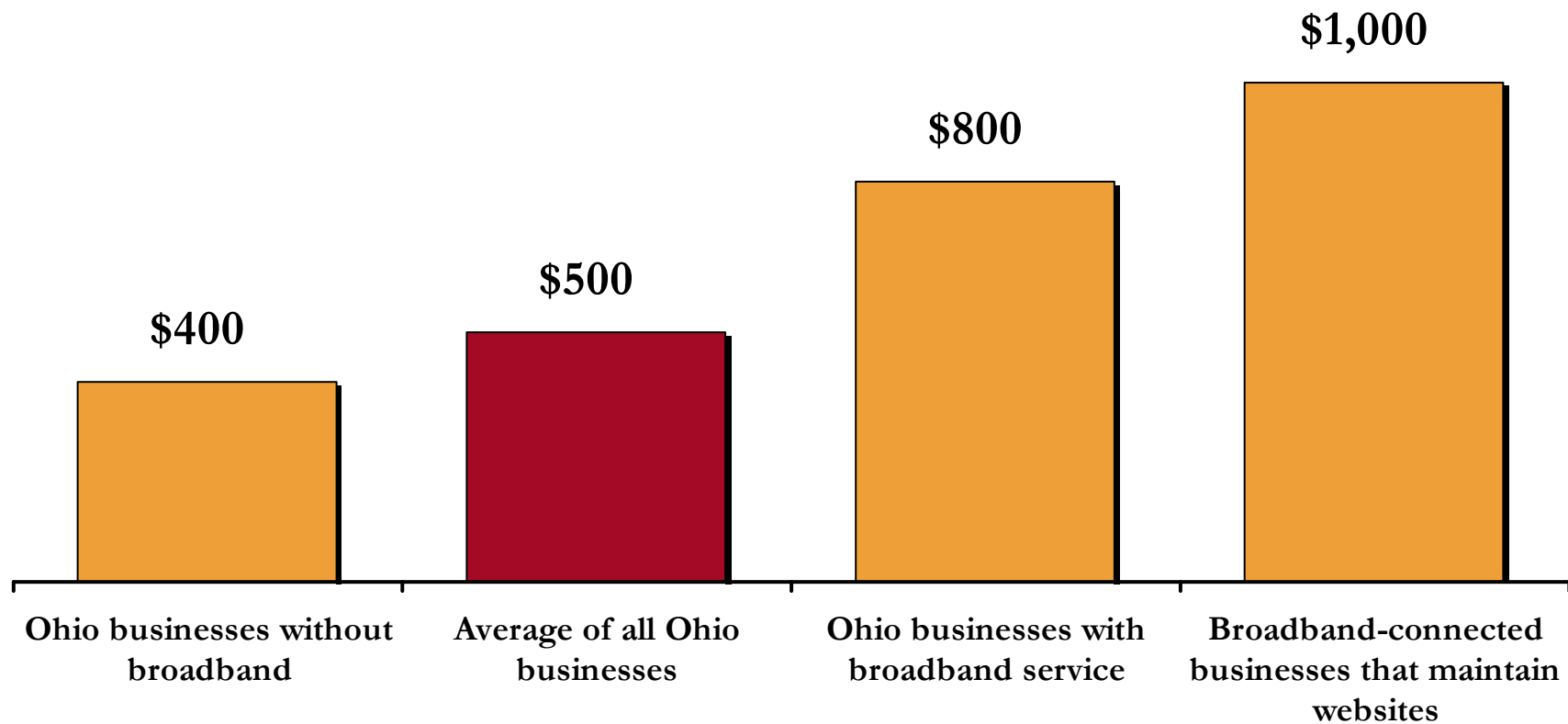
Statewide, broadband-connected Ohio businesses report an average download speed of 4.7Mbps. This is up from an average of 2.8 Mbps in 2008.



Q: To the best of your knowledge, what is the approximate download speed or bandwidth provided by your Internet service provider?  
(n=535 Ohio businesses that have broadband service)

## Broadband Adoption and Business Revenue

Median Annual Company Revenue (\$000):



Q: What is your firm's approximate average annual revenue?  
(n=802 Ohio businesses)  
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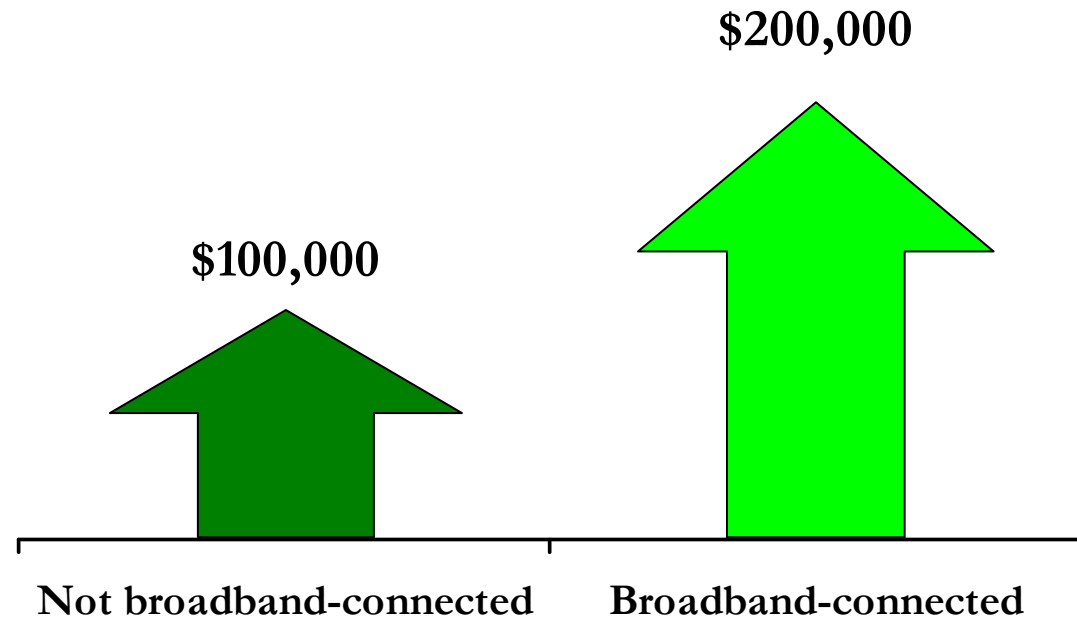
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Source: 2009 Connect Ohio<sup>®</sup>  
Business Technology Assessment  
[www.connectohio.org](http://www.connectohio.org)

## Trends in Median Revenue By Broadband Adoption

Despite the difficult economic times, the median revenue among broadband-connected businesses grew twice as fast as those that do not use broadband.

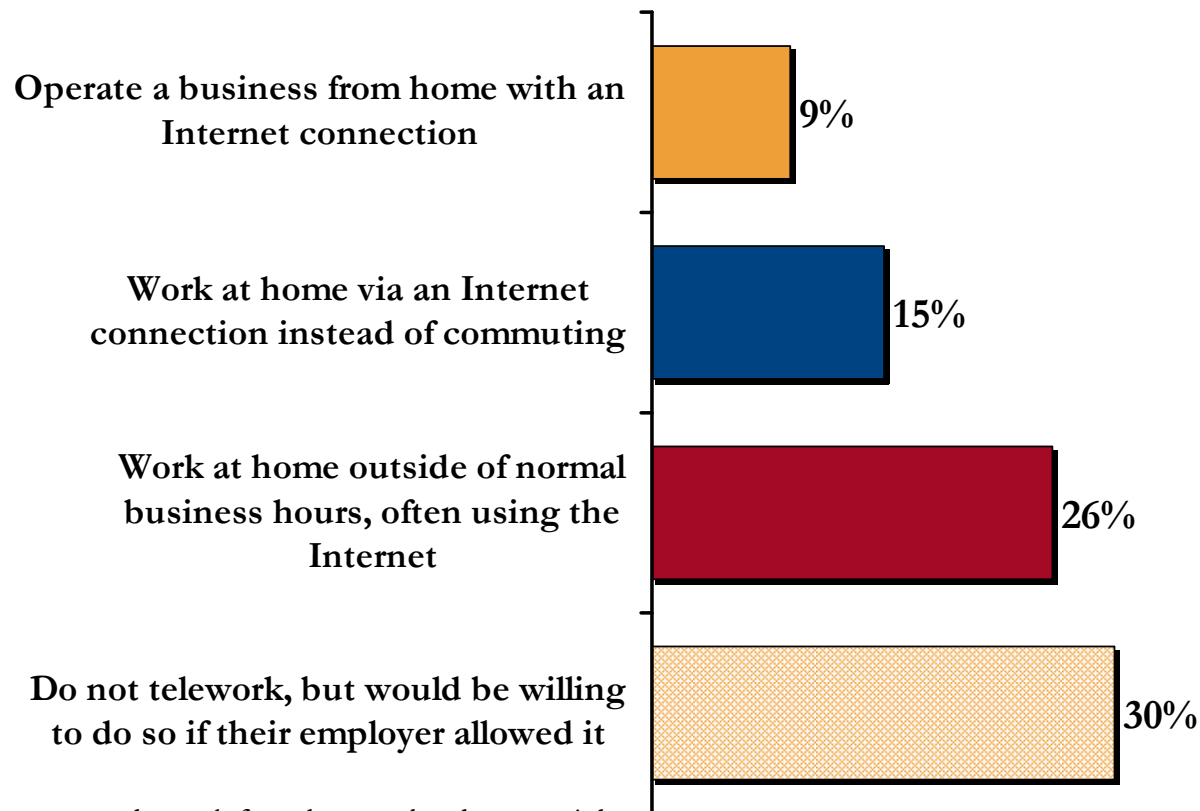
Increase in median revenue  
(2008-2009):



Q: What is your firm's approximate average annual revenue?  
(n=807 Ohio businesses in 2008 and  
n=802 Ohio businesses in 2009)  
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# Ohio Residents and Telework

Among Ohio residents employed full- or part-time



Statewide, 15% of employed Ohio adults use their Internet connection to work from home instead of commuting to an office, while an additional 30% say they do not currently telework, but would be willing to do so if their employers allowed it.

Q: Do you ever do work from home related to your job or self employment?

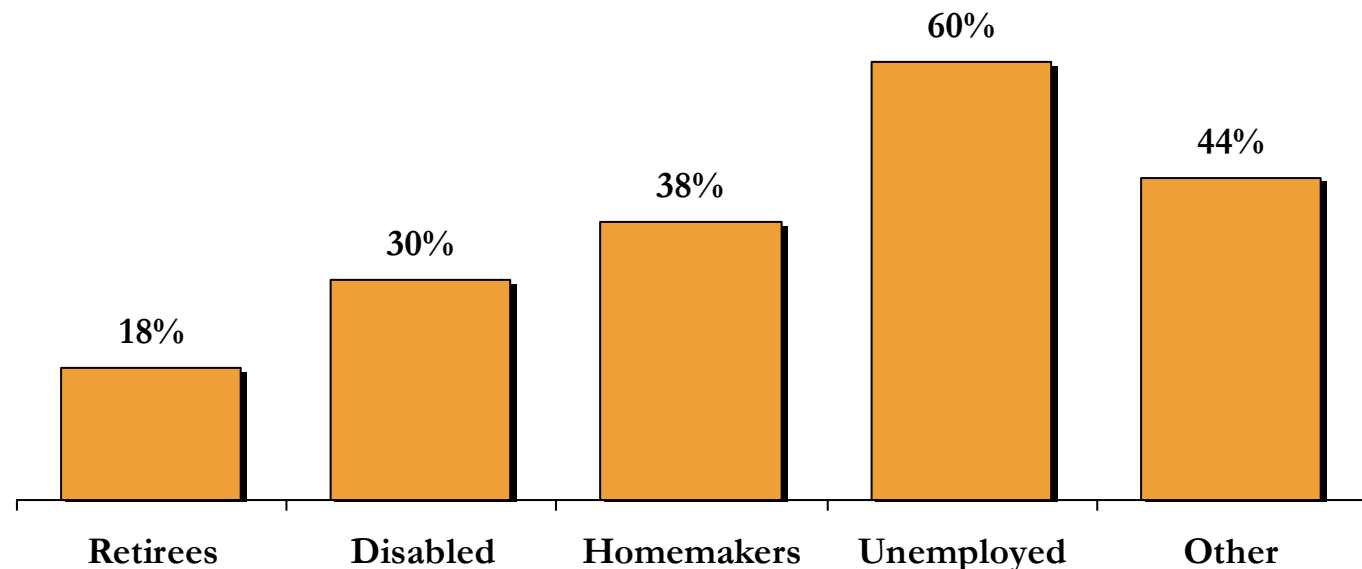
(n=688 OH residents employed full- or part-time)

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# Telework's Potential Impact on the Labor Force

Percent of Ohio adults who don't work, but would be likely to join the labor force if allowed to telework

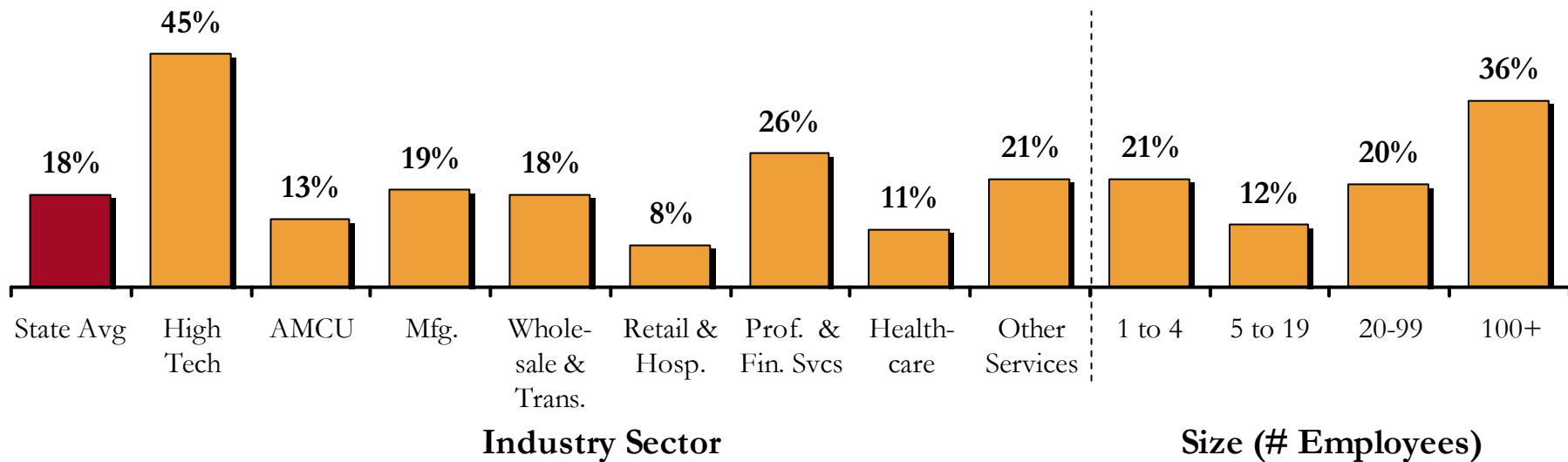
32% of all non-working Ohio adults would likely join the labor force if empowered to telework. This figure is up from 24% just one year ago.



Q: If you were able to work from home through a broadband connection - commonly known as teleworking - how likely is it that you would work outside the home? (n=512 OH residents not employed full- or part-time)  
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## Telework Among Ohio Businesses by Industry Sector and Size

Nearly one-fifth (21%) of all Ohio businesses allow their employees to work from home through an Internet connection. Telework is most prevalent within the High-Tech sector where nearly half (45%) of businesses allow employees to telework.



Q: Do any employees within your organization work from home during normal business hours on a regular basis?  
(n=802 Ohio businesses)  
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# Research Methodology

## Residential Methodology

- **Data were collected by telephone through live computer-assisted interviews from a statewide random digit dial (RDD) sample of 1,200 households contacted between April 10 and April 27, 2009. Data were collected by Thoroughbred Research Group of Louisville, Kentucky. [www.torinc.net](http://www.torinc.net)**
  - This research was designed to update the state-level benchmarks that were established by the benchmark survey completed in March 2008
- **The questionnaire screened to include only adults age 18 or older with quotas set by gender and age to ensure adequate representation of all adults in the state.**
- **Weights were 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 and gender. Weighting and research consultation were provided by Lucidity Research LLC. [www.lucidityresearch.com](http://www.lucidityresearch.com)**
- **Sampling margin of error (adjusted):**
  - Statewide, full sample (n=1,200):  $\pm 2.89\%$  at the 95% level of confidence. This sample error accounts for sample weighting, using the effective sample size.

## Business Methodology

- The Connected Ohio Business Survey interviewed 802 businesses by telephone between April 10 and April 23, 2009. Data were collected by Thoroughbred Research Group of Louisville, Kentucky. [www.torinc.net](http://www.torinc.net).
- The error interval is  $\pm 4.7\%$  at the 95% confidence level. This sample error accounts for sample weighting, using the effective sample size.
- On average, once agreeing to participate in the survey, interviews lasted 10 minutes.
- Sample quotas were established by company size (5 brackets) and industry sector (8 sectors). Within these 40 cells, Dun & Bradstreet provided a random sample of businesses selected for the survey. This approach gathers enough interviews within size and industry sub-sectors to analyze the data with confidence.
- By weighting the survey data, the total sample is made to be representative of all employer business establishments, according to the U.S. Census Bureau County Business Patterns. Weighting and research consultation were provided by Lucidity Research LLC. [www.lucidityresearch.com](http://www.lucidityresearch.com).



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