

Broadband & Business

Leveraging Technology
in Michigan to Stimulate
Economic Growth



MAY 2011

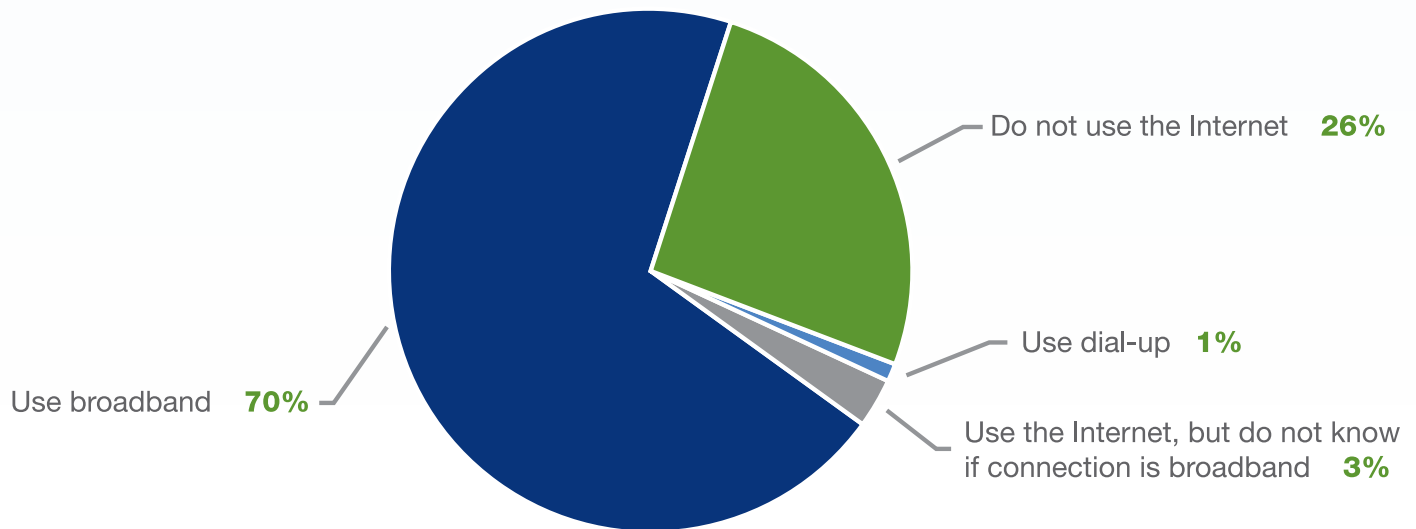
Broadband is the Engine of Economic Growth in Michigan

Broadband is a powerful, enabling technology that is fast becoming the engine of economic growth in America. Increasingly, businesses seeking to open or expand operations look to see not only whether a community has robust broadband access, but also whether potential workers have digital literacy skills and tools. The economic future of Michigan communities depends not only upon whether robust broadband infrastructure is present but also upon whether businesses and individuals fully utilize that technology to grow and develop local economies.

- **71,000 (30%)** Michigan businesses (est.) do not use broadband
- Broadband-connected businesses in Michigan bring in **\$200,000** more in median annual revenues

To better understand these relationships, Connect Michigan is studying how businesses use broadband and broadband’s impact on Michigan’s business landscape. In 2008, our research found that a seven percentage point increase in broadband utilization in Michigan could result in an annual economic boost of \$4.6 billion, including 76,000 jobs saved or created. In this report, we present the results of a telephone survey of 801 business establishments in Michigan that measured business broadband adoption, examined the use of broadband technology by those businesses, and assessed the price and quality of broadband service that Michigan businesses purchase. The results are somewhat surprising.

Technology Adoption



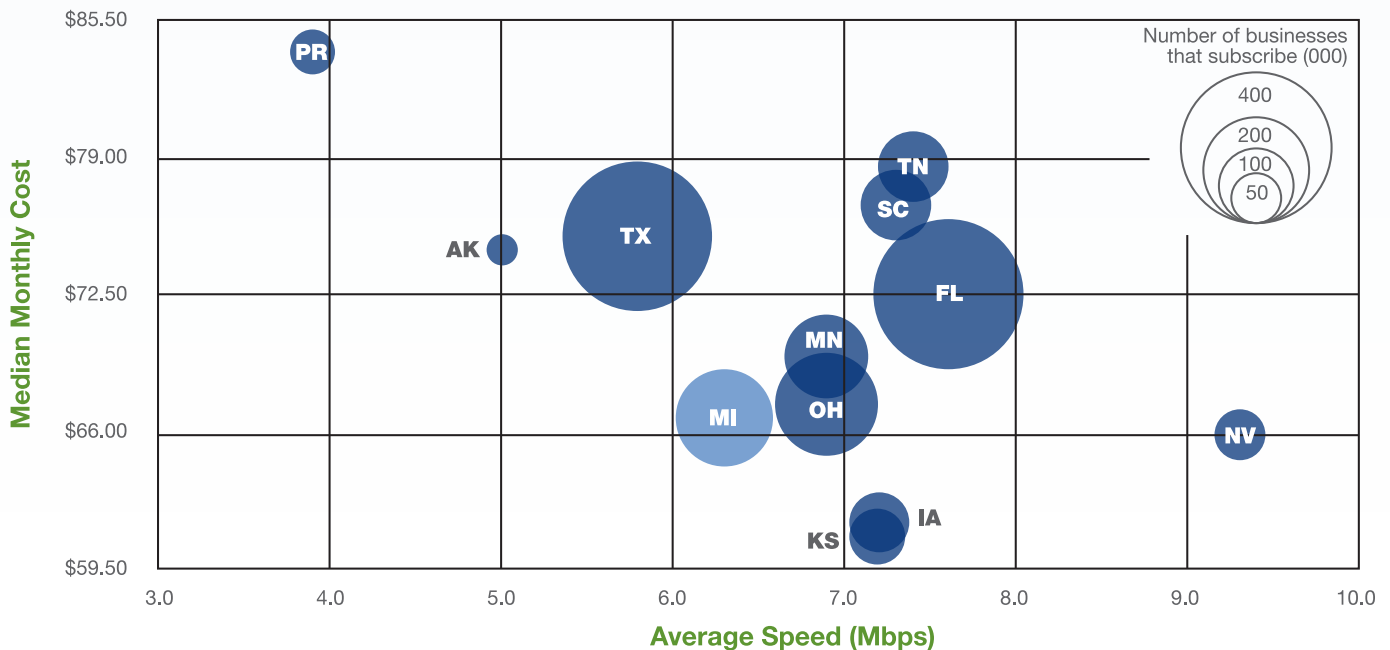
KEY FINDINGS OF THE MICHIGAN BUSINESS TECHNOLOGY ASSESSMENT

- Nearly 71,000 businesses in Michigan still do not use broadband technology
- Adoption in crucial sectors, such as Healthcare, trails even further – two out of five Michigan firms in the Healthcare industry do not subscribe to broadband
- Median annual revenues of broadband-connected Michigan businesses are \$200,000 higher than those without broadband
- Michigan businesses pay a median monthly price of \$66.75 for their broadband service. While the average monthly cost for broadband is lower than the average among all states/territories served by Connected Nation, the average download speed (6.3 Mbps) is also lower
- Approximately 56,000 Michigan businesses allow their employees to telework, reducing the cost of office space, as well as the number of miles that employees are forced to commute for work

Michigan Businesses Pay Lower Prices for Broadband

Michigan businesses have lower average speed than other states and territories served by Connected Nation, but the average price they pay is also lower.

Michigan businesses pay a median monthly price of \$66.75 for their broadband service, which is less than the median price of \$71.92 paid by all businesses in states/territories served by Connected Nation.



Michigan businesses that know their advertised download speeds report an average speed of 6.3 Mbps, compared to the average advertised download speed of 6.7 Mbps among all states and territories served by Connected Nation.



30% of Michigan Businesses Do Not Use Broadband

While seven out of ten businesses in Michigan use broadband, some sectors still lag behind in broadband adoption.

Addressing these gaps will require a concerted effort between the public and private sector. Over the next three years, Connect Michigan will be educating, engaging, and informing businesses, community anchor institutions such as schools, libraries, and healthcare centers, and community leaders about the broadband challenge facing their communities – and we will help those communities devise and implement grass-roots solutions to those challenges.

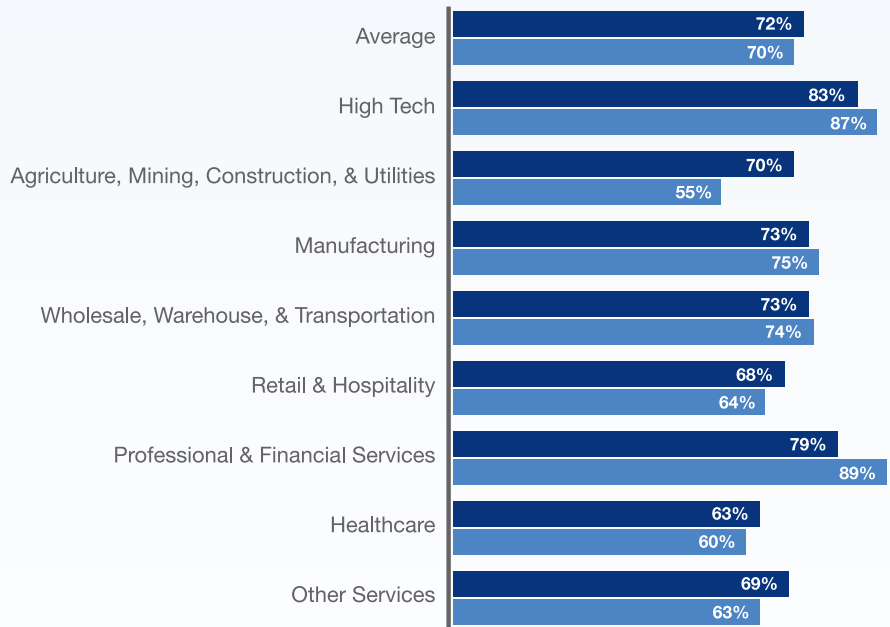
Statewide, 70% of all Michigan businesses subscribe to broadband, compared to 72% of businesses in states and territories served by Connected Nation. This means that approximately 71,000 Michigan business establishments do not use broadband or benefit from the opportunities it offers.

Businesses in the High Tech and Professional and Financial sectors lead in broadband adoption, with about 34,000 businesses in the Professional & Financial Services sector and 16,000 businesses in the High Tech sector using broadband. On the other extreme, only 55% of businesses in the Agriculture, Mining, Utilities, & Construction sector use broadband, which means about 11,000 Agriculture, Mining, Utilities, & Construction sector-related businesses do not subscribe.

Broadband adoption rates in Michigan mirror those in other Connected Nation states by size and industry sector, with no significant differences between Michigan businesses and the average for each industry sector and size bracket.

Broadband Adoption

by sector:



by business size:



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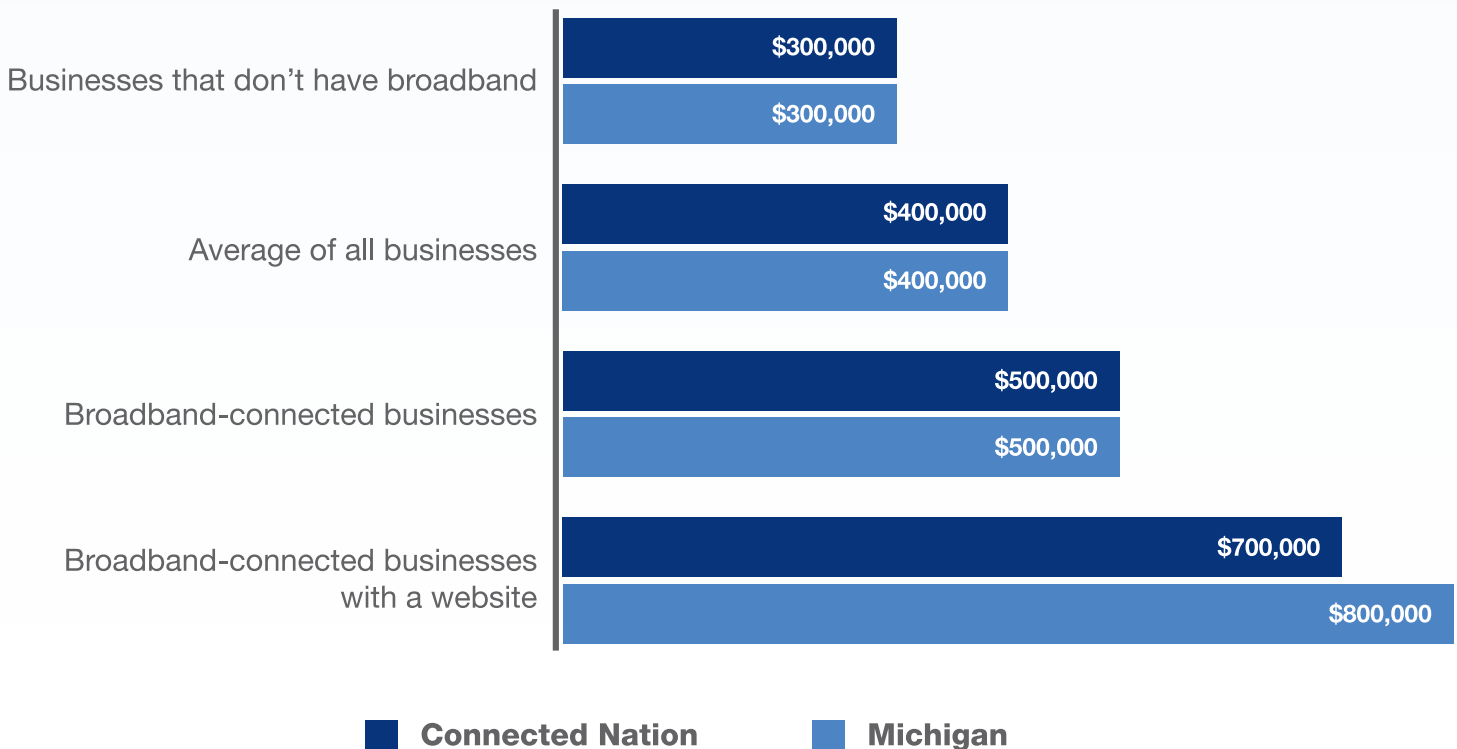


Businesses with Broadband Generate More Revenues

The impact of broadband on Michigan businesses can be seen in the difference in revenues between businesses with and without broadband, the number of businesses that increase their revenues by using the Internet, and the number of businesses that empower their employees to telework.

Michigan businesses that subscribe to broadband report median annual revenues that are \$200,000 higher than businesses that do not use broadband. In addition, Michigan businesses that subscribe to broadband and maintain a website report median annual revenues that are \$500,000 higher than businesses that do not use broadband at all. Michigan businesses that have websites report median annual revenues \$100,000 more than those reported by businesses that have websites across all of the states/territories served by Connected Nation.

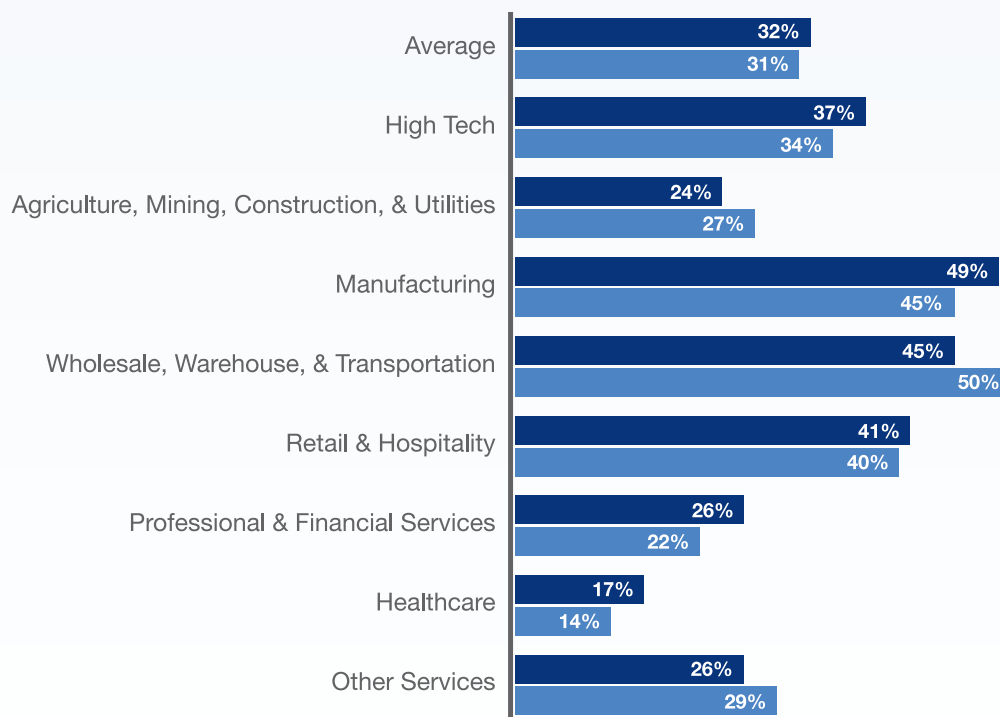
Median Annual Revenues (Self-Reported)



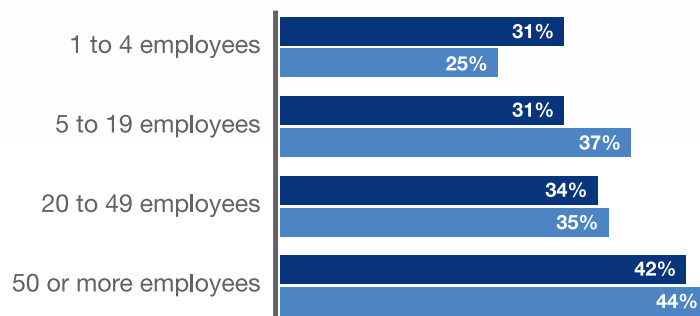
Statewide, 31% of Internet-connected businesses (approximately 55,000 statewide) report earning revenues through online sales and transactions, compared to the Connected Nation average of 32%. In Michigan, this includes 7,000 businesses in the Wholesale, Warehouse, and Transportation sector and 4,000 businesses in the Manufacturing sector.

Internet-Connected Businesses That Earn Revenues From Online Transactions

by sector:



by business size:



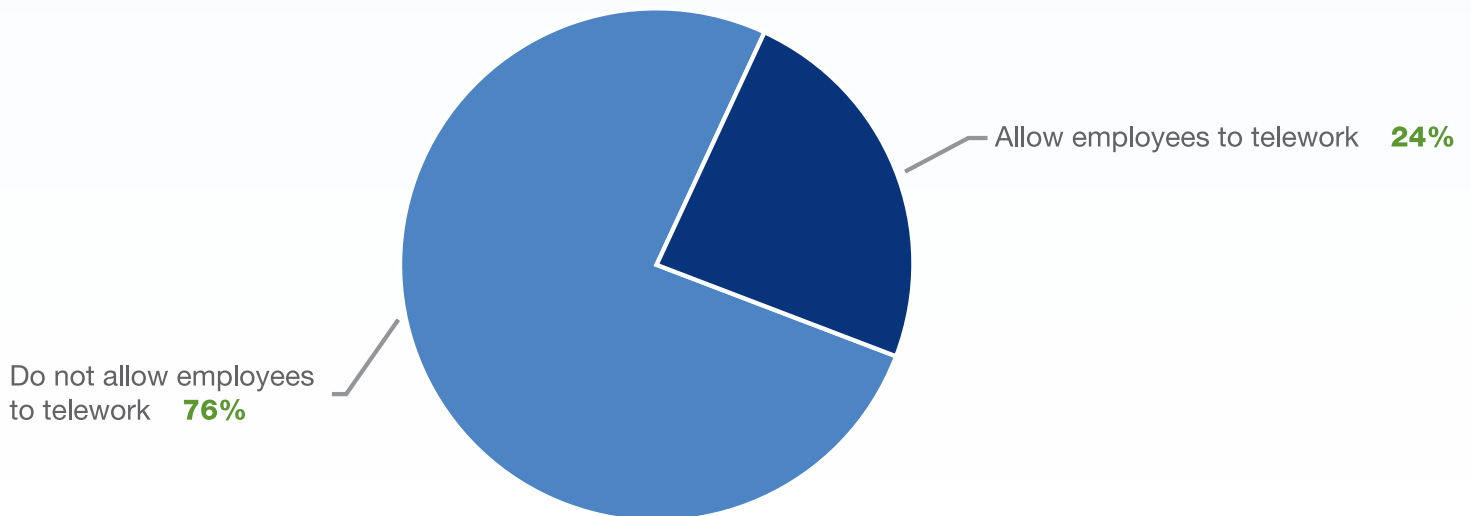
■ Connected Nation ■ Michigan

Michigan Businesses Use Broadband in Unique Ways

Michigan businesses use technology in ways that make the state stand out from the crowd and highlight ways that the state's unique character has influenced its workforce. For example:

- While broadband-connected businesses tend to earn higher median annual revenues than their peers that do not subscribe, this difference is most pronounced among urban businesses. Urban Michigan businesses with broadband have median annual incomes that are approximately \$500,000 greater than their peers without broadband.
- Internet-connected Michigan businesses in the Healthcare sector use videoconferencing to communicate with others more often than any other state or territory served by Connected Nation.
- Six out of ten Internet-connected businesses in the Agriculture, Mining, Construction, and Utilities sector sell their products or services online, which is more than any other state/territory served by Connected Nation.
- In addition, broadband helps empower the Michigan workforce by enabling workers to telework. Across Michigan, 24% of businesses (approximately 56,000) allow employees to telework. By comparison, 23% of businesses in states/territories served by Connected Nation allow their employees to telework.

Teleworking Among Michigan Businesses



Survey Methodology

Connect Michigan conducted a random digit dial telephone survey of 801 business establishments statewide between June 23 and July 21, 2010. Data were collected by Thoroughbred Research Group, located in Louisville, KY. The purpose of this survey was to set benchmarks for technology adoption and barriers to adoption; determine best practices by identifying which applications Michigan businesses use most often; and measure the average price and speed of broadband service among business establishments across Michigan. On average, these surveys took approximately nine minutes to complete.

Sample quotas were established by company size (5 brackets) and industry sector (8 sectors). Within these 40 cells, a randomly-drawn sample of businesses listed with Dun & Bradstreet were contacted for the survey. Altogether, this sample included 184 businesses with 50+ employees, 208 businesses with 20-49 employees, 211 businesses with 5-19 employees, and 198 businesses with 1-4 employees. In cases where the respondent's information regarding the number of employees at the establishment differed from the information provided by Dun & Bradstreet, the respondent's answer was used in determining business size quotas. Connect Michigan intentionally over-sampled large businesses to ensure a sample that was large enough to analyze and compare to smaller businesses.

In addition to the size and sector quotas, the data was subsequently weighted to ensure that the sample was representative of all employer business establishments statewide, with targets determined according to the 2007 United States Census Bureau's County Business Pattern report, the most recent data that was available at the time the survey was conducted. Weighting of the survey data and research consultation were provided by Lucidity Research LLC, located in Westminster, MD.

This sample provides a margin of error of $\pm 4.85\%$ at the 95% confidence level for the total sample of 801 businesses. This sample error accounts for sample weighting, using the effective sample size.

The Michigan Business Technology Assessment was conducted as part of the State Broadband Data and Development (SBDD) grant program, funded by the National Telecommunications and Information Administration (NTIA). The SBDD 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.

If you have any questions or would like further information about Connect Michigan, please visit our website at www.connectmi.org or e-mail us at info@connectmi.org.

