



Connect Ohio
2008 Business Technology
Assessment

June 2008



Presentation Outline

- **2008 Survey of Businesses**
 - **Summary of Key Findings** 3
 - **Ohio Business Environment** 4
 - **Computer Ownership and Internet Adoption Among Ohio Businesses** 9
 - **Broadband Adoption Among Ohio Businesses** 24
 - **Technology's Impact on Competition and Success** 42
 - **Uses for the Internet** 51
 - **Technology's Impact on the Workplace** 73
 - **Presence of a Website** 83
 - **E-Government Services** 88
 - **Voice over Internet Protocol (VoIP) Subscribers** 97
- **Research Methodology** 103
- **Contact Information** 109

Key Findings: March 2008

Key Technology Benchmarks, March 2008:

- Businesses that use a computer: 82%
- Businesses with broadband service: 59%

Other Key Findings:

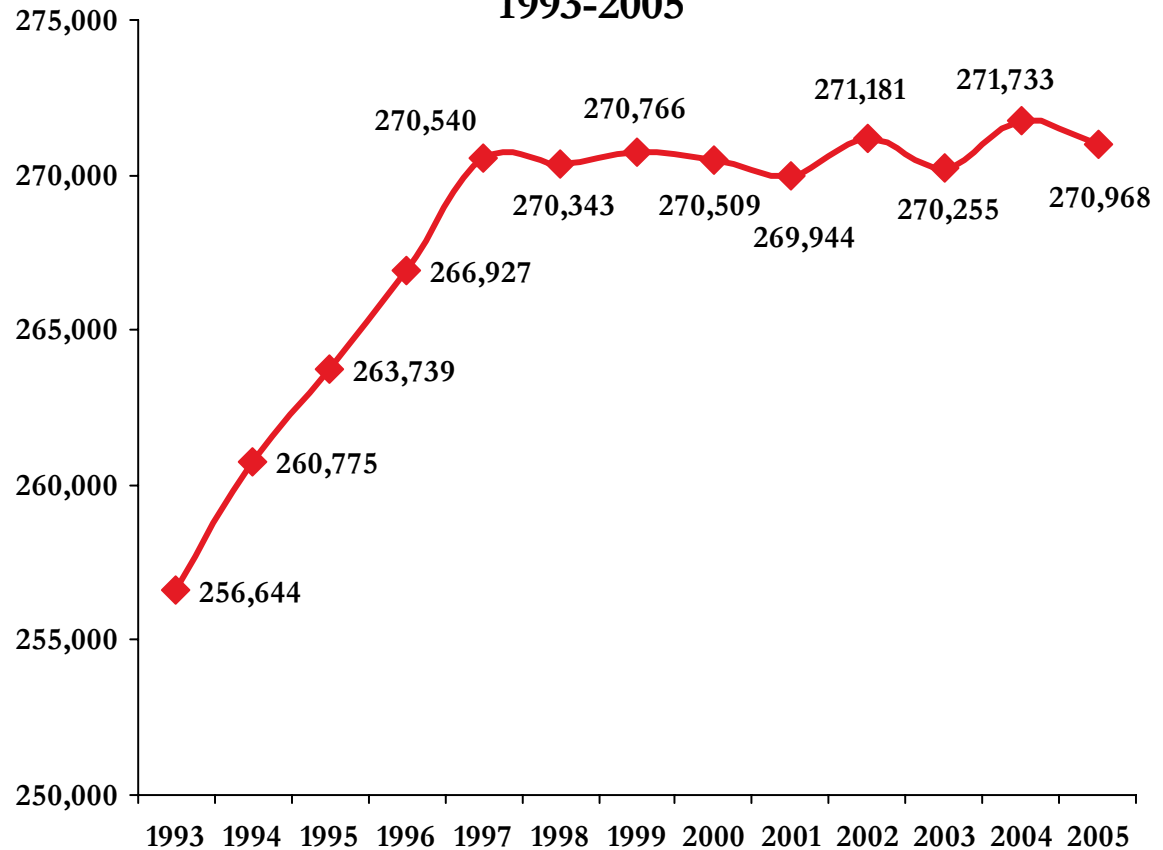
- Across Ohio, 97% of broadband users say they are satisfied with their current broadband service, and 85% say that their current broadband speeds meet all their business needs.
- Nearly 70% of broadband-connected businesses feel certain that the Internet will be important to their success in the near future.
- One-third of all broadband-connected businesses in Ohio have employees who telework on a regular basis.
- More than three-fourths of broadband-connected Ohio businesses visit Ohio state government websites for business purposes.
- Broadband-connected businesses have average annual revenues that are double those of businesses that do not subscribe to broadband.
- Broadband-connected businesses are more likely to use almost every online application than Internet-connected businesses without broadband service.



Ohio's Business Environment

Growth in Business Establishments

Ohio Business Establishments 1993-2005



According to 2005 U.S. Census County Business Patterns data (the most recent data available), there were 270,968 business establishments in Ohio, down 0.3% from 271,733 in 2004.

These businesses employed over 4.7 million individuals in 2005.

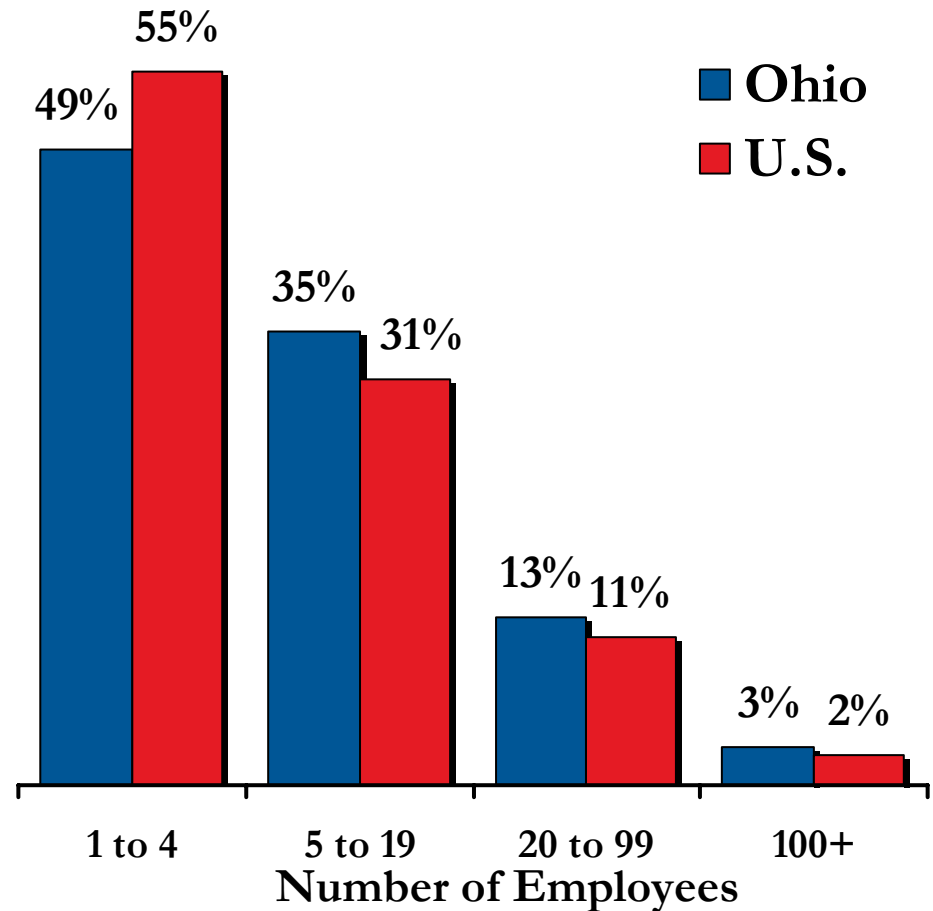
The average establishment employs 17.6 workers, well above the national average. Conversely, average real wages in Ohio (\$35,348) fall below the national average.

Size Distribution of Ohio Businesses

Almost one-half of all Ohio businesses employ fewer than five employees, while only three percent of businesses employ more than 100 employees.

The Connect Ohio business survey has intentionally over-sampled large businesses to achieve a minimum sample for analysis and comparisons relative to smaller firms.

The survey data are weighted to ensure the total picture is representative of Ohio establishments as a whole (see methodology section for specific information about sampling).

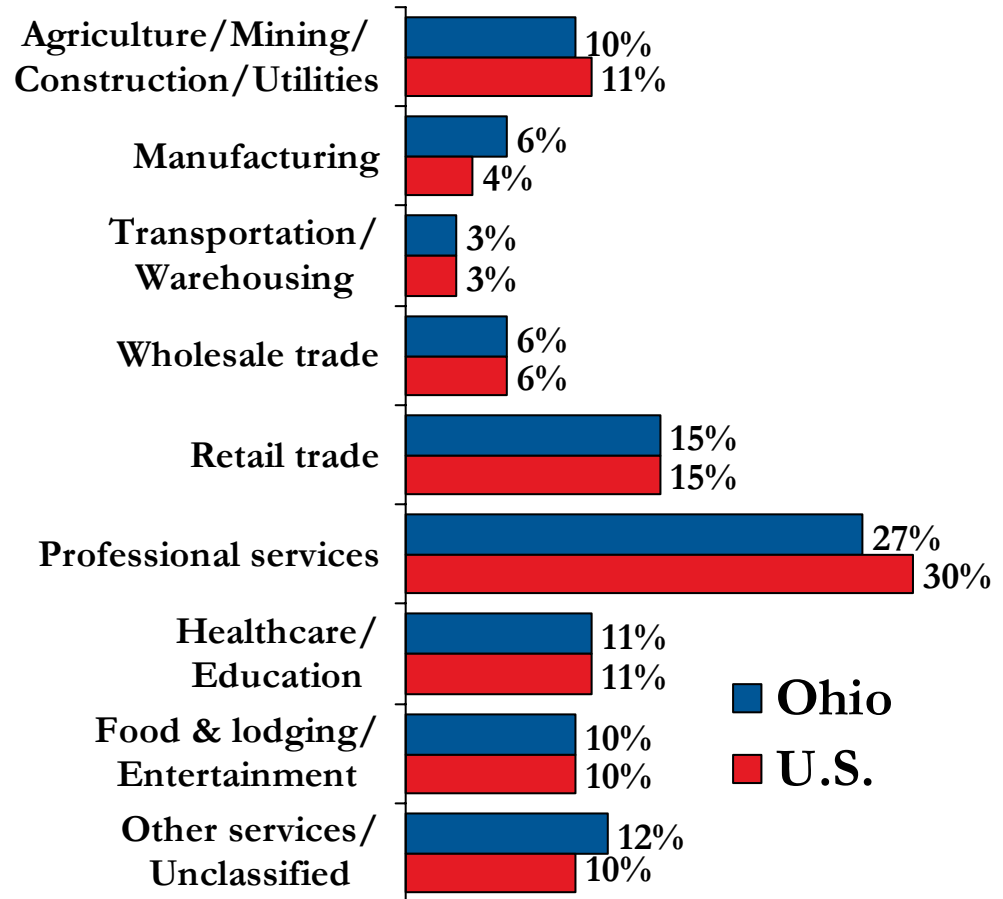


Industry Breakdown of Ohio Businesses

Relative to the national distribution of businesses by sector, Ohio has a lower concentration of professional service providers and slightly more businesses in the manufacturing sector.

The 2008 Connect Ohio Business Survey data are also weighted with respect to industry sector to ensure the survey sample picture is representative of Ohio establishments.

Industry Sectors:*

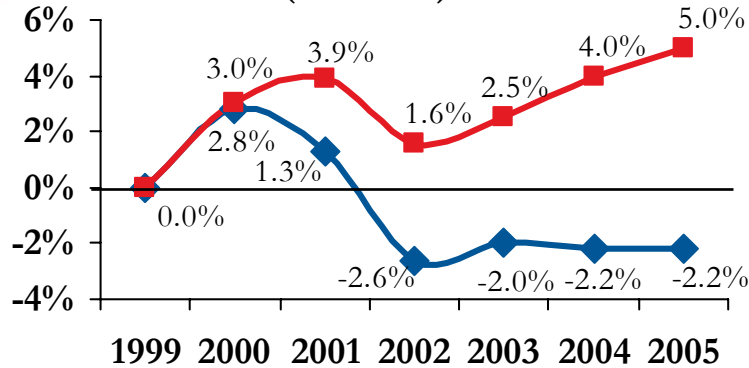


*Industry sectors are categorized by North American Industry Classification System (NAICS) codes. "Professional services" includes NAICS codes 51-59 (information, financial, real estate, professional, technical, management and administrative services.)

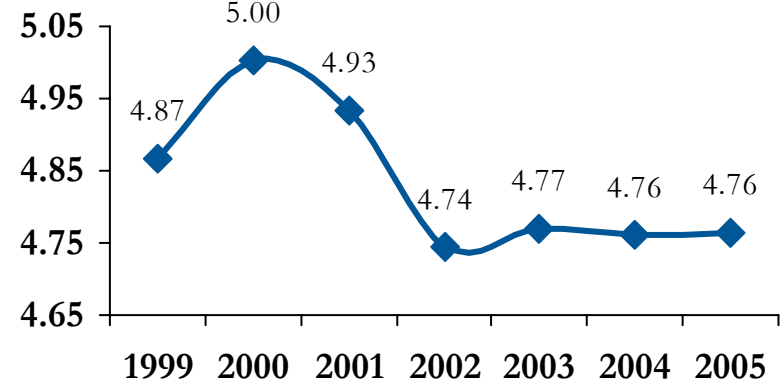
Ohio Business and Employment Trends

◆ OH ■ U.S.

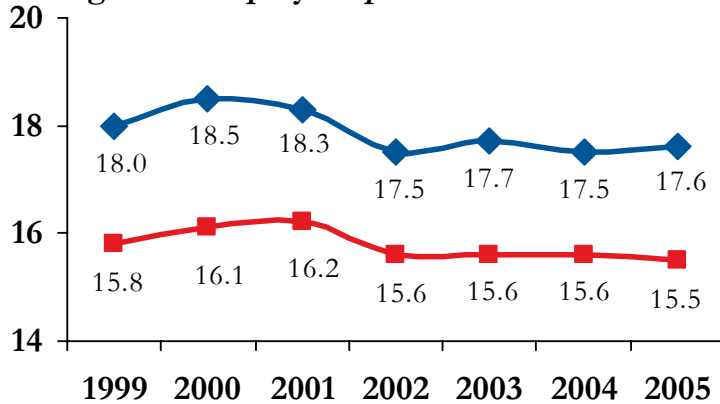
Percent Change in Employment (1999 Base)



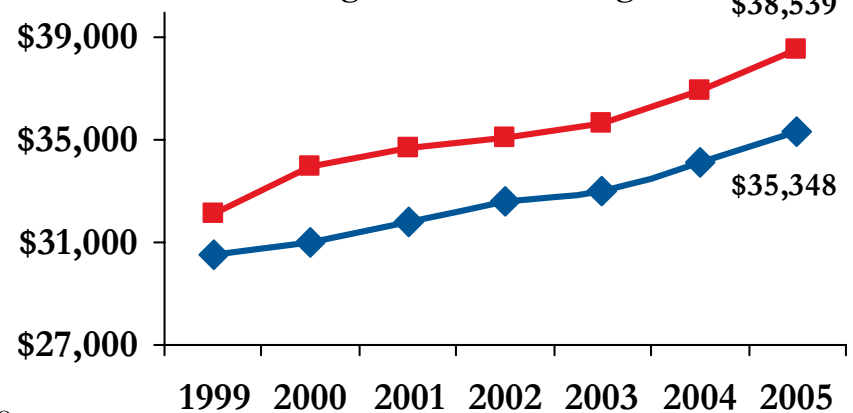
OH Private Sector Employment (Mil.)



Avg. # of Employees per Establishment



Average Annual Real Wages



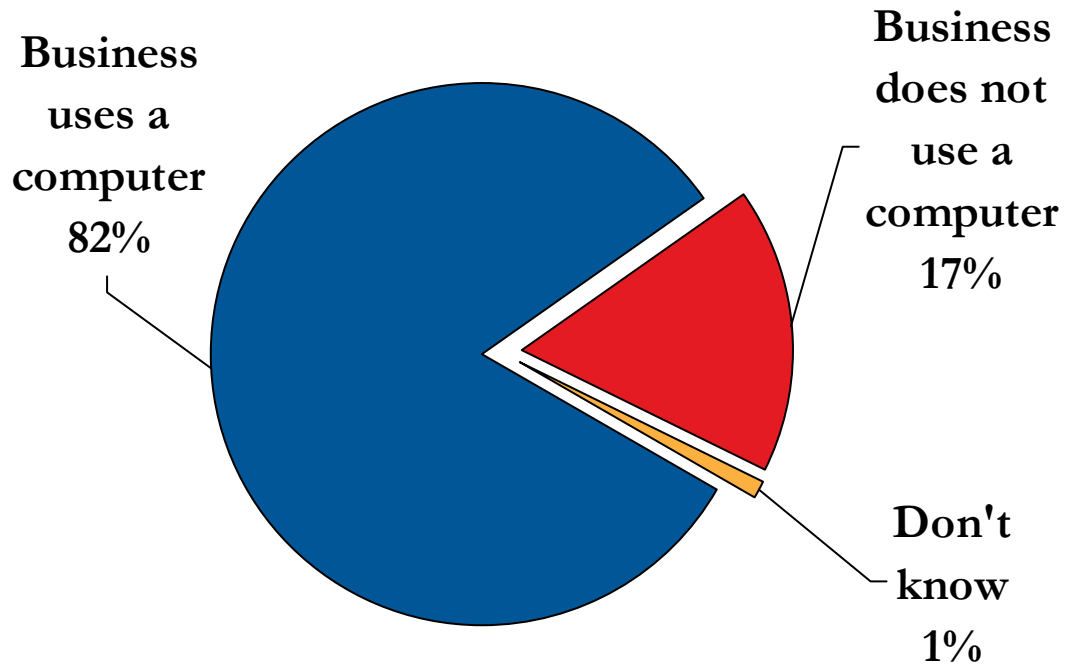


Computer Ownership and Internet Adoption Among Ohio's Businesses

Use of Computer Technology

Percent of all Ohio businesses:

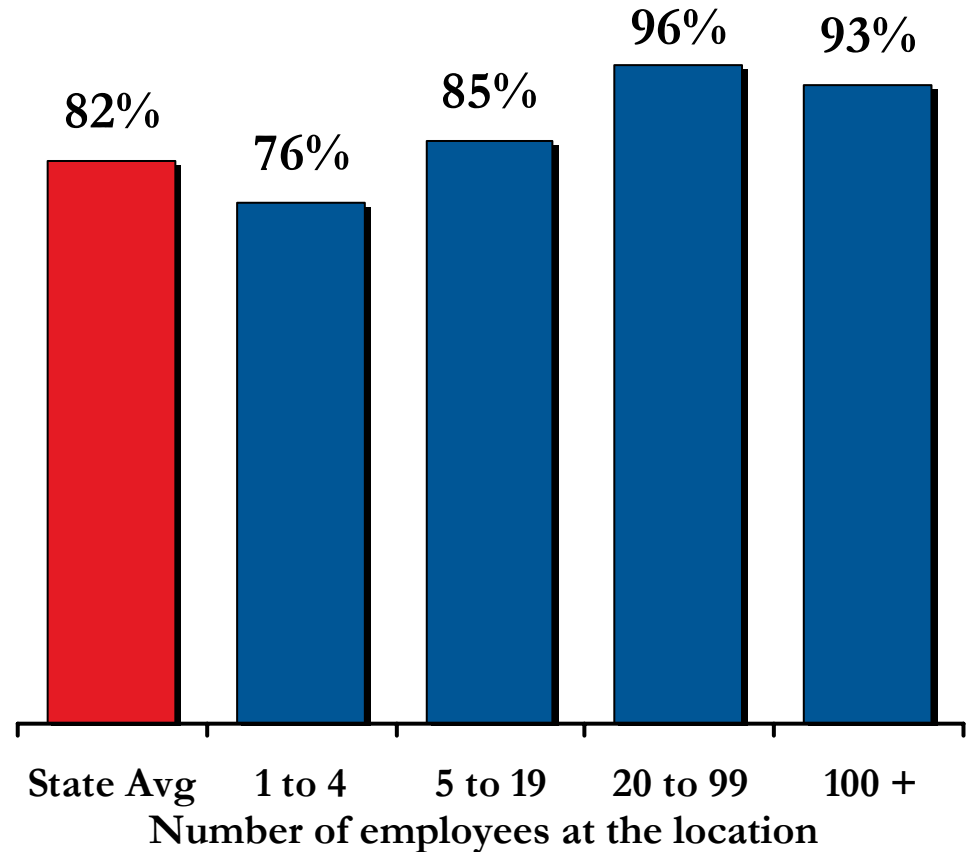
Eighty-two percent of all Ohio businesses use computer technology for their business functions.



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)

Computer Use by Company Size

Percent of all Ohio businesses:



The statewide rate of computer technology adoption varies significantly by company size, rising from 76% of the smallest establishments, to more than 96% of medium size companies and 93% of the largest companies in Ohio.

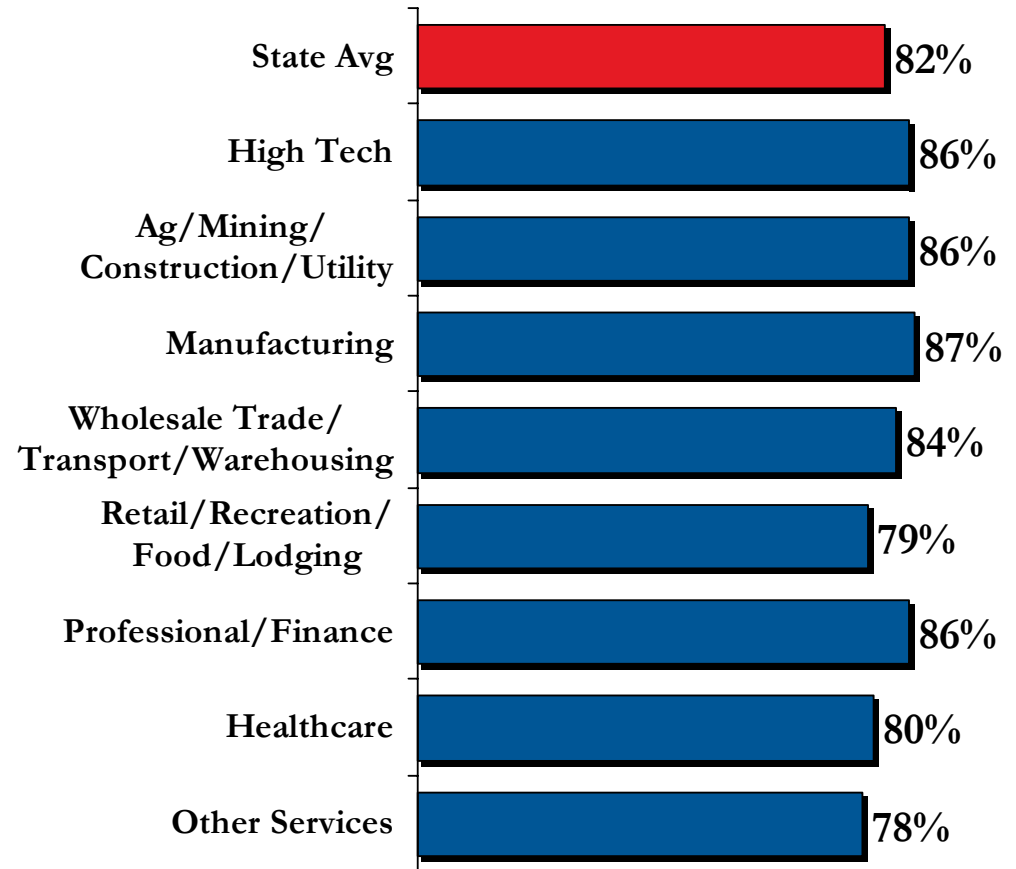
Q: Does your company use any type computer technology to handle some or all of its business functions (for example: sales, cash receipts, accounting, inventory control or management reporting)?
(n=807 Ohio businesses)

Computer Use by Industry Sector

There is very little variance in computer use across industry sectors, and there are no significant differences between any of the industry sectors and the state average.*

The Other Services sector shows the lowest percentage of businesses that use a computer (78%), while the Manufacturing sector shows the highest percentage (87%).

Percent of all Ohio businesses:



*Significance measured at a 95% confidence level.

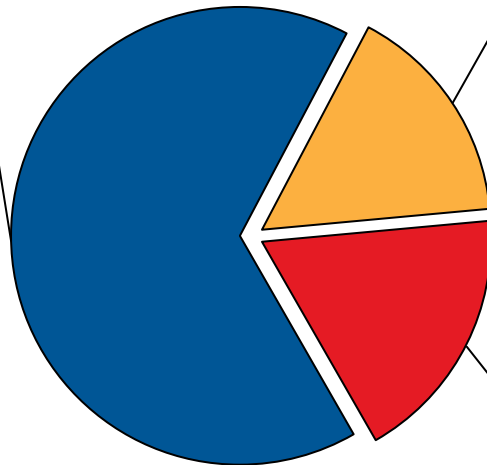
Q: Does your company use any type computer technology to handle some or all of its business functions (for example: sales, cash receipts, accounting, inventory control or management reporting)?

(n=807 Ohio businesses)

Use of the Internet for Business

Percent of all Ohio businesses:

Business uses
the Internet
66%



Business has a
computer, but
does not use
the Internet
16%

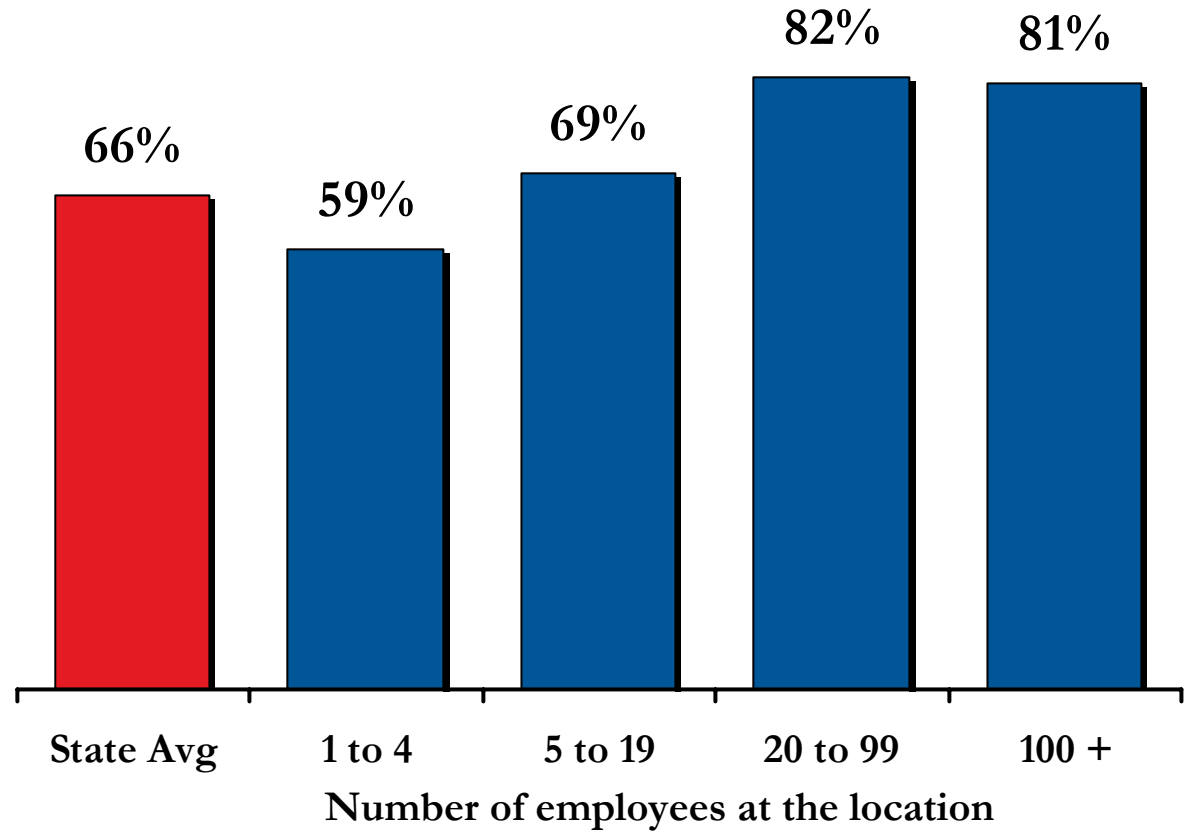
Business does
not use the
Internet and
does not have
a computer
18%

**Two out of three
(66%) of all Ohio
businesses use the
Internet for their
business functions.**

Q: Does your company use the Internet to handle any of your business functions? (n = 807 Ohio businesses)

Internet Use by Company Size

Percent of all Ohio businesses:

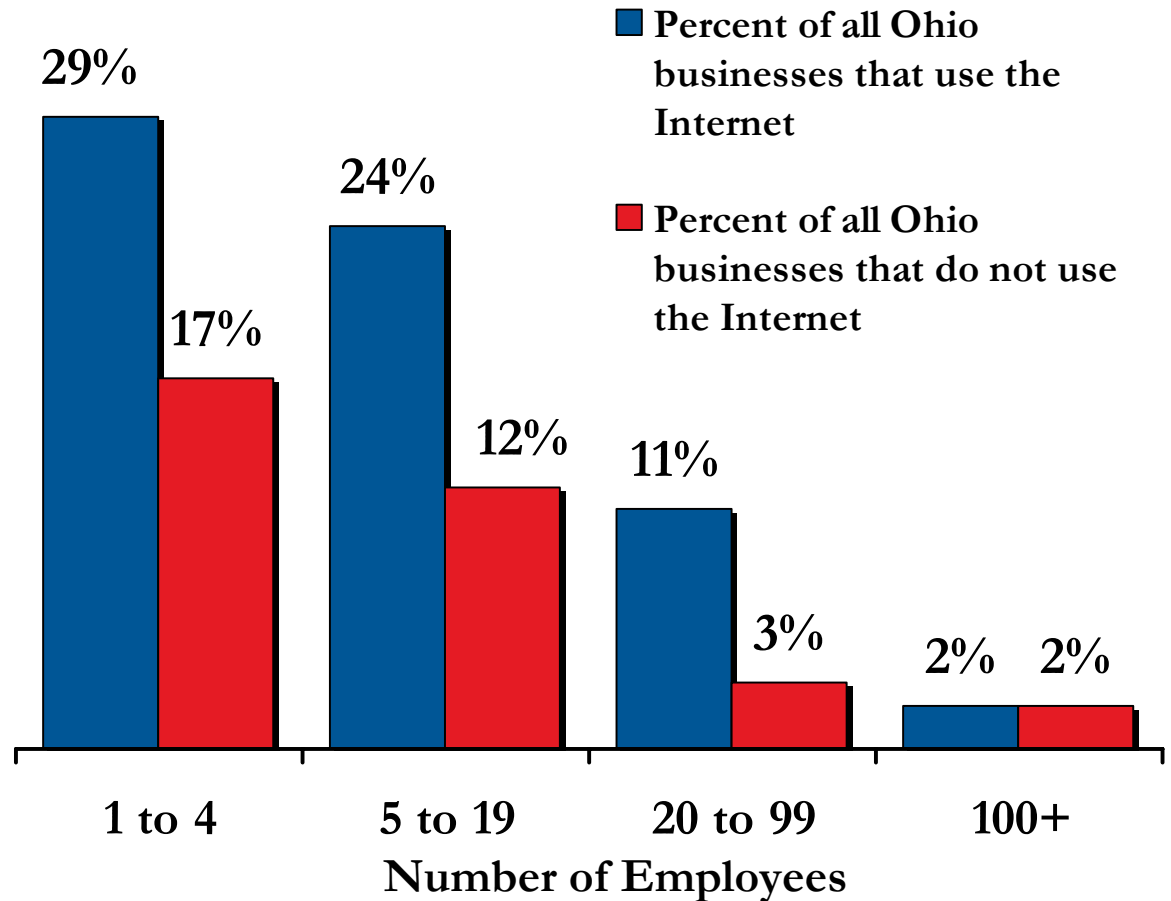


The rate of Internet adoption varies with company size, ranging from 59% of the smallest businesses to more than 80% of the largest businesses.

Use of the Internet Among All Ohio Businesses (by Company Size)

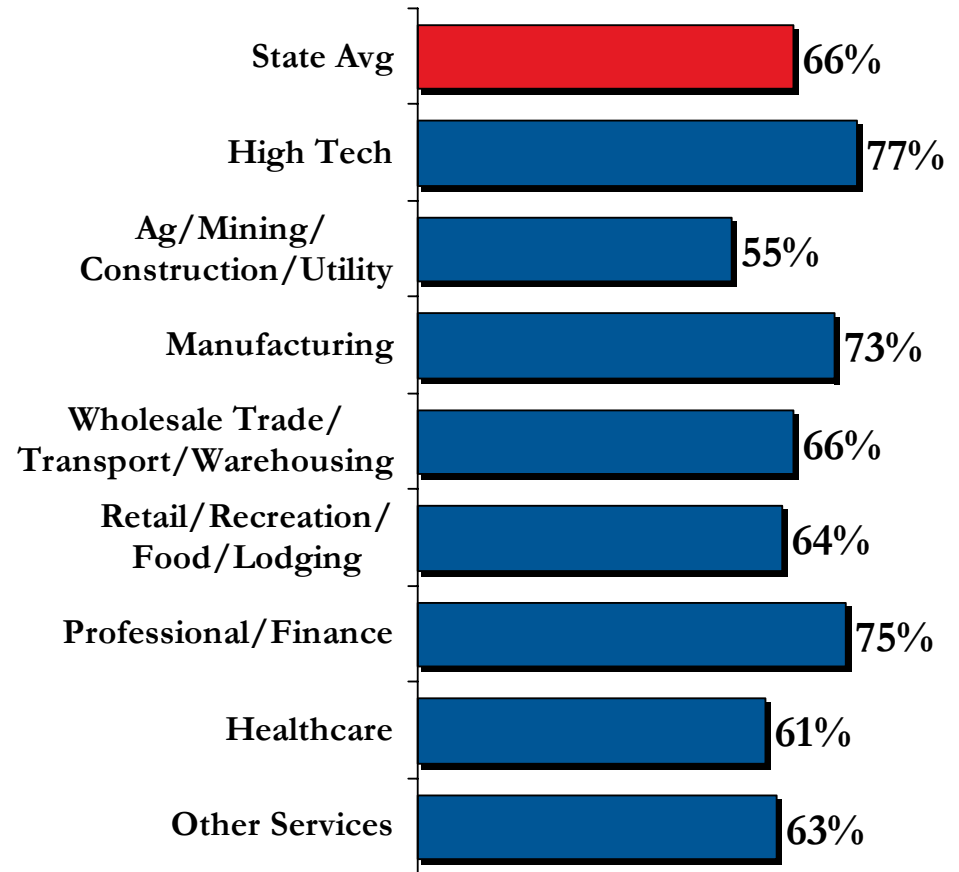
Two-thirds (66%) of all Ohio businesses rely on the Internet for their work functions.

Only 5% of Ohio businesses with 20 or more employees do not use the Internet for their business functions.



Internet Use by Industry Sector

Percent of all Ohio businesses:



Businesses in the High Tech and the Manufacturing industry sector have the highest rates of Internet adoption among Ohio businesses.

Businesses in the Ag/Mining/Construction/Utility and the Healthcare industry sectors are the least likely to use the Internet for their business functions.

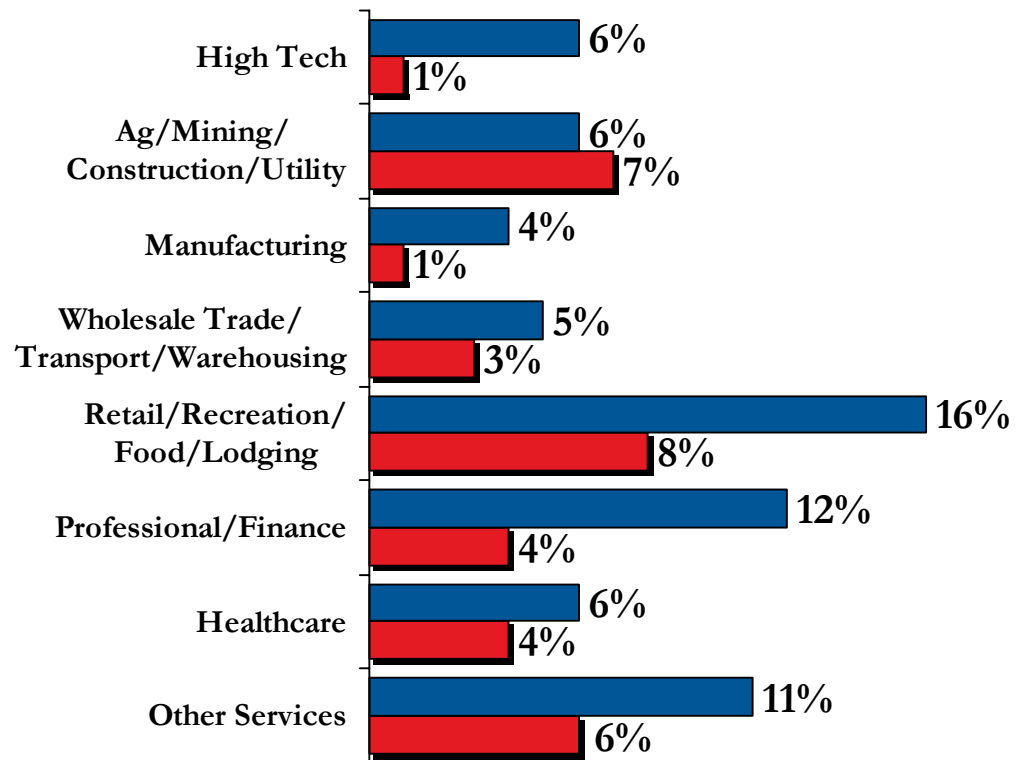
Use of the Internet Among All Ohio Businesses (by Industry Sector)

Percent of all Ohio businesses:

Among all Ohio businesses, 66% use the Internet for business functions.

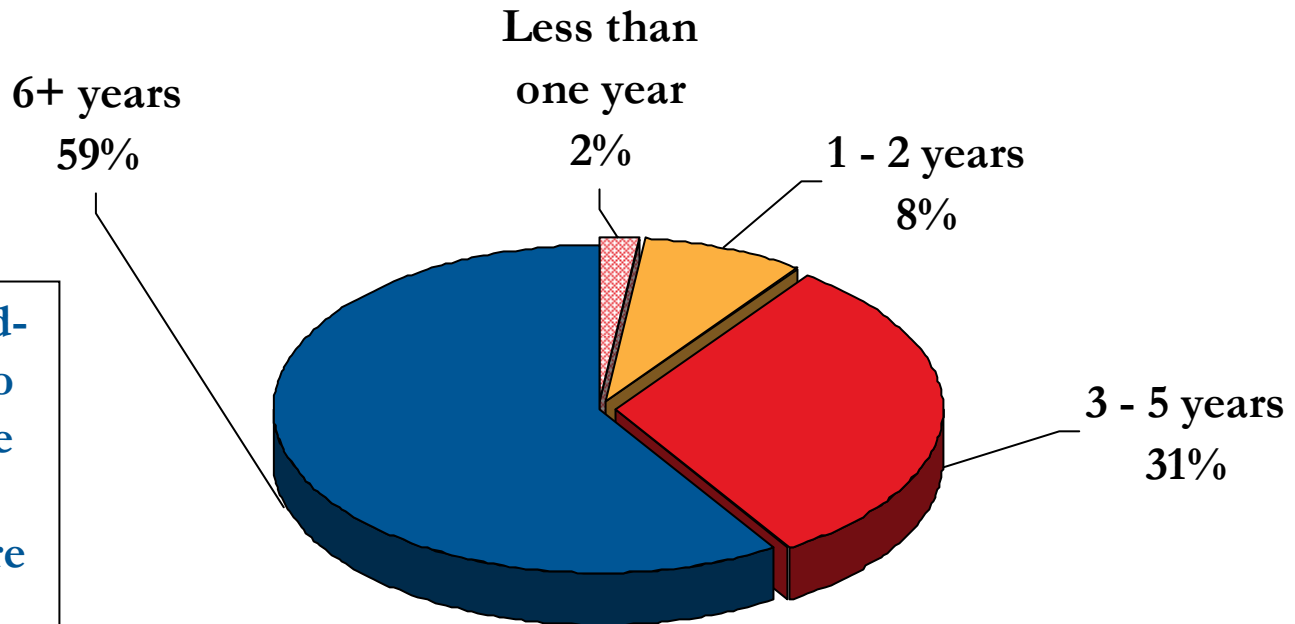
The Ag/Mining/Construction/Utility industry sector is the only one in which Internet-connected businesses are outnumbered by businesses that do not have Internet service.

■ Percent of all Ohio businesses that use the Internet
■ Percent of all Ohio businesses that do not use the Internet



Years of Internet Use

How long businesses have been using the Internet:



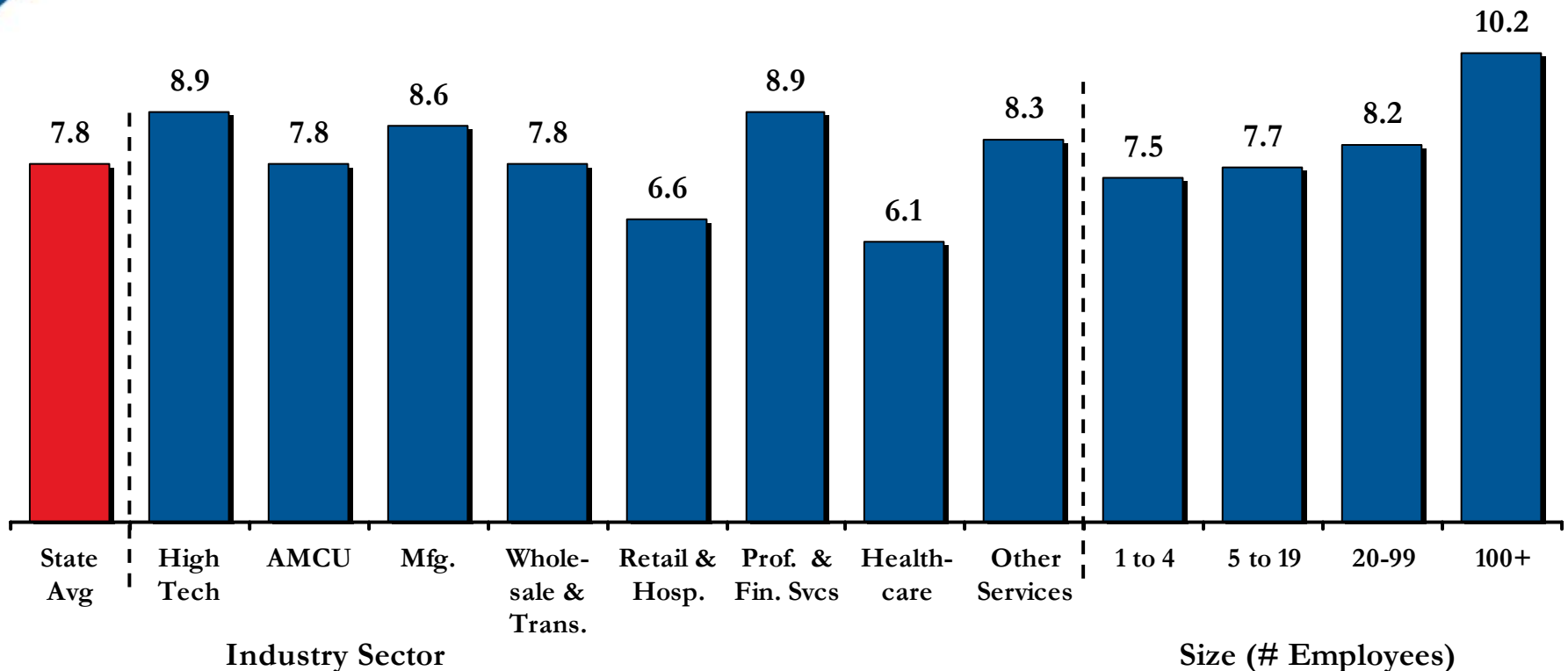
Most broadband-connected Ohio businesses have been using the Internet for more than six years.

Percent of all Internet-connected Ohio businesses

Q: How many years has your organization been using the Internet?
(n = 588 OH businesses that have Internet service)

Average Number of Years Businesses Have Been Using the Internet by Size and Industry Sector

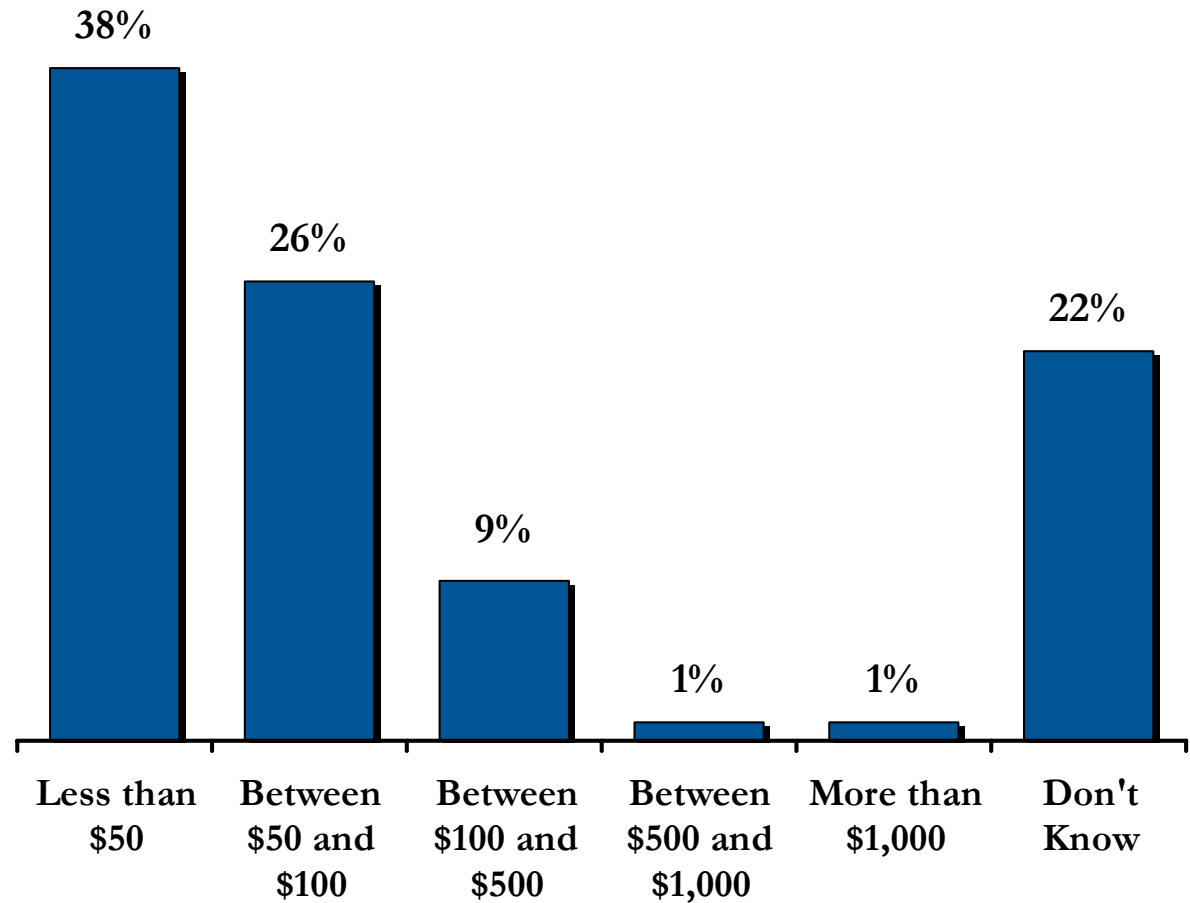
Average number of years that businesses have used the Internet for their work:



Q: How many years has your organization been using the Internet?
(n = 588 OH businesses that have Internet service)

Monthly Internet Access Fees

Among Ohio businesses with Internet service:



More than one-third of Ohio businesses pay less than \$50 for their monthly access fee, and over half pay less than \$100.

The median monthly fee for Internet service is \$50, while the mean price is \$111 per month.

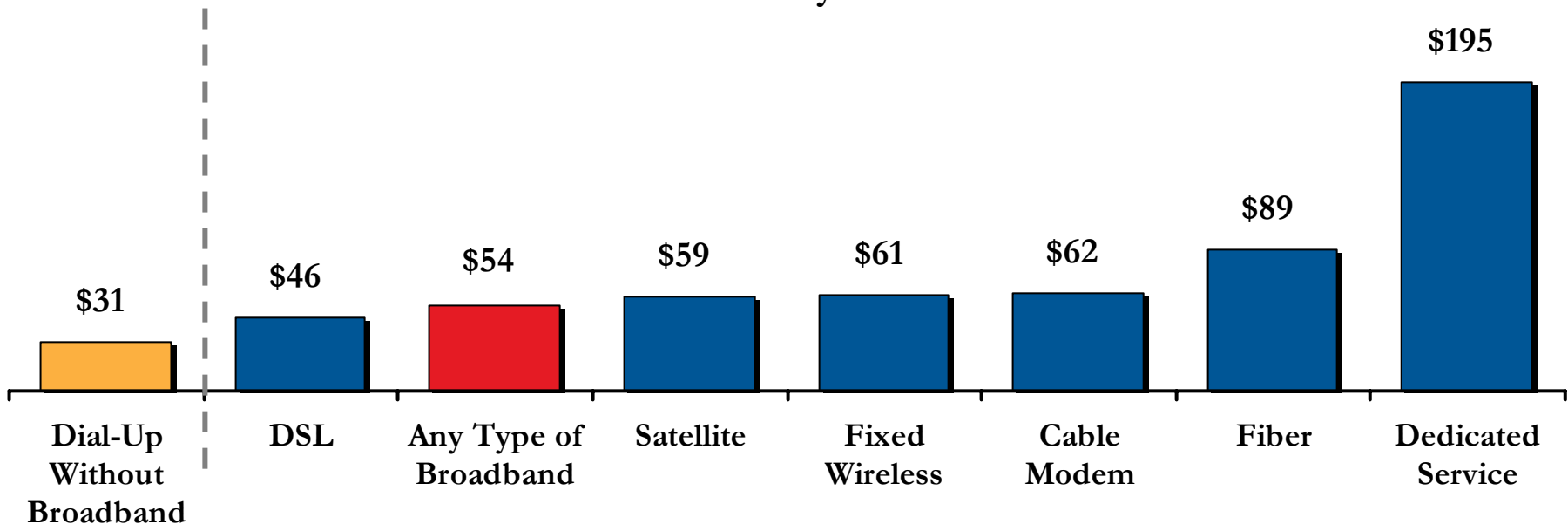
Q: How much per month does your organization pay for its Internet connection?
(n = 588 OH businesses that use the Internet)

Median Monthly Fees by Type of Internet Connection

The median monthly cost for broadband service is \$54 per month, with lower costs reported among businesses using DSL.

The median cost of dedicated service is closer to \$200 per month.

Median Monthly Access Fees:

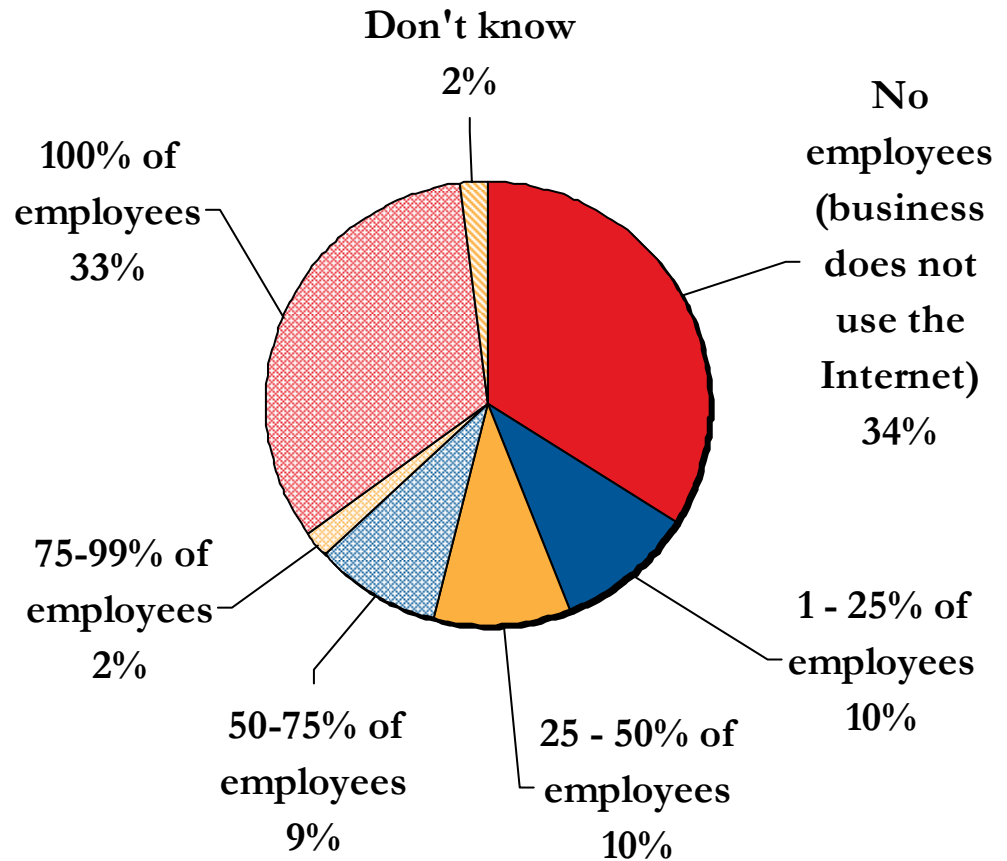


Q: How much per month does your organization pay for its Internet connection?

(n = 588 OH businesses that use the Internet)

Internet Use Within the Company

Percent of employees who use the Internet for work
(among all Ohio businesses):



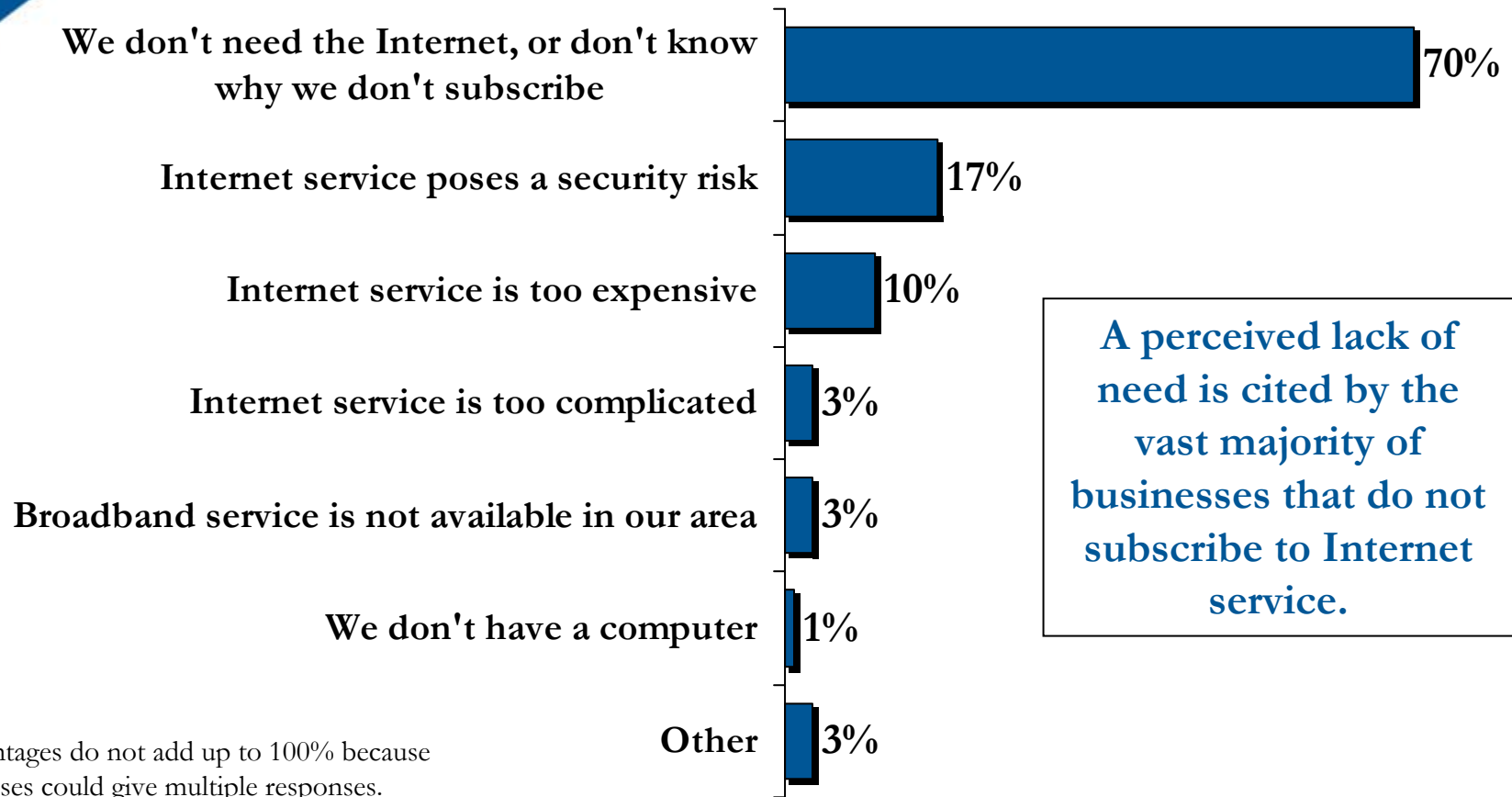
In one-third of Ohio businesses, every employee relies on the Internet for their business functions.

On average, 70% of the employees at each business rely on the Internet for their work functions.

Q: How many employees at this business location use the Internet for business purposes?
(n = 807 Ohio businesses)

Barriers to Internet Adoption

Percent of Ohio businesses that do not subscribe to the Internet:*



A perceived lack of need is cited by the vast majority of businesses that do not subscribe to Internet service.

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

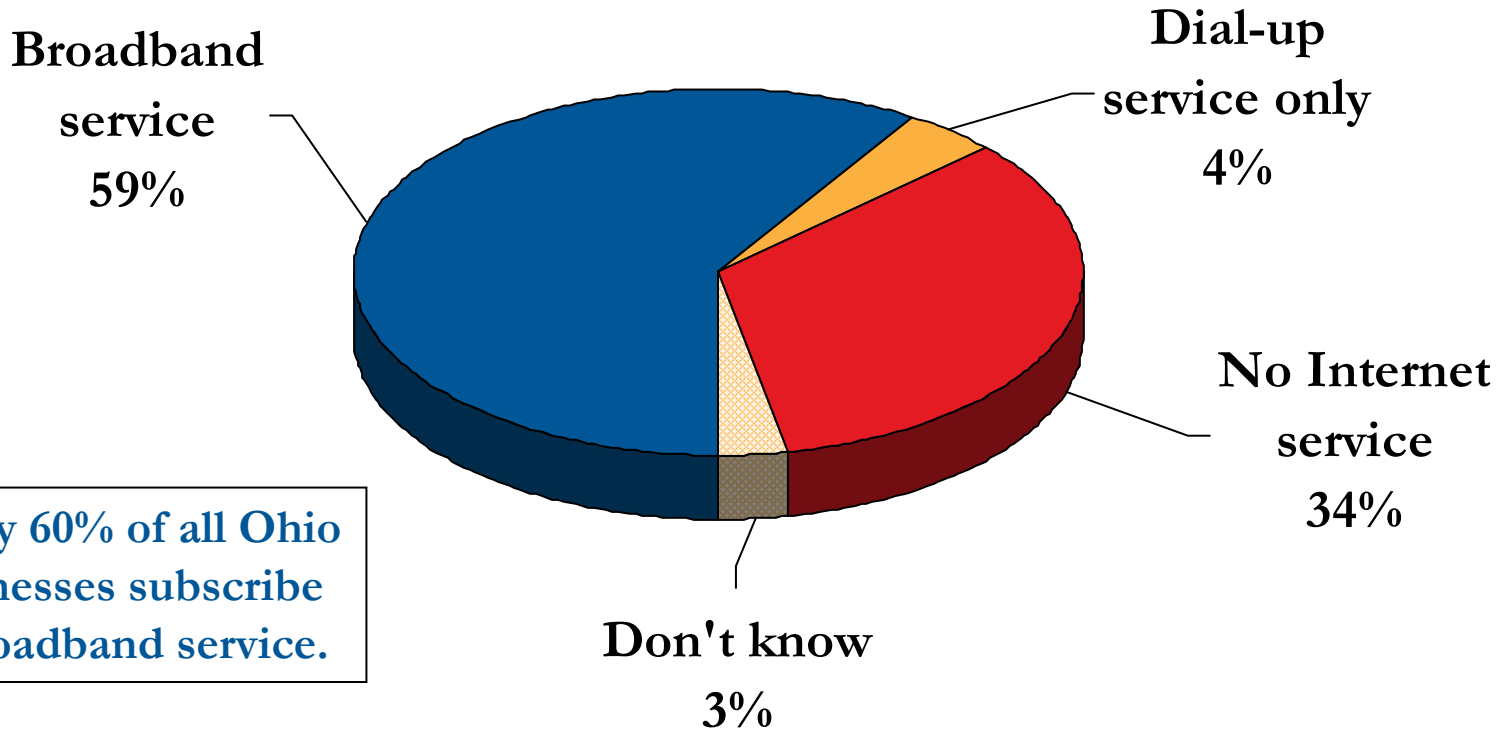
Q: Why doesn't your organization use the Internet?
(n = 122 OH businesses that do not use the Internet)



Broadband Adoption Among Ohio Businesses

Broadband Adoption Among Ohio Businesses

Percent of all Ohio businesses that have:



Nearly 60% of all Ohio businesses subscribe to broadband service.

Q: Which of the following describe the type of Internet access your company has?
(n = 807 Ohio businesses)

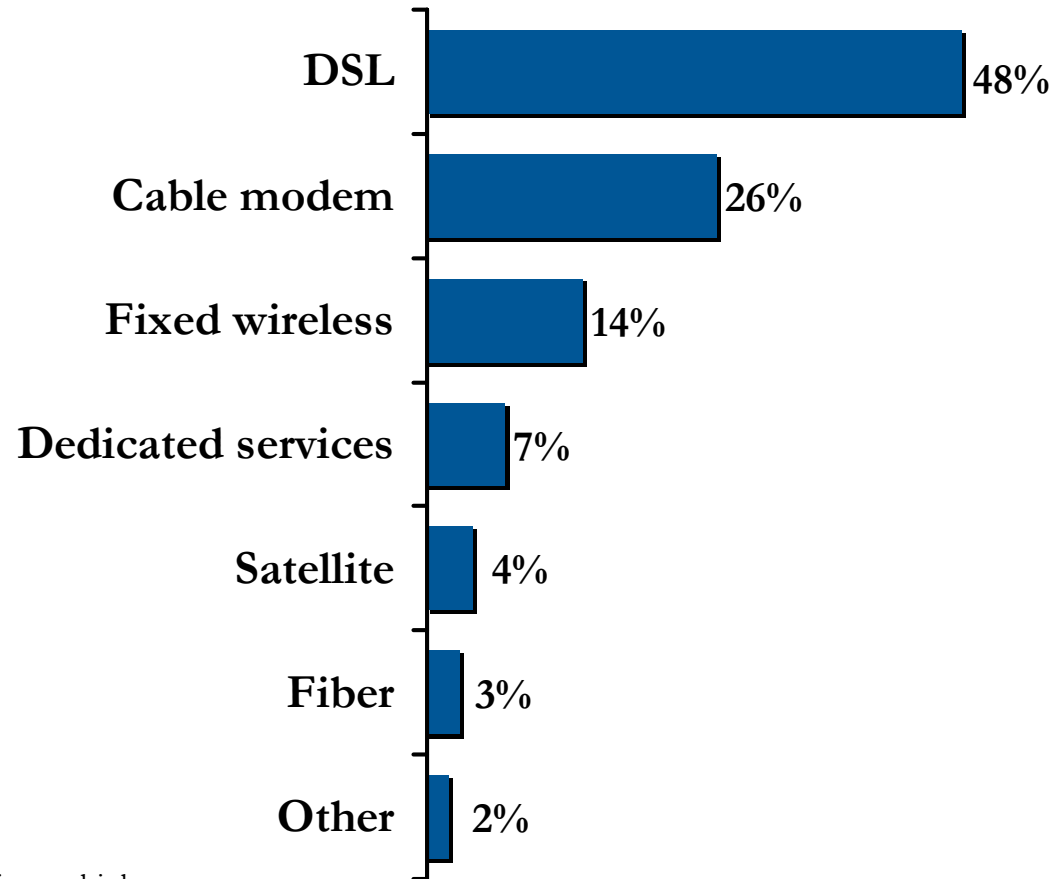
Methods of Broadband Access

DSL lines serve nearly one-half (48%) of businesses with high-speed connections.

More than one-fourth (26%) of broadband-connected businesses have cable modem connections, and 14% of broadband-connected businesses rely on fixed wireless connections for their broadband service.

Only 4% of online businesses rely exclusively on dial-up Internet access.

Percent of broadband-connected Ohio businesses:*



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

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

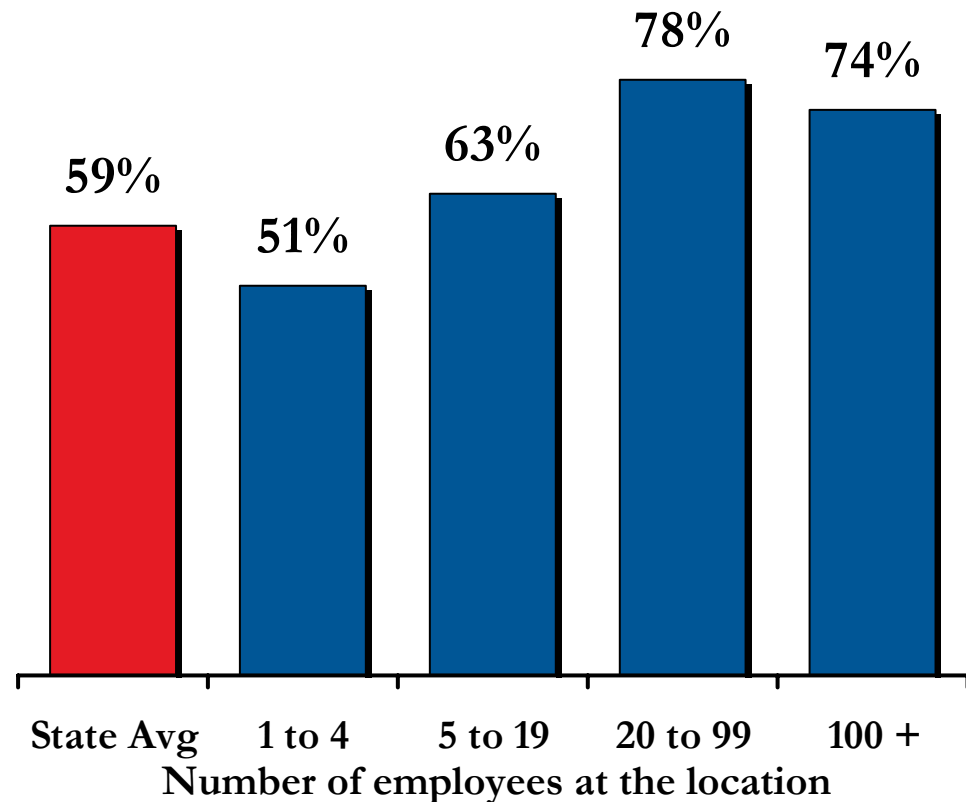
(n = 537 broadband-connected Ohio businesses)

Broadband Adoption by Company Size

Percent of all Ohio businesses:

Broadband adoption among Ohio businesses varies significantly by company size, rising from about one-half (51%) of the smallest establishments, to more than three-fourths (78%) of medium-size companies and 74% of the largest companies in Ohio.

Ohio businesses that employ more than twenty workers are significantly more likely to have a broadband connection than small businesses with fewer than four employees.



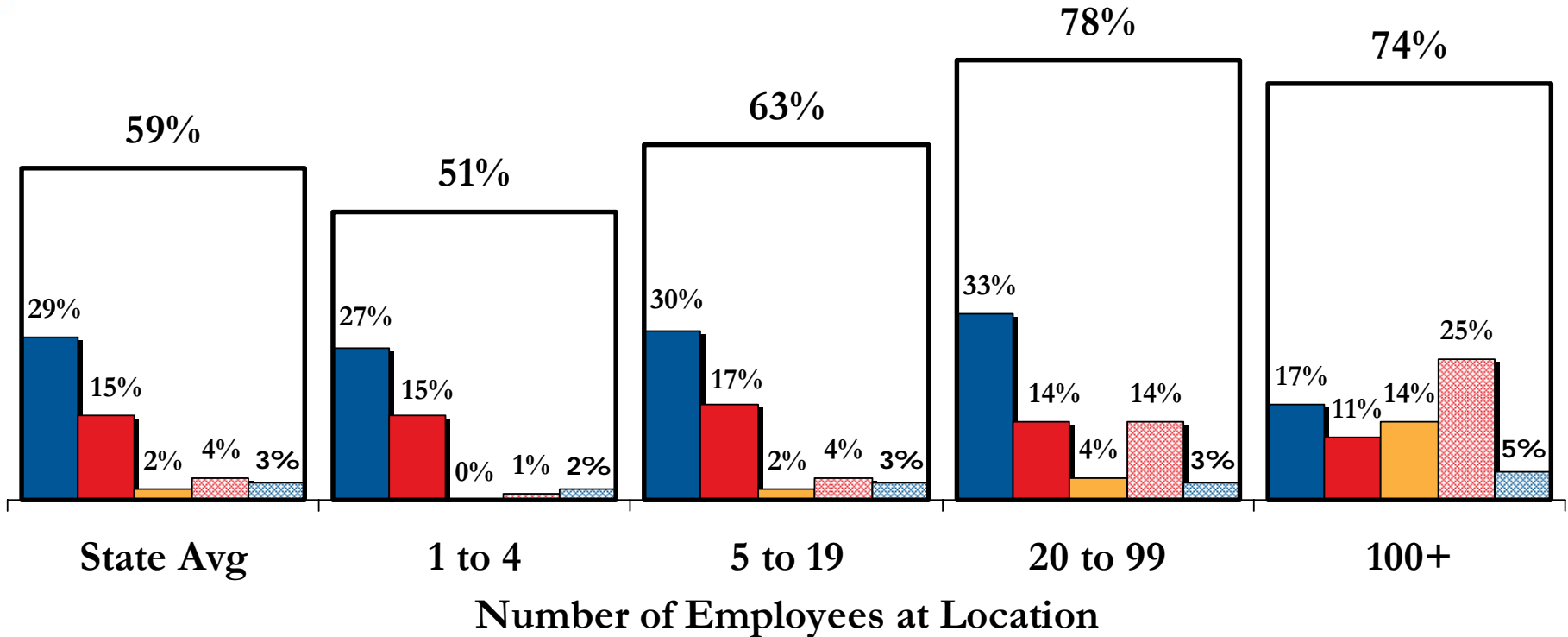
Q: Which of the following describe the type of Internet access your company has?

(n = 807 Ohio businesses)

Broadband Adoption by Company Size

Type of Internet Access:

■ DSL ■ Cable Modem ■ Fiber ■ Dedicated services ■ Satellite ■ Any Broadband

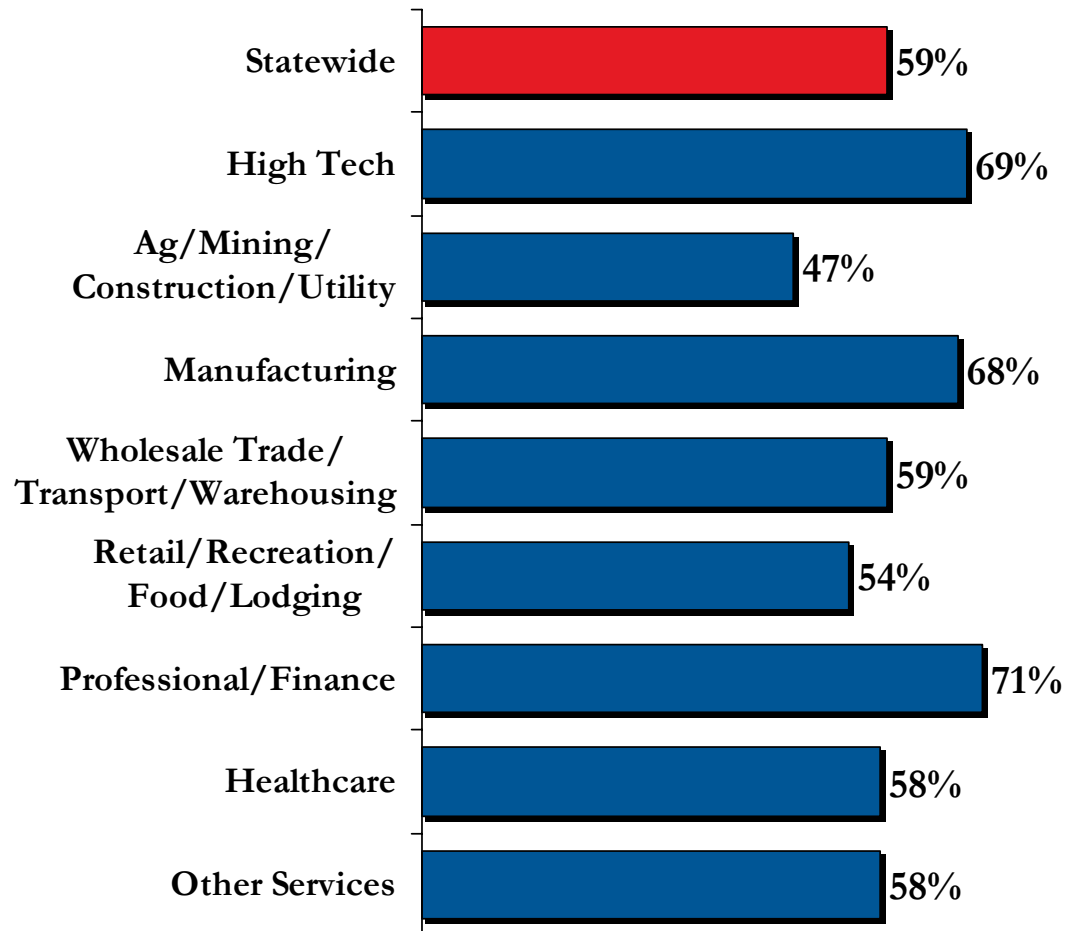


Q: Which of the following describe the type of Internet access your company has?

(n = 807 Ohio businesses)

Broadband Adoption by Industry Sector

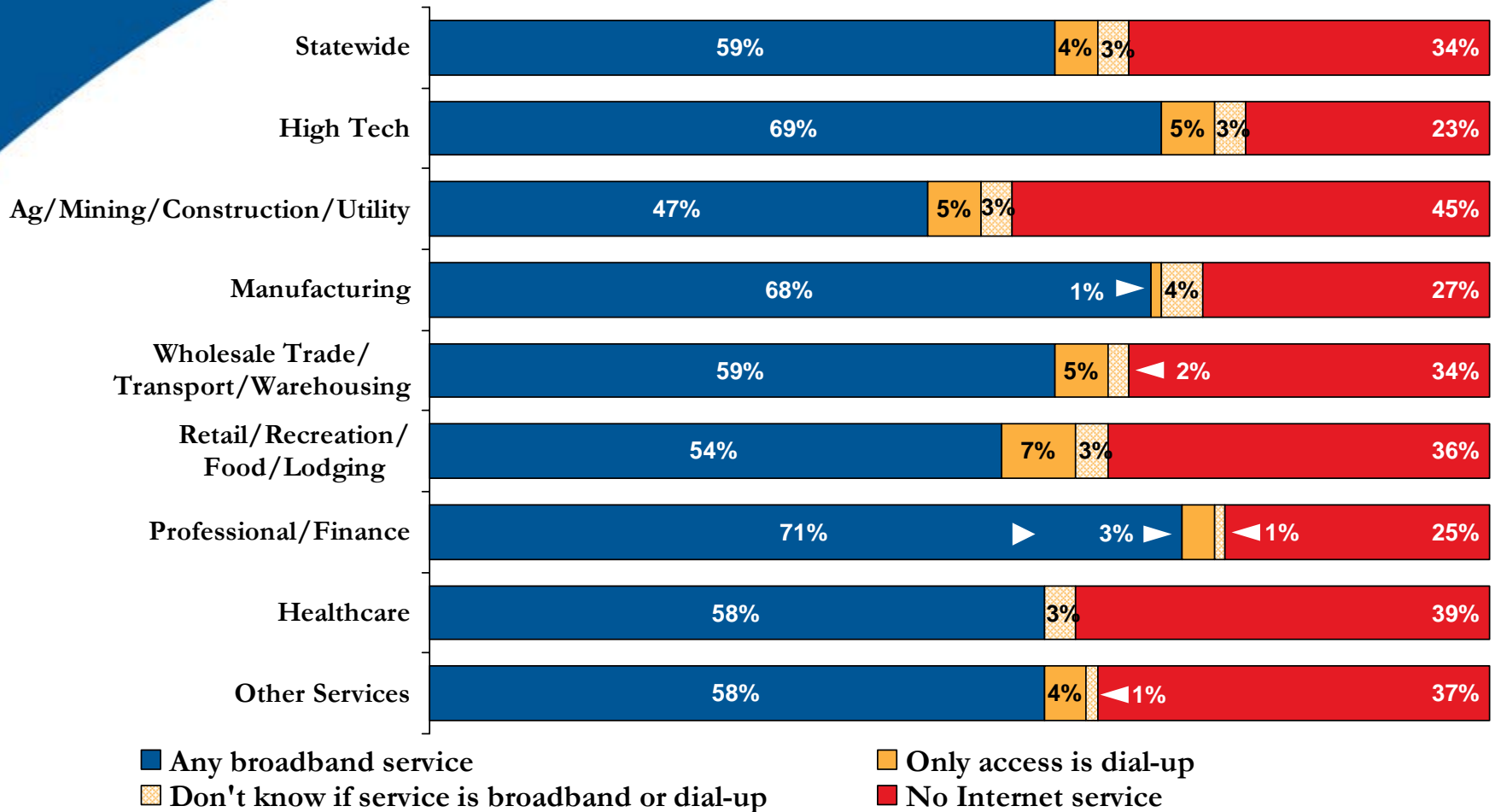
Percent of all Ohio businesses:



Businesses in the Professional/Finance industry sector are the most likely to adopt broadband, followed closely by the High Tech and Manufacturing industry sectors.

Businesses in the Agriculture/Mining/Construction/Utility sector are the least likely to use broadband service.

Broadband Adoption by Industry Sector



Q: Which of the following describe the type of Internet access your company has?
(n = 807 Ohio businesses)

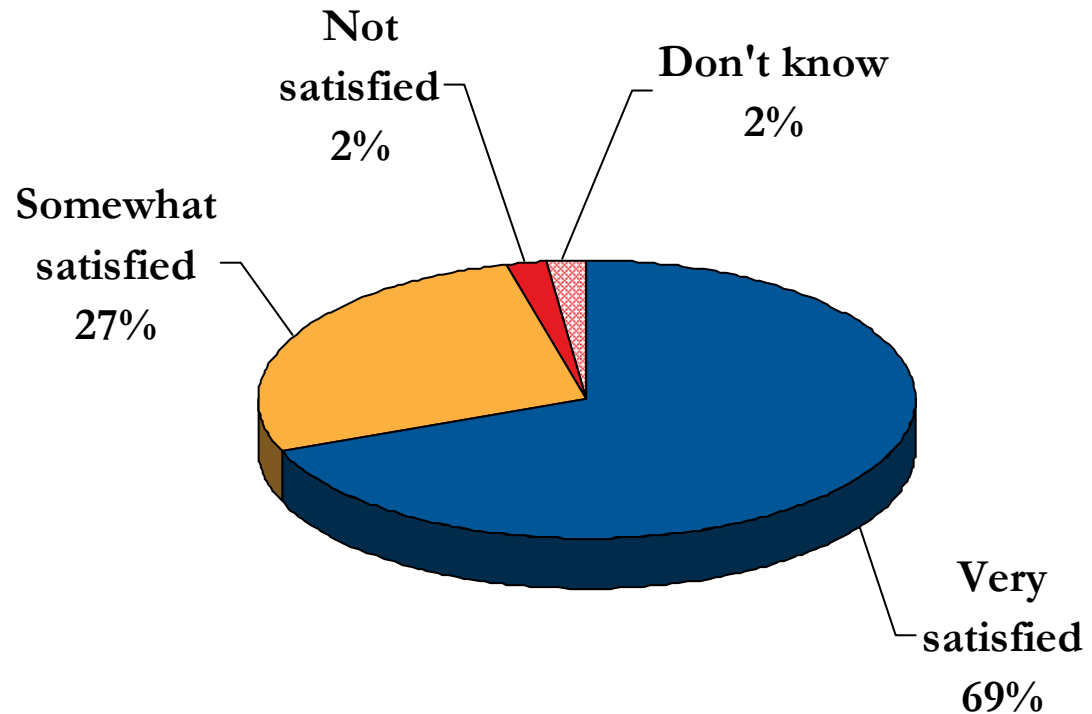
Satisfaction With Broadband

Percent of broadband-connected Ohio businesses:

Nearly seven out of ten businesses that have broadband say they are very satisfied with their service.

An additional 27% of businesses say they are somewhat satisfied with their broadband service.

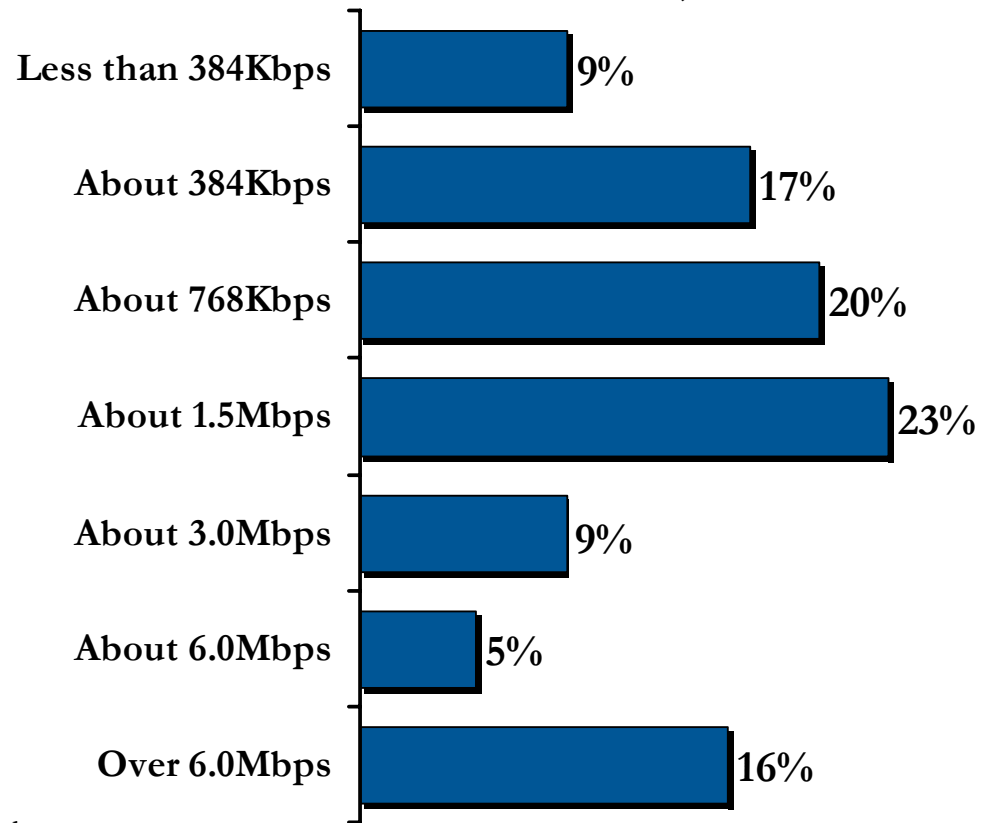
Only 2% of broadband-connected businesses reported being dissatisfied with their service.



Q: How satisfied are you with your broadband service?
(n = 537 OH businesses that have broadband service)

Current Download Speeds

Current estimated download speeds
(among broadband-connected Ohio businesses that know their current bandwidth):



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

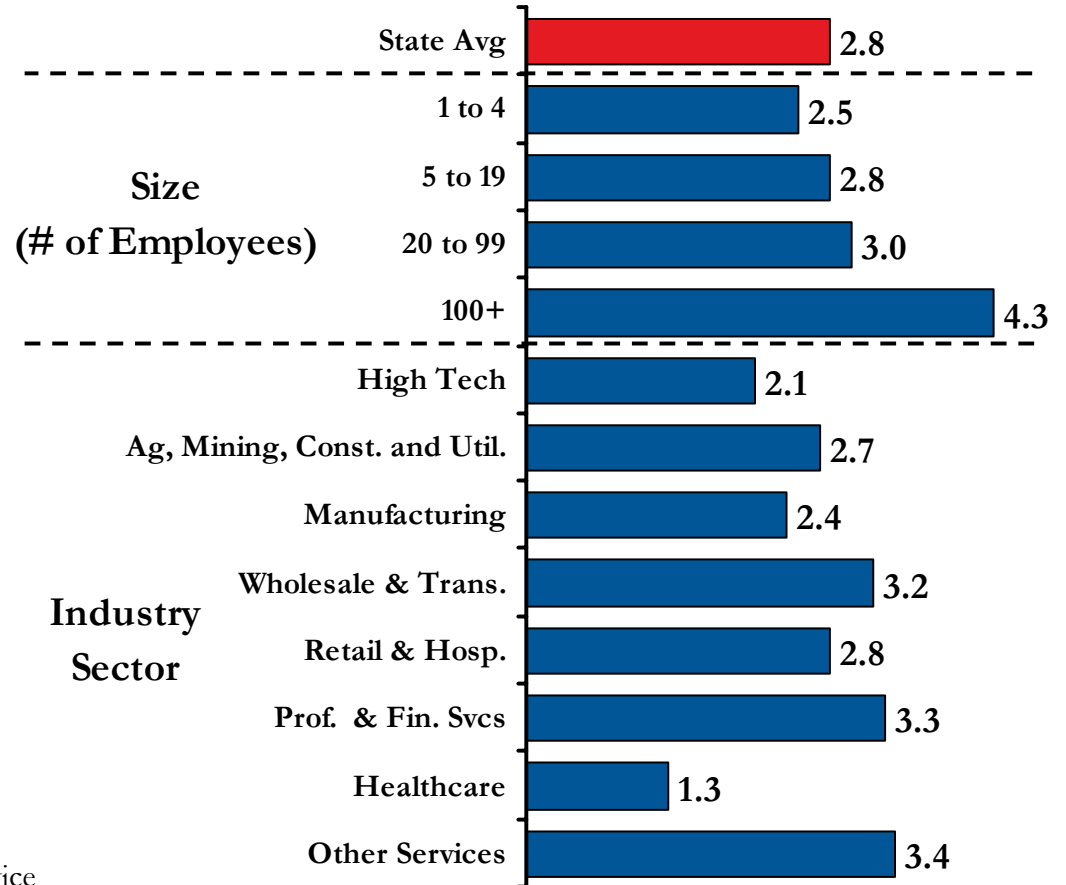
Among those businesses that have broadband service and know their download speeds, 26% report download speeds below 768Kbps (the FCC's definition of "basic broadband").

Statewide, broadband-connected Ohio businesses report an average download speed of 2.8Mbps.

Q: To the best of your knowledge, what is the approximate download speed or bandwidth provided by your Internet service provider?
(n = 265 OH businesses that use broadband service and know their approximate download speed)

Average Broadband Download Speeds by Size and Industry Sector

Average download speed (Mbps):



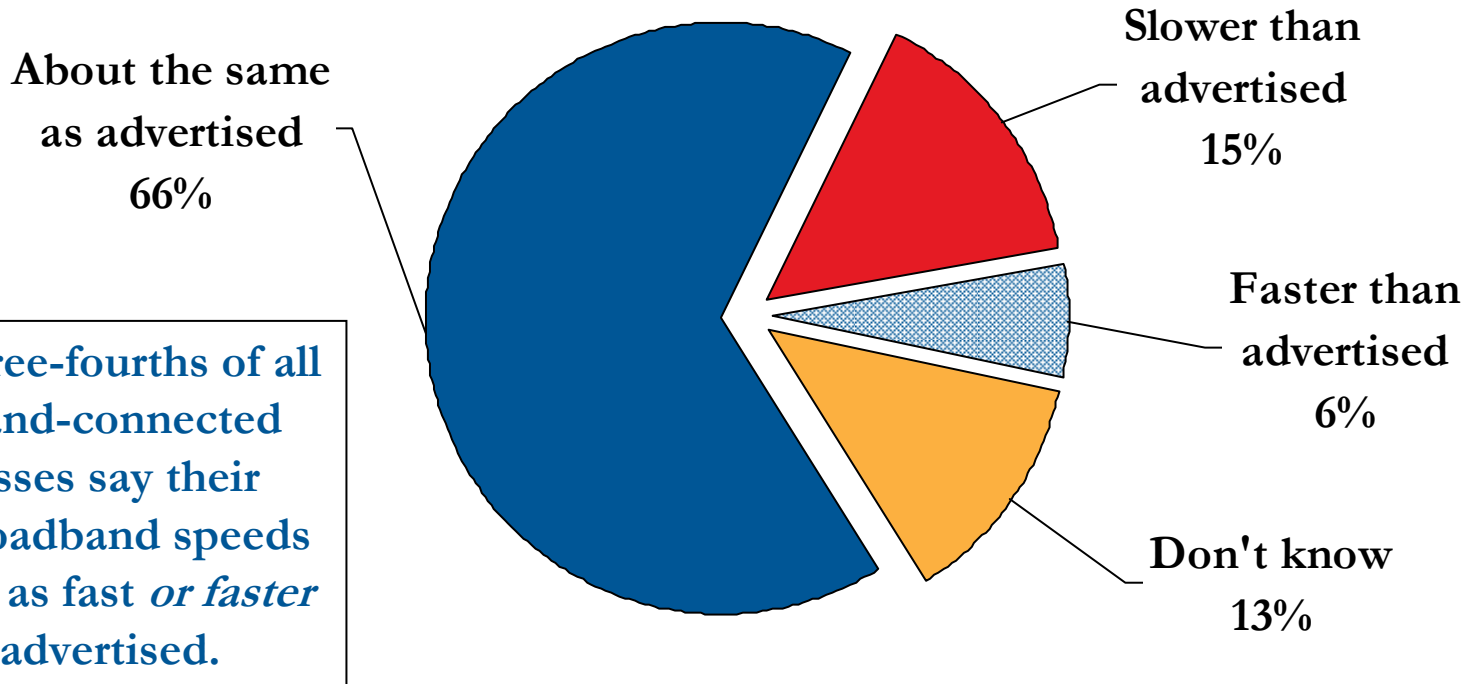
Businesses in the Healthcare industry have the lowest average download speed among broadband-connected Ohio businesses.

Larger businesses have higher average download speeds than smaller ones.

Q: To the best of your knowledge, what is the approximate download speed or bandwidth provided by your Internet service provider?
(n = 537 OH businesses that have broadband service)

Actual Broadband Speeds Compared to Advertised Speeds

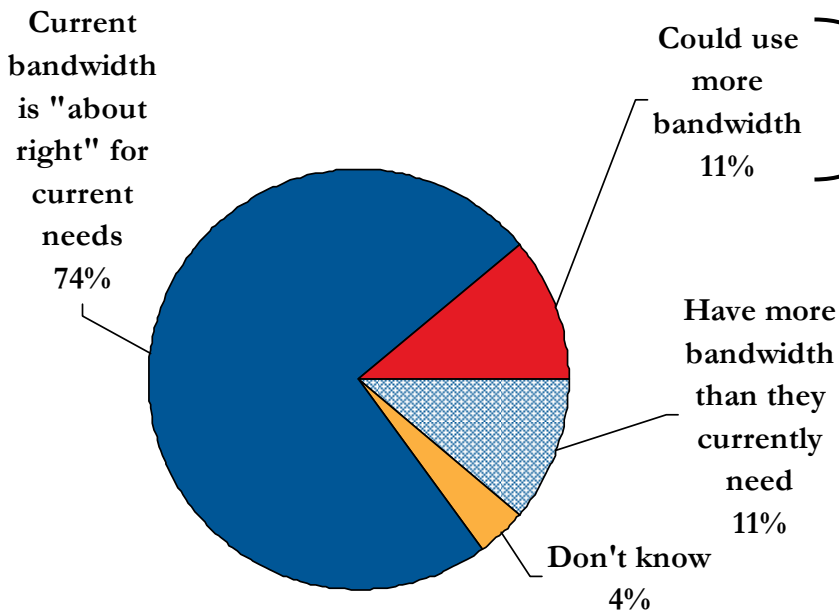
How actual broadband speeds compare to advertised speeds
(among broadband-connected Ohio businesses):



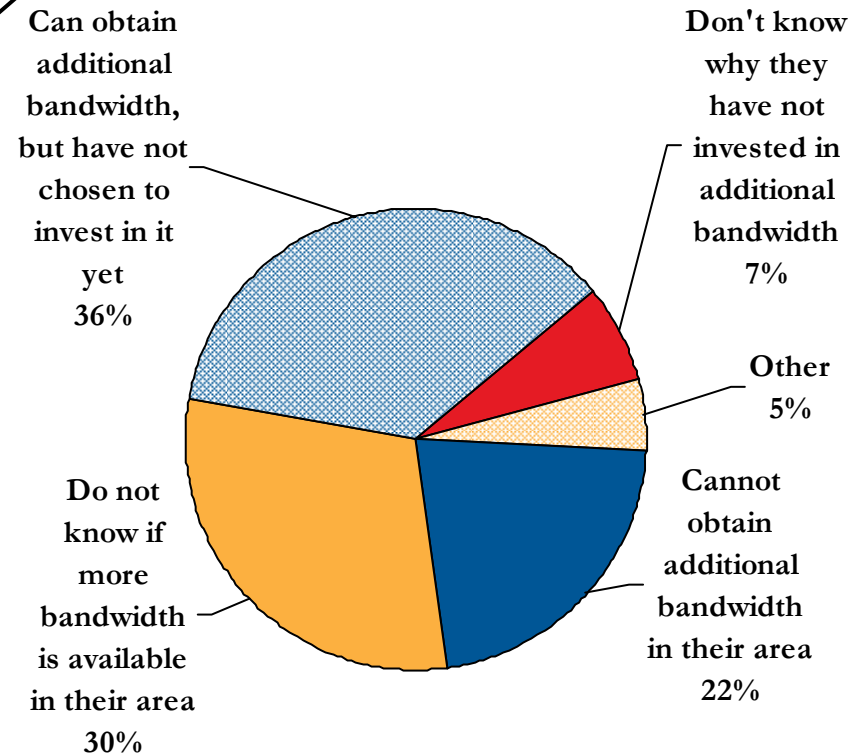
Q: To what extent would you say the actual speeds your business receives compares to the speeds advertised by the Internet provider you use?
(n = 537 OH businesses that have broadband service)

Broadband Speeds (Bandwidth) and Current Business Needs

Among all broadband-connected Ohio businesses:



Among businesses that say they need more bandwidth:

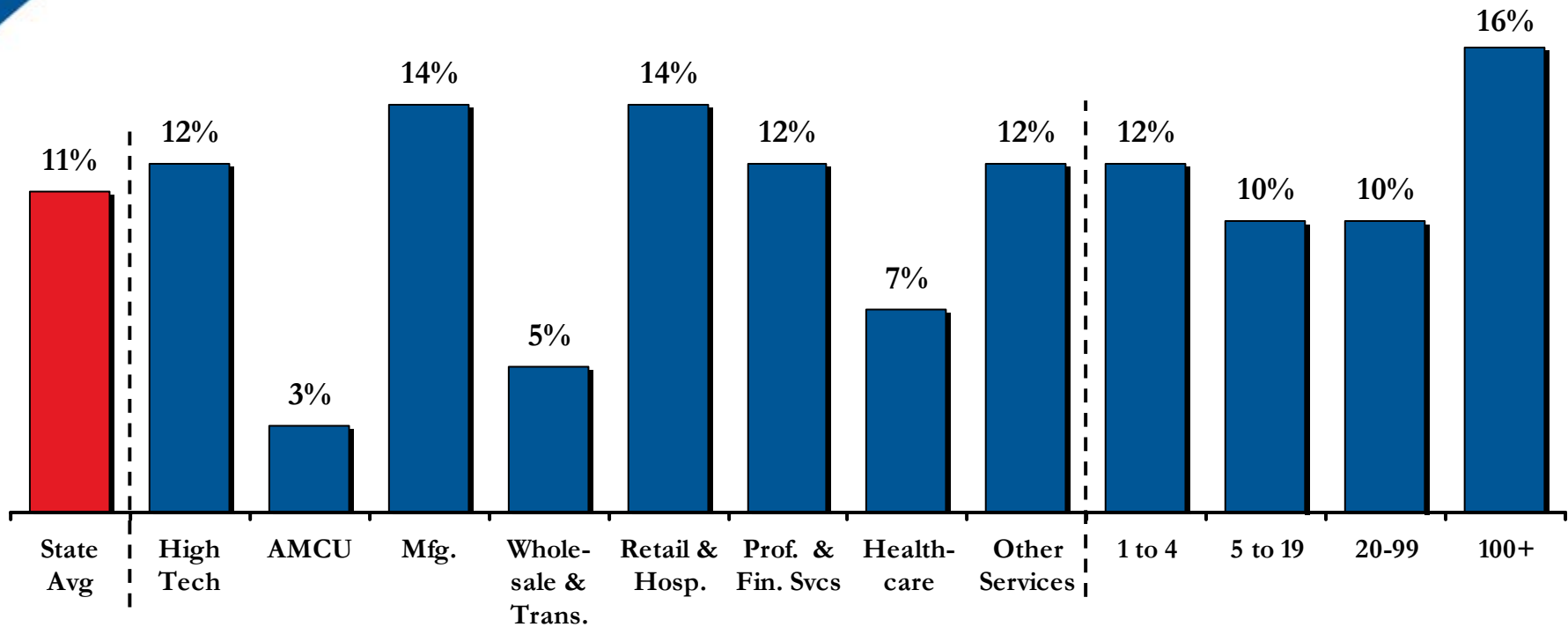


Q: How well does your current bandwidth meet your needs? and
 Q: Which of the following apply to your company's need for additional bandwidth?

(n = 537 OH businesses that use broadband service and 61 OH businesses that say they could use more bandwidth)

Businesses That Say Need More Bandwidth by Size and Industry Sector

Percent of broadband-connected businesses that say they need more bandwidth:



Industry Sector

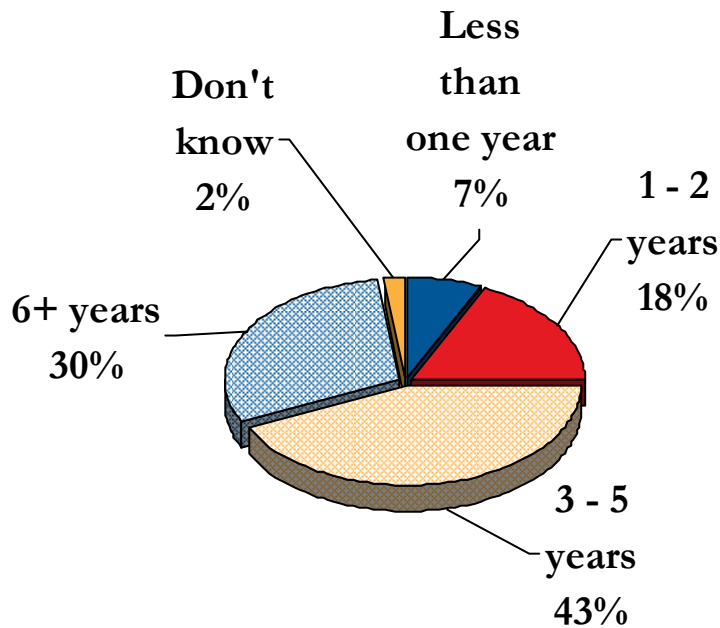
Size (# Employees)

Q: How many years has your organization been using the Internet?
(n = 537 OH businesses that have broadband service)

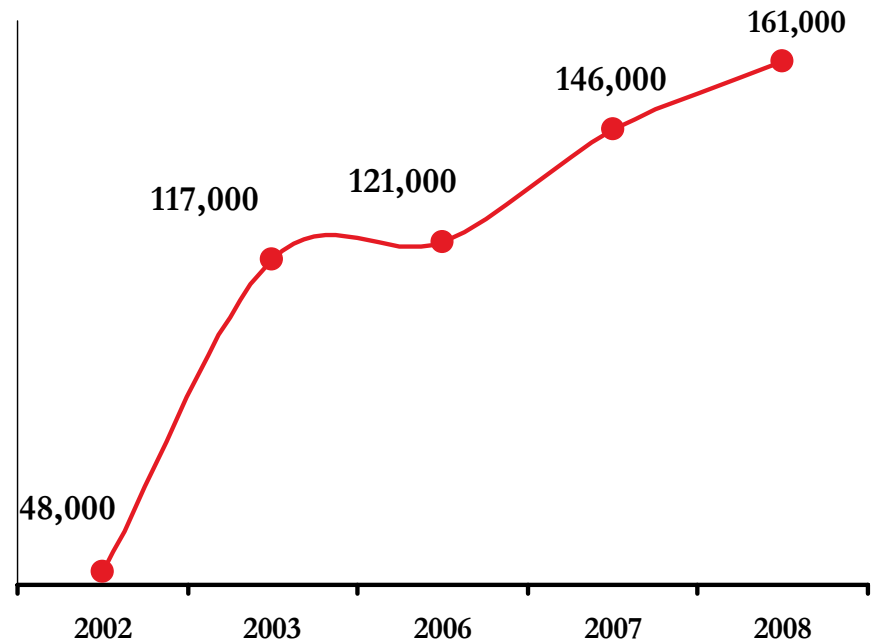
Years of Broadband Use

On average, Ohio businesses with broadband service have subscribed for 4.7 years.

How long businesses have subscribed to broadband:



Number of Ohio businesses with broadband (est.):



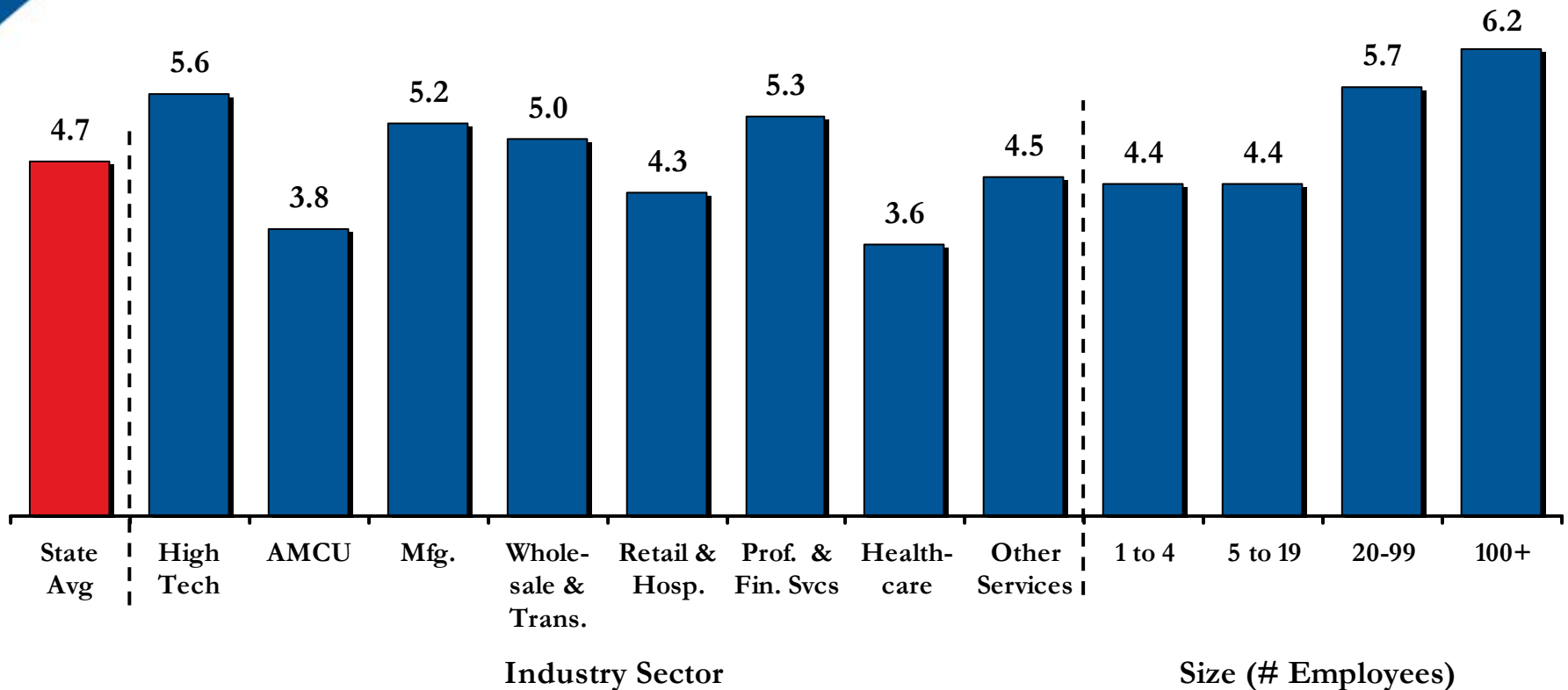
Percent of broadband-connected Ohio businesses

Q: How many years has your organization been using broadband service?

(n = 537 OH businesses that have broadband service)

Average Number of Years Businesses Have Been Using Broadband by Size and Industry Sector

Average number of years businesses have been using broadband for their work:

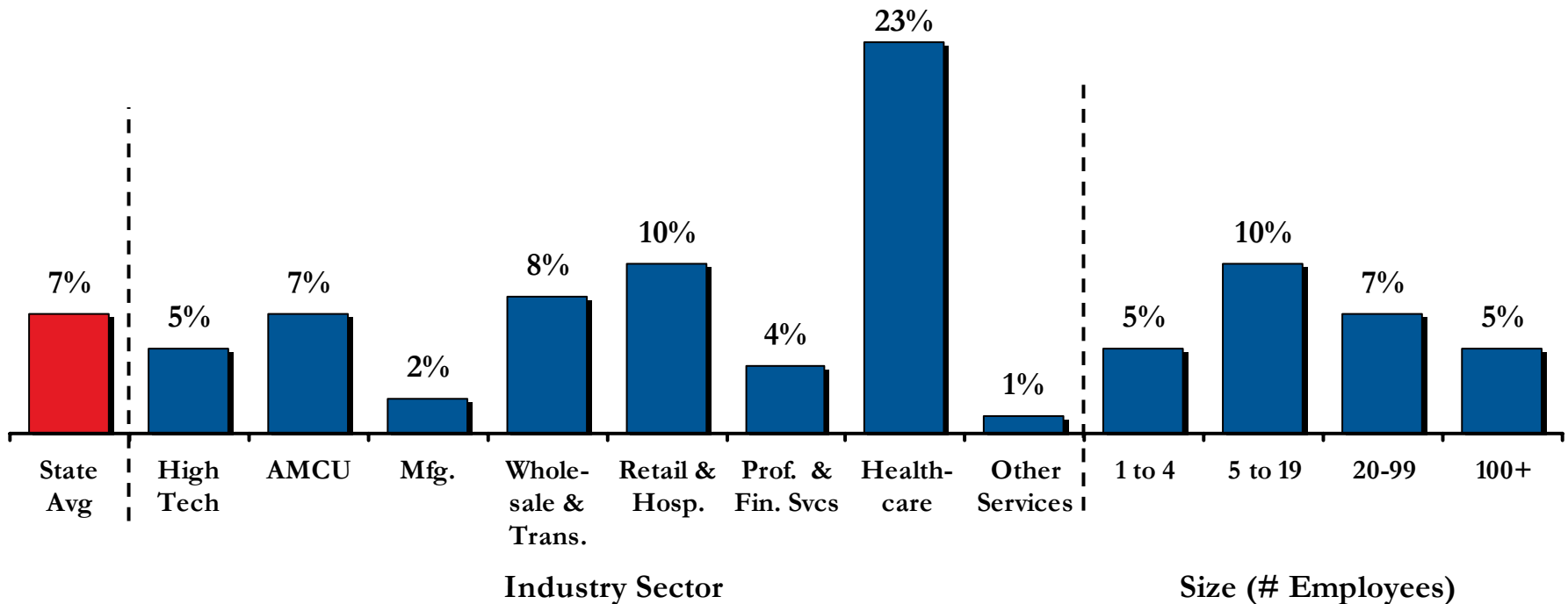


Q: How many years has your organization been using the Internet?
 (n = 537 OH businesses that have broadband service)

New Broadband Subscribers by Size and Industry Sector

Nearly one-fourth of broadband-connected businesses in the Healthcare sector subscribed less than one year ago.

Percent of broadband-connected businesses that first subscribed less than a year ago:

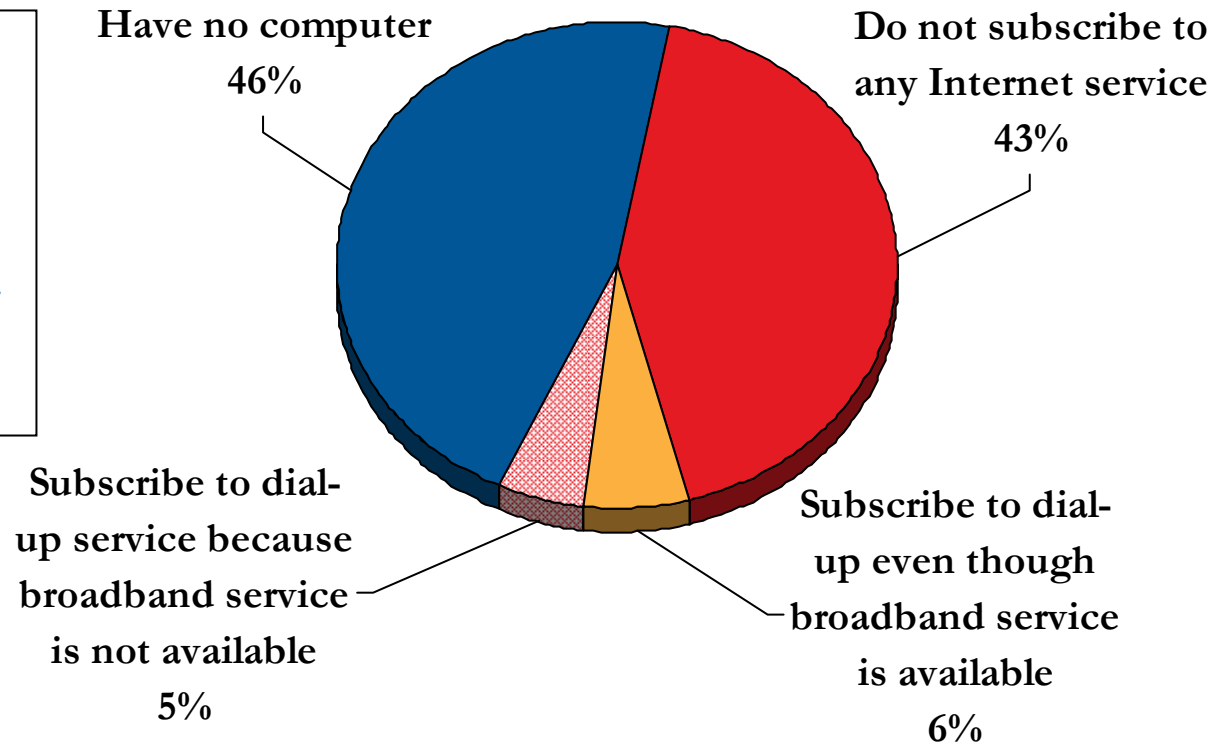


Q: How many years has your organization been using the Internet?
(n = 537 OH businesses that have broadband service)

Businesses That Do Not Subscribe to Broadband

Percent of Ohio businesses that do *not* subscribe to broadband service:

Nearly nine out of ten businesses with no broadband service do not have any Internet service at all, or they do not use a computer for their business.



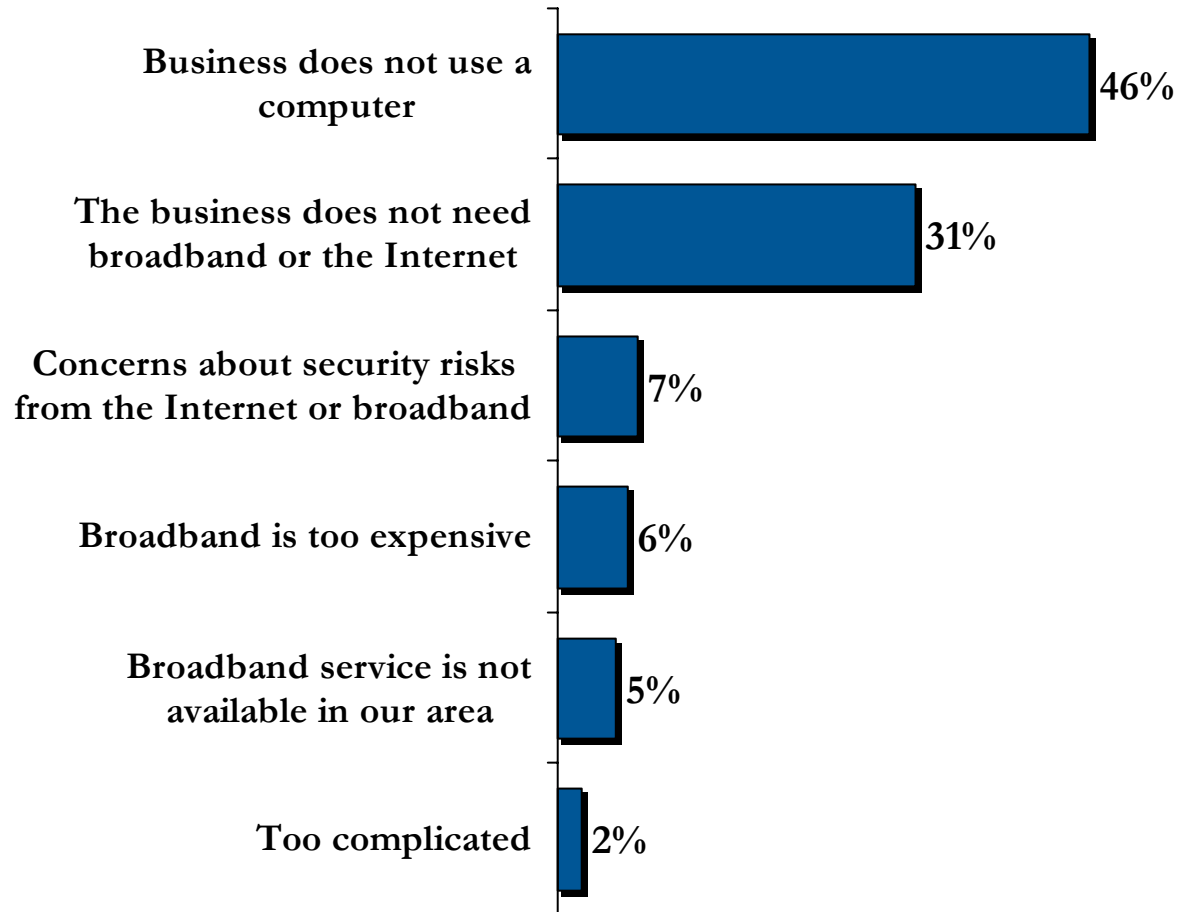
Barriers to Broadband Adoption

Percent of Ohio businesses that do not subscribe to broadband:*

Nearly one-half of Ohio businesses that do not use broadband service do not use a computer.

Another 31% believe they do not need broadband service for their business.

In contrast, only 6% believe that broadband service is too expensive.



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

Q: Why doesn't your organization subscribe to broadband service? (n = 241 OH businesses that do not subscribe to broadband)



Technology's Impact On Competition and Success

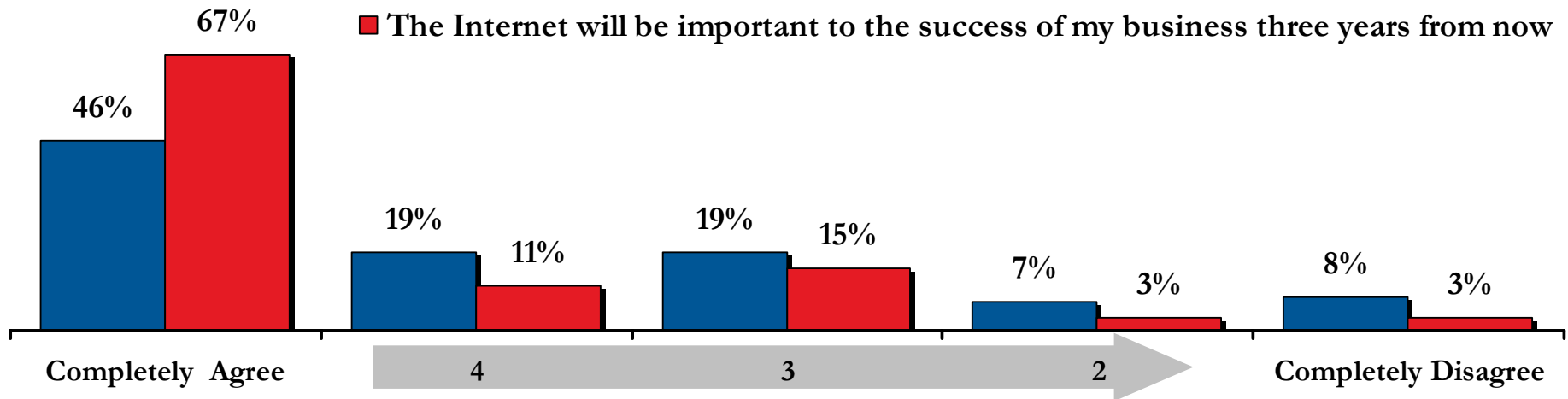
The Internet's Impact on Success

Forty-six percent of Ohio businesses “Completely Agree” that the Internet has already improved the success of their business.

That number increases to 67% when businesses consider how important the Internet will be to their success three years from now.

On a scale from 1 to 5, with 5 being “Completely Agree” and 1 being “Completely Disagree”:

- The Internet has improved the success of my business
- The Internet will be important to the success of my business three years from now



Q: On a scale of 1 to 5, with 5 being completely agree and 1 being completely disagree, how much do you agree with the following statement?

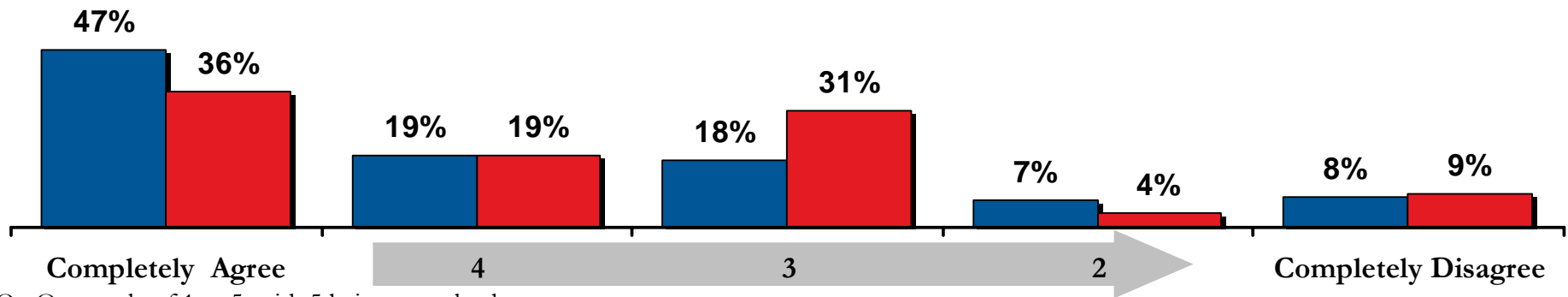
(n = 588 OH businesses that use the Internet)

The Internet's Impact on Success (Broadband Adopters Compared to Internet Subscribers Without Broadband)

Forty-seven percent of all broadband-connected businesses “Completely Agree” that the Internet has helped them succeed, compared to just 36% of Internet users without broadband who feel the same way.

On a scale from 1 to 5, with 5 being “Completely Agree” and 1 being “Completely Disagree”:
“The Internet has improved the success of my business”

■ Broadband users ■ Internet users without broadband



Q: On a scale of 1 to 5, with 5 being completely agree and 1 being completely disagree, how much do you agree with the following statement?

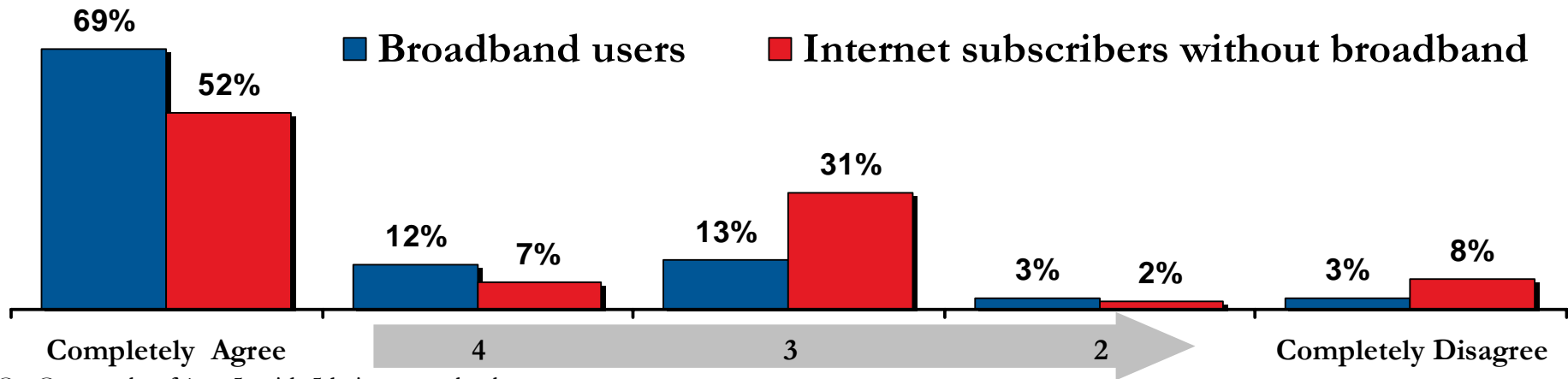
(n = 588 OH businesses that use the Internet)

The Internet's Impact on Success (Broadband Adopters Compared to Internet Subscribers Without Broadband)

Nearly 70% of broadband-connected businesses “Completely Agree” that the Internet will be important to their success in the near future.

On the other hand, more than twice as many Internet subscribers who do not have broadband “Completely Disagree” with this statement.

On a scale from 1 to 5, with 5 being “Completely Agree” and 1 being “Completely Disagree”:
“The Internet will be important to the success of my business three years from now”



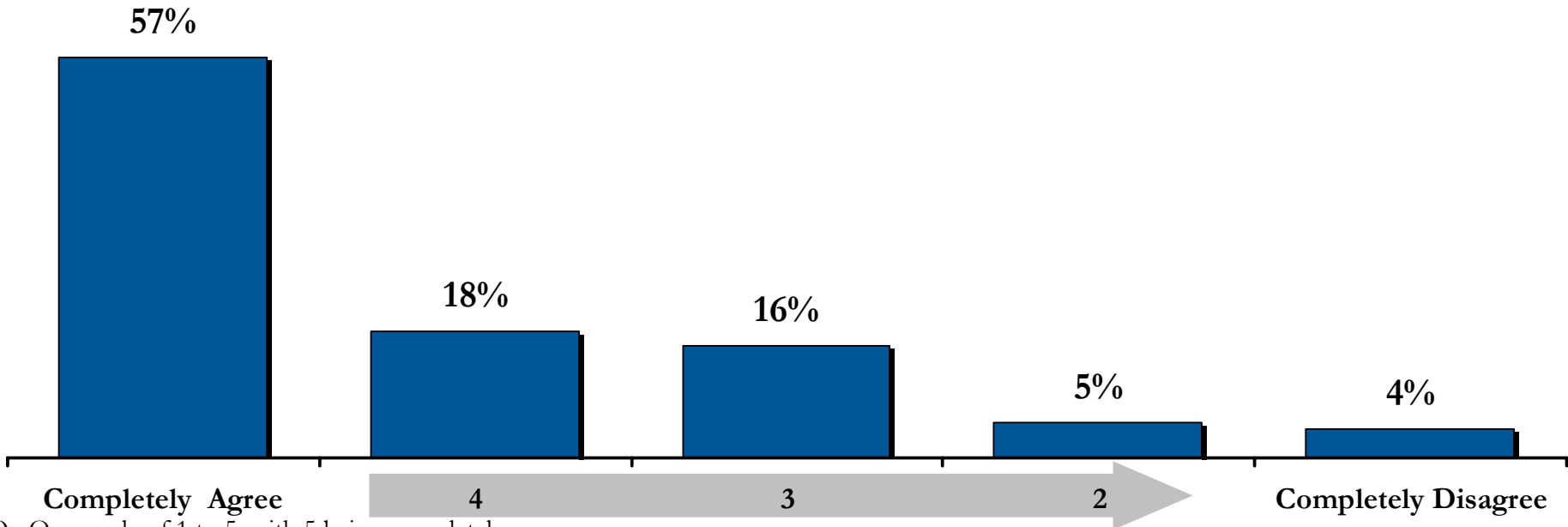
Q: On a scale of 1 to 5, with 5 being completely agree and 1 being completely disagree, how much do you agree with the following statement?

(n = 588 OH businesses that use the Internet)

Broadband's Impact on Competition

More than one-half of all Internet-connected businesses “Completely Agree” that they need broadband to compete in today’s global economy.

On a scale from 1 to 5, with 5 being “Completely Agree” and 1 being “Completely Disagree”:
“Businesses need broadband in order to compete in today’s economy”



Q: On a scale of 1 to 5, with 5 being completely agree and 1 being completely disagree, how much do you agree with the following statement?

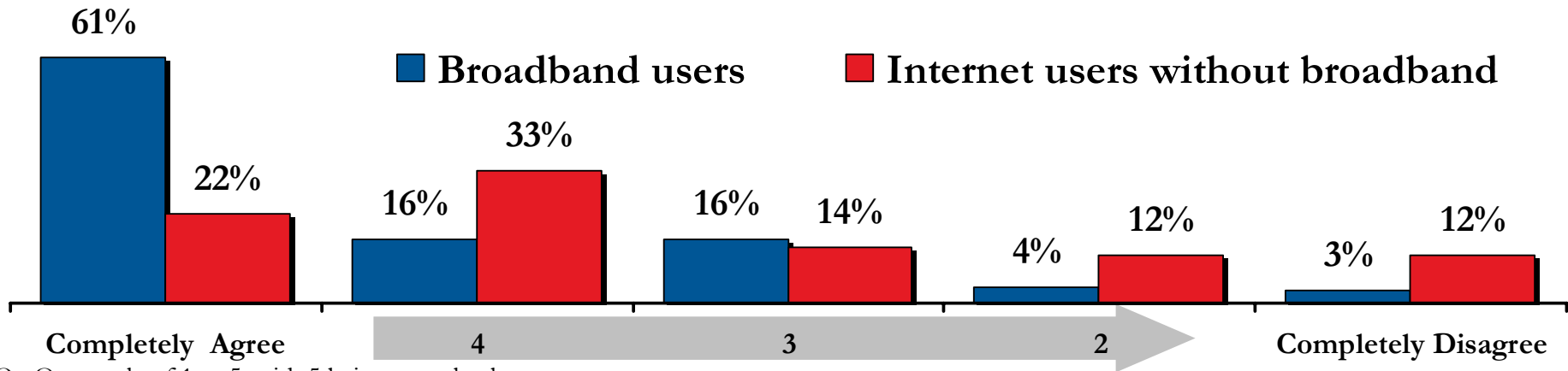
(n = 588 OH businesses that use the Internet)

Broadband's Impact on Competition (Broadband Adopters Compared to Internet Subscribers Without Broadband)

Nearly three times as many broadband-connected businesses “Completely Agree” with this statement.

Conversely, four times as many Internet-connected businesses with no broadband service “Completely Disagree.”

On a scale from 1 to 5, with 5 being “Completely Agree” and 1 being “Completely Disagree”:
“Businesses need broadband in order to compete in today’s economy”



Q: On a scale of 1 to 5, with 5 being completely agree and 1 being completely disagree, how much do you agree with the following statement?

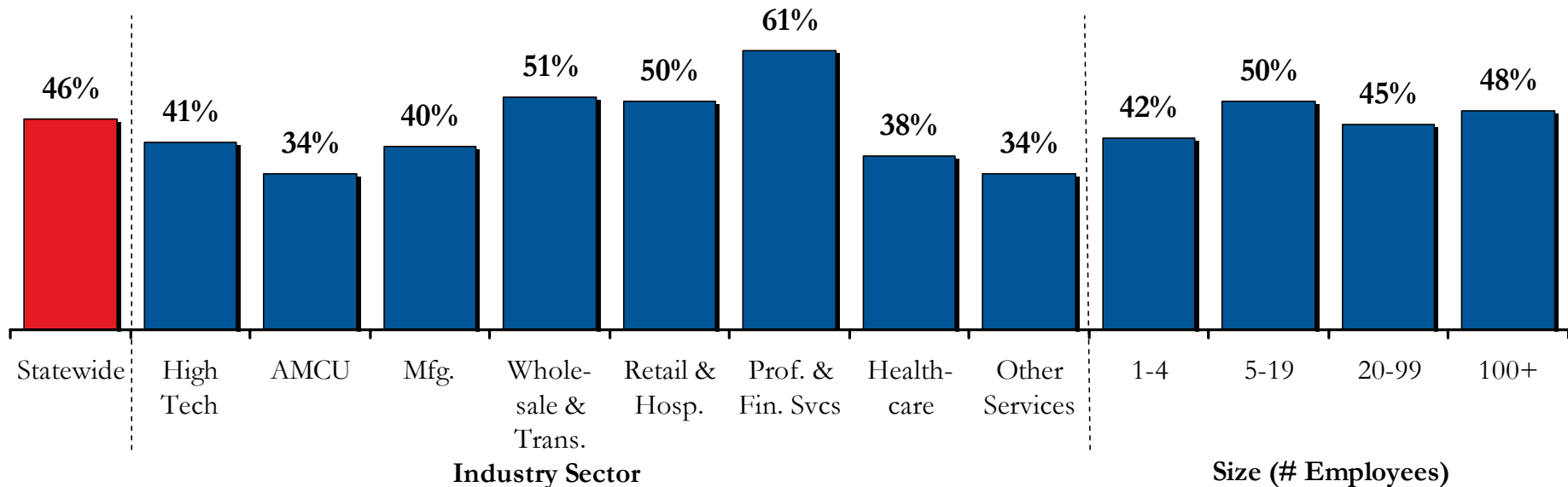
(n = 588 OH businesses that use the Internet)

The Internet's Impact on Success by Business Size and Sector

Businesses in the Professional/Finance sector are significantly more likely to appreciate the Internet's positive impact on business success than the state average.

There is very little variance in attitude among businesses of different sizes.

Percent of businesses that use the Internet and “Completely Agree” with the statement:
“The Internet has improved the success of my business”



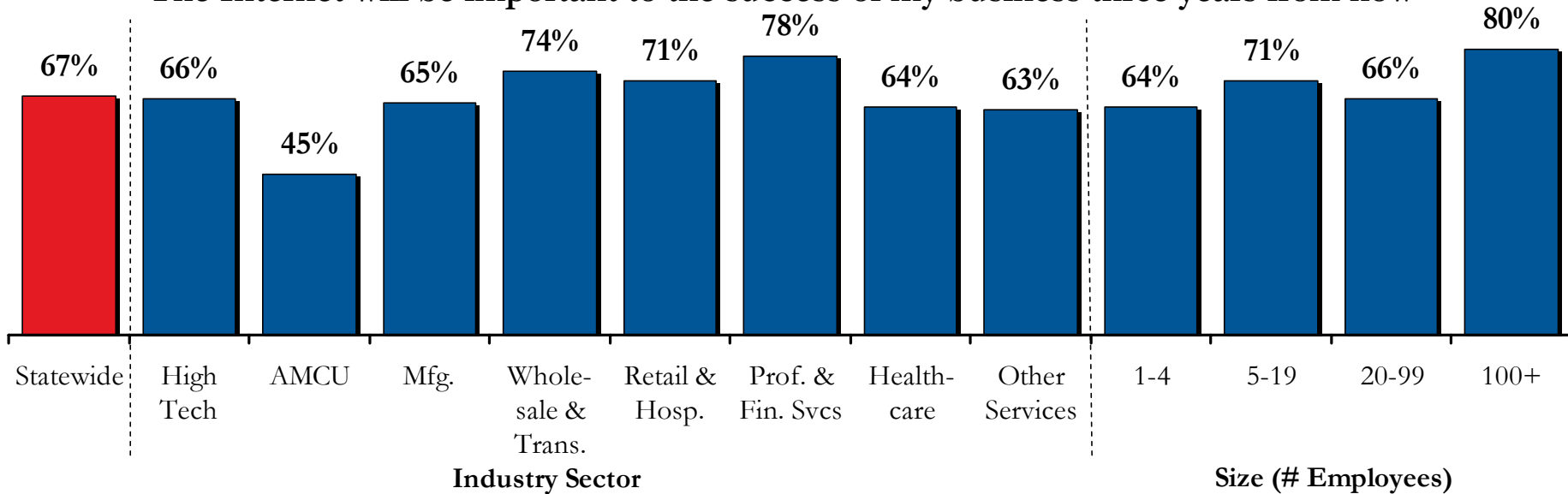
Q: On a scale of 1 to 5, with 5 being completely agree and 1 being completely disagree, how much do you agree with the following statement?
(n = 588 OH businesses that use the Internet)

The Internet's Impact on Success by Business Size and Sector

Businesses in the Ag/Mining/Construction/Utility sector are significantly less likely to believe that the Internet will be important to success in the near future.

The largest businesses in Ohio (those with 100 employees or more) are the most likely to have a positive outlook regarding the Internet's impact on future business.

Percent of businesses that use the Internet and "Completely Agree" with the statement: "The Internet will be important to the success of my business three years from now"



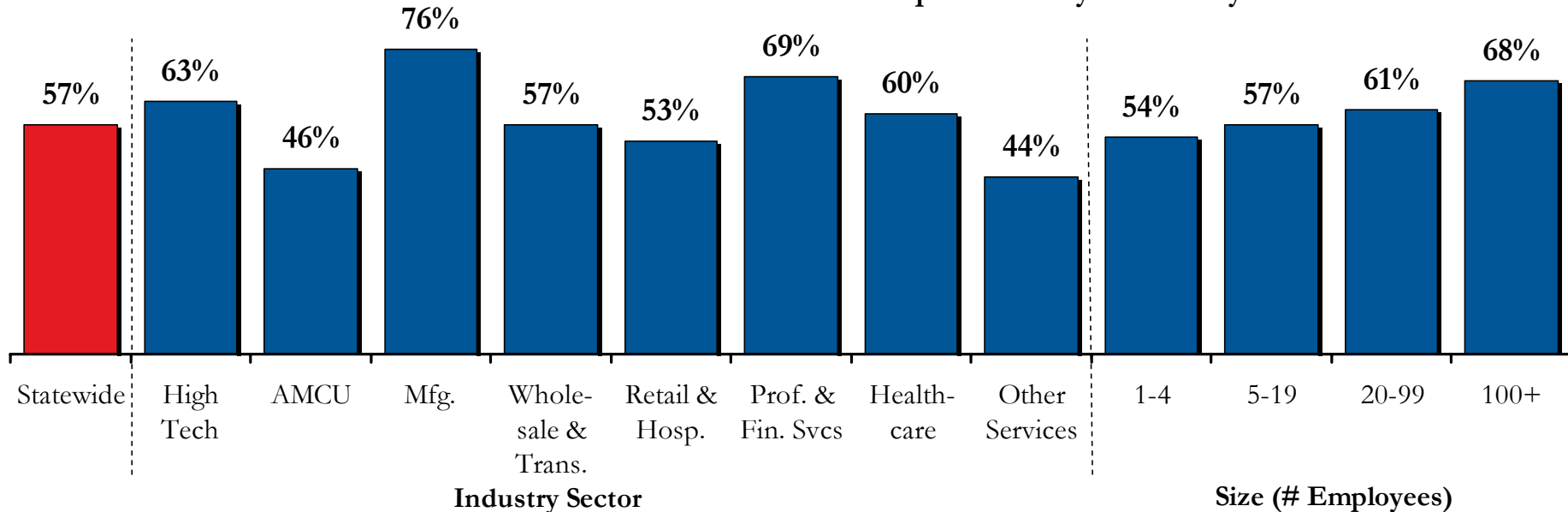
Q: On a scale of 1 to 5, with 5 being completely agree and 1 being completely disagree, how much do you agree with the following statement?
(n = 588 OH businesses that use the Internet)

Broadband's Impact on Competition by Business Size and Sector

The percentage of businesses in the Manufacturing sector that agree that businesses need broadband is significantly higher than the state average.

Business size is also positively correlated with the belief that businesses need broadband to compete.

Percent of businesses that use the Internet and “Completely Agree” with the statement: “Businesses need broadband in order to compete in today’s economy”



Q: On a scale of 1 to 5, with 5 being completely agree and 1 being completely disagree, how much do you agree with the following statement?
(n = 588 OH businesses that use the Internet)



Uses for the Internet

Internet Applications

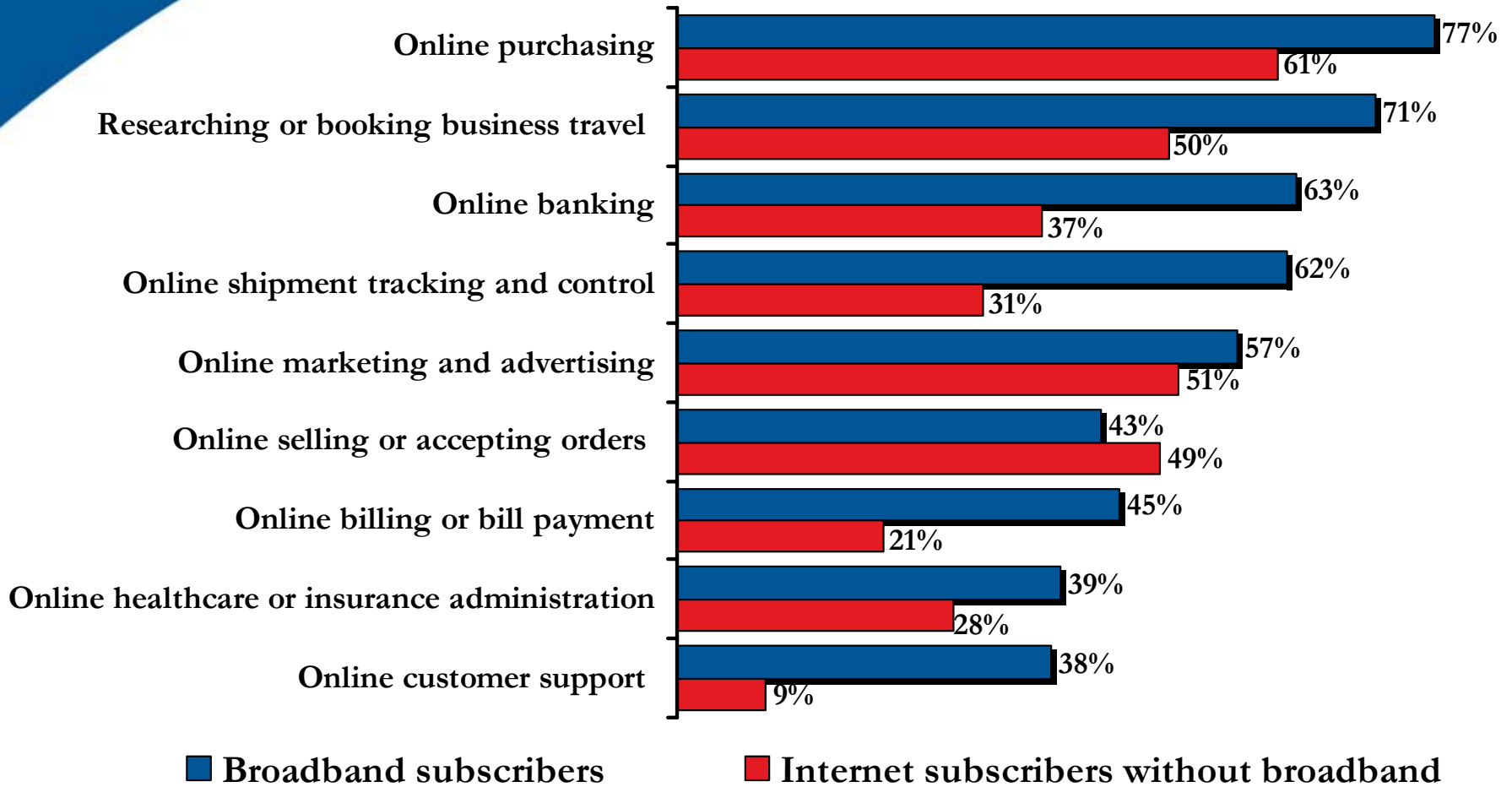
Percent of Internet-connected businesses:



Q: Which of the following does your business currently use?
(n = 588 OH businesses that use the Internet)

Internet Applications

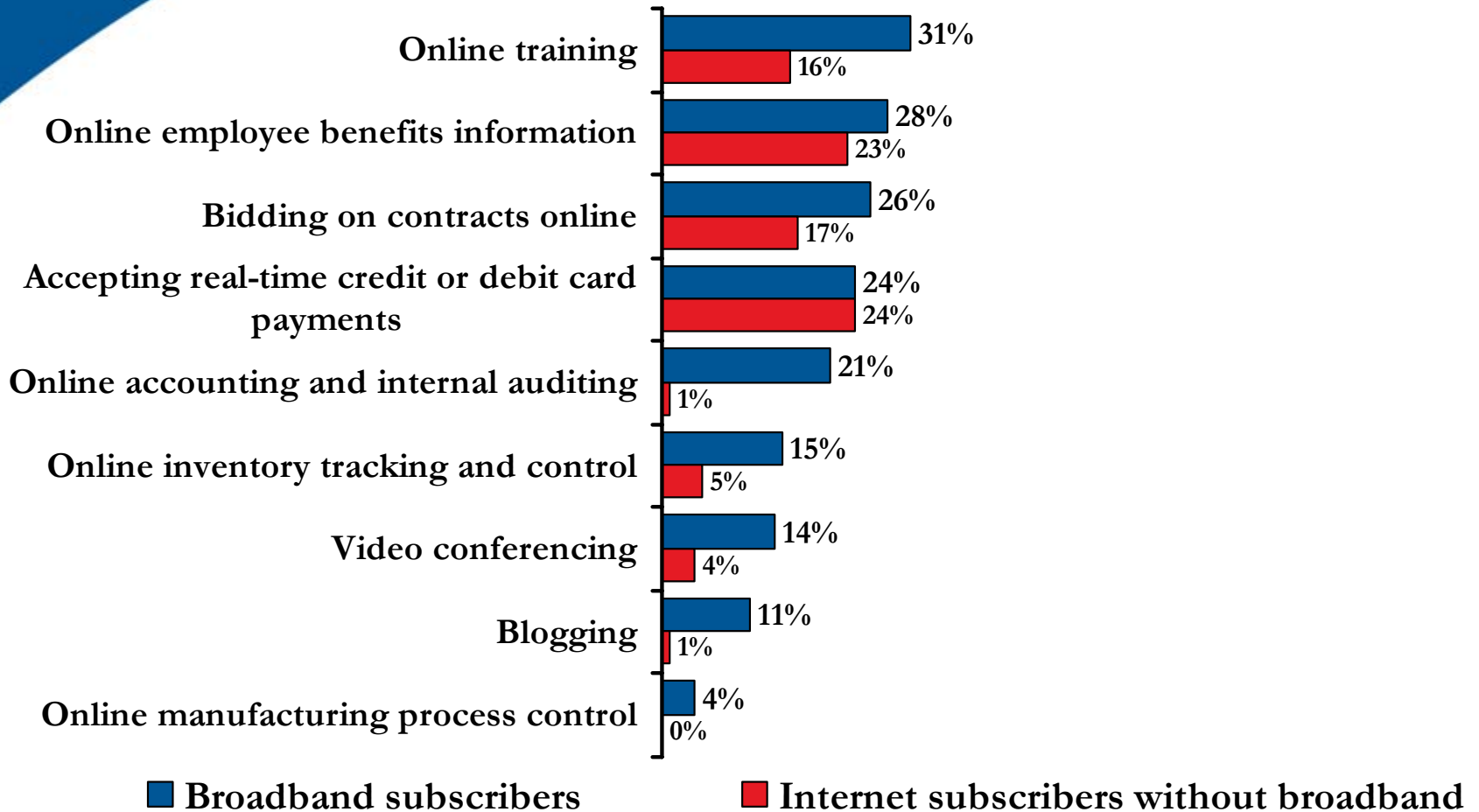
(Broadband Adopters Compared to Other Internet Subscribers, Slide 1 of 2)



Q: Which of the following does your business currently use?
 (n = 588 OH businesses that use the Internet)

Internet Applications

(Broadband Adopters Compared to Other Internet Subscribers, Slide 2 of 2)



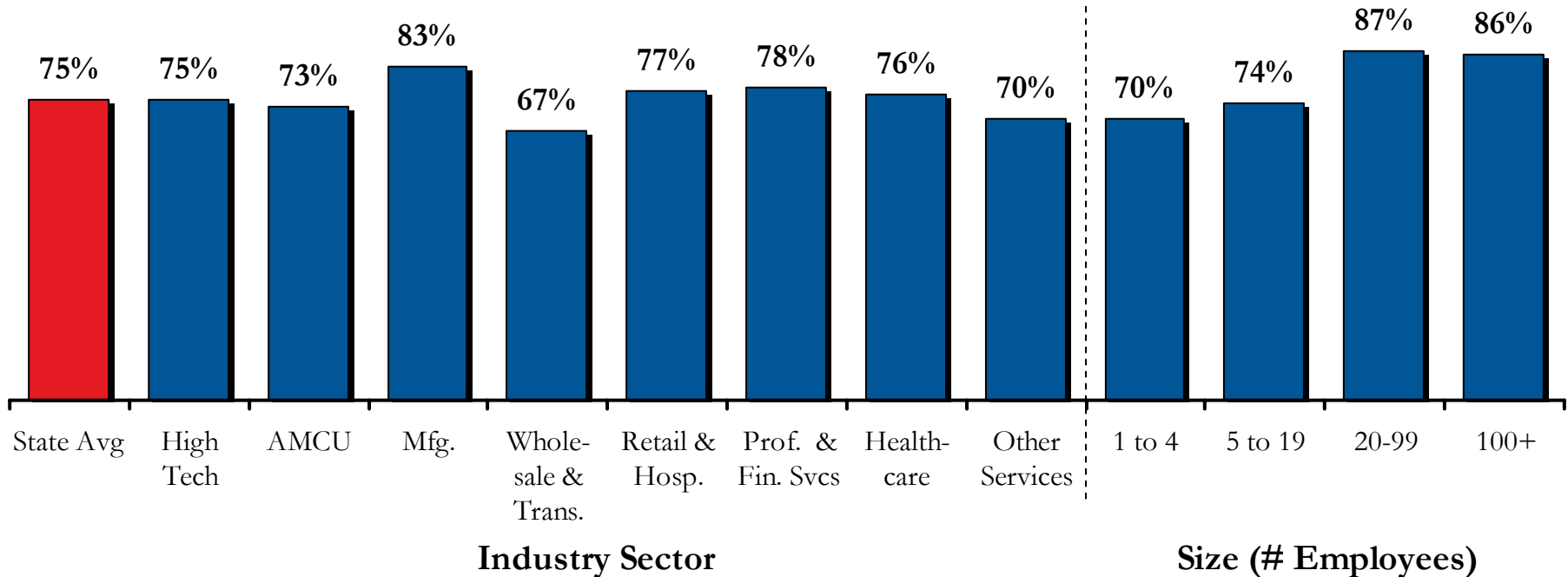
Q: Which of the following does your business currently use?
 (n = 588 OH businesses that use the Internet)

Online Purchasing or Ordering

Businesses in the Manufacturing industry sector are the most likely to use the Internet to buy or order goods.

Larger businesses are more likely than smaller companies to purchase or order goods online.

Current Adoption by Size and Industry Sector



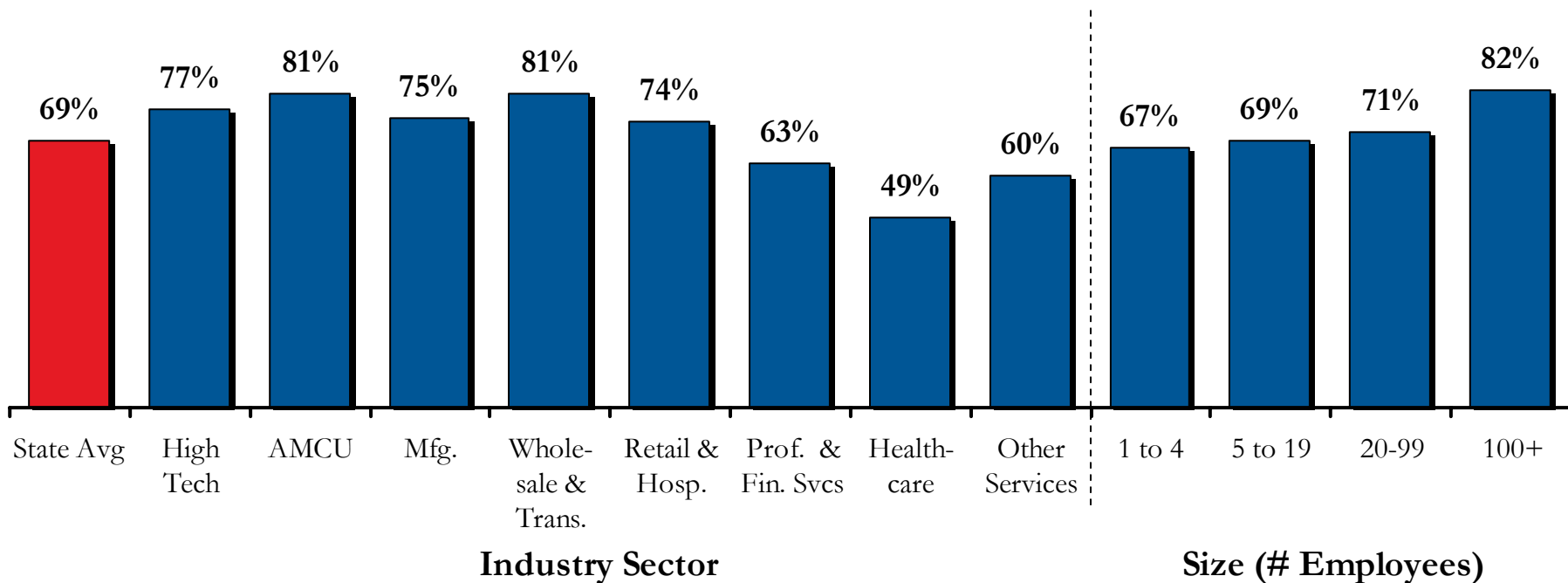
Q: Which of the following does your business currently use?
(n = 588 OH businesses that use the Internet)

Researching or Booking Business Travel Arrangements Online

Businesses in the Wholesale Trade/Transportation and the Agriculture/Mining/Construction/Utility industry sectors are the most likely to use the Internet to research or book business travel, while the Healthcare industry sector is the least likely to do so.

Larger businesses are more likely to research or book business travel.

Current Adoption by Size and Industry Sector



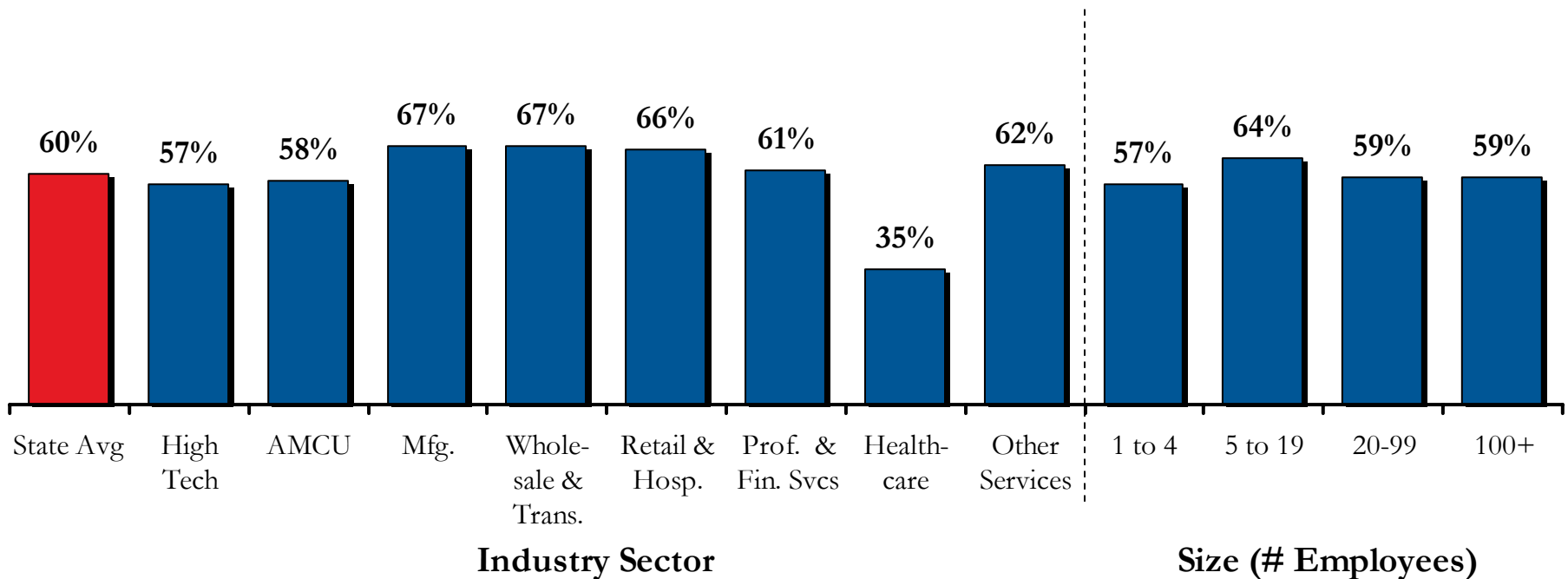
Q: Which of the following does your business currently use?
(n = 588 OH businesses that use the Internet)

Online Banking

Businesses in the Healthcare industry sector are significantly less likely to use the Internet to do online banking.

More than one-half of businesses in every size category bank online.

Current Adoption by Size and Industry Sector



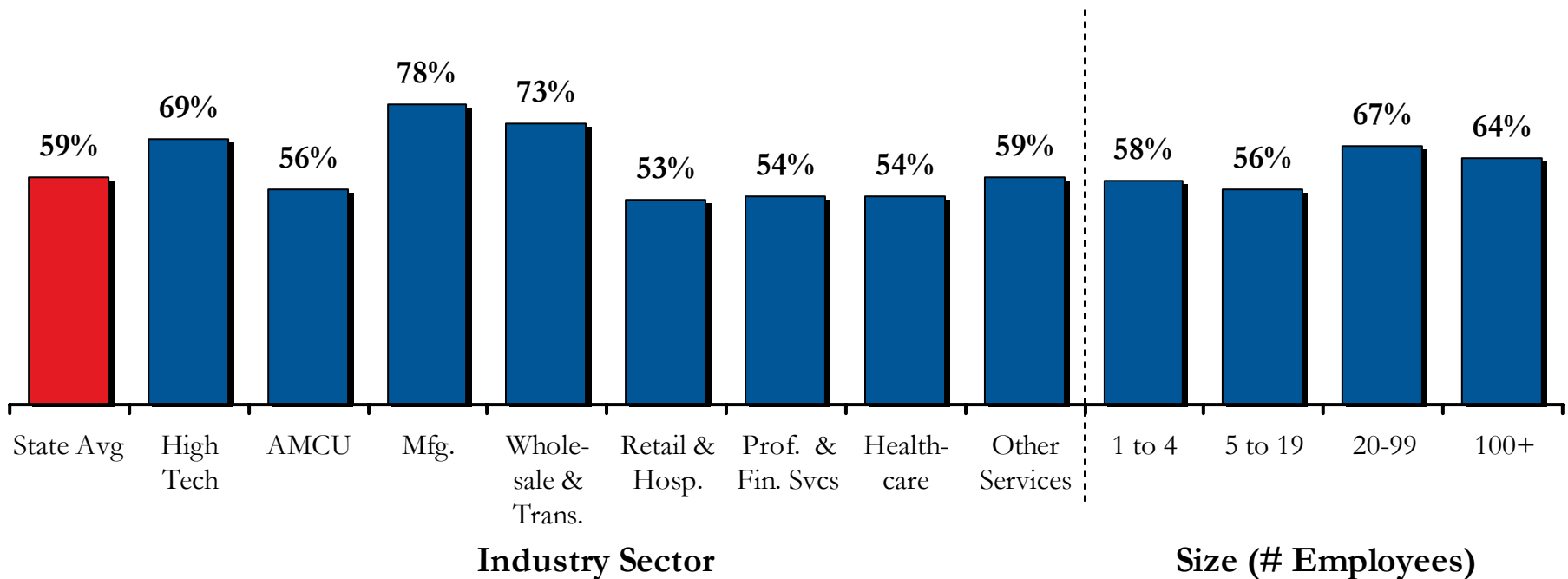
Q: Which of the following does your business currently use?
 (n = 588 OH businesses that use the Internet)

Online Shipment Tracking and Control

Businesses in the Manufacturing and Wholesale Trade/Transportation industry sectors are the most likely to go online to track and control shipping.

Larger businesses are more likely to track shipping online.

Current Adoption by Size and Industry Sector



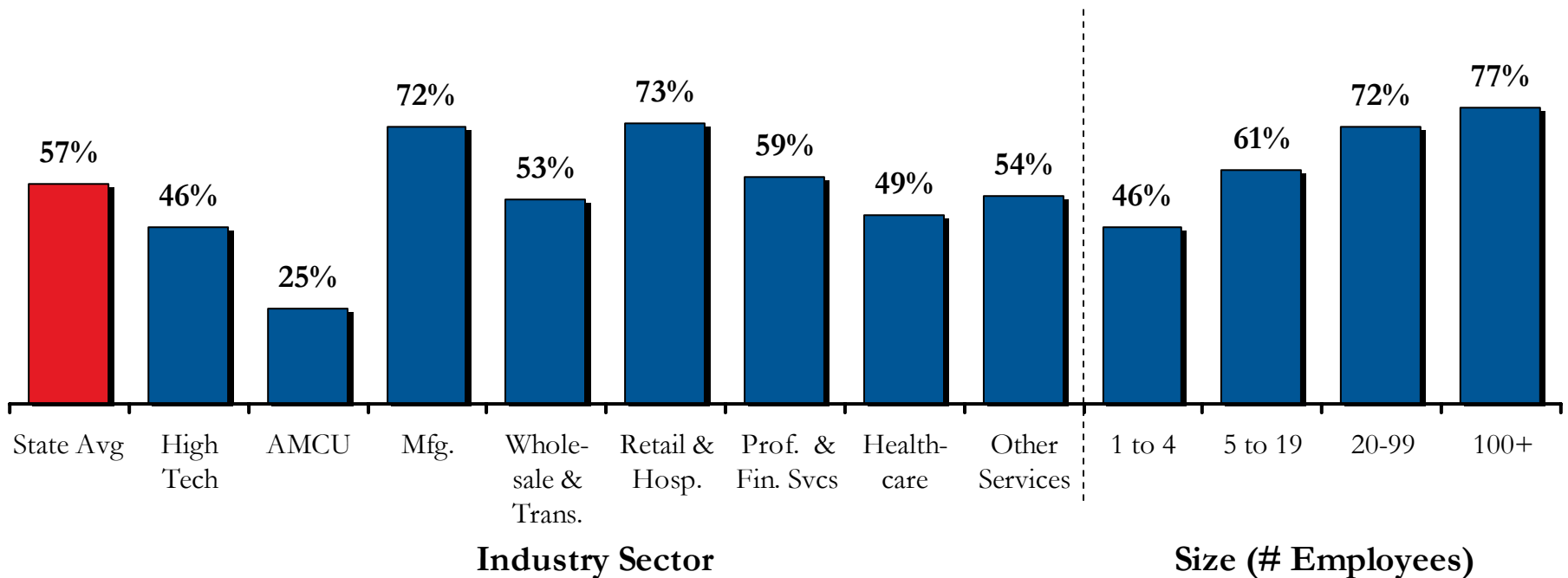
Q: Which of the following does your business currently use?
 (n = 588 OH businesses that use the Internet)

Online Marketing and Advertising

Businesses in the Manufacturing and Retail/Hospitality industry sectors are the most likely to advertise online, while businesses in the Agriculture/Mining/Construction/Utility sector are the least likely to do so.

Business size is positively correlated with online advertising.

Current Adoption by Size and Industry Sector



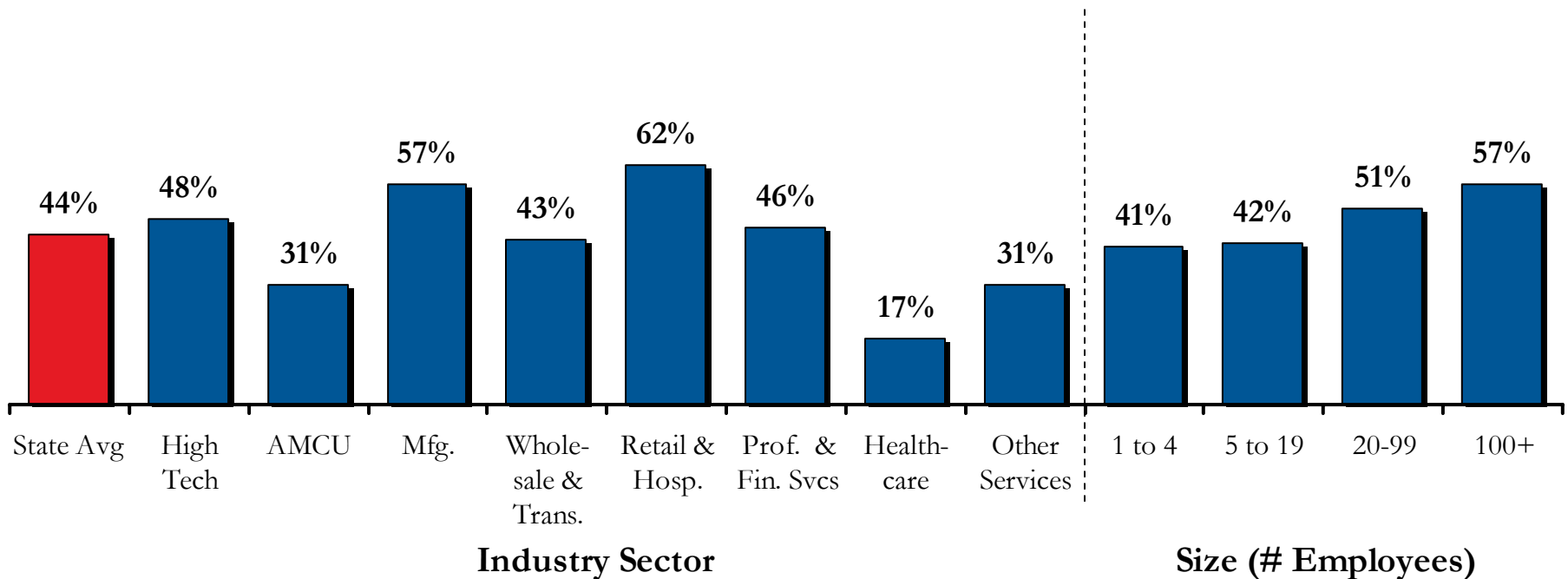
Q: Which of the following does your business currently use?
(n = 588 OH businesses that use the Internet)

Online Selling or Accepting Orders Online

More than one-half the businesses in the Manufacturing and Retail/Hospitality industry sectors sell or accept orders for products online, while less than one-fifth of companies in the Healthcare sector do so.

Larger businesses are more likely to sell or accept orders for goods and services online.

Current Adoption by Size and Industry Sector



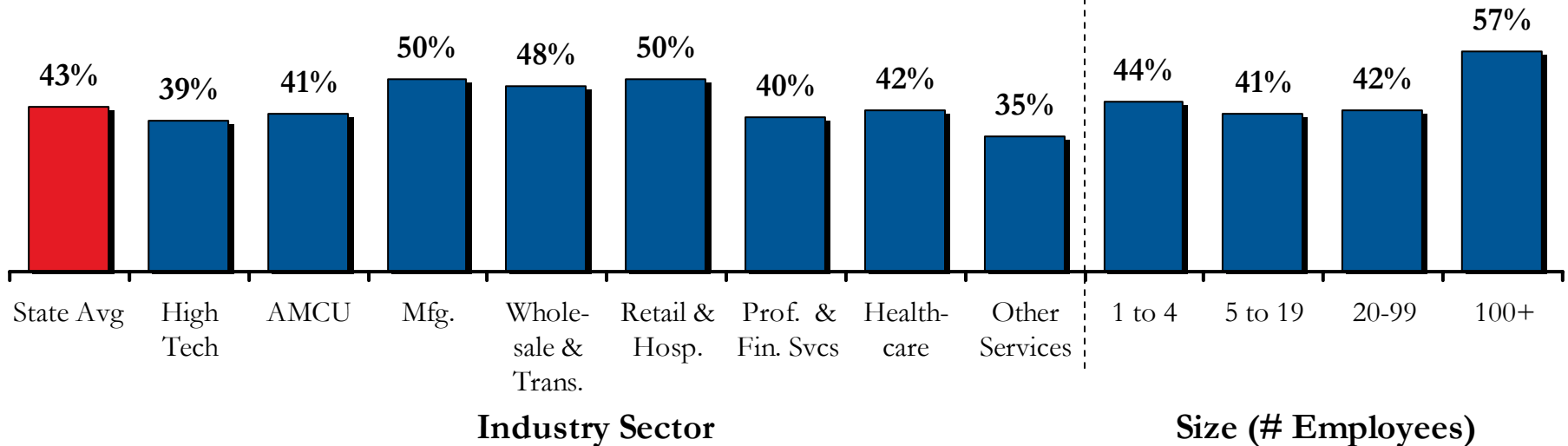
Q: Which of the following does your business currently use?
 (n = 588 OH businesses that use the Internet)

Online Billing or Bill Payment

Businesses in the Manufacturing and Retail/Hospitality industry sectors are the most likely to use the Internet for online billing or accepting bill payments.

Businesses with over one hundred employees are significantly more likely to accept bill payments online.

Current Adoption by Size and Industry Sector



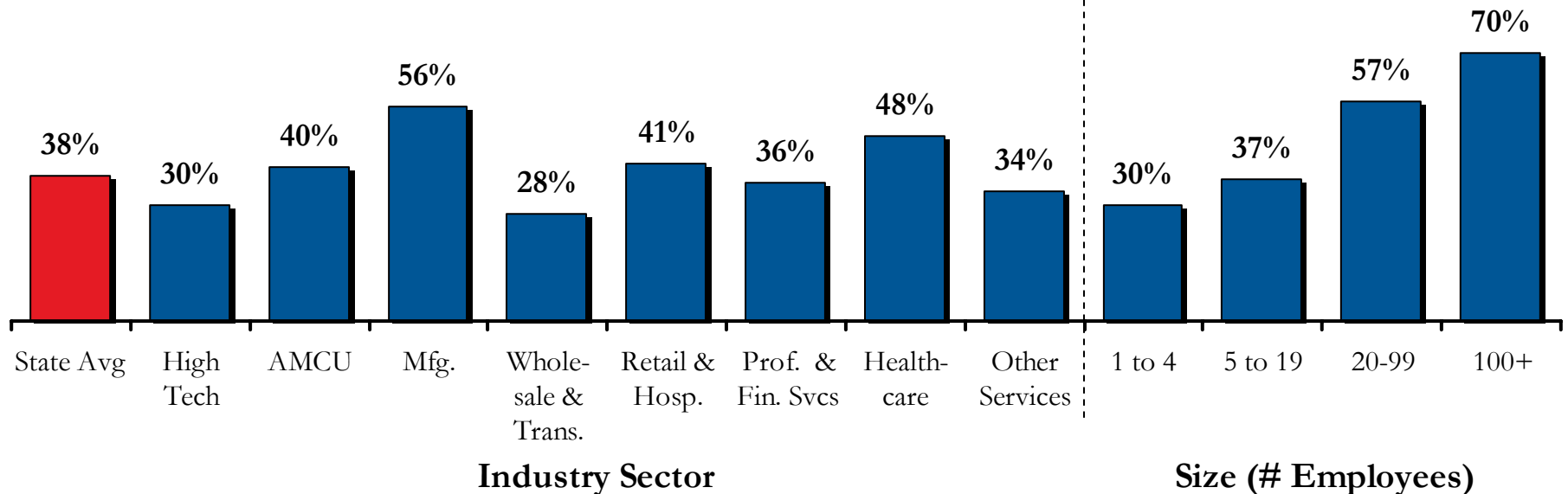
Q: Which of the following does your business currently use?
 (n = 588 OH businesses that use the Internet)

Online Administration With Healthcare Insurance Companies

Businesses in the Manufacturing industry sector are the most likely to offer online administration with health insurance companies, while businesses in the Wholesale Trade/Transport industry sector are the least likely to do so.

While only thirty percent of Ohio's smallest businesses offer online healthcare insurance administration, seven out of ten of the state's largest businesses offer this service.

Current Adoption by Size and Industry Sector



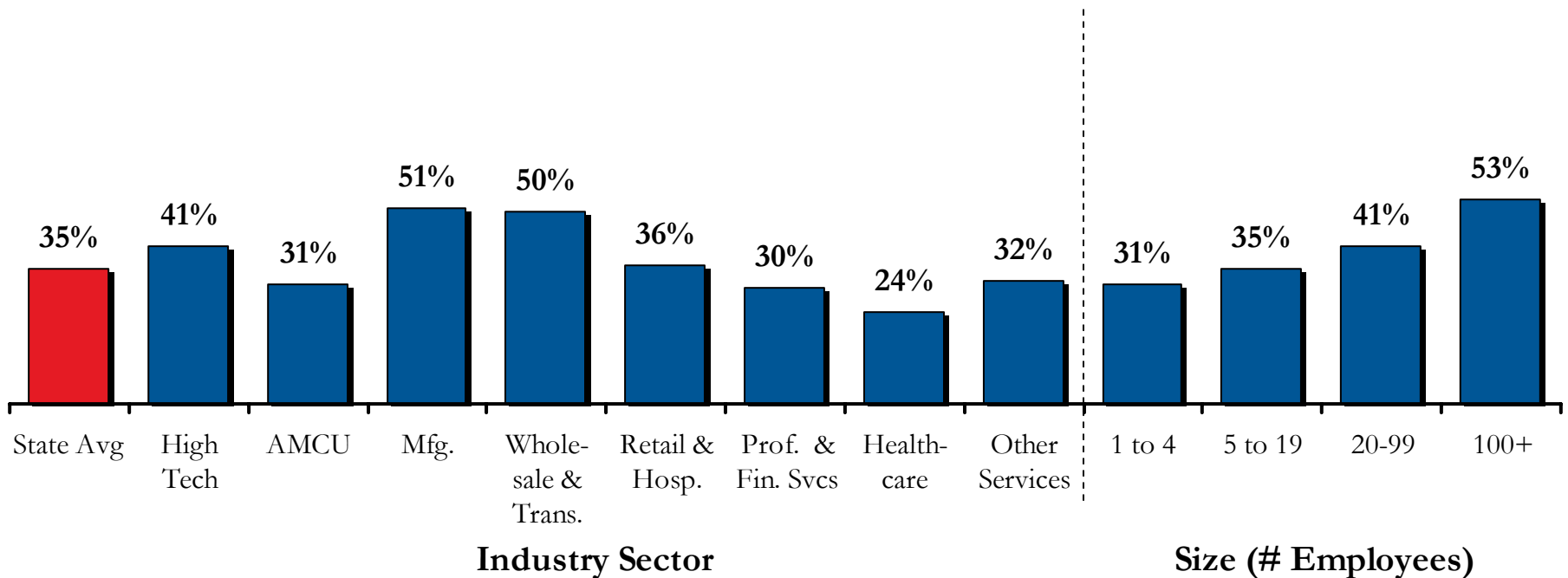
Q: Which of the following does your business currently use?
(n = 588 OH businesses that use the Internet)

Online Customer Support

More than half the businesses in the Manufacturing and Wholesale Trade/Transportation industry sectors offer online customer support, whereas fewer than one-fourth of businesses in the Healthcare industry offer this service.

Larger businesses are more likely than smaller ones to offer online customer support.

Current Adoption by Size and Industry Sector



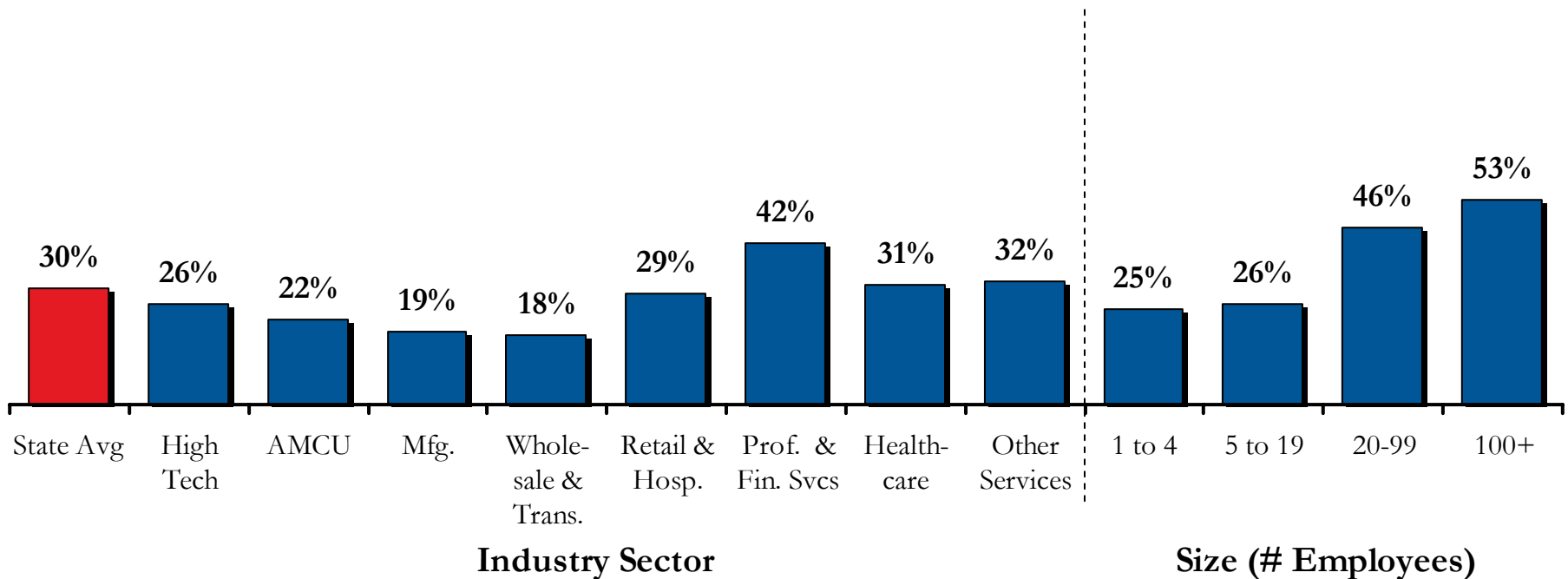
Q: Which of the following does your business currently use?
(n = 588 OH businesses that use the Internet)

Online Training

Businesses in the Professional/Finance industry sector are the most likely to provide online training.

Businesses with more than 100 employees are more than twice as likely to offer online training than small businesses with fewer than five employees.

Current Adoption by Size and Industry Sector



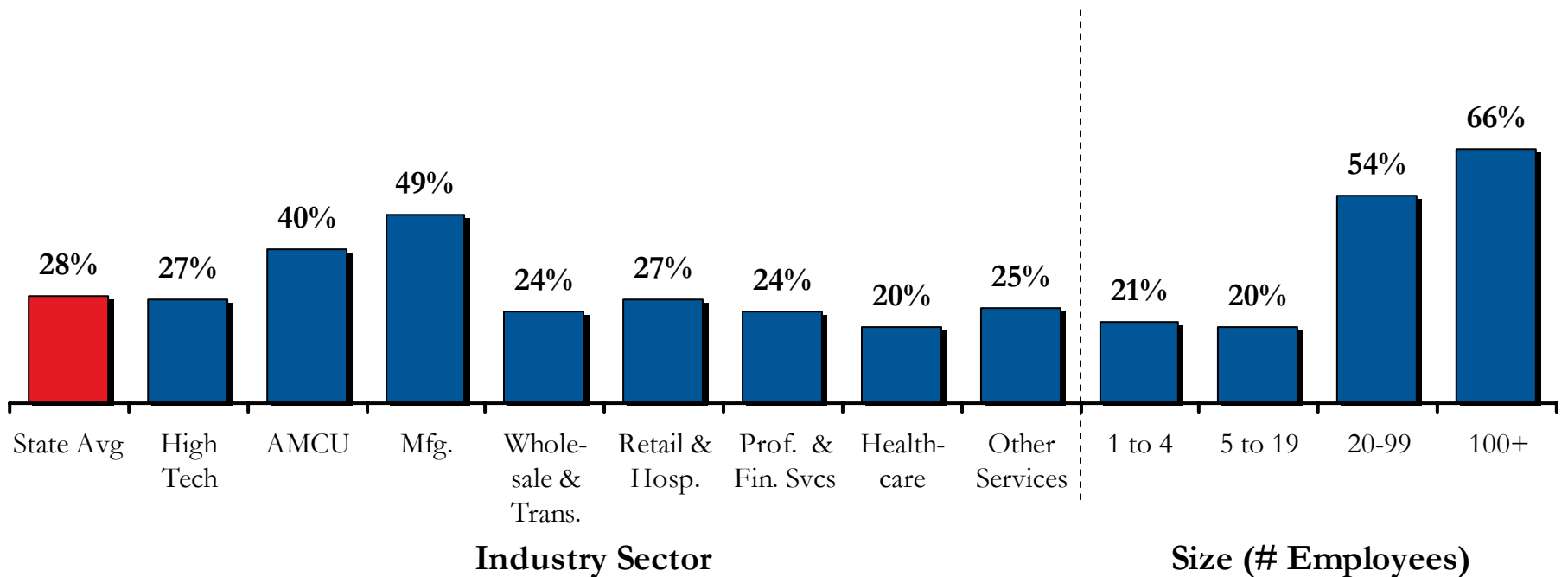
Q: Which of the following does your business currently use?
 (n = 588 OH businesses that use the Internet)

Online Employee Benefits Information

Businesses in the Manufacturing industry sector are the most likely to offer employee benefit information online, followed by businesses in the Agriculture/Mining/Construction/Utility industry sector.

Businesses with more than 100 employees are more than three times as likely to offer online employee benefit information than small businesses with fewer than five employees.

Current Adoption by Size and Industry Sector



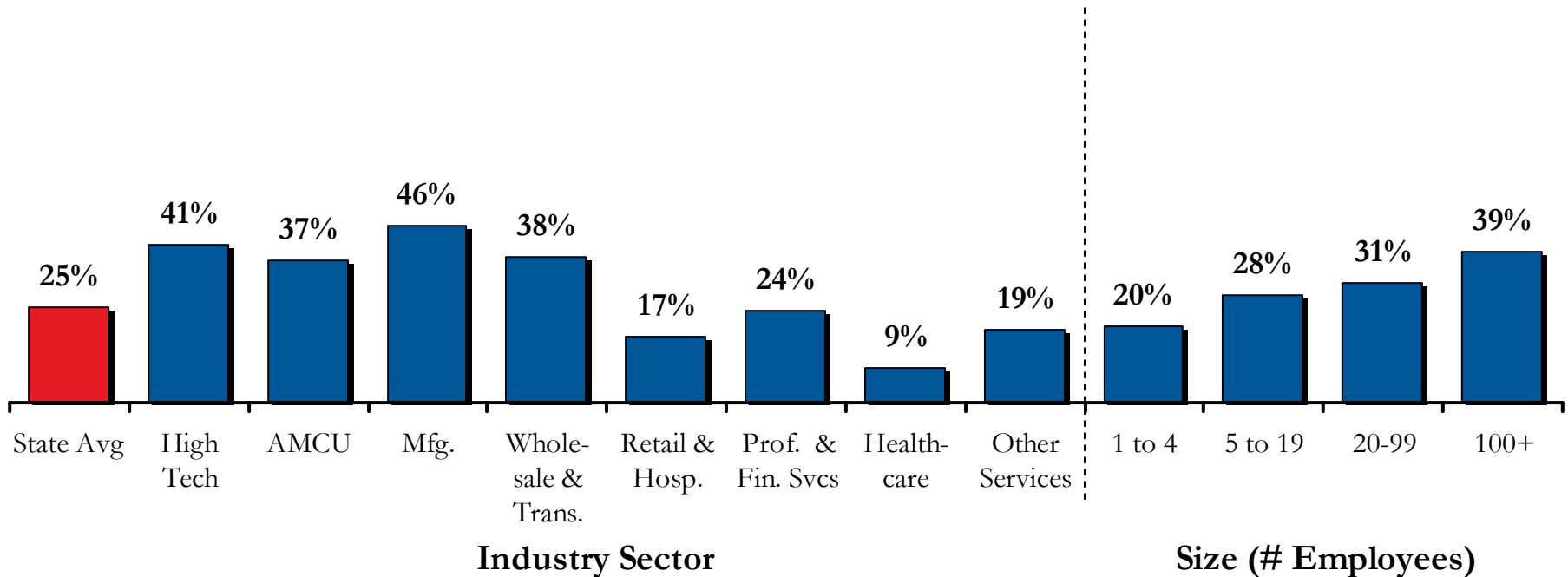
Q: Which of the following does your business currently use?
(n = 588 OH businesses that use the Internet)

Bidding on Contracts Online

Businesses in the Manufacturing industry sector are the most likely to bid on contracts online, followed closely by the High Tech sector. Businesses in the Healthcare sector are the least likely to do so.

Smaller businesses are less likely than larger ones to bid on contracts online.

Current Adoption by Size and Industry Sector



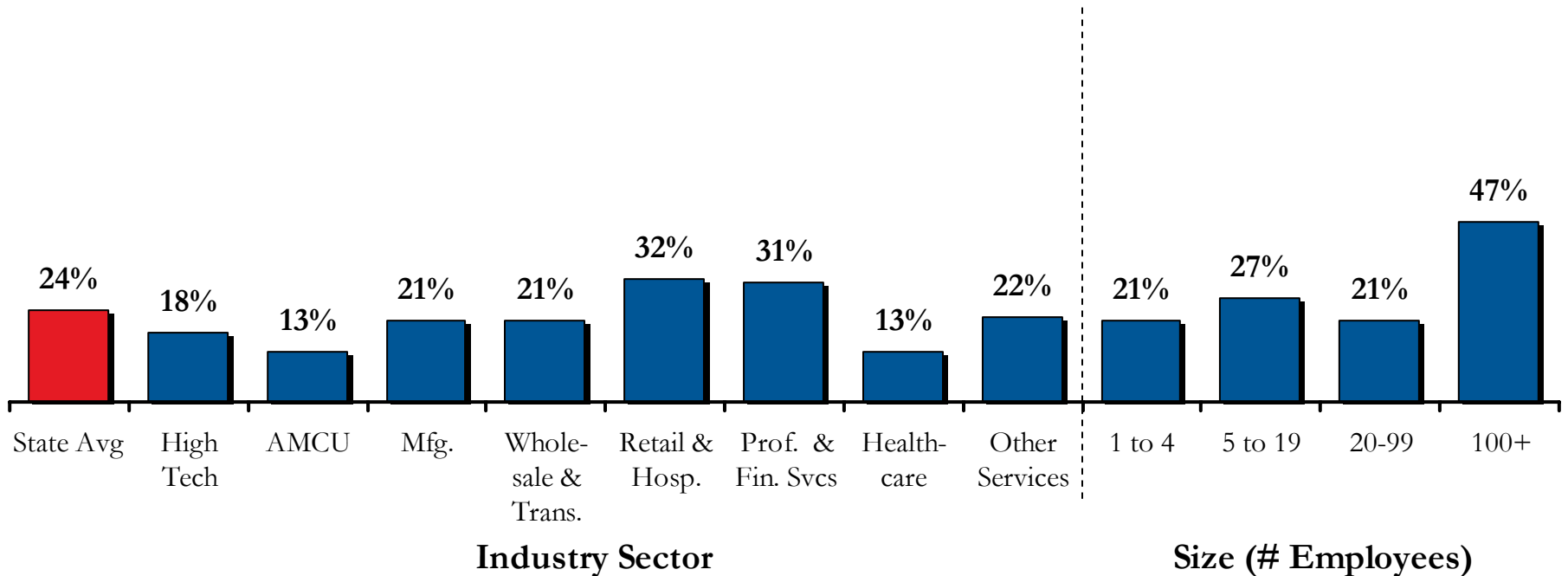
Q: Which of the following does your business currently use?
 (n = 588 OH businesses that use the Internet)

Accepting Real Time Credit or Debit Card Payments

Businesses in the Retail/Hospitality sector and the Professional/Financial Services sector are more likely than the state average to accept credit or debit card payments online.

Smaller businesses are less likely than larger ones to bid on contracts online.

Current Adoption by Size and Industry Sector



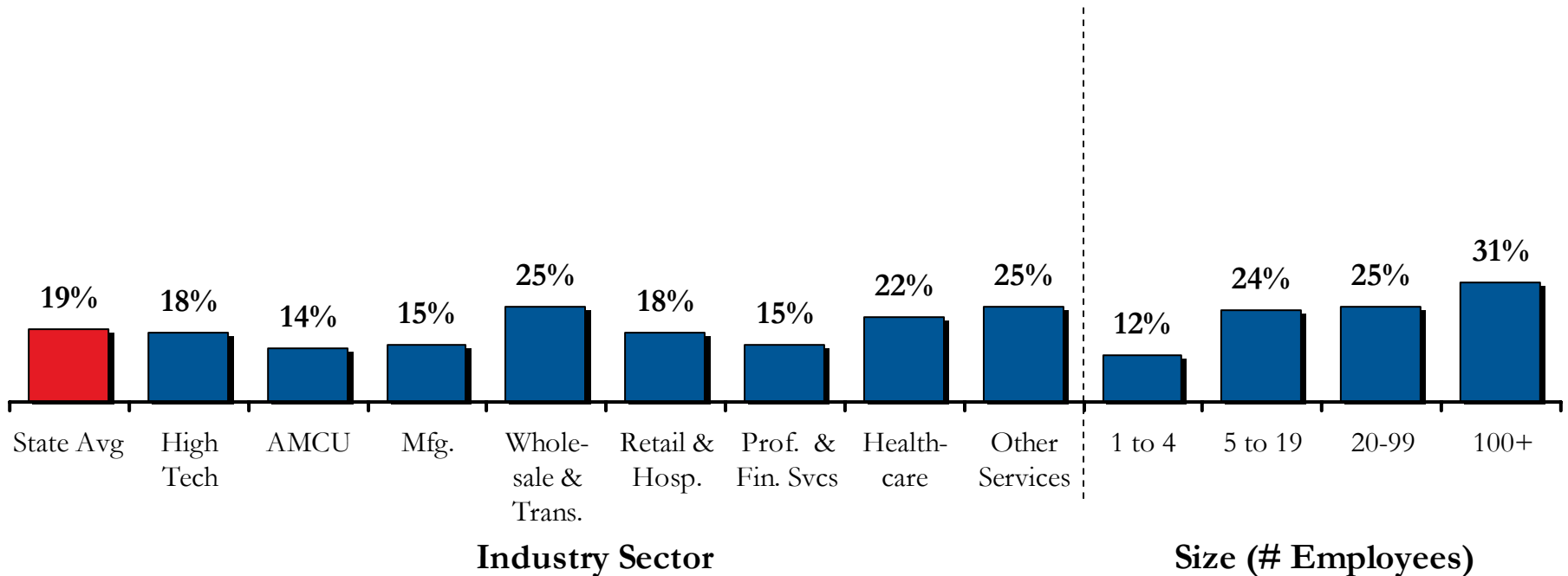
Q: Which of the following does your business currently use?
(n = 588 OH businesses that use the Internet)

Online Accounting and Internal Auditing

Businesses in the Wholesale Trade/Transportation and Other Services industry sectors are the most likely to use the Internet for online accounting and auditing.

Businesses with over one hundred employees are almost three times as likely to rely on online accounting or auditing than businesses with four or fewer employees.

Current Adoption by Size and Industry Sector



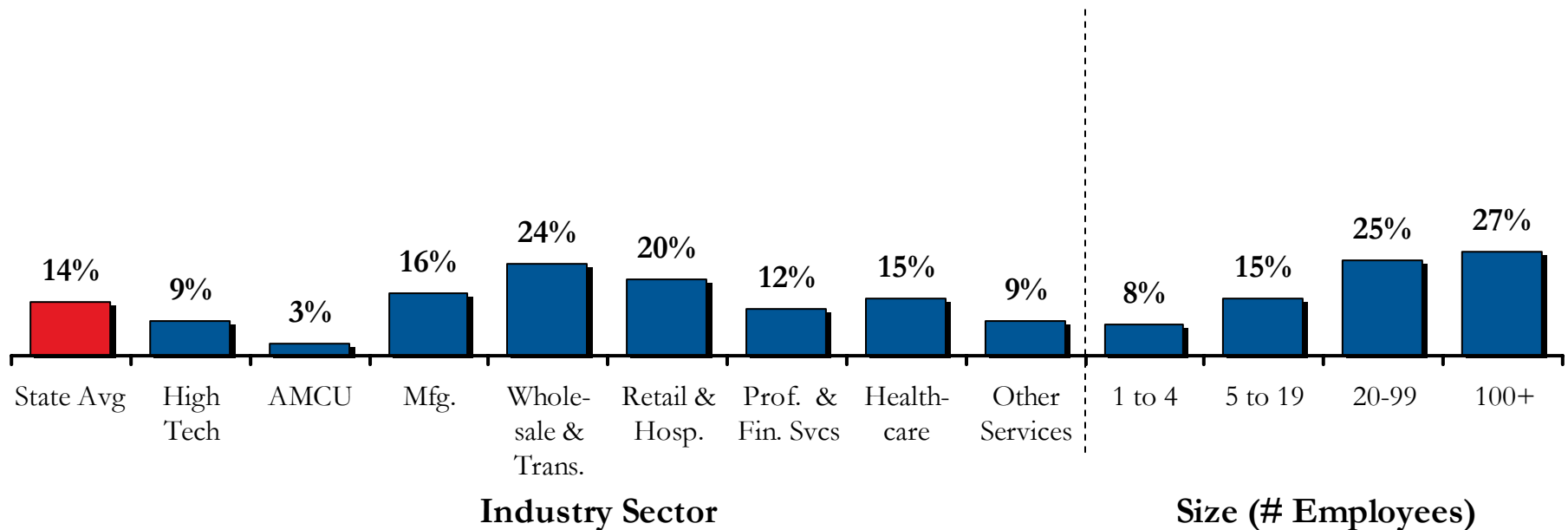
Q: Which of the following does your business currently use?
(n = 588 OH businesses that use the Internet)

Online Inventory Tracking and Control

Businesses in the Manufacturing, Wholesale Trade/Transportation, and Retail/Hospitality industry sectors are the most likely to use the Internet for inventory tracking and control.

Use of the Internet for inventory tracking and control is positively correlated with business size.

Current Adoption by Size and Industry Sector



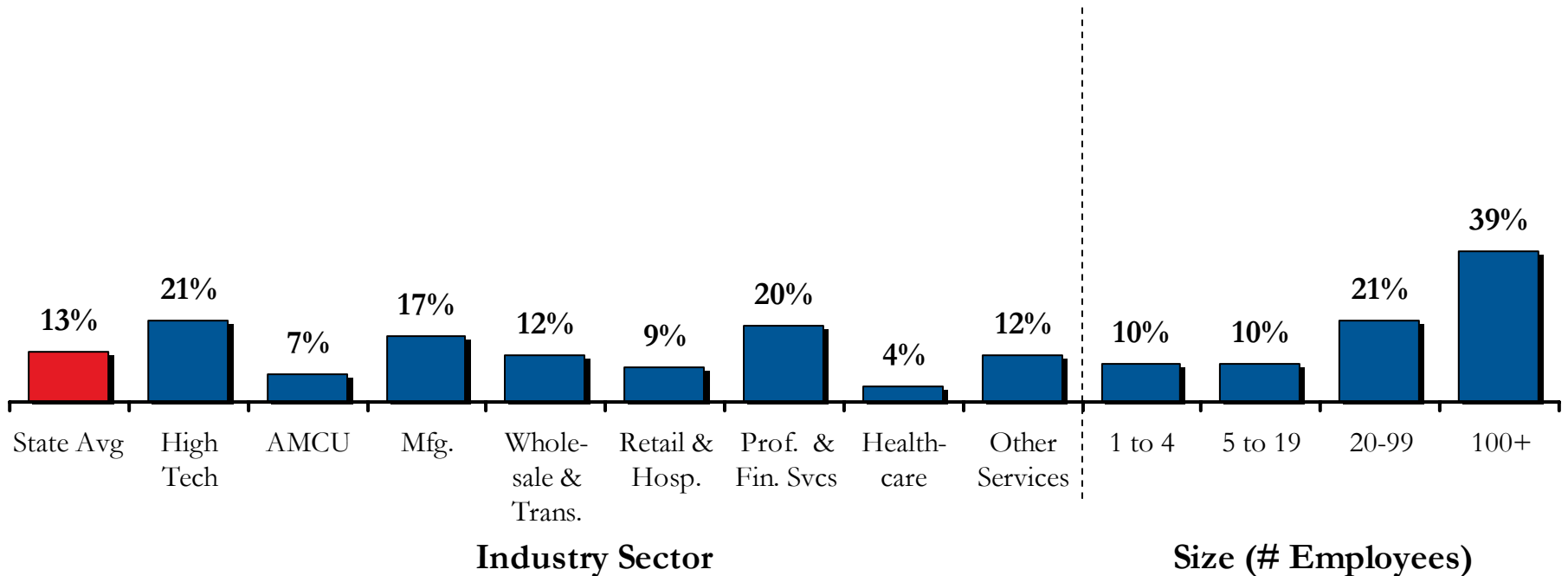
Q: Which of the following does your business currently use?
(n = 588 OH businesses that use the Internet)

Video Conferencing

Businesses in the High Tech, Professional/Financial Services, and Manufacturing industry sectors are more likely than the state average to use the Internet for video conferencing.

Companies with more than one hundred employees are nearly four times as likely to use the Internet for video conferencing than the state average.

Current Adoption by Size and Industry Sector



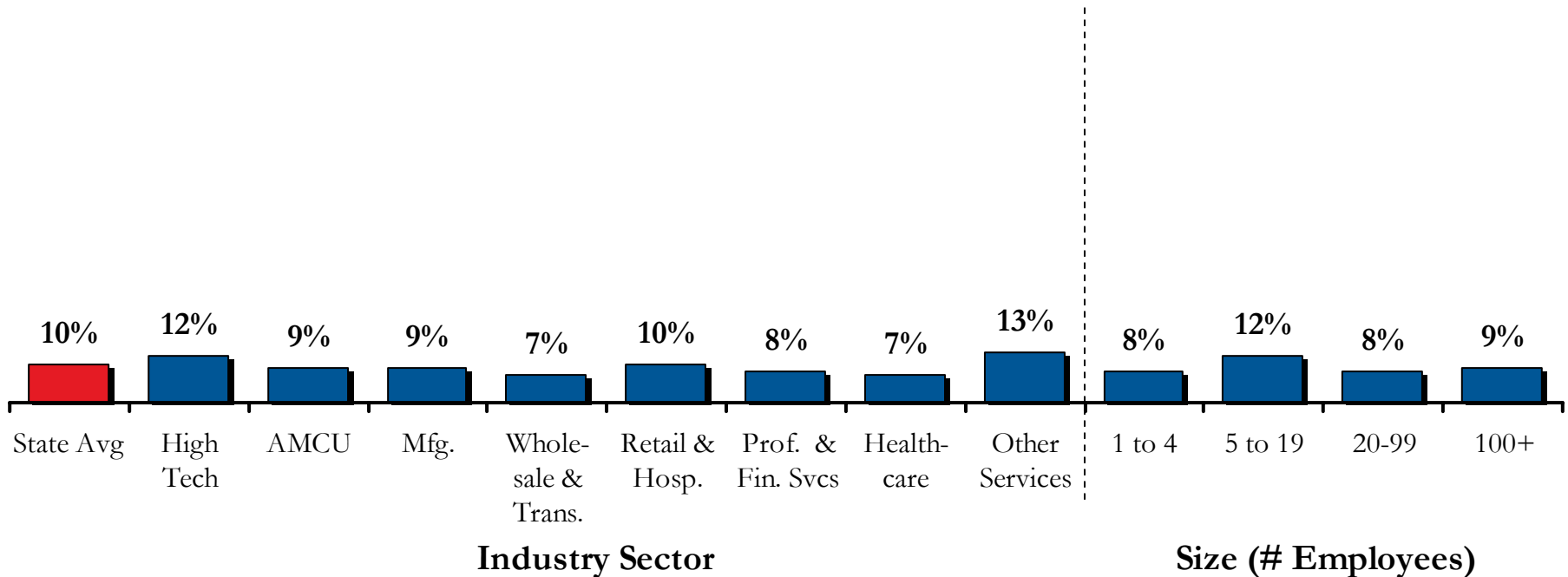
Q: Which of the following does your business currently use?
(n = 588 OH businesses that use the Internet)

Blogging

Businesses in the High Tech and Other Services industry sectors are the most likely to maintain a blog.

There is very little variance among companies of different sizes in the use of the Internet for blogging.

Current Adoption by Size and Industry Sector



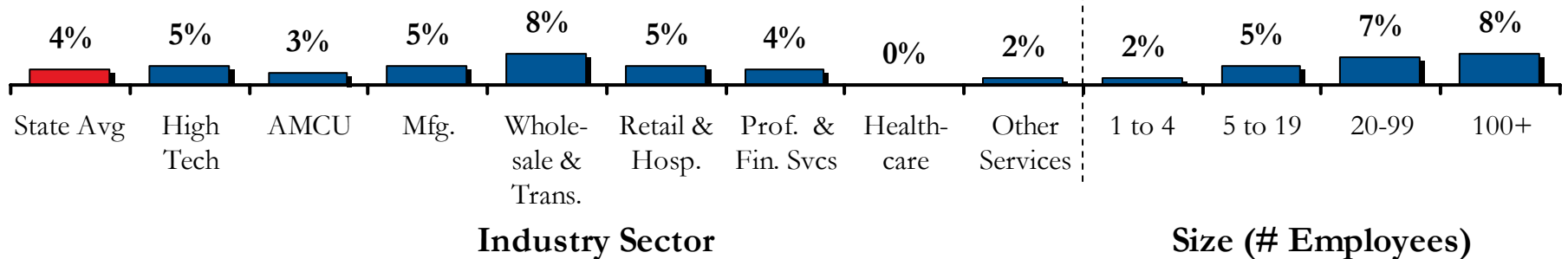
Q: Which of the following does your business currently use?
(n = 588 OH businesses that use the Internet)

Online Manufacturing Process Control

Businesses in the Wholesale Trade/Transportation industry sector are twice as likely to control manufacturing processes online than the state average.

Larger companies are also more likely to use this Internet application than smaller companies.

Current Adoption by Size and Industry Sector



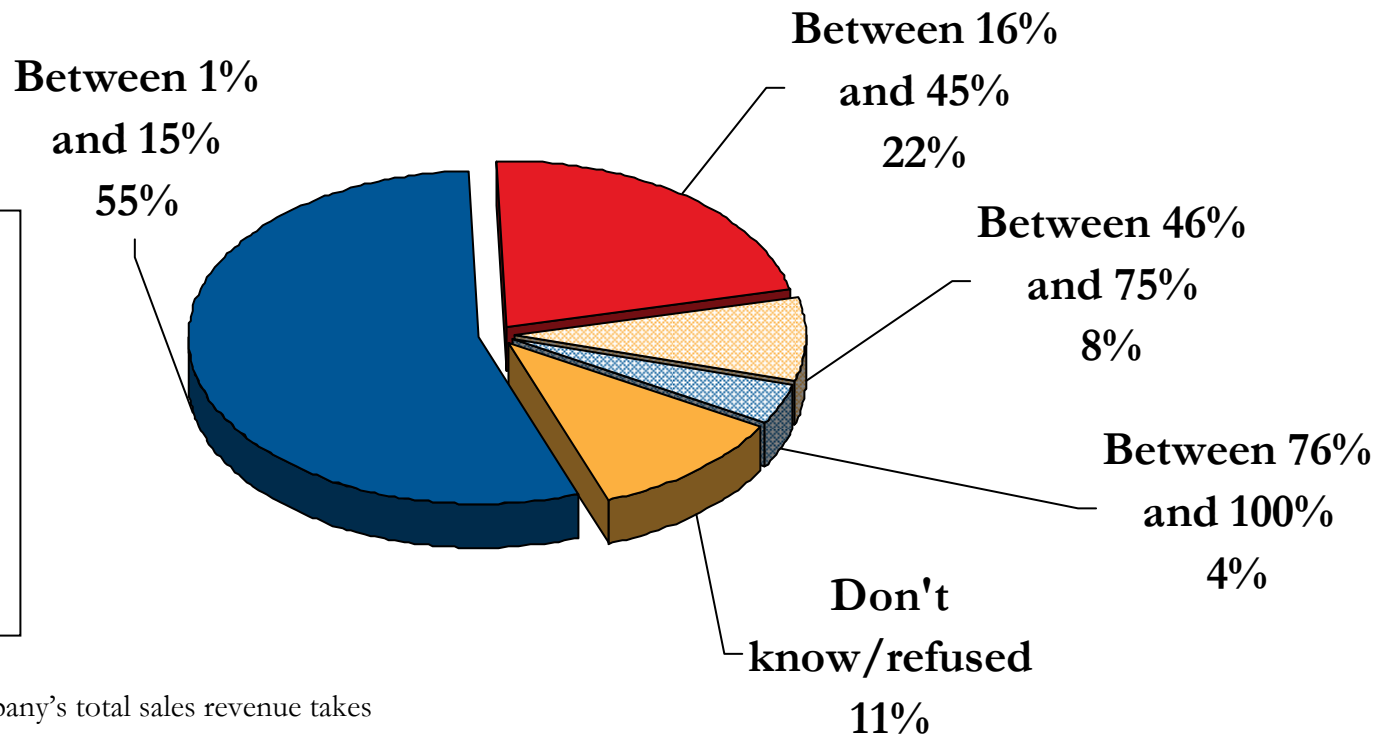
Q: Which of the following does your business currently use?
(n = 588 OH businesses that use the Internet)



Technology's Impact on the Workplace

Percent of Revenues From Online Sales

Percent of sales revenues that businesses report from online sales (among businesses that sell goods or services online):



Statewide, 19% of Ohio businesses say they sell or take real-time payments for goods and services online.

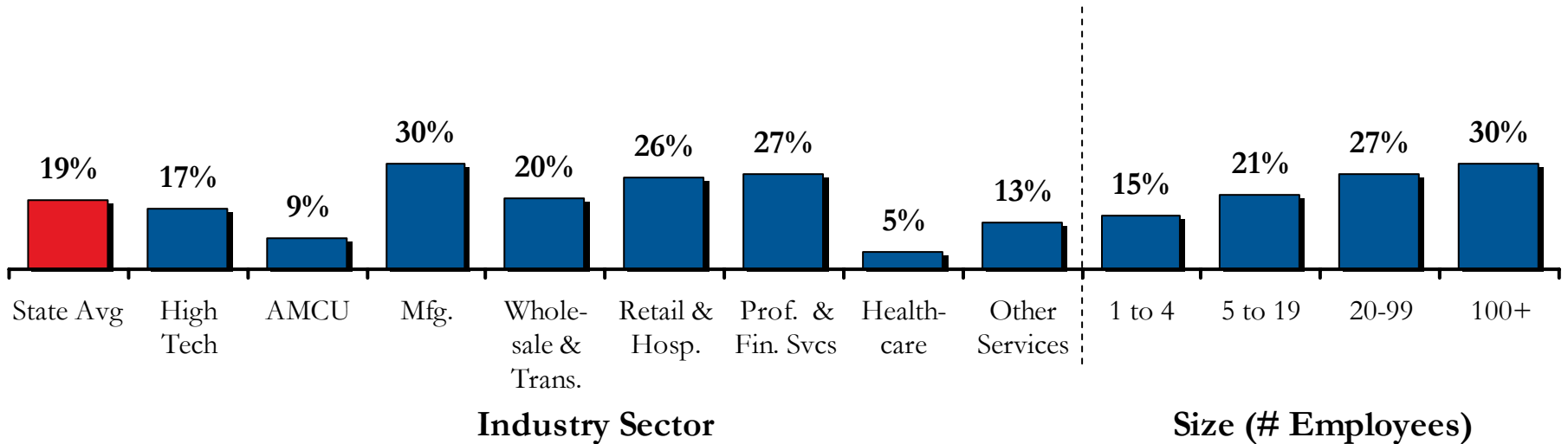
Q: What percentage of your company's total sales revenue takes place online?
 (n = 205 OH business that sell or accept payment for goods or services online)

Businesses That Earn Income From Online Sales by Business Size and Sector

Businesses in the Manufacturing industry sector are the most likely to report earnings from online sales, followed closely by the Retail/Hospitality sector.

On average, larger businesses are more likely to earn revenues from online sales than smaller businesses.

Average Percentage of Revenues from Online Sales

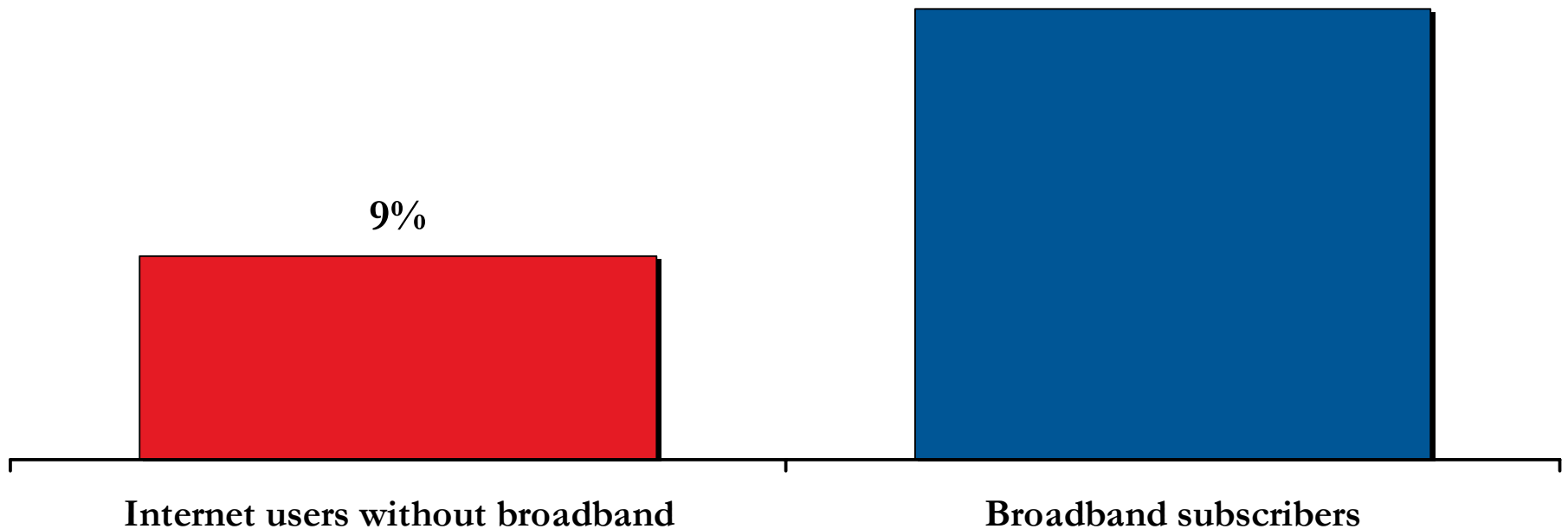


Q: What percentage of your company's total sales revenue takes place online?
(n = 807 OH business)

Percent of Revenues From Online Sales (Broadband Users and Internet Users Without Broadband)

Average percent of revenues from online sales:

20%



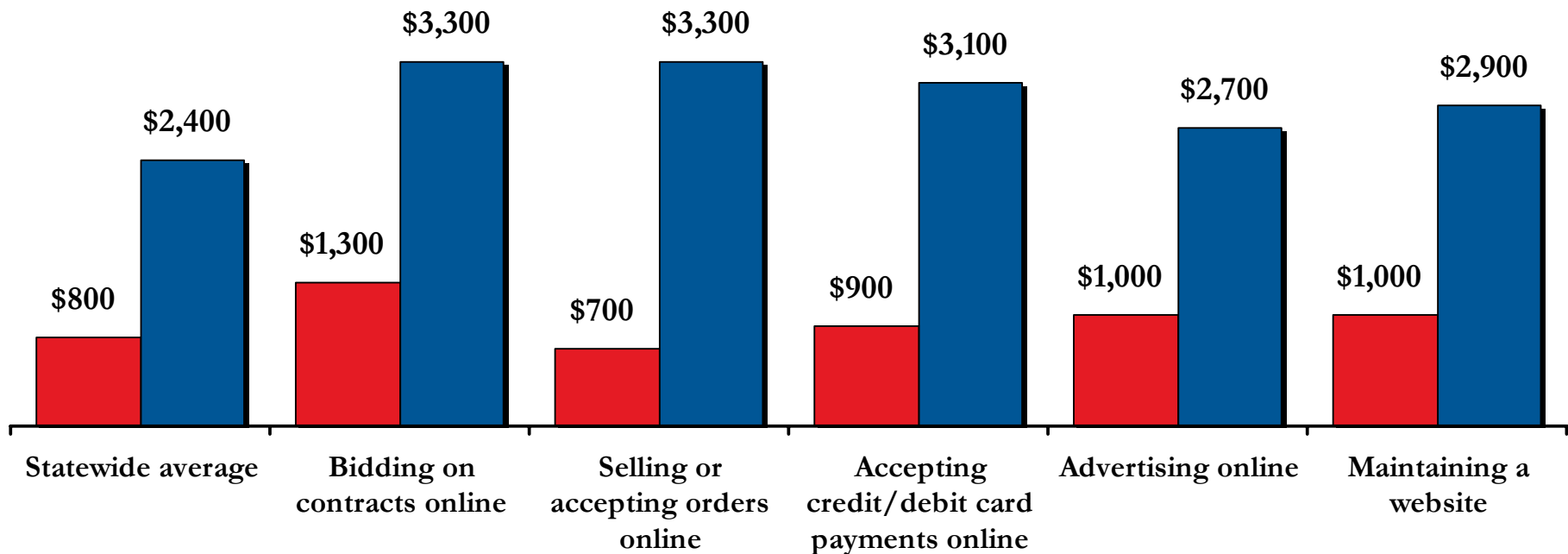
Q: What percentage of your company's total sales revenue takes place online?

(n = 205 OH business that sell or accept payment for goods or services online)

Technology Adoption and Total Revenues (Dial-Up and Broadband Users)

Average Annual Revenues Among Internet-Connected Businesses (\$000):

■ Internet subscribers without broadband ■ Broadband users



Internet applications used by the business

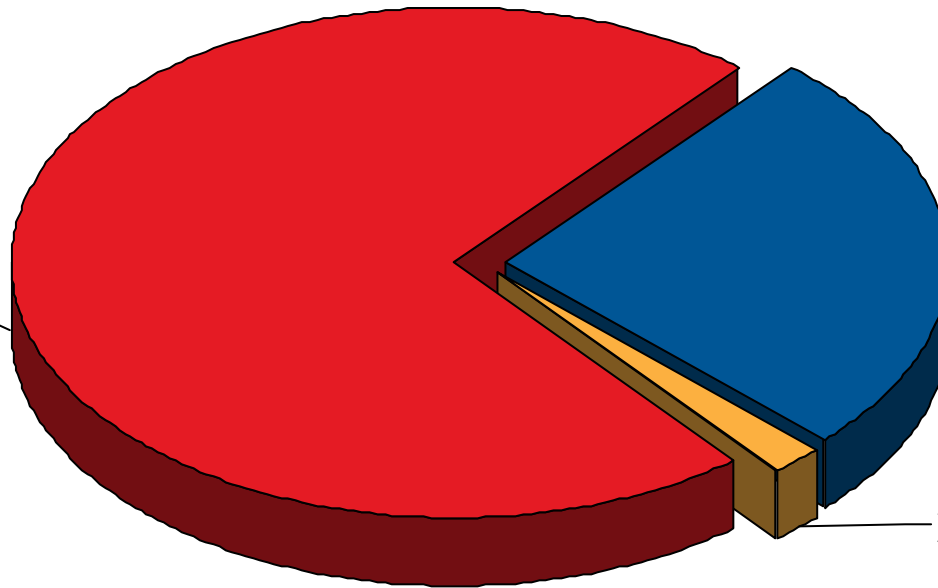
Ohio Businesses and Telework

Among all Ohio businesses:

Businesses
where employees
do not telework
on a regular
basis
72%

Businesses
where employees
telework on a
regular basis
26%

Don't
know/refused
2%

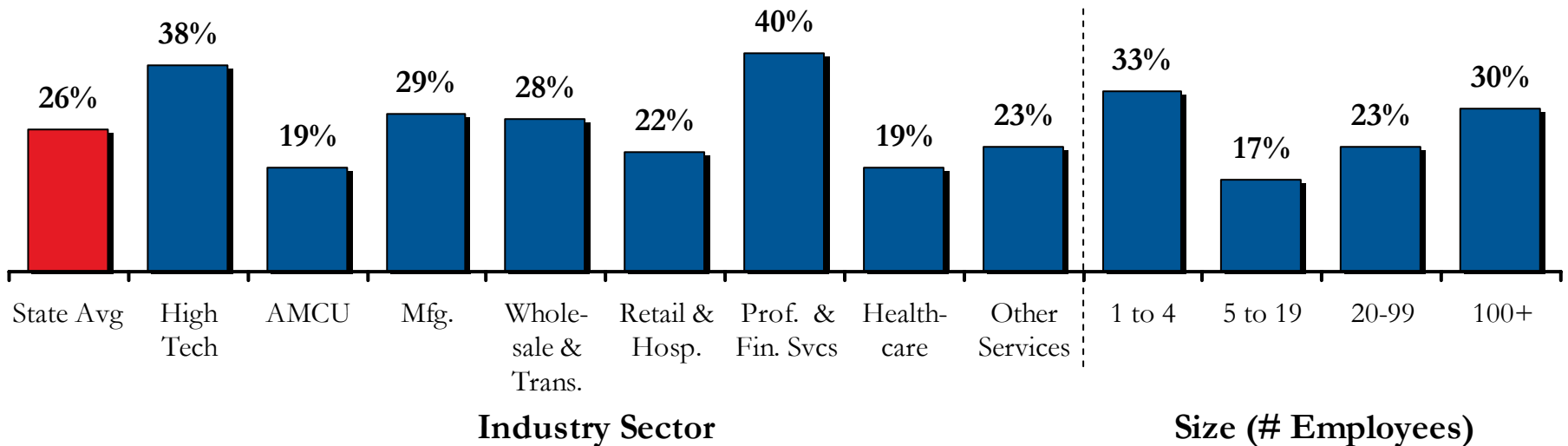


Q: Do any employees within your organization work from home during normal business hours on a regular basis?
(n = 807 Ohio businesses)

Ohio Businesses and Telework by Industry Sector and Size

Businesses in the High Tech and the Professional/Financial Service sectors are the most likely to allow employees to telework, whereas businesses in the Healthcare and the Agriculture/Mining/Construction/Utility sectors are the least likely to do so.

One-third of small businesses (those with fewer than five employees) allow their employees to telework.



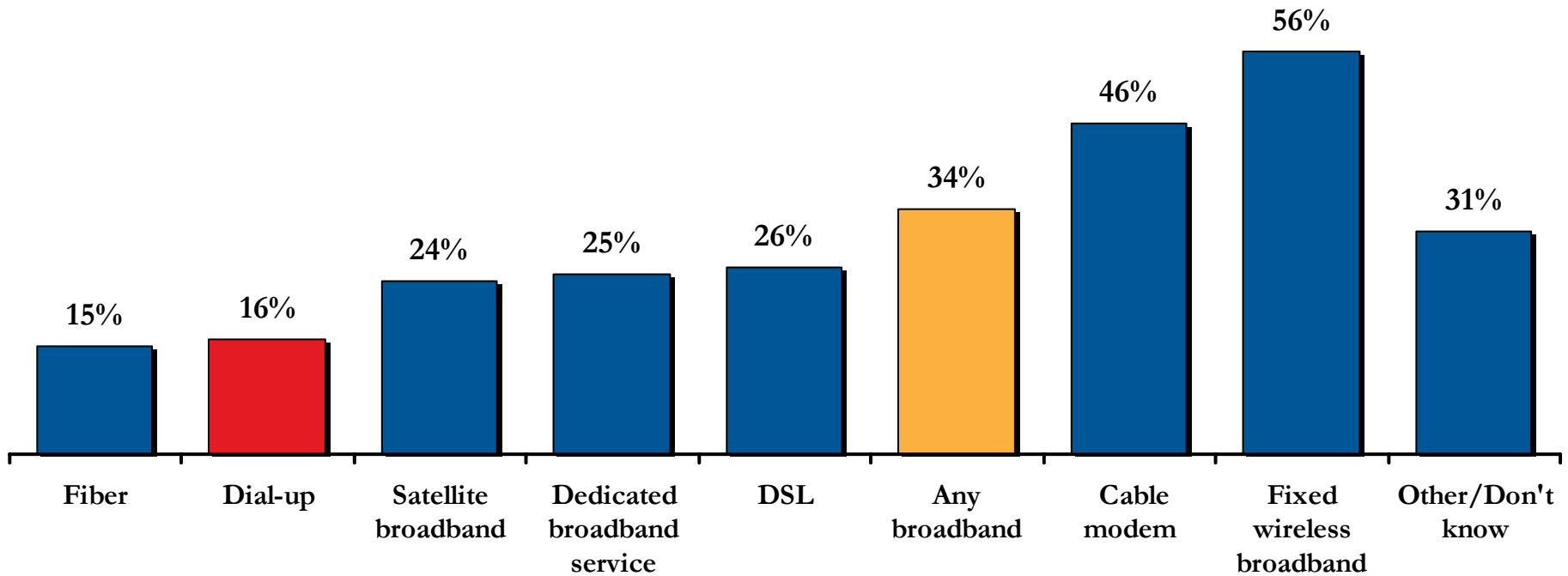
Industry Sector

Size (# Employees)

Q: Do any employees within your organization work from home during normal business hours on a regular basis?
(n = 807 Ohio businesses)

Ohio Businesses and Telework by Broadband Platform

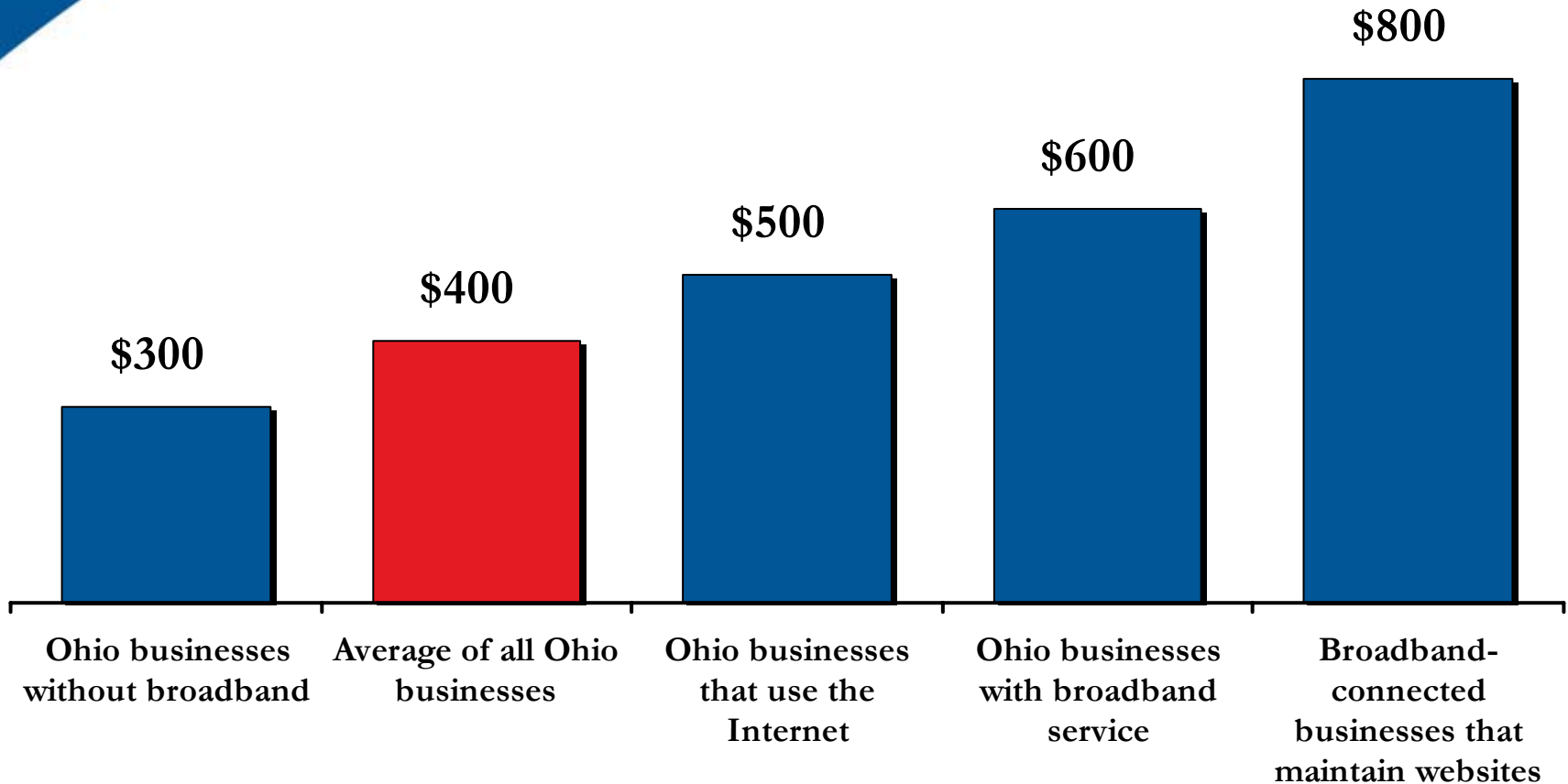
More than one-third of all broadband-connected businesses allow their employees to telework.



Q: Do any employees within your organization work from home during normal business hours on a regular basis?
(n = 537 Ohio businesses with broadband service)

Technology Adoption and Business Revenues

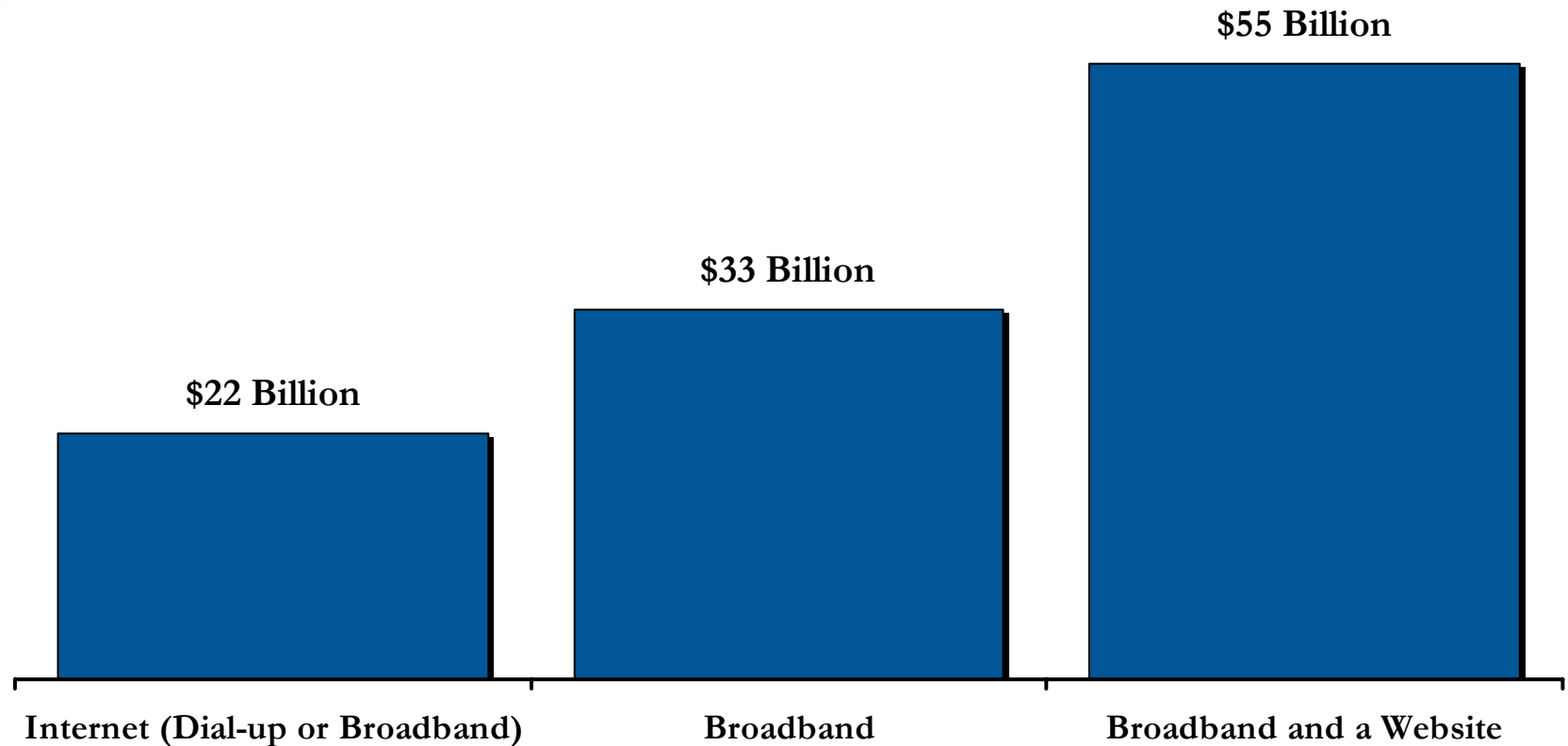
Median Annual Company Revenue (\$000):



Q: What is your firm's approximate average annual revenue?
(n = 807 OH businesses)

The Potential Impact of Technology Adoption

Estimated total revenue increase if all Ohio businesses without broadband were to adopt:



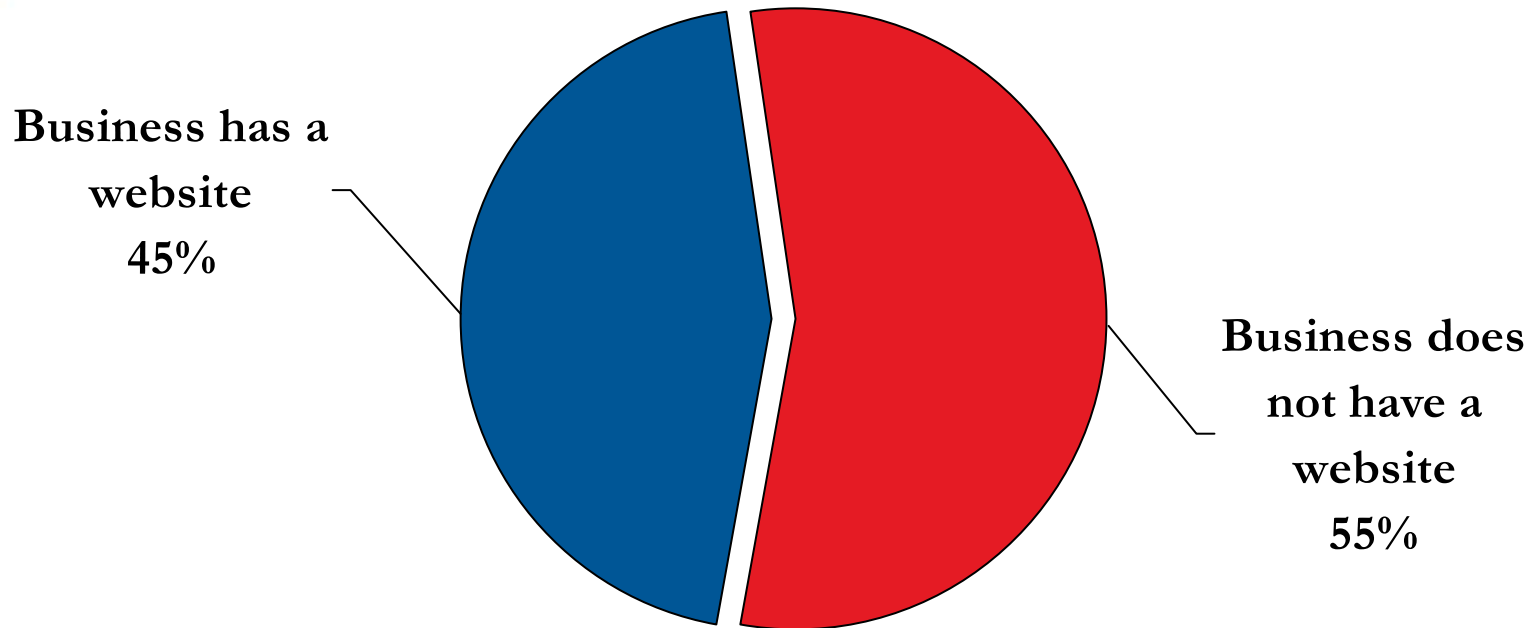
Q: What is your firm's approximate average annual revenue?
(n = 270 OH businesses that do not have broadband service)



Presence of a Website

Presence of a Website

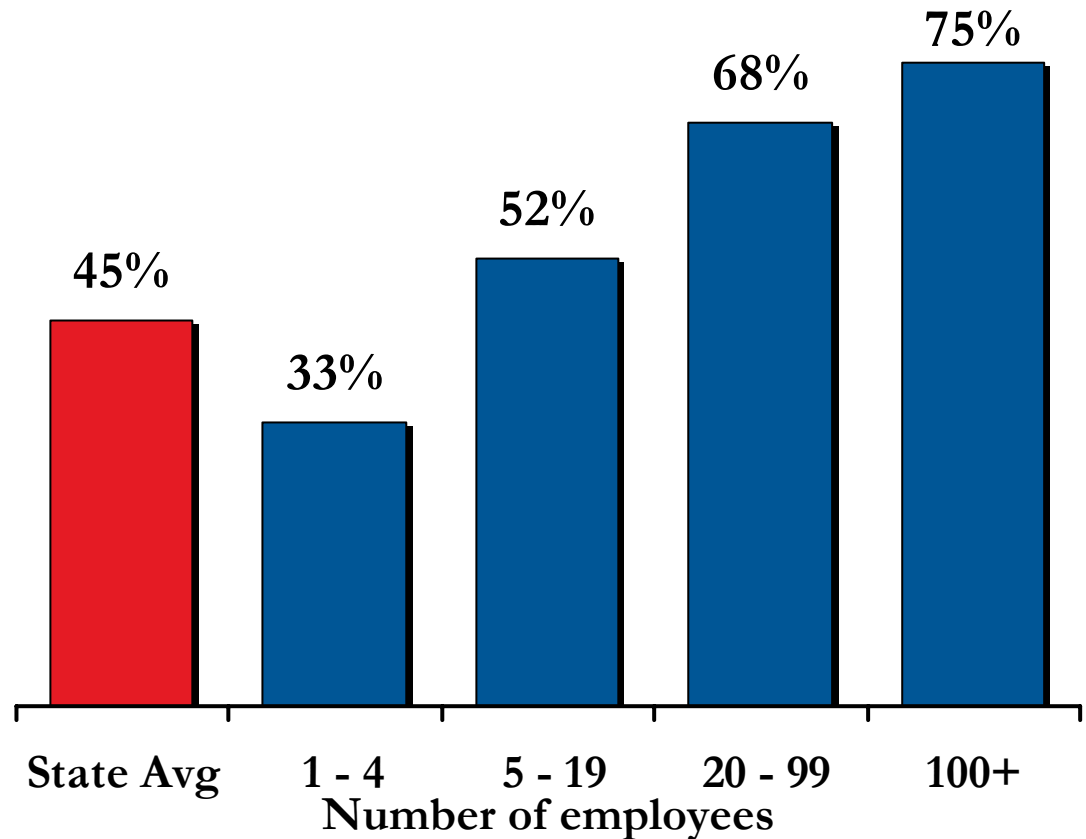
Percent of all Ohio businesses:



Forty-five percent of all Ohio businesses maintain a website. This equates to 69% of all Internet-connected businesses in Ohio.

Presence of a Website by Company Size

Percent of all Ohio businesses that have a website:



The likelihood of having a website increases significantly as the size of the business increases.

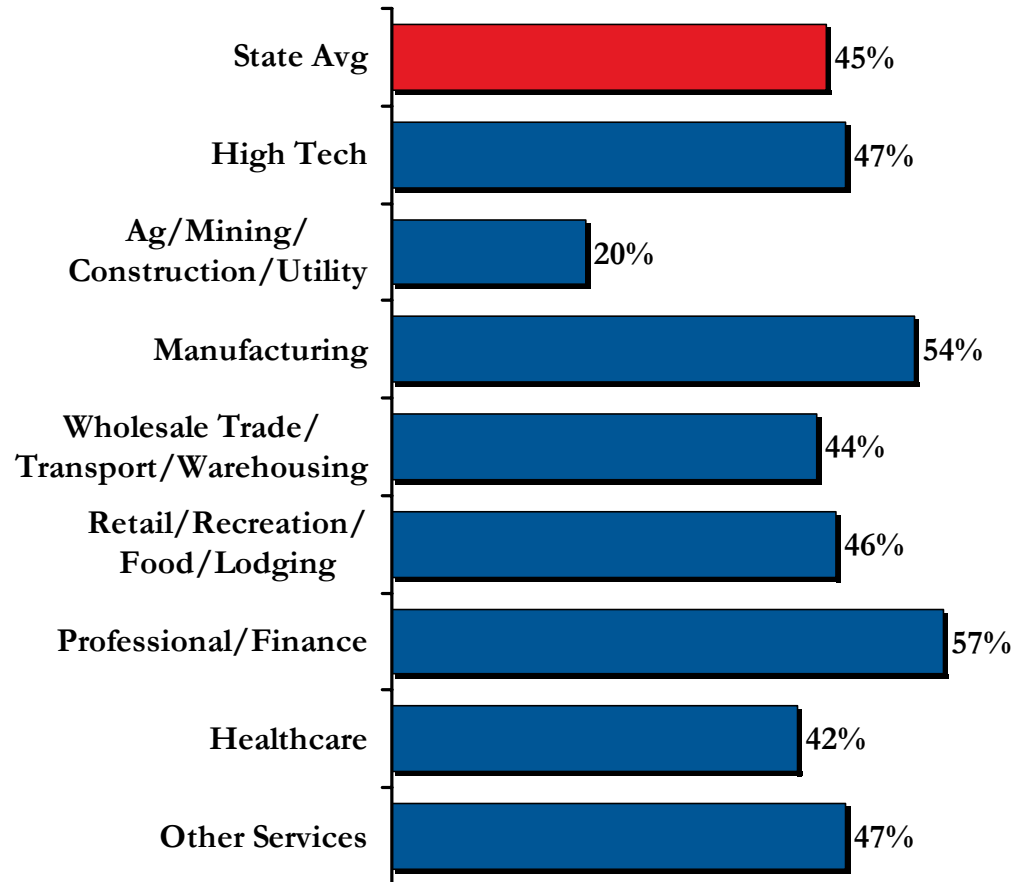
The majority of businesses that employ at least five people have a website.

Presence of a Website by Industry Sector

Percent of all Ohio businesses that have a website:

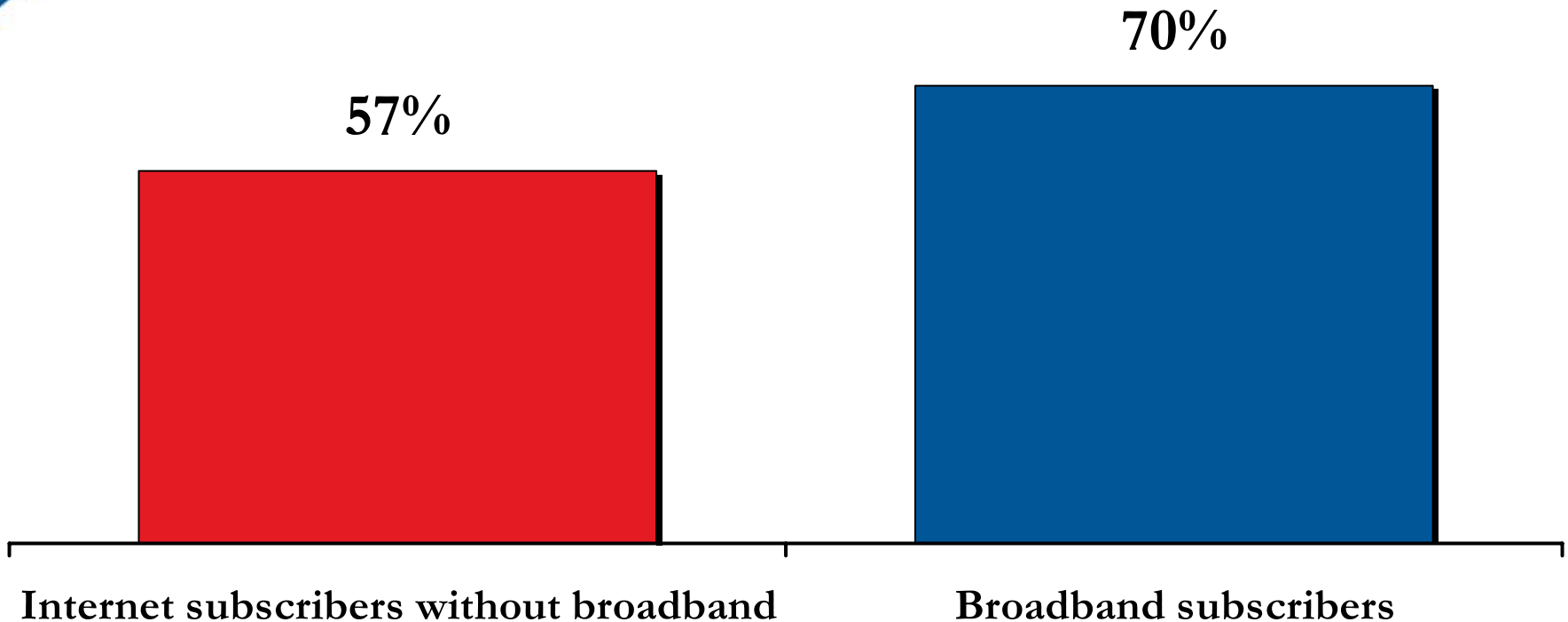
Businesses in the Professional/Finance sector and the Manufacturing sector are significantly more likely than businesses in most other sectors to have a website.

The Ag/Mining/Construction/Utility sector has the lowest percentage of businesses with a website.



Presence of a Website by Type of Internet Service

Percent of Internet-connected Ohio businesses that have a website:



Statewide, 69% of all Internet-connected businesses in Ohio maintain a website.

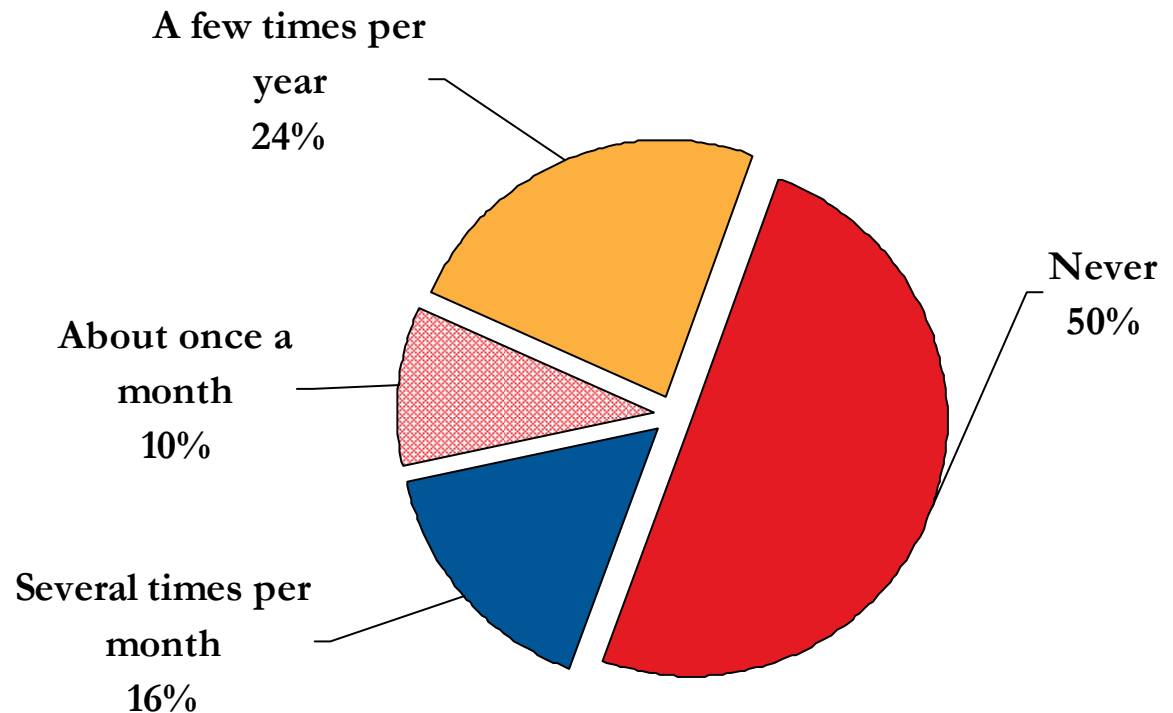


E-Government Services

Business Use of State Government Websites

How often Ohio businesses say their employees visit Ohio state government websites:

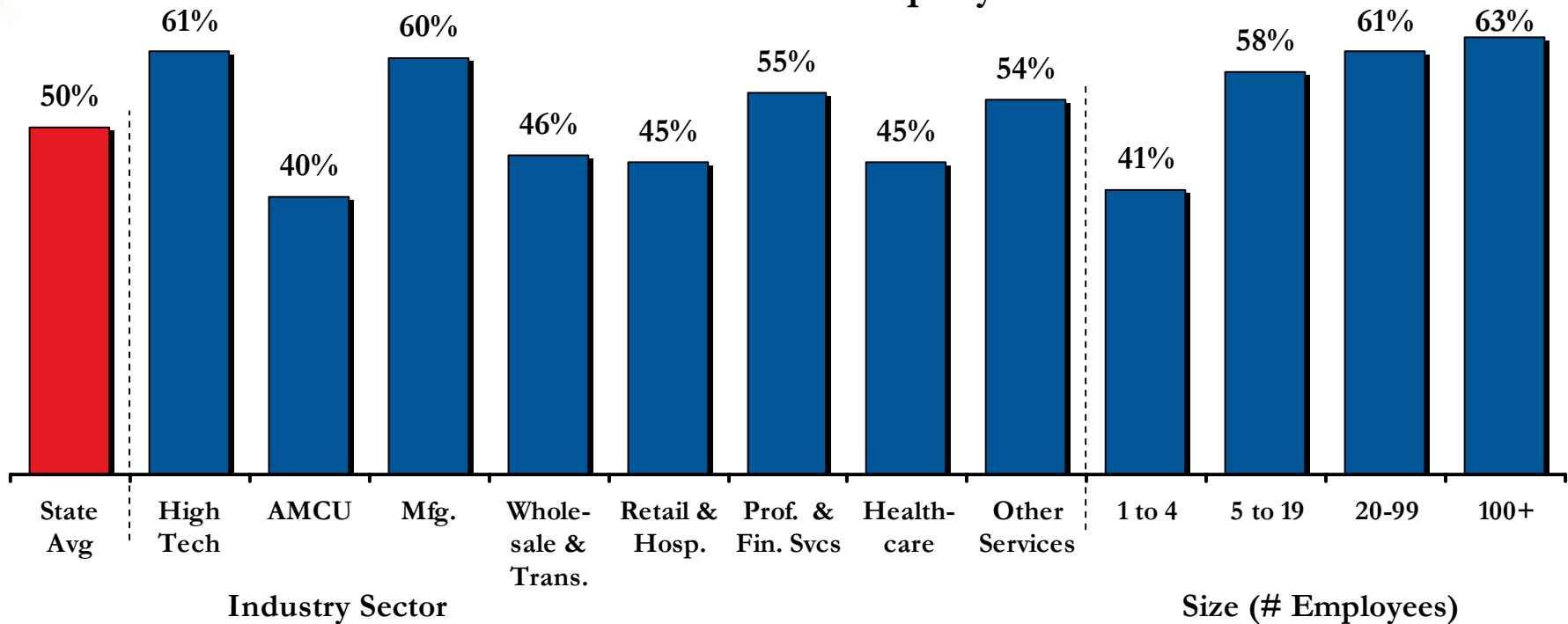
One-half of all Ohio businesses report that their employees visit Ohio state government websites on a regular basis.



Q: How often, if ever, do employees of your company visit Ohio state government websites for business purposes?
(n = 807 OH businesses)

Use of State Government Websites by Business Size and Sector

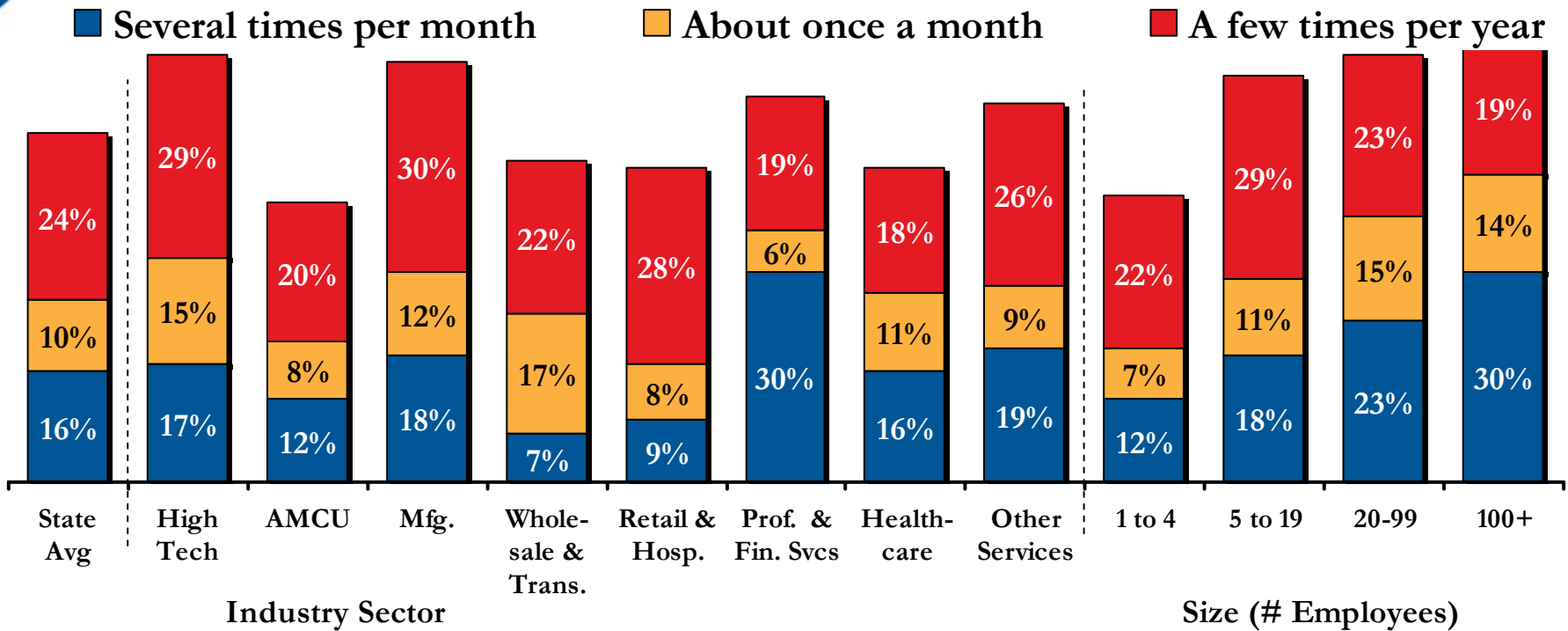
Percent of businesses that visit Ohio state government websites at least a few times per year:



Q: How often, if ever, do employees of your company visit Ohio state government websites for business purposes?
(n = 807 Ohio businesses)

Use of State Government Websites by Business Size and Sector

Percent of businesses that visit Ohio state government websites:



Q: How often, if ever, do employees of your company visit Ohio state government websites for business purposes?

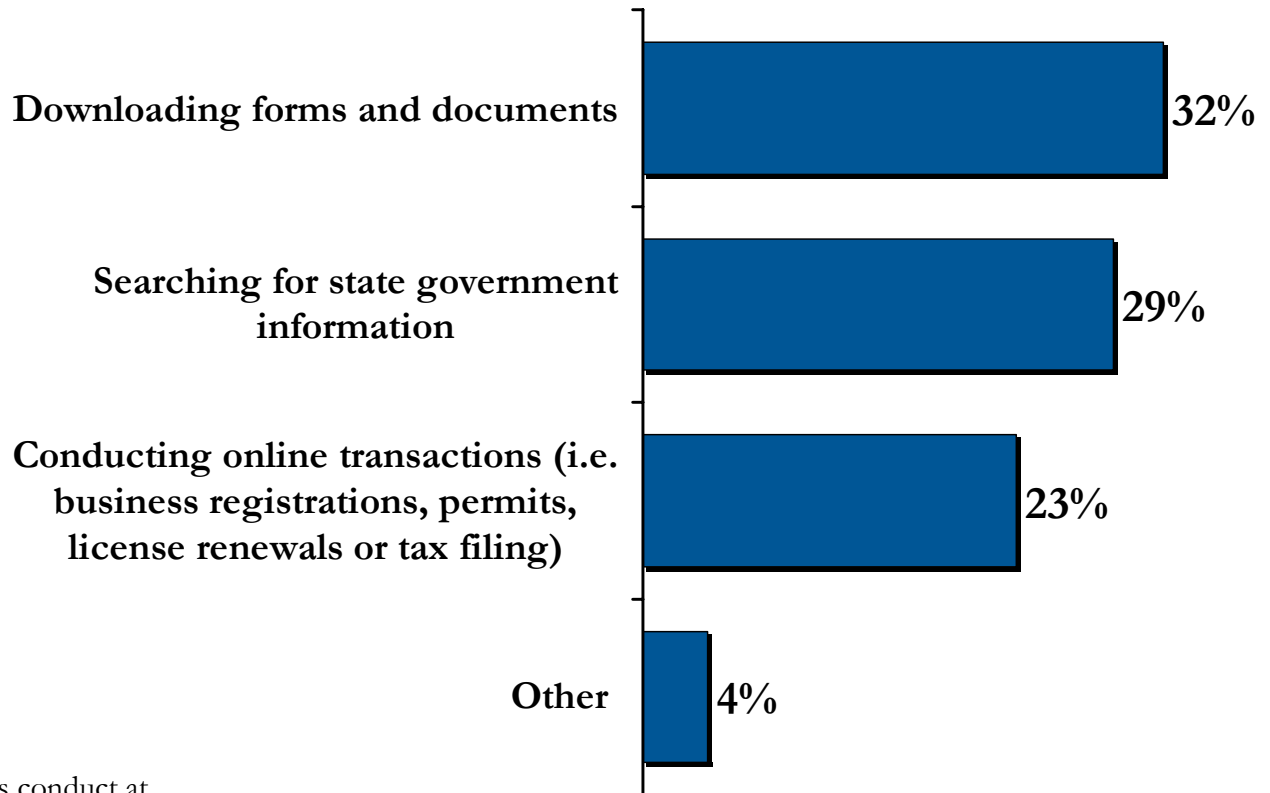
(n = 807 Ohio businesses)

Activities at Ohio Government Websites

Percent of all businesses that use Ohio state government websites for the following applications:

One-half of all Ohio businesses visit Ohio state government websites at least a few times each year.

The most widely used application on state websites is downloading state forms or other documents.

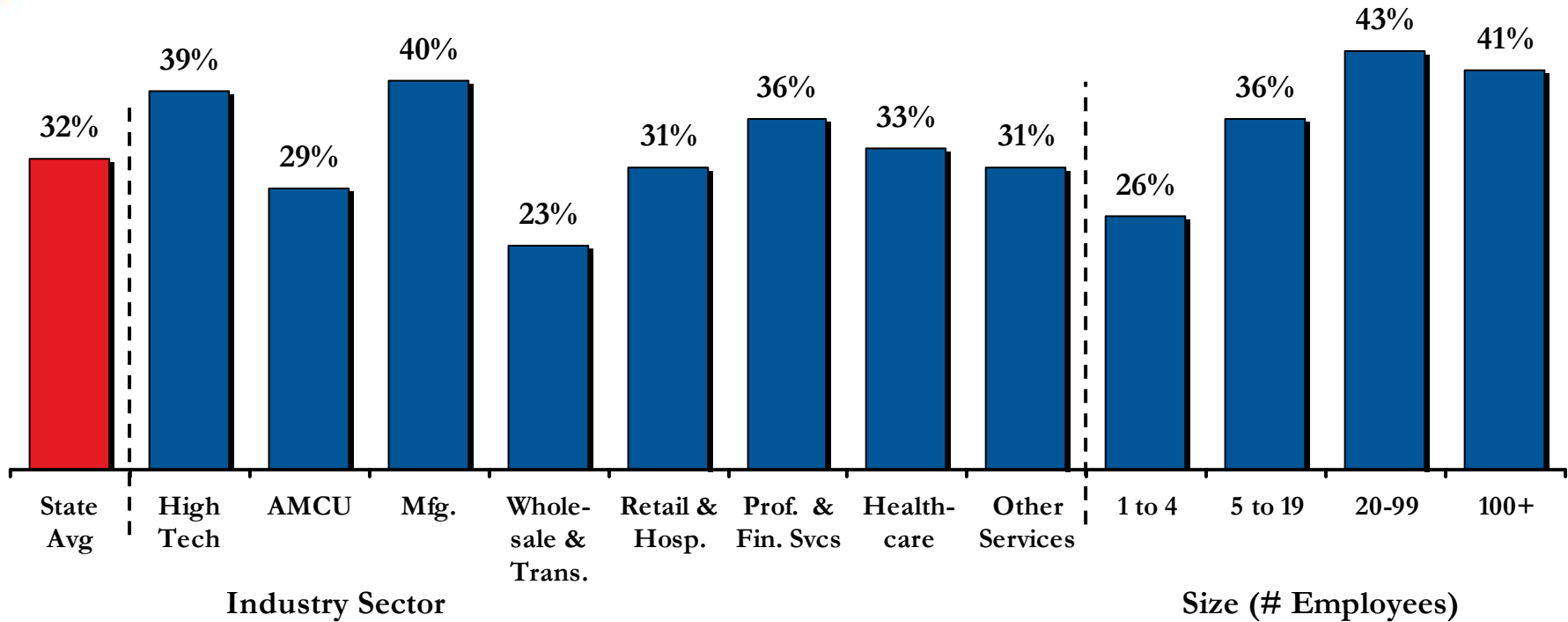


Q: What types of activities does your business conduct at Ohio's state government websites?
(n = 807 Ohio businesses)

Activities at Ohio Government Websites

by Business Size and Sector

Percent of businesses that visit state government websites to:
Download state forms and documents

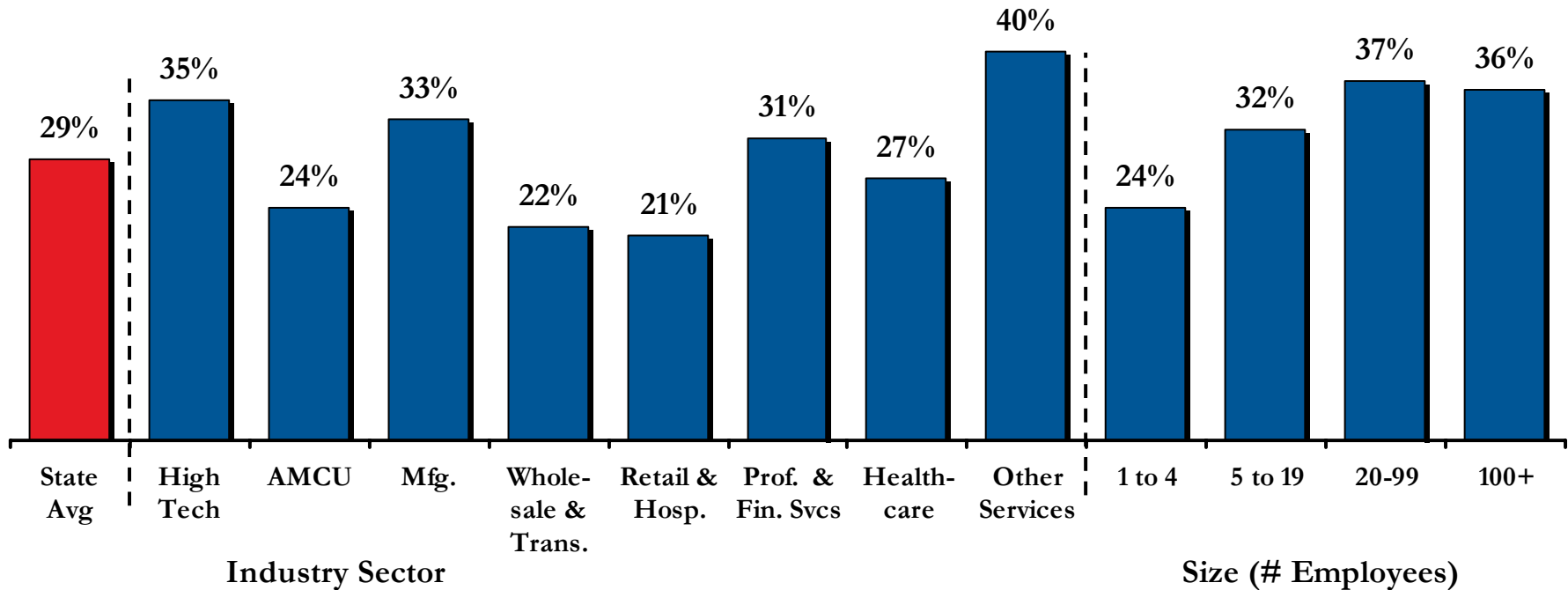


Q: What types of activities does your business conduct at Ohio's state government websites?
 (n = 807 Ohio businesses)

Activities at Ohio Government Websites

by Business Size and Sector

Percent of businesses that visit state government websites to:
Search for state government information

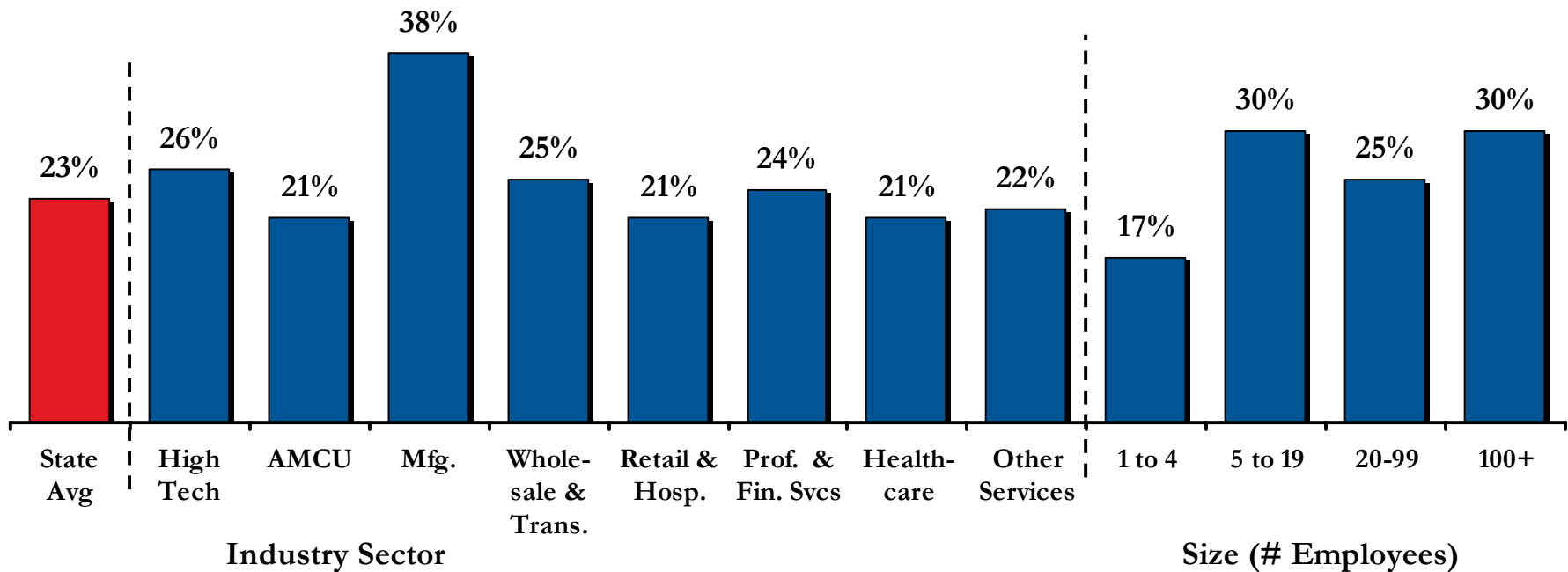


Q: What types of activities does your business conduct at Ohio's state government websites?
 (n = 807 Ohio businesses)

Activities at Ohio Government Websites

by Business Size and Sector

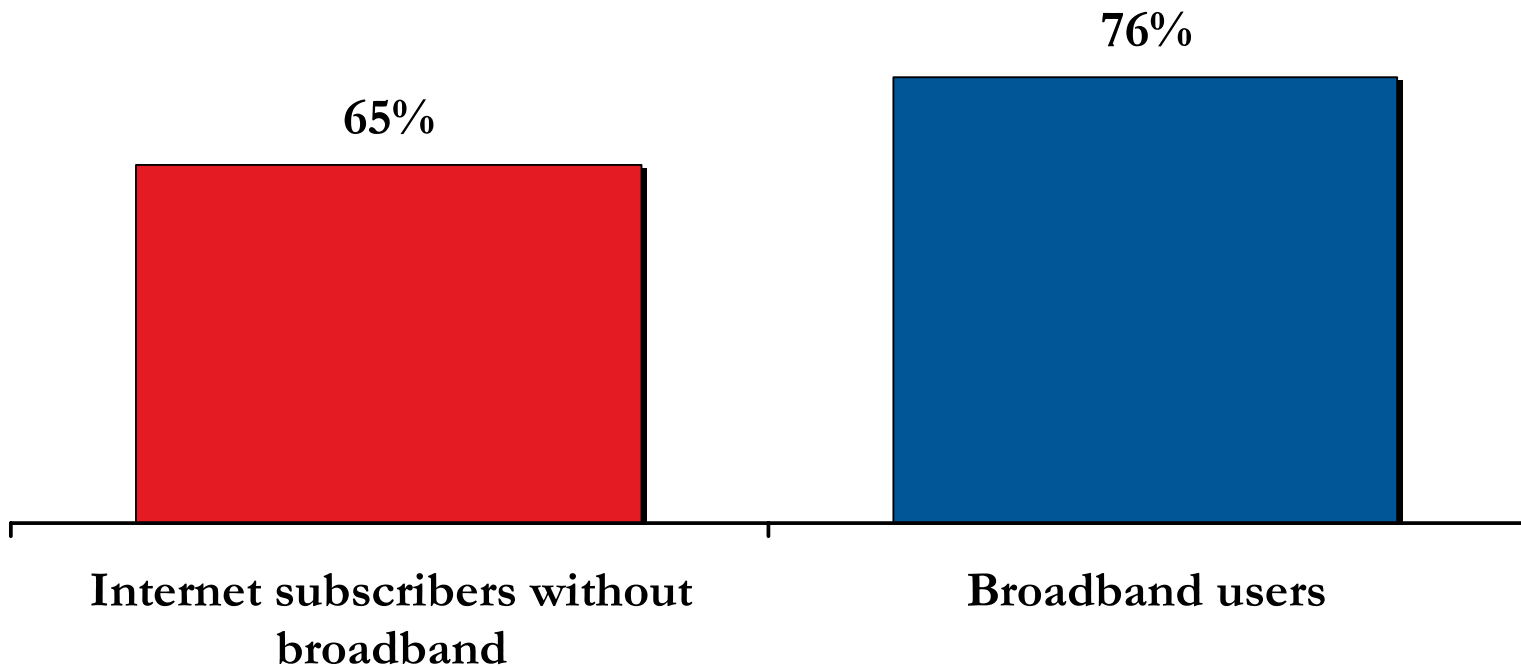
Percent of businesses that visit state government websites to:
Conduct online transactions with the state



Q: What types of activities does your business conduct at Ohio's state government websites?
 (n = 807 Ohio businesses)

Use of State Government Websites Among Dial-Up and Broadband Users

Percent of Internet-connected Ohio businesses that visit state government websites at least a few times per year:



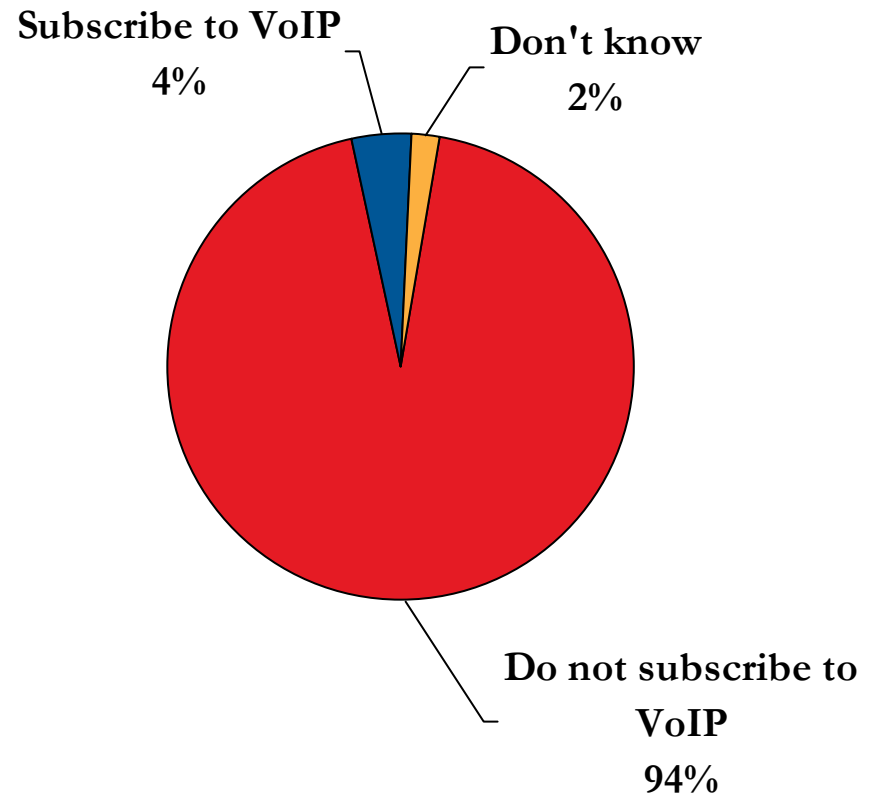
Q: How often, if ever, do employees of your company visit Ohio state government websites for business purposes?
(n = 588 OH businesses that use the Internet)



Voice Over Internet Protocol (VoIP) Subscribers

Businesses That Use Voice over Internet Protocol (VoIP)

Percent of all Ohio businesses:



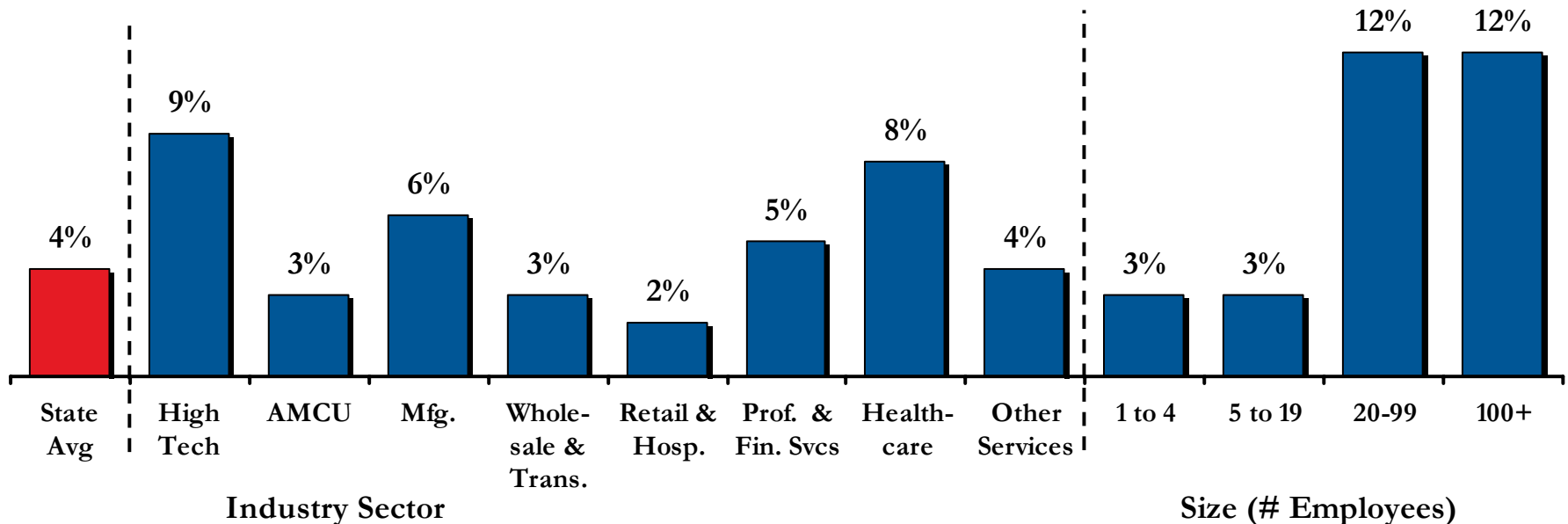
Only a small percentage (4%) of all Ohio businesses subscribe to Voice over Internet Protocol (VoIP). This represents 7% of all broadband-connected businesses in Ohio (a prerequisite for VoIP service).

Q: Do you subscribe to Voice over Internet Protocol, commonly known as VoIP?
(n = 807 Ohio businesses)

Businesses That Subscribe to VoIP by Size and Industry Sector

Businesses in the High Tech, Healthcare, Professional/Financial Services and Manufacturing industry sectors are more likely than the state average to subscribe to VoIP.

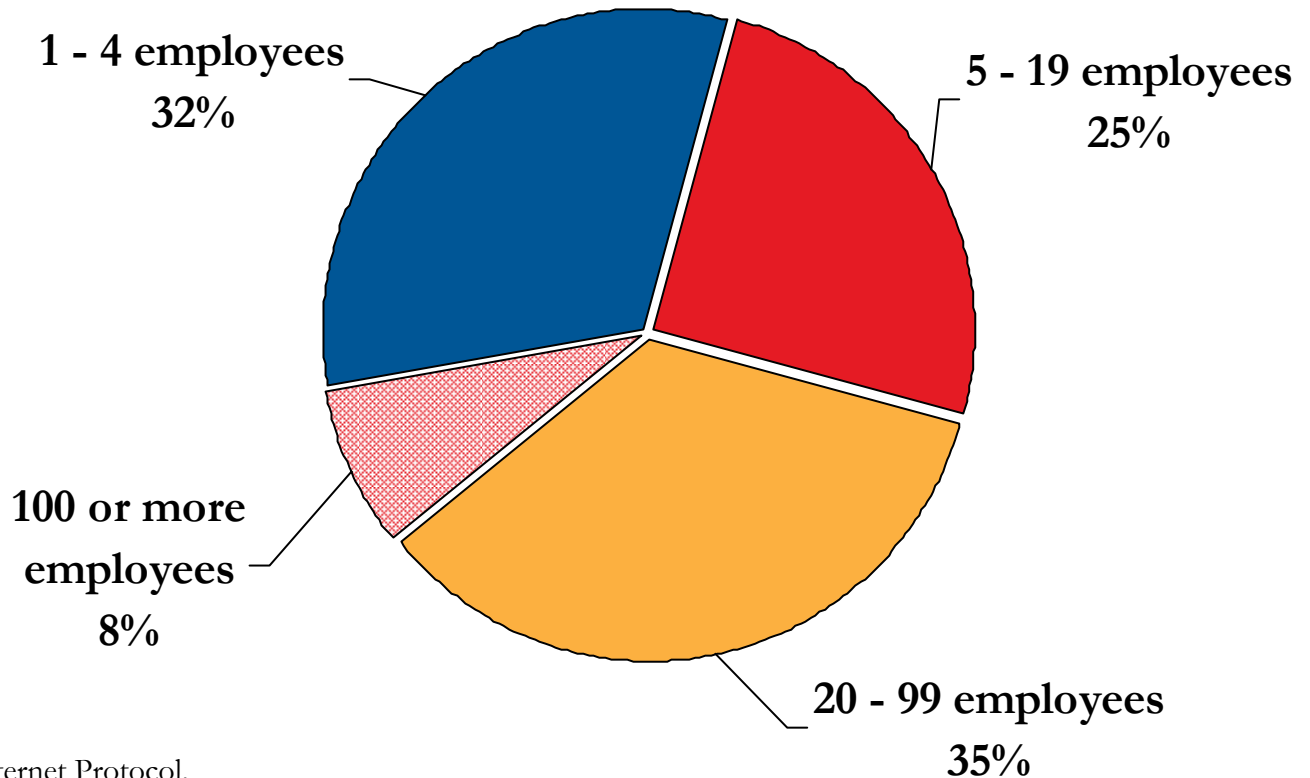
Large businesses (those with twenty or more employees) are four times more likely than smaller businesses to subscribe to VoIP.



Q: Do you subscribe to Voice over Internet Protocol, commonly known as VoIP?
(n = 807 Ohio businesses)

VoIP Subscribers by Business Size

Percent of Ohio Businesses that subscribe to VoIP:

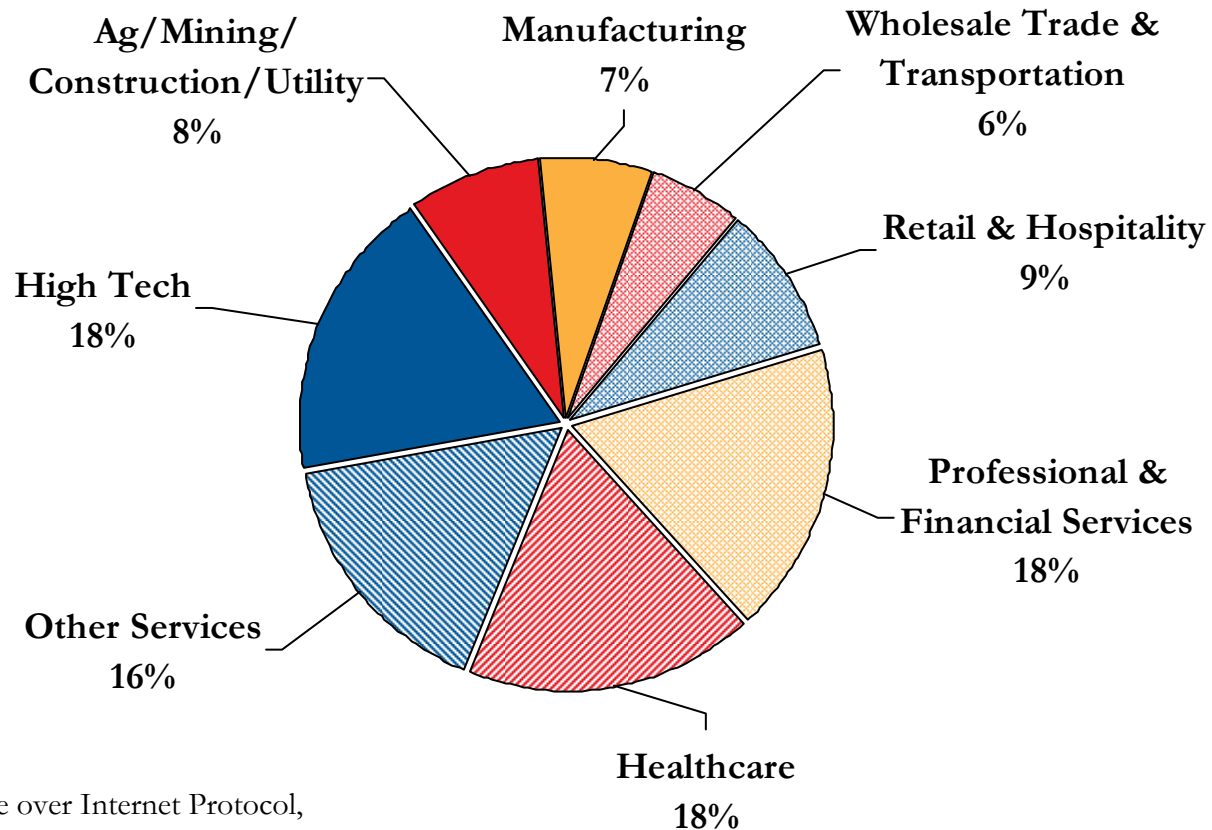


More than one-half of Ohio businesses that subscribe to VoIP have fewer than twenty employees.

Q: Do you subscribe to Voice over Internet Protocol, commonly known as VoIP?
(n = 59 Ohio businesses who subscribe to VoIP)

VoIP Subscribers by Industry Sector

Percent of Ohio Businesses that subscribe to VoIP:



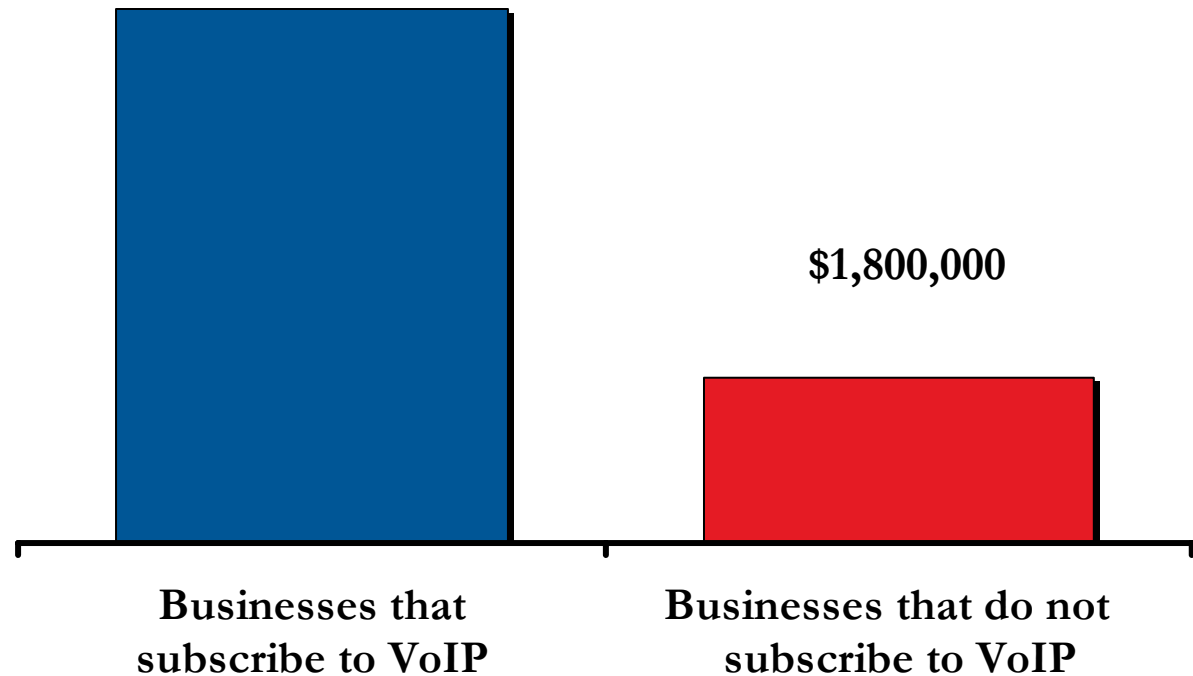
Q: Do you subscribe to Voice over Internet Protocol, commonly known as VoIP?
(n = 59 Ohio businesses who subscribe to VoIP)

Annual Business Revenues Among VoIP Subscribers

Average annual revenues:

\$5,800,000

The average annual revenue among businesses that subscribe to VoIP is more than three times greater than among businesses that do not subscribe.





Research Methodology

Methodology Overview

- The Connected Ohio Business Survey interviewed 807 businesses by telephone between March 5 and March 17, 2008. Data were collected by Wilkerson & Associates of Louisville, Kentucky. www.wilkersonresearch.com
- The error interval is $\pm 3.4\%$ at the 95% confidence level.
- On average, once agreeing to participate in the survey, interviews lasted 10 minutes.
- Sample quotas were established by company size (4 brackets) and industry sector (8 sectors). Within these 32 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

Methodology: Definitions

- **The federal government classifies and tabulates the number, size and type of businesses in two ways:**
 - Business establishments with paid employees
 - Non-employer business establishments.
- **The U.S. Census Bureau defines a business establishment as “a single physical location at which business is conducted or services or industrial operations are performed.”**
- **Businesses with paid employees are reported in the *County Business Patterns* (CBP) data from the U.S. Census Bureau based on payroll tax information. This is the most comprehensive and consistent year-to-year measurement of private employer businesses. For this reason, many state agencies rely on these data for economic development and planning purposes.**
- **In 2005, there were 270,968 private business establishments in Ohio, employing over 4.7 million residents. This is the sample frame for the survey.**

Methodology: Definition of High Tech Firms

- For several years, many states and economic development organizations had been quantifying and tracking their progress in “high-technology” employment and job creation using federal government data sources and a list of industry sectors identified in 1999 as employing a disproportionate share of people in science, engineering, technician and “research and development” occupations.
- In an article published in the July 2005 *Monthly Labor Review*, the study that defined the initial set of High Tech industry sectors was updated to reflect the more recent statistics, including the change in federal statistics from the old Standard Industrial Classification (SIC) to the North American Industry Classification System (NAICS). The study measures the presence of “technology oriented workers” (including engineers, engineering technicians, scientists, science technicians, as well as managers in engineering, computing/information systems and science) in each NAICS sector.
- For this study, Connect Ohio defined the High Tech sector by four-digit NAICS codes, in accordance with the July 2005 article.

Methodology: Classification of High Tech Firms

For the purposes of this survey, the High Tech sector includes businesses in the following industries by NAICS code in accordance with the June 2005 *Monthly Labor Review*:

Forestry
Oil & Gas Extraction
Electric Power Generation, Transmission or Distribution
Petroleum and Coal Products Manufacturing
Basic Chemical Manufacturing
Resin, Synthetic Rubber, and Synthetic Fiber and Filaments Manufacturing
Pesticides, Fertilizers and Other Agricultural Chemicals Manufacturing
Pharmaceuticals and Medicine Manufacturing
Paint, Coatings and Adhesives Manufacturing
Other Chemical Products Manufacturing
Agricultural, Construction and Mining Machinery Manufacturing
Industrial Machinery Manufacturing
Commercial and Service Machinery Manufacturing
Engines, Turbines and Power Transmission Equipment Manufacturing
Other General Purpose Machinery Manufacturing
Computers and Peripheral Equipment Manufacturing
Communications Equipment Manufacturing
Audio and Video Equipment Manufacturing
Semiconductors and Other Electrical Equipment Manufacturing
Navigational, Measurement and Control Instruments Manufacturing
Manufacturing and Reproduction of Magnetic or Optical Media
Electrical Equipment Manufacturing
Motor Vehicle Manufacturing
Motor Vehicle Bodies and Trailers Manufacturing
Motor Vehicle Parts Manufacturing
Aerospace Products and Parts Manufacturing
Other Transportation Equipment Manufacturing
Medical Equipment and Supplies Manufacturing
Professional and Commercial Equipment Wholesale
Pipeline Transportation (all sub sectors)
Software Publishers
Internet Publications and Broadcasting
Wired Telecommunications Carriers
Wireless Telecommunications Carriers
Telecommunications Resellers
Satellite Telecommunications
Other Telecommunications
Internet Service Providers and Portals
Data Processing, Hosting and Related Services
Monetary Authorities (Central Bank)
Securities and Commodities Exchanges
Architecture, Engineering and Related Services
Computer Systems Design and Related Services
Management Scientific and Technical Consulting Services
Scientific Research and Development Services
Management of Companies and Enterprises
Facilities Support Services
Electronic and Precision Equipment Repair and Maintenance

Methodology: Weighting

- The 2008 survey data were sampled and weighted by quotas defined by size and industry sector using the most recent *County Business Patterns* data as targets.
- Respondent estimates of the number of employees at the business location called were used in place of employee size data from Dun & Bradstreet. Industry sector quotas were defined based on NAICS groups shown in the tables below, according to Dun & Bradstreet data and confirmed during the interview itself.
- Sampled and actual distribution of businesses are summarized below.

| Statewide Distribution per 2005 <i>County Business Patterns</i> | | | | |
|---|-------|--------|---------|------|
| Sector | 1 - 4 | 5 - 19 | 20 - 99 | 100+ |
| High Tech | 4.5% | 2.1% | 1.2% | 0.5% |
| Ag/Mining/Construction/Utility | 6.4% | 2.9% | 0.8% | 0.1% |
| Manufacturing | 1.4% | 1.7% | 1.2% | 0.4% |
| W'sale Trade/Transport/W'housing | 4.0% | 2.7% | 1.1% | 0.2% |
| Retail/Recreation/Food/Lodging | 9.8% | 10.1% | 4.7% | 0.6% |
| Professional/Finance | 9.5% | 5.1% | 0.9% | 0.1% |
| Healthcare | 3.9% | 4.2% | 1.4% | 0.5% |
| Other Services | 9.9% | 5.9% | 1.8% | 0.5% |

| Actual Survey Sample Distribution | | | | |
|-----------------------------------|-------|--------|---------|------|
| Sector | 1 - 4 | 5 - 19 | 20 - 99 | 100+ |
| High Tech | 3.6% | 3.3% | 3.7% | 2.2% |
| Ag/Mining/Construction/Utility | 3.3% | 4.3% | 3.5% | 0.7% |
| Manufacturing | 3.2% | 3.2% | 4.5% | 2.0% |
| W'sale Trade/Transport/W'housing | 3.5% | 3.7% | 3.1% | 1.2% |
| Retail/Recreation/Food/Lodging | 3.3% | 4.0% | 3.5% | 2.5% |
| Professional/Finance | 4.6% | 3.5% | 3.3% | 1.0% |
| Healthcare | 3.1% | 3.6% | 3.7% | 2.2% |
| Other Services | 3.8% | 4.1% | 3.0% | 1.6% |



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