



Connected Tennessee Survey of Businesses January 2008



Key Findings: January 2008

Key Technology Benchmarks, January 2008:

- Businesses that use a computer: 85% (up from 81% in July 2007)
- Businesses that use the Internet: 73% (up from 67% in July 2007)
- Businesses that use broadband: 64% (up from 55% in July 2007)

Other Key Trends:

- All key technology adoption metrics (computer ownership, Internet adoption and broadband adoption) saw statistically significant increases from just six months ago.
- Small businesses in Tennessee saw the largest increase in broadband adoption.
- The primary barrier to broadband adoption among dial-up subscribers continues to be the lack of perceived need for broadband service.
- Broadband-connected businesses that maintain a website continue to have higher annual median revenues and attract more out-of-state and foreign customers.



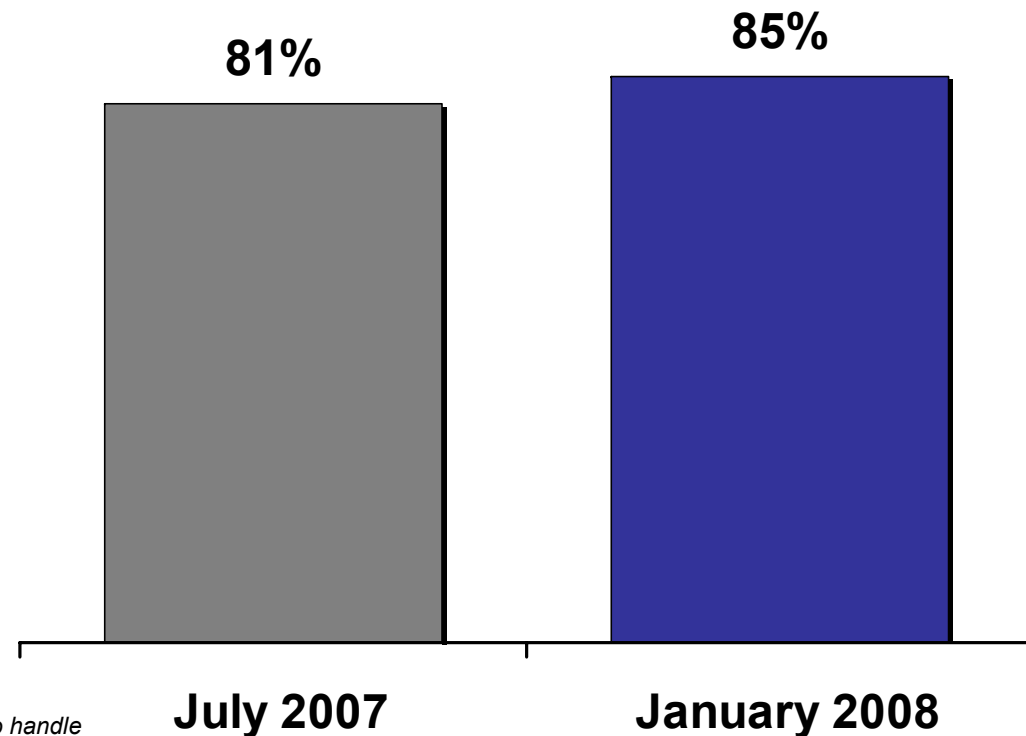
Use of Computer Technology Among Tennessee Businesses



Use of Computer Technology

Percent of all Tennessee businesses that use a computer for business functions:

In January 2008, 85% of Tennessee businesses reported that they use computers for their business functions. This is a 5% increase from just six months earlier.



*Q: Does your company use any type of computer technology to handle some or all of its business functions (for example: sales, cash receipts, accounting, inventory control or management reporting)?
(n= 806 TN businesses)*

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Source: January 2008 Connected Tennessee survey of businesses.
www.connectedtennessee.org

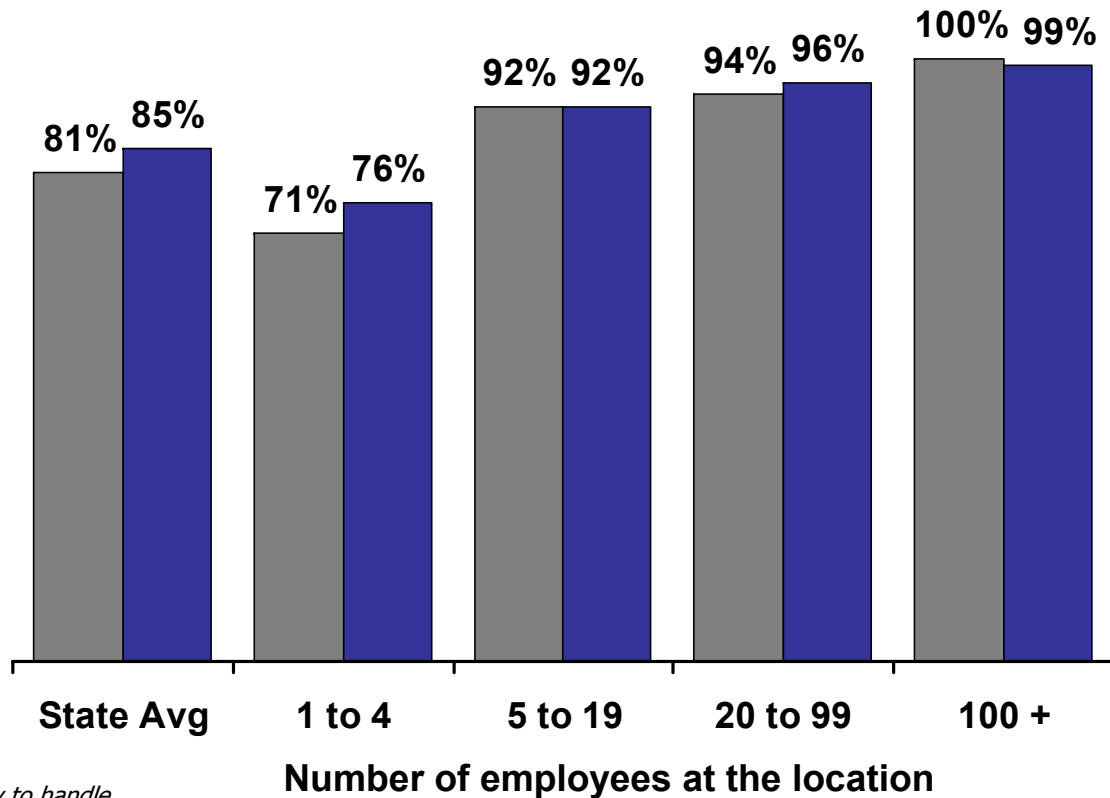


Computer Use by Company Size

■ July 2007 ■ January 2008

•The statewide rate of computer usage varies significantly by company size, rising from 76% of the smallest establishments, to more than 90% of medium size companies and 99% of the largest companies in Tennessee.

•Computer ownership among the smallest Tennessee businesses has grown significantly since July 2007.



*Q: Does your company use any type of computer technology to handle some or all of its business functions (for example: sales, cash receipts, accounting, inventory control or management reporting)?
(n=806 total, 200+ in each size bracket, except 100+ where n=144)*



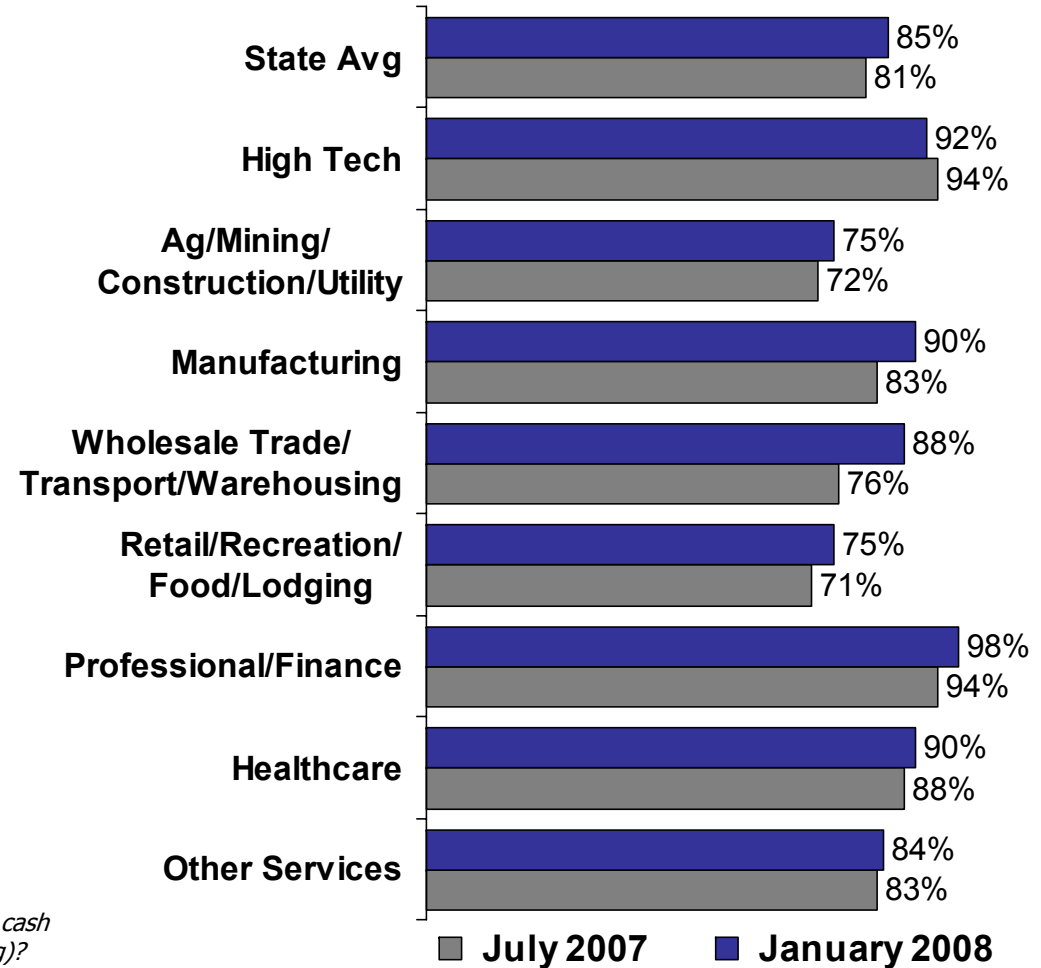
Computer Use by Industry Sector

• **Businesses in Manufacturing and the Wholesale Trade/ Transportation/Warehousing sectors saw the greatest increases in computer usage from July 2007.**

• **Businesses in the Retail/ Recreation/Food and Lodging sector and the Agriculture/Mining/ Construction/Utility sectors continue to be the least likely to use computers for their business functions.**

Q: Does your company use any type of computer technology to handle some or all of its business functions (for example: sales, cash receipts, accounting, inventory control or management reporting)? (n=806 total, ~100+ in each sector except High Tech, where n=92 and Professional/Finance sector, where n=96)

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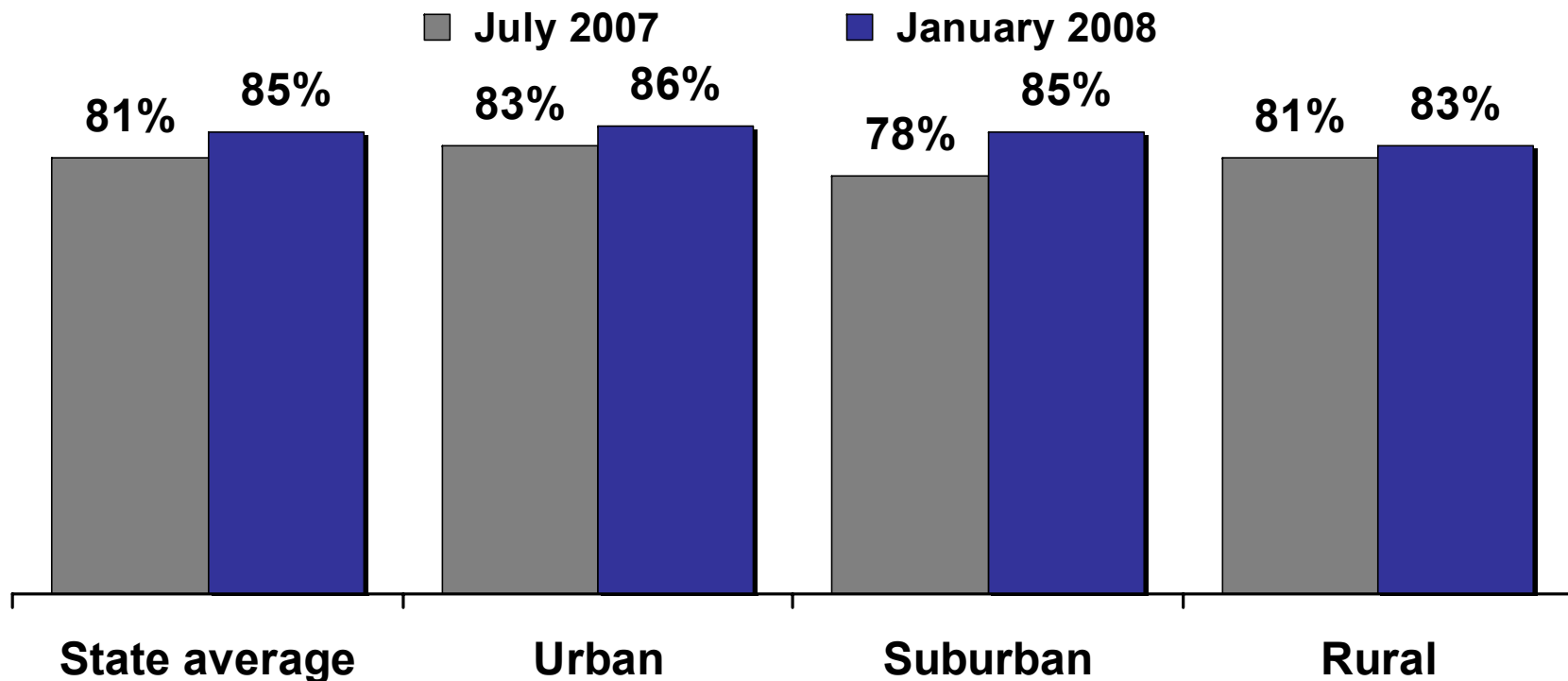
Source: January 2008 Connected Tennessee survey of businesses.

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Trends in Computer Use by Urban-Rural Classification

Percent of Tennessee businesses with a computer:



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

(n=806 Tennessee businesses)

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Source: January 2008 Connected Tennessee survey of businesses.

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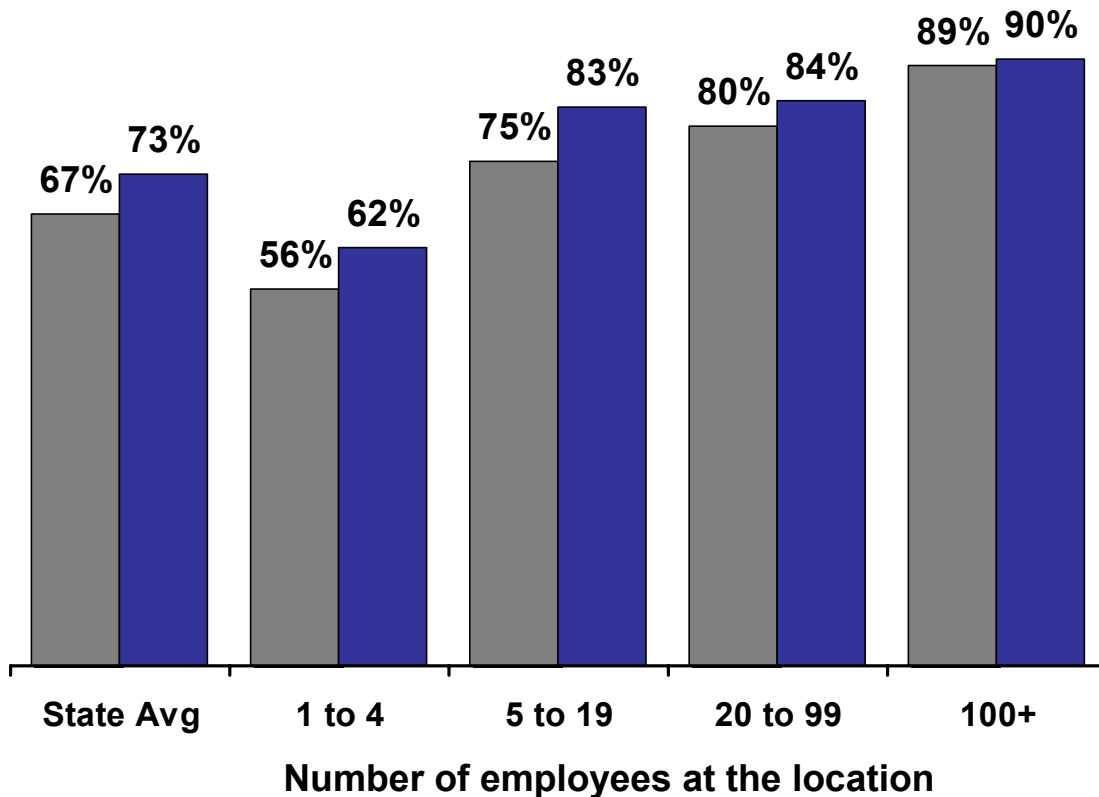


Internet Adoption Among Tennessee Businesses



Internet Adoption by Business Size

■ July 2007 ■ January 2008



• **Businesses in every size category report an increase in Internet adoption since July 2007.**

• **Small businesses and businesses with 20-99 employees tied for the largest growth (11%) since July 2007.**

*Q: Does your company use the Internet to handle any of your business functions?
(n=806 total, 200+ in each size bracket, except "100+" where n=144)*

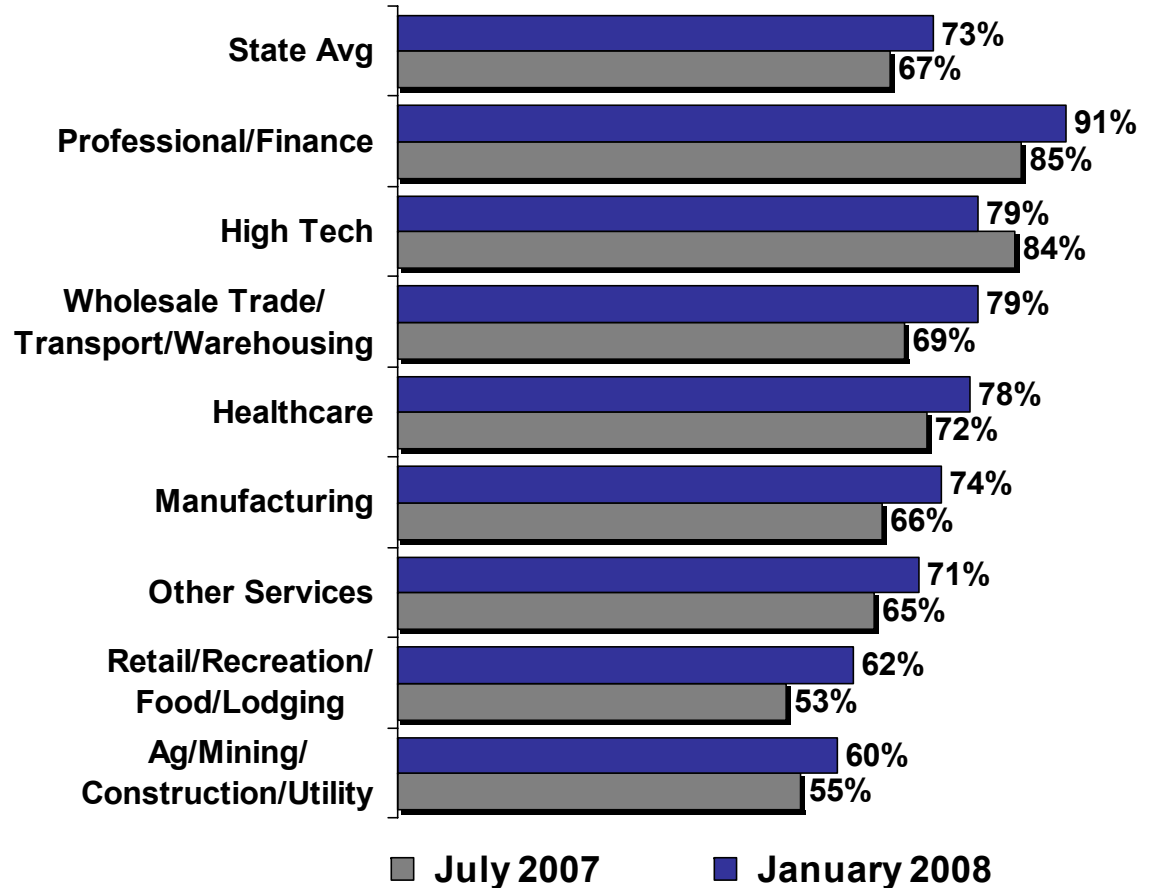
Source: January 2008 Connected Tennessee survey of businesses.
www.connectedtennessee.org



Internet Adoption by Industry Sector

• **Businesses in the Retail/ Recreation/Food/Lodging industry saw the largest increase in Internet adoption, with a 14% increase between July 2007 and January 2008.**

• **All sectors experienced growth in Internet adoption except the High Tech sector.**



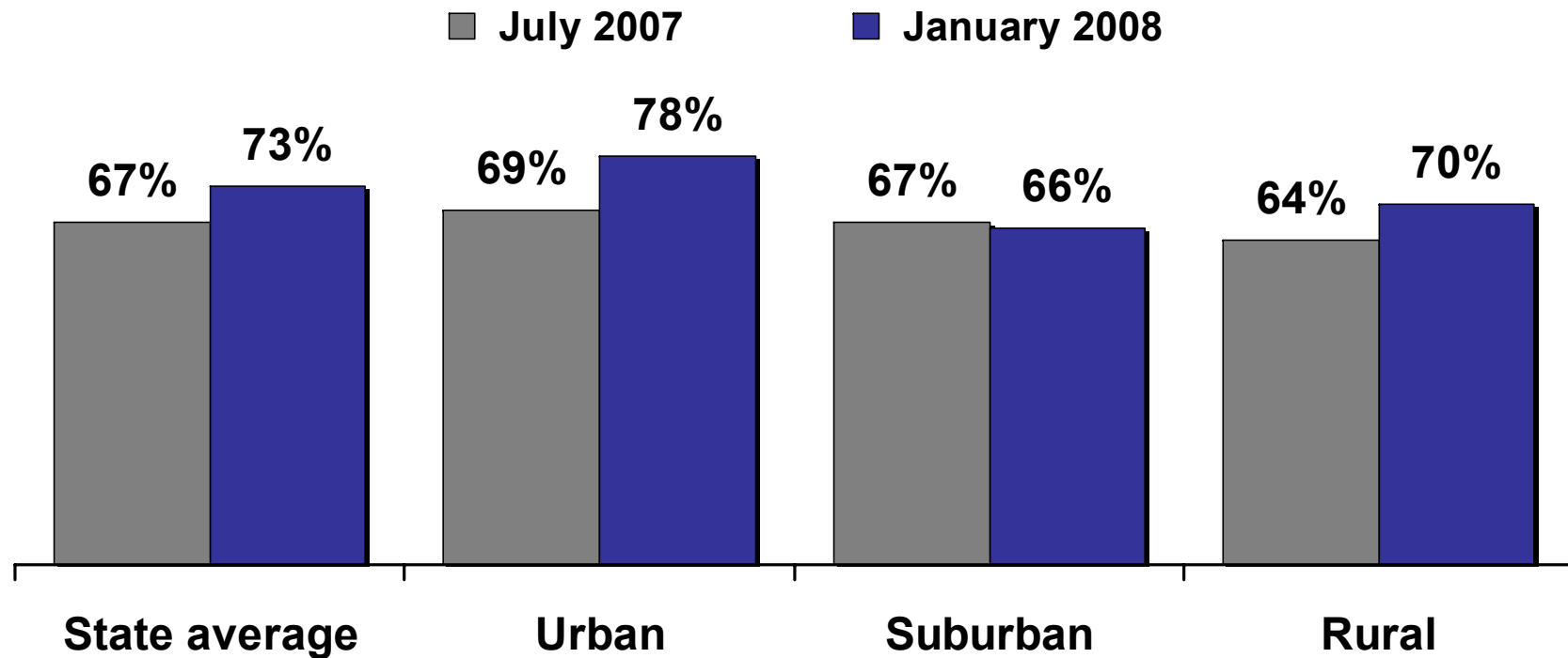
Q: Does your company use the Internet to handle any of your business functions? (n=806 TN businesses)

Source: January 2008 Connected Tennessee survey of businesses.
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Trends in Internet Adoption by Urban-Rural Classification

Percent of Tennessee businesses with Internet service:



Q: Does your company use the Internet to handle any of your business functions? (n = 806 TN businesses)

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Source: January 2008 Connected Tennessee survey of businesses.

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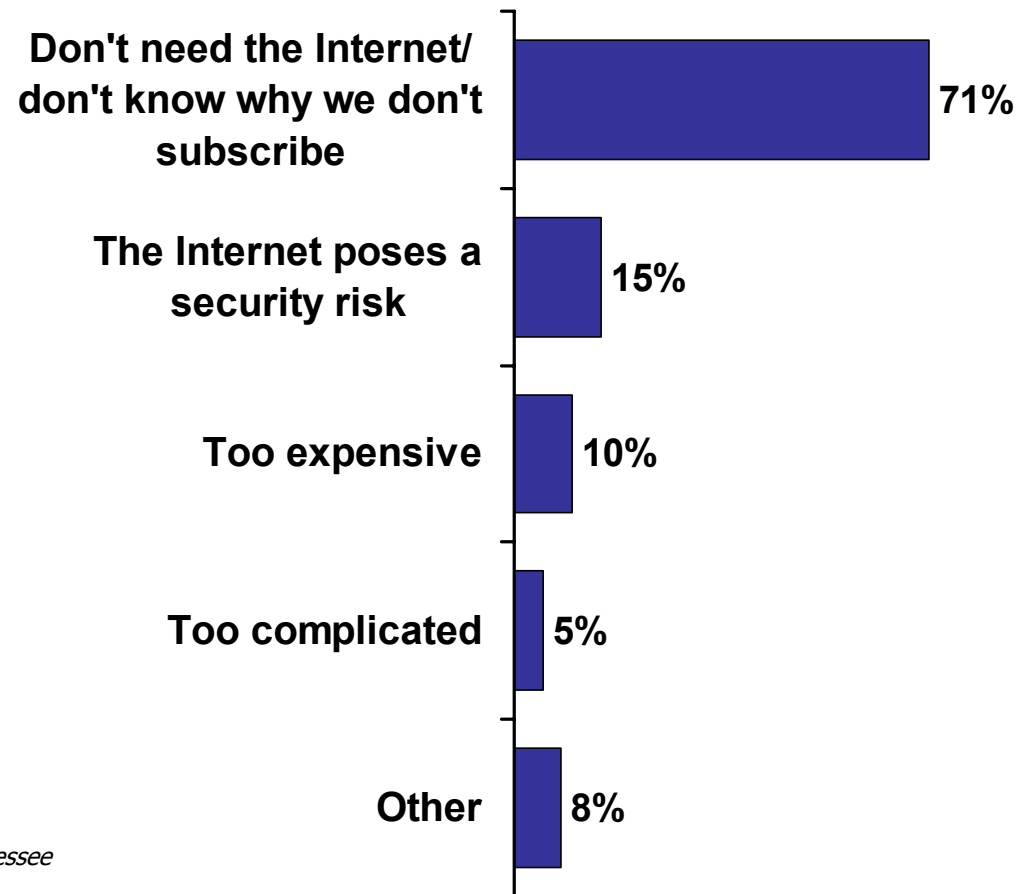


Barriers to Internet Adoption

Among Tennessee businesses not using the Internet*:

•The majority of businesses that are not connected to the Internet say it is because they do not need the Internet or do not know why they do not subscribe to the Internet.

•A further 15% cite perceived security risks.



Q: Why doesn't your organization use the Internet? (n=90 Tennessee businesses that do not use the Internet)

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

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Source: January 2008 Connected Tennessee survey of businesses.

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Broadband Adoption Among Tennessee Businesses



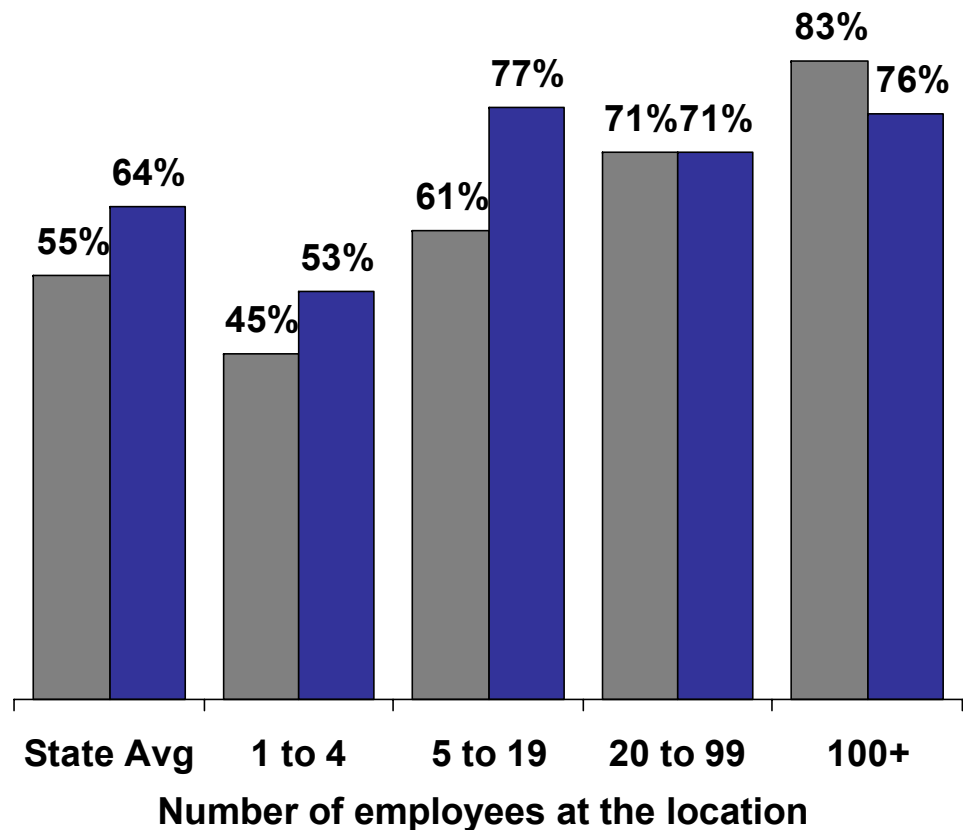
Broadband Adoption Trends by Company Size

■ July 2007 ■ January 2008

•Small businesses in Tennessee (those with fewer than 20 employees) showed growth in broadband adoption between July 2007 and January 2008, fueling the statewide growth in broadband adoption.

•Businesses with 5-19 employees saw the largest jump in broadband adoption, increasing from 61% to 77% (an increase of 26%).

•Broadband adoption among businesses with 20-99 employees held steady at 71%, while broadband adoption among businesses with more than 100 employees decreased.



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

(n = 806 TN businesses)

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Source: January 2008 Connected Tennessee survey of businesses.

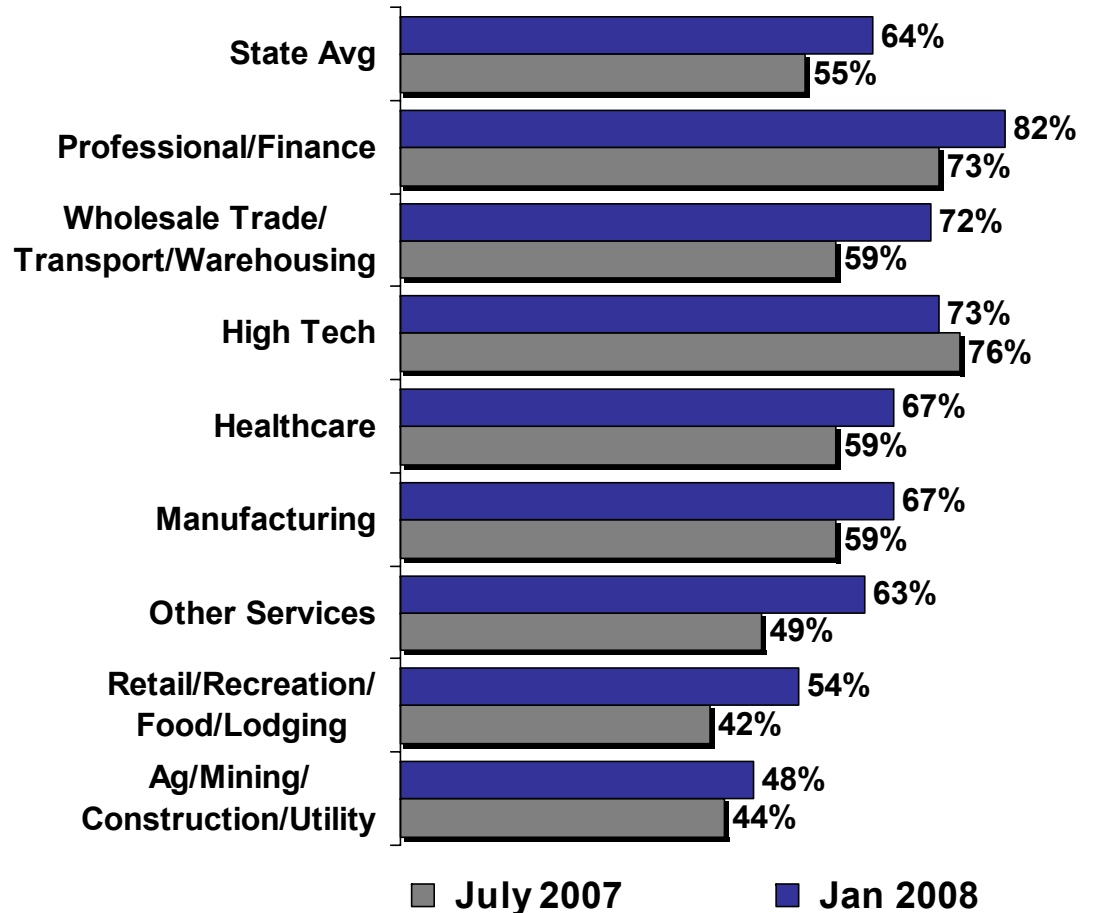
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Broadband Adoption Trends by Industry Sector

•Broadband adoption among businesses in almost every industry sector (with the exception of the High Tech sector) increased between July 2007 and January 2008.

•The Other Services sector saw the most impressive growth in broadband adoption, from 49% in July 2007 to 63% in January 2008. This is a 29% increase.



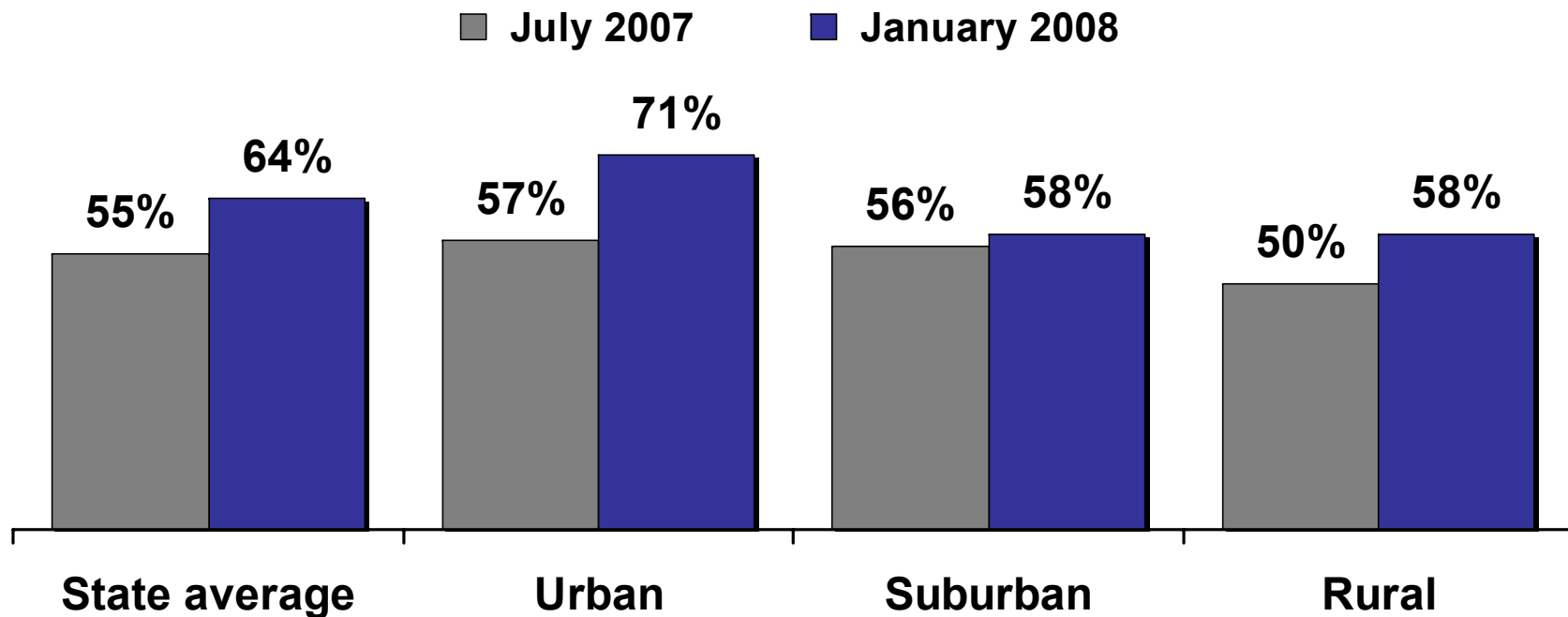
Q: Which of the following describes the type of Internet access your company has?
(n = 806 TN businesses)

Source: January 2008 Connected Tennessee survey of businesses.



Trends in Broadband Adoption by Urban-Rural Classification

Percent of Tennessee businesses with broadband service:



Q: Which of the following describes the type of Internet access your company has?
(n = 806 TN businesses)

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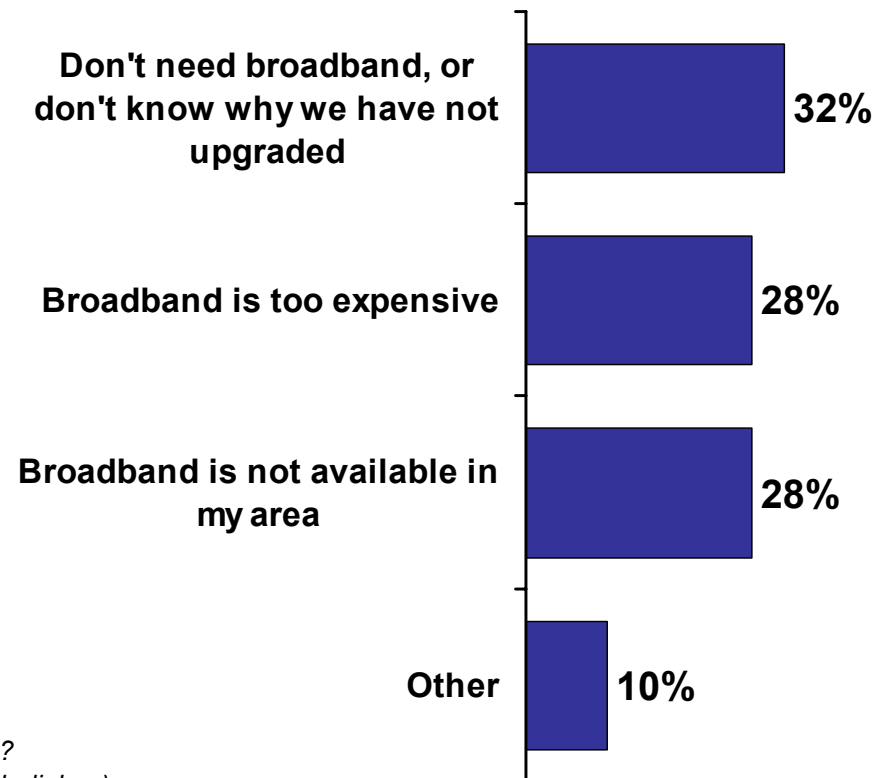
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Barriers to Broadband Adoption

- Among the 5% of businesses that rely exclusively on a dial-up connection, 32% believe they do not need broadband or they do not know why they have not upgraded to broadband.
- A smaller percentage of businesses cite either cost (28%) or availability (28%) as their primary barrier to broadband adoption.

Percent of Tennessee businesses that rely exclusively on dial-up service*:



Q: Why doesn't your organization subscribe to broadband service?
(n = 29 TN businesses that access the Internet exclusively through dial-up)

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

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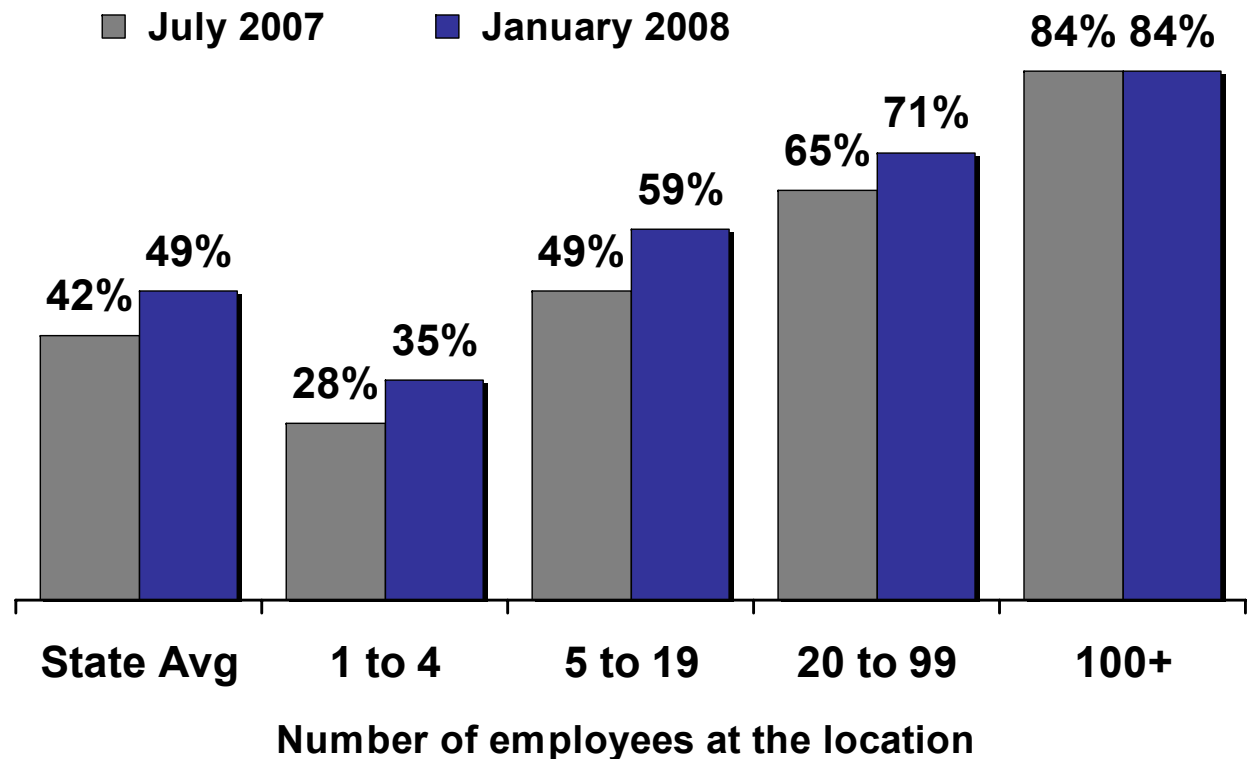
Presence of a Website



Website Presence by Company Size

- The likelihood of having a website continues to increase as the size of the business increases.
- In the last six months, however, small businesses saw the largest growth in website presence.
- The smallest businesses (1 to 4 employees) saw a 25% increase since July 2007.

Percent of all Tennessee businesses that have a website:



Q: Does your company have a website?
(n = 806 TN businesses)

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Source: January 2008 Connected Tennessee survey of businesses.

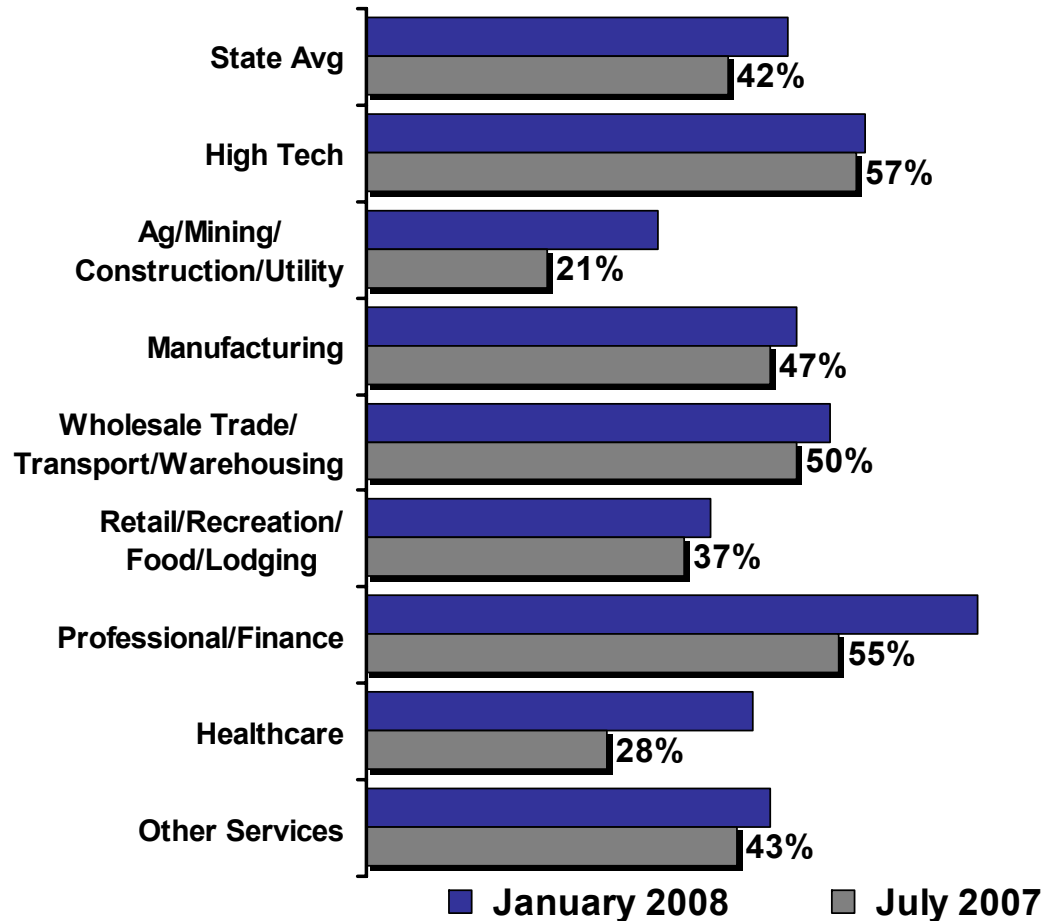
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Website Presence by Industry Sector

- The Professional/Finance sector has the largest percentage of businesses with a website.
- The Ag/Mining/Construction/Utility sector continues to have the smallest percentage of businesses with a website; however, this sector experienced the largest growth (61%) since July 2007, followed closely by the Healthcare sector with 60% growth.

Percent of all Tennessee businesses with a website:



Q: Does your company have a website?
(n = 806 TN businesses)

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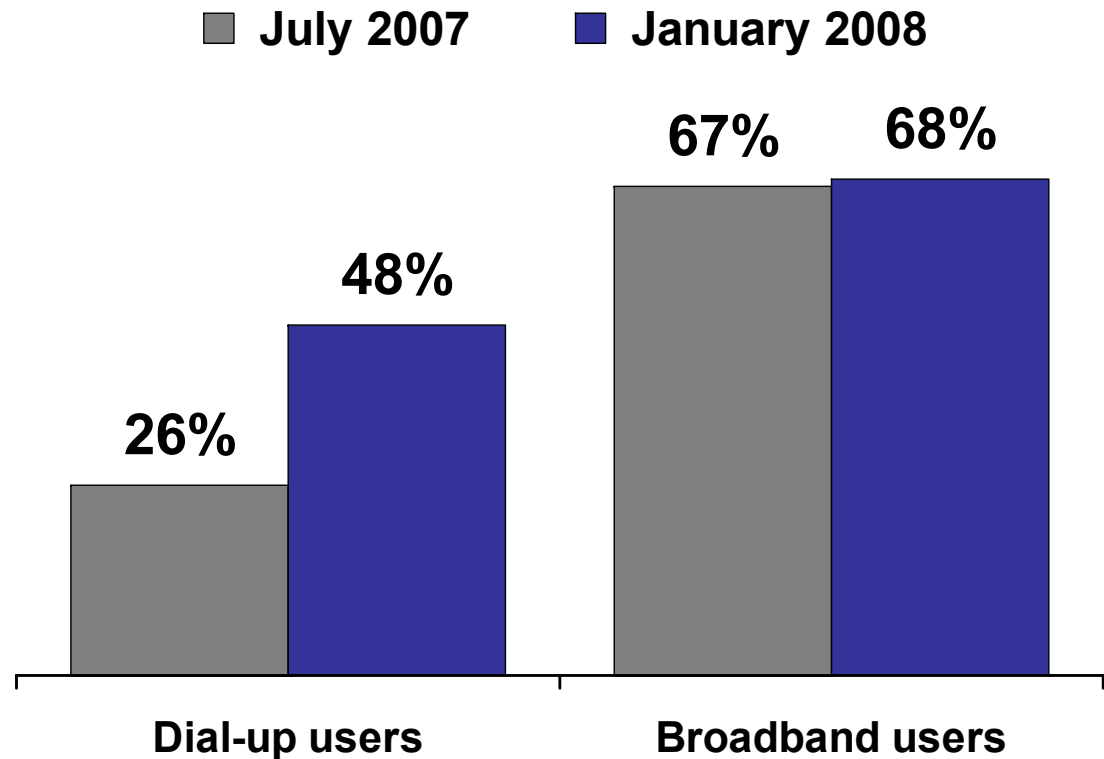


Website Presence by Type of Internet Access

•While the percentage of broadband-connected businesses that have websites increased slightly from July 2007, the percentage of businesses with dial-up that have websites increased by 85%.

•Despite the increase among dial-up connected businesses, businesses that have a broadband connection are still more likely to have a website.

Percent of Internet-connected businesses that have a World Wide Web site:



Q: Does your company have a website?
(n = 648 Tennessee businesses that use the Internet)
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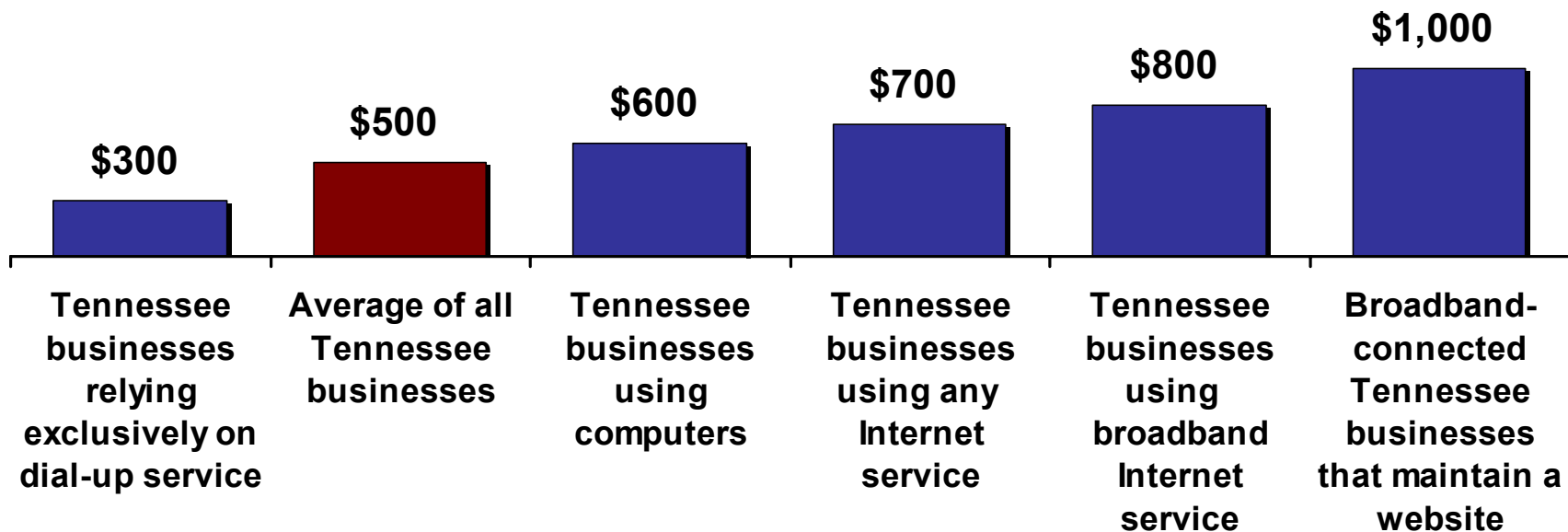
Technology Adoption and Annual Revenues



Technology Adoption and Business Revenues

- Technology adoption continues to have a positive correlation with median annual revenues across Tennessee.
- Tennessee businesses with broadband report median annual revenues that are more than double those of businesses that rely exclusively on dial-up Internet service.

Median Annual Revenues (\$000)



Q: What is your firm's approximate average annual revenue?
(n = 806 Tennessee businesses)

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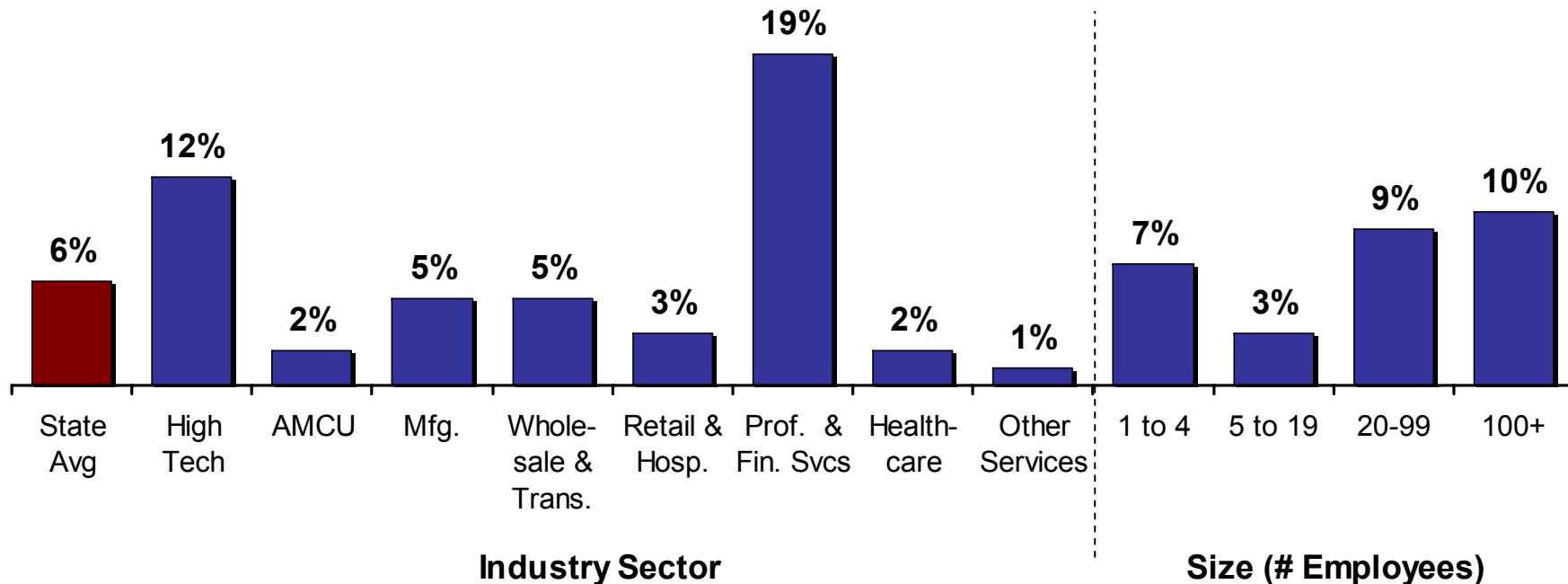
Source: January 2008 Connected Tennessee survey of businesses.

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Businesses that Subscribe to VoIP by Size and Sector

- Nearly 1 in 5 businesses in the Professional/Finance sector subscribe to VoIP; this is almost ten times greater than the Healthcare and Ag/Mining/Construction/Utility sectors, and almost twenty times greater than the Other Services sector.
- Larger businesses are more likely to subscribe to VoIP than smaller businesses.



Q: Do you subscribe to Voice over Internet Protocol, commonly known as VoIP?
 (n = 60 Tennessee businesses that subscribe to VoIP)

Source: January 2008 Connected Tennessee survey of businesses.

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Research Methodology



Methodology Overview

- **Eight hundred and six (806) businesses were contacted by telephone between January 24 and 31, 2008. Data were collected by Wilkerson and Associates in Louisville, KY.**
- **The error interval or sample tolerance for the survey is $\pm 3.4\%$ at the 95% confidence level.**
- **A similar survey, using an identical methodology and sample design was conducted by Connect Tennessee in July 2007 with 812 Tennessee businesses. The January 2008 survey is designed as the first of several updates to the July 2007 benchmarks.**
- **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 subsectors to analyze with confidence.**
- **Weighting of the survey data enables the total sample to also be representative of all employer business establishments, according to the U.S. Census Bureau *County Business Patterns* (CBP) data.**



Tennessee Business Universe

- 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
- A business establishment is defined 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* 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 133,089 private business establishments in Tennessee employing nearly 2.4 million residents. This is the sample frame for the survey.
- Non-employer establishment counts are derived from business income tax returns filed by non-employer businesses. Generally, these businesses have at least \$1,000 in sales receipts, but most of these are very small and often are not a primary source of income for the owner(s).
 - In 2005, there were 422,761 *non-employer* businesses in the state.



Urban-Rural Classifications Defined

- **The U.S. Census Bureau uses an urban-rural classification based on Metropolitan Statistical Areas (MSAs), which are designated by the United States Office of Management and Budget to collect, tabulate and publish federal statistics.**
- **Metropolitan statistical areas contain a core urban area with a population of 50,000 or more. Each MSA also includes one or more counties that have a high degree of social and economic interaction with the urban core (further information on definitions for MSAs can be found at: www.census.gov/population/www/estimates/00-32997.pdf).**
- **When classifying urban, suburban and rural counties, we follow the Census Bureau definition whereby counties are categorized as “urban” if they contain the core city of an MSA. “Suburban” counties include MSA counties that do not contain a core city, and “rural” counties include all remaining counties that are not part of an MSA.**
- **Using these definitions, there are currently 10 Urban, 28 Suburban and 57 Rural counties in Tennessee.**



Methodology: Weighting

- The July 2007 and January 2008 survey data were both sampled and weighted by quotas defined by the size of establishment and dominant industry sector using the most recent *County Business Patterns* data as targets.
- Respondent estimates of 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 vs. Actual distribution of businesses is summarized in tables below.

Sample Distribution by Size and Sector, January 2008				
Sector	1-4	5-19	20-99	100+
High Tech	3.5%	2.6%	2.6%	2.7%
AMCU	3.1%	5.1%	3.3%	1.0%
Manufacturing	2.6%	3.1%	3.7%	3.2%
Wholesale, T&W	3.2%	3.7%	3.5%	2.1%
Retail, Food, Lodging	4.3%	3.6%	3.1%	2.9%
Prof. & Fin'l Services	3.1%	3.7%	3.3%	1.7%
Healthcare	3.2%	3.7%	3.1%	2.4%
All Other Services	4.1%	2.7%	4.0%	1.9%

Desired Distribution per 2005 <i>County Business Patterns</i>				
Sector	1-4	5-19	20-99	100+
High Tech	4.1%	2.0%	1.0%	0.4%
AMCU	5.3%	2.7%	0.9%	0.1%
Manufacturing	1.3%	1.3%	1.0%	0.5%
Wholesale, T&W	3.8%	2.9%	1.3%	0.3%
Retail, Food, Lodging	11.3%	11.0%	4.9%	0.6%
Prof. & Fin'l Services	10.3%	5.3%	1.1%	0.2%
HealthCare	4.3%	4.2%	1.3%	0.4%
All Other Services	9.5%	4.9%	1.5%	0.4%



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