



# **2008 Technology Assessment of Tennessee Consumers**

## **Executive Summary October 2008**



# Summary of Key Findings

**Computer ownership in Tennessee increased by 4% over the past year, compared to stagnant national growth estimates. The greatest gains in computer ownership were among older and lower-income residents.**

- Among residents age 55 and older, home computer ownership increased by 12%.
- Among residents earning less than \$25,000 per year, home computer ownership increased by 8%.
- Among low-income families with children at home, computer ownership grew by 28%.

**Home Internet use in Tennessee increased by 5% over the past year, compared to an estimated 1% national increase. The largest growth occurred in rural areas and among residents who are older, lower income, and African American.**

- In rural counties, home Internet use increased by 12%. Over the course of the last year, the Internet gap between urban and rural areas was cut by more than half.
- Among those age 65 and older, home Internet use increased by 18%.
- Among those earning less than \$25,000 per year, home Internet use increased by 19%.
- Among low-income families with children, home Internet use increased by 53%.
- Among African Americans, home Internet use increased by 8%, more than doubling the growth among other races.

**Home broadband use in Tennessee increased by 14% over the past year, compared to an estimated 12% national growth. The greatest gains were seen in rural areas and among older and lower income residents.**

- In rural counties, home broadband adoption increased by 30%.
- Broadband use grew among all age groups, with the largest gains among the 65 and older age group, in which broadband use increased by 53%.
- Among residents earning less than \$25,000 per year, home broadband adoption increased by 54%.
- Among low-income families with children, home broadband use more than doubled over the past year, growing by 124%.



# Additional Findings

- **Growth in Wireless Hotspot Use:** Over the past year, Tennesseans' use of wireless hotspots increased by 17%. Of all wireless hotspot locations, libraries accounted for the largest gain in users, increasing hotspot use by 42%.
- **Growth in Telework:** The number of employed Tennesseans who regularly telework nearly doubled in the past year, while the percentage of employed adults who would likely telework if enabled to do so increased to 30%.
- **Broadband Growth among Businesses:** While computer use and general Internet use has remained unchanged overall among Tennessee businesses over the past year, broadband use has increased to 60%, which equals a 9% rate of growth. This finding suggests that businesses using dial-up are switching to broadband.
- **Large Gains in Broadband Growth among Small and Medium Businesses:** Small and medium sized businesses with 5 to 49 employees realized significant gains in broadband use, with a growth of 16% in the past year.
- **Large Gains in Broadband Growth Among Urban and Rural Businesses:** Tennessee's urban and rural businesses saw the largest jump in broadband use over the past year, with a 12% gain in rural counties and a 16% gain in urban counties.
- **Higher Revenues among Businesses with Broadband:** Tennessee businesses with broadband report median annual revenues that are three times more than those of businesses that rely on dial-up service.
- **Website Growth among Businesses:** Statewide, 47% of Tennessee businesses have a website. This is a 12% increase from July 2007. The largest growth in website development was seen among very small businesses (25% increase) and in the agriculture, mining, construction and utility sector (71% increase).

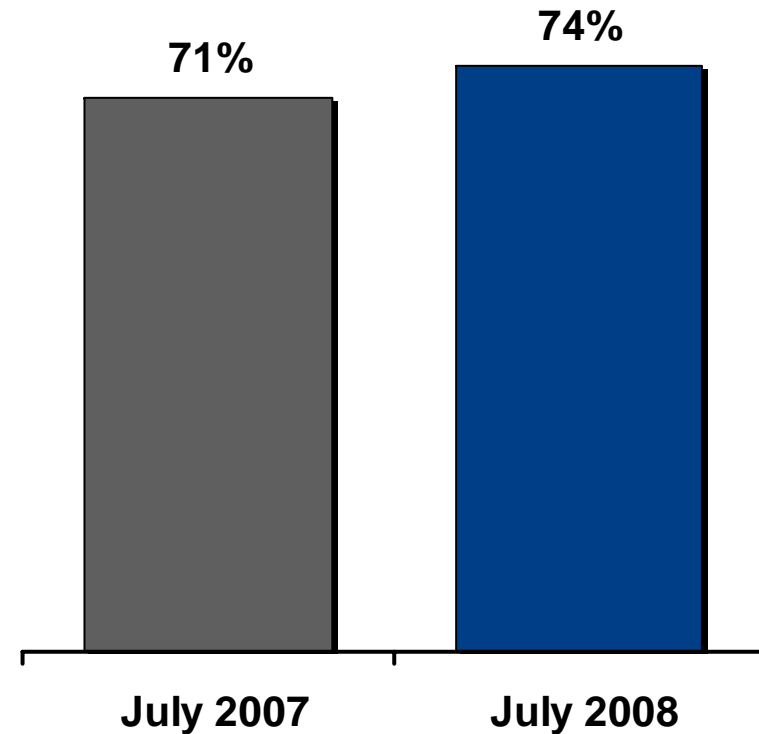


# Tennessee Residents With a Computer in Their Household

**Nearly three out of four Tennessee residents (74%) report owning a computer. This translates into nearly 3.5 million Tennessee adults.**

**This figure represents a 4% increase from July 2007, compared to no change in national computer use\* over a similar time period.**

**Percent of all Tennessee residents who own a computer:**



Q: Does your household have a computer?  
(n=1,200 TN residents)

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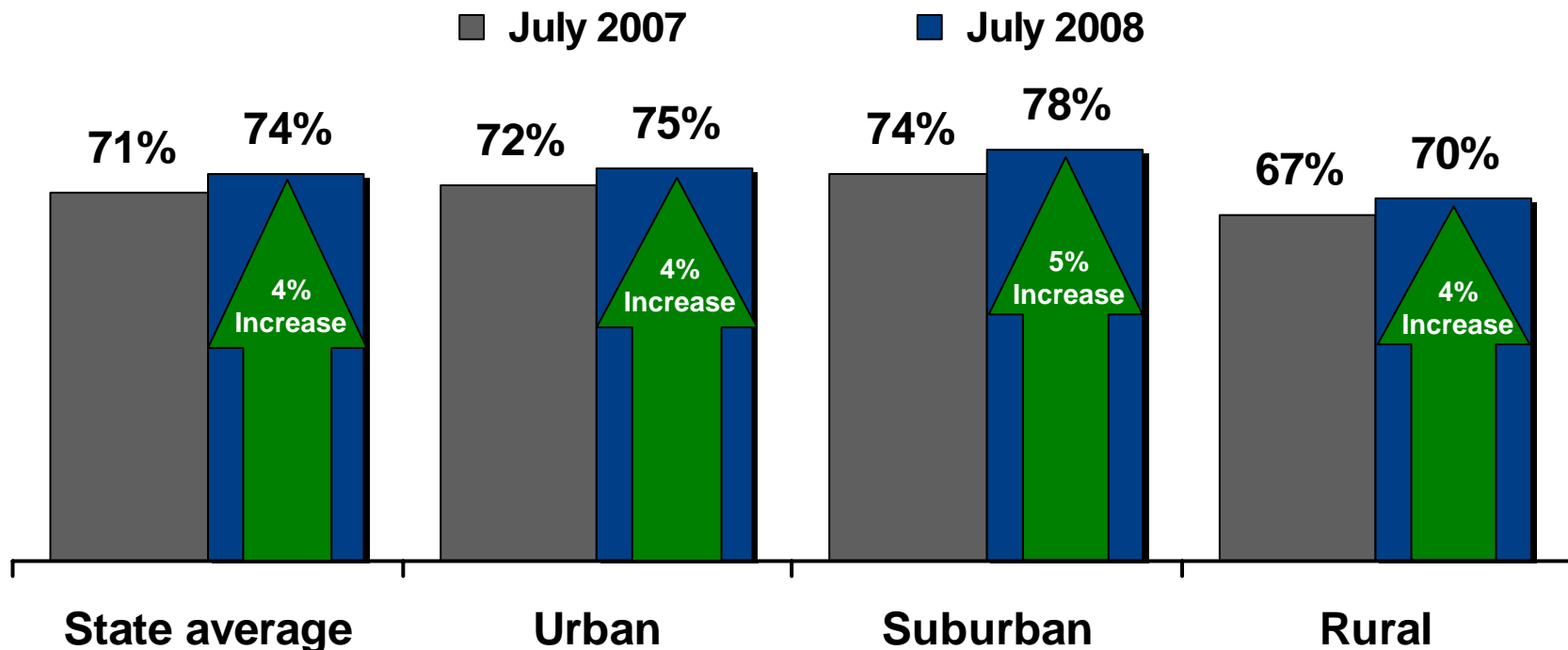
Source: July 2008 Connected Tennessee Residential Technology Assessment  
\*Estimated from national surveys conducted by Pew Internet Project from March 2007-May 2008



# Trends in Computer Ownership by Urban-Rural Classification

Computer ownership grew across all geographic areas – in urban, suburban as well as rural counties.

## Percent of Tennessee residents with a computer:



Q: Does your household have a computer?  
(n=1,200 TN residents)

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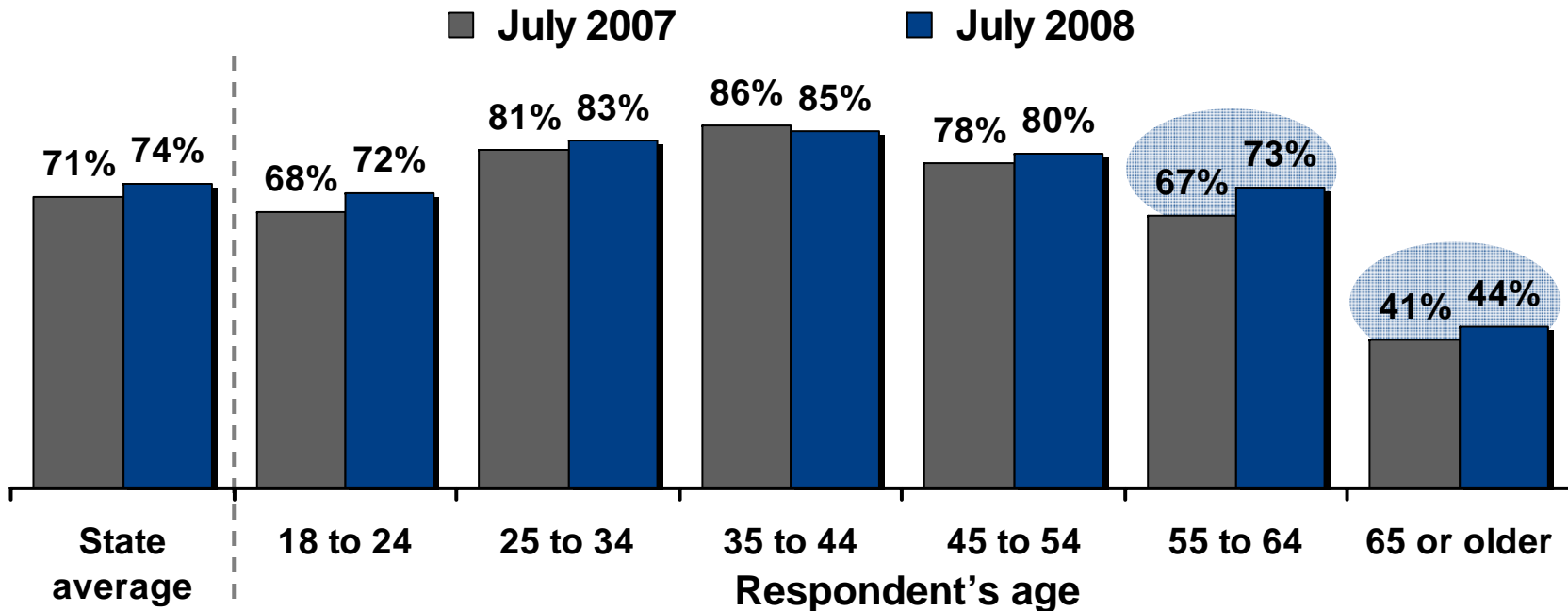
Source: July 2008 Connected Tennessee Residential Technology Assessment



# Trends in Computer Ownership by Age

Among residents age 55 and older, computer ownership grew by 12% over the past year.

Percent of Tennessee residents with a computer:



Q: Does your household have a computer?  
(n=1,200 TN residents)

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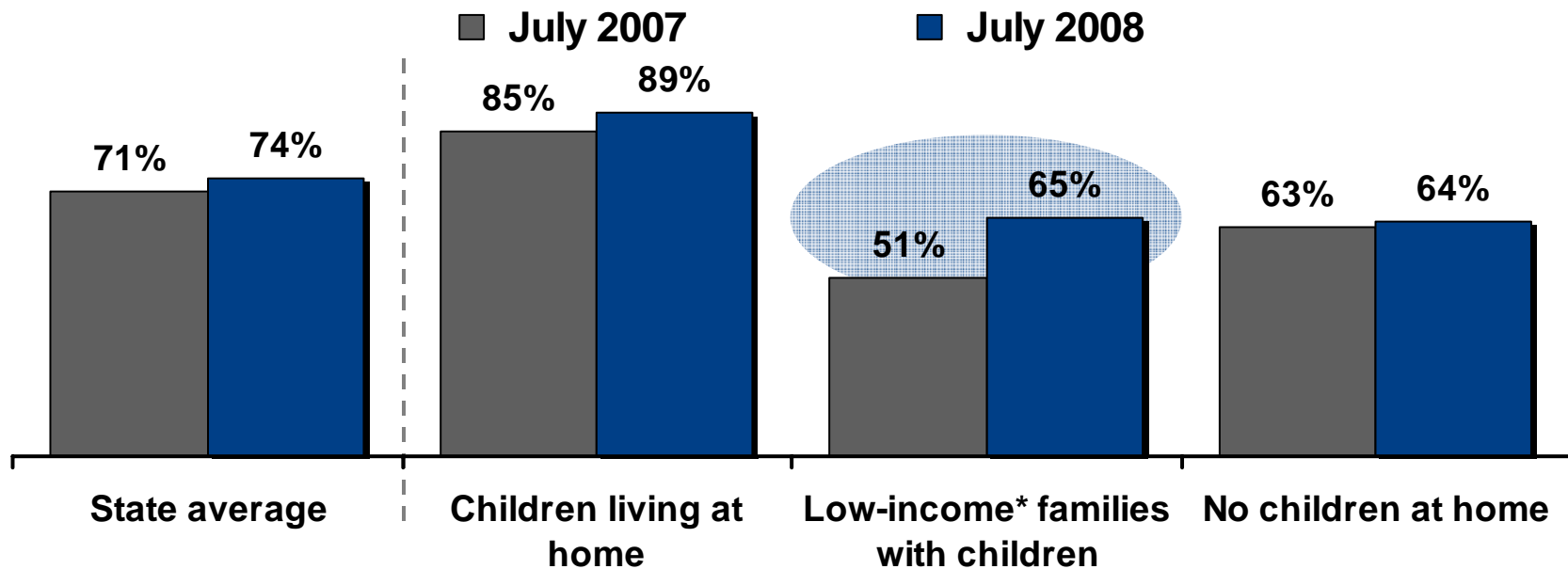
Source: July 2008 Connected Tennessee Residential Technology Assessment



# Trends in Computer Ownership by Presence of Children

Among low-income families with children at home, computer ownership grew by 28% over the past year.

Percent of Tennessee residents with a computer:



\*Low-income=annual household income less than \$25,000

Q: Does your household have a computer?  
(n=1,200 TN residents)

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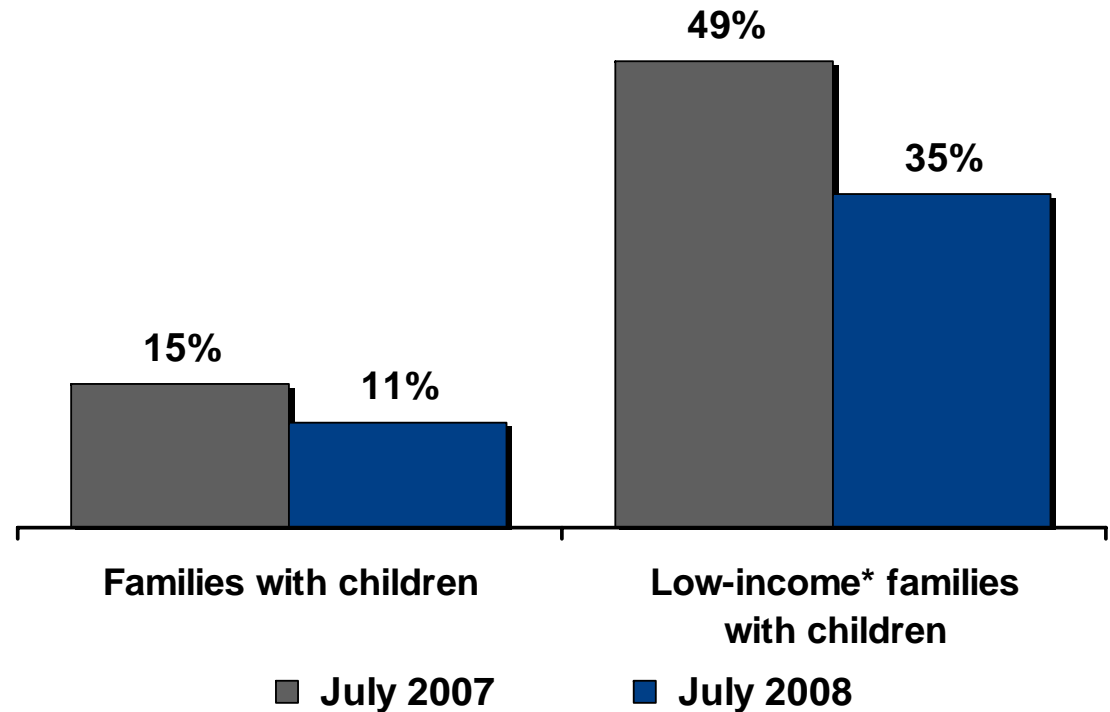
Source: July 2008 Connected Tennessee Residential Technology Assessment



# Tennessee Families With Children With No Home Computer

Percent of Tennessee families with children who do NOT own a computer:

Over the past year, the percentage of children without a computer at home dropped by 27%. Most notably, the percentage of low-income\* children without a computer at home dropped by 29%.



\*Low-income=annual household income less than \$25,000

Q: Does your household have a computer?  
(n=466 TN residents with children at home)

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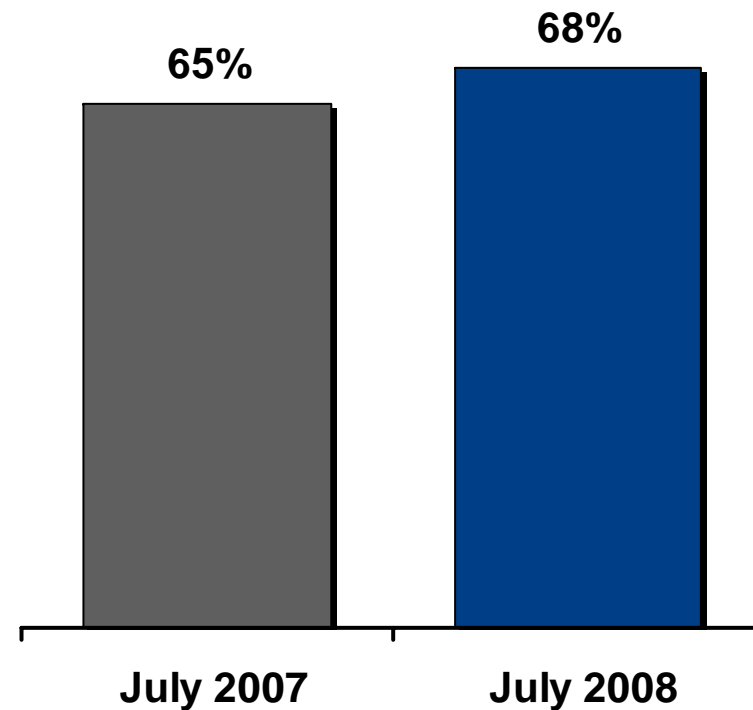


# Tennessee Residents With a Home Internet Connection (Either Broadband or Dial-Up)

**Sixty-eight percent of Tennessee residents report that they have either dial-up or broadband Internet service at home. This translates into approximately 3.2 million Tennessee adults.**

**This number represents a 5% increase from July 2007 when only 65% of Tennessee residents said they had home Internet service. This compares to an estimated 1% increase nationally.\***

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



Q: Do you have an Internet connection at home?  
(n=1,200 TN residents)

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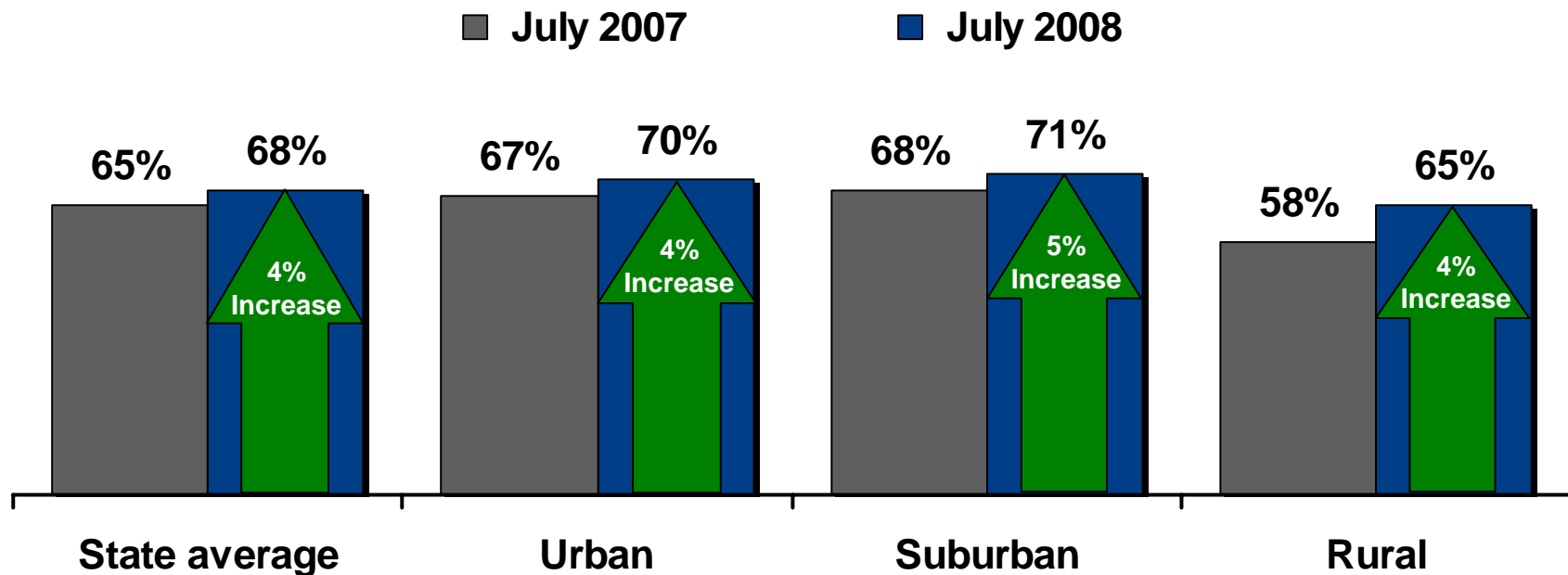
Source: July 2008 Connected Tennessee Residential Technology Assessment  
\*Estimated from national surveys conducted by Pew Internet Project from March 2007-May 2008



# Trends in Internet Adoption (Dial-Up or Broadband) by Urban-Rural Classification

Home Internet adoption increased across all geographic areas, with the greatest gains in rural areas where Internet adoption grew by 12%.

Percent of Tennessee residents with Internet service at home:



Q: Do you have an Internet connection at home?  
(n=1,200 TN residents)

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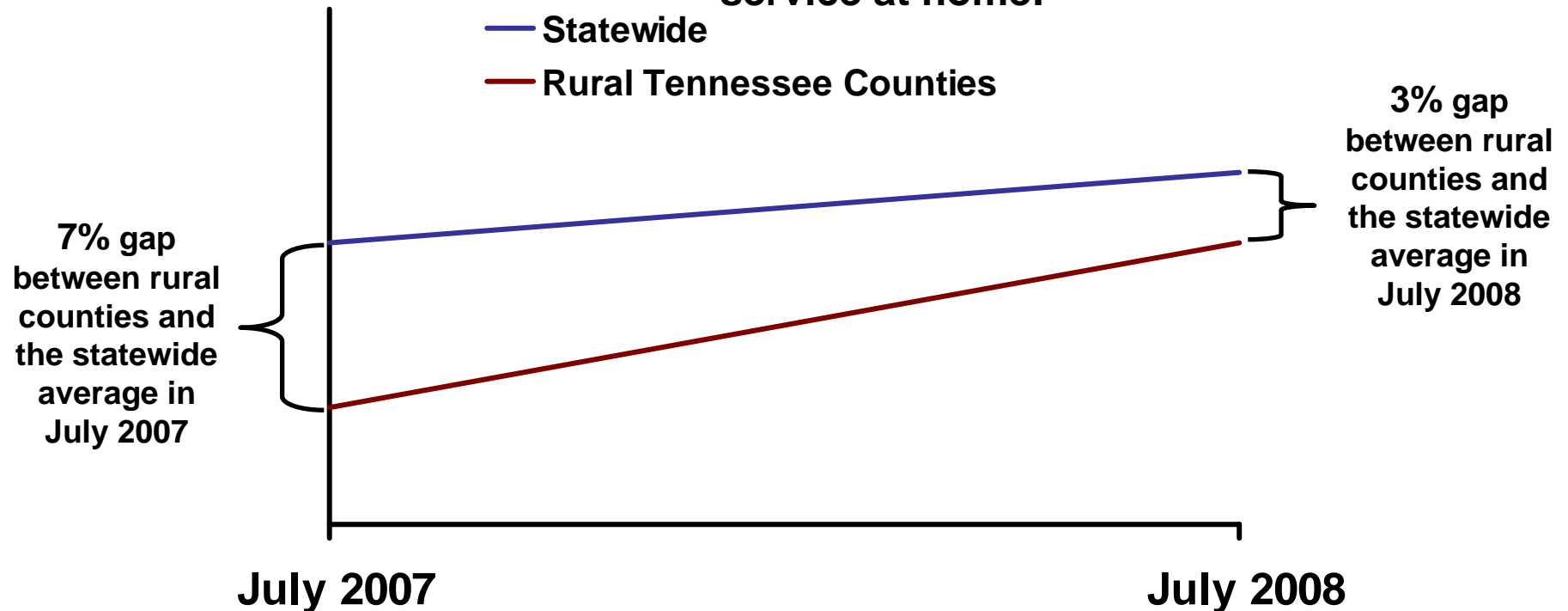
Source: July 2008 Connected Tennessee Residential Technology Assessment



# Trends in Rural Internet Adoption

Over the past year, the rural Internet divide was cut by more than half.

Percent of Tennessee residents with dial-up or broadband Internet service at home:



Q: Do you have an Internet connection at home?  
(n=1,200 TN residents)

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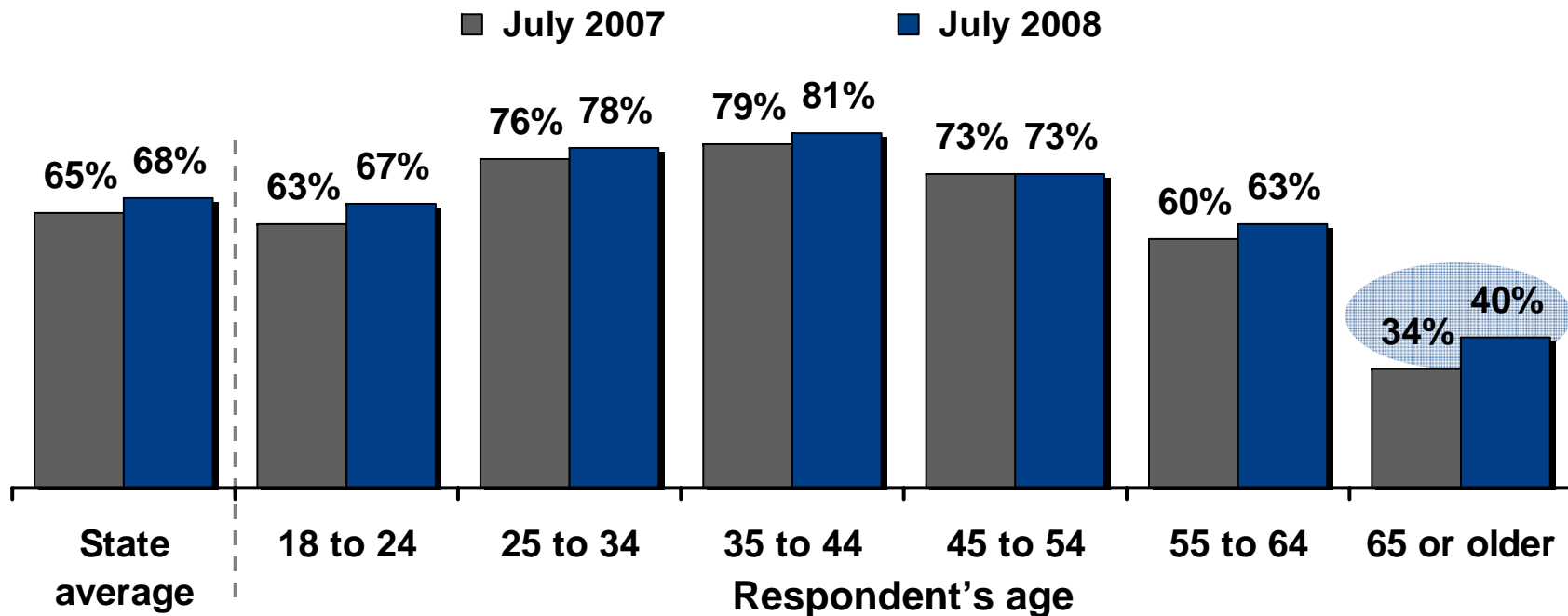
Source: July 2008 Connected Tennessee Residential Technology Assessment



# Trends in Internet Adoption (Dial-Up or Broadband) by Age

**Among residents age 65 and older, home Internet use increased by 18% in the past year.**

**Percent of Tennessee residents with Internet service at home:**



Q: Do you have an Internet connection at home?  
(n=1,200 TN residents)

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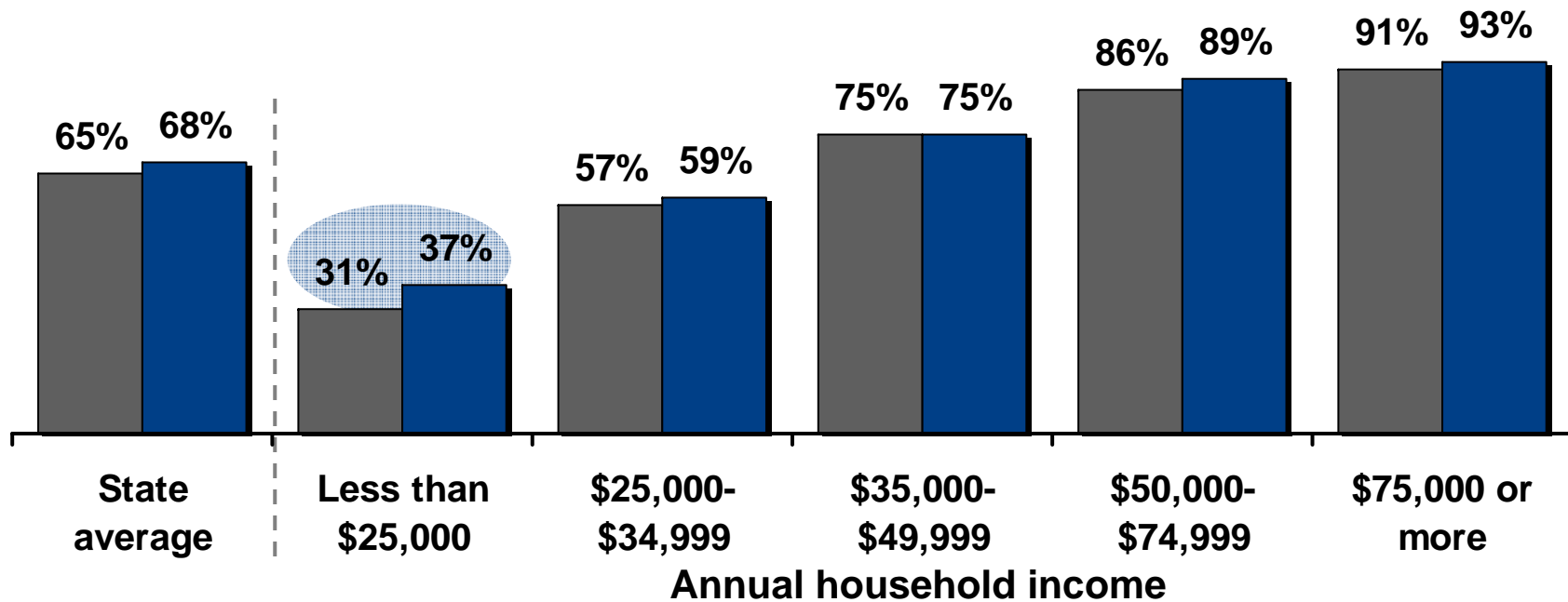


# Trends in Internet Adoption (Dial-Up or Broadband) by Income

**Among residents with household incomes less than \$25,000 per year, home Internet use increased by 19% in the past year.**

**Percent of Tennessee residents with Internet service at home:**

■ July 2007      ■ July 2008



Q: Do you have an Internet connection at home?  
(n=1,200 TN residents)

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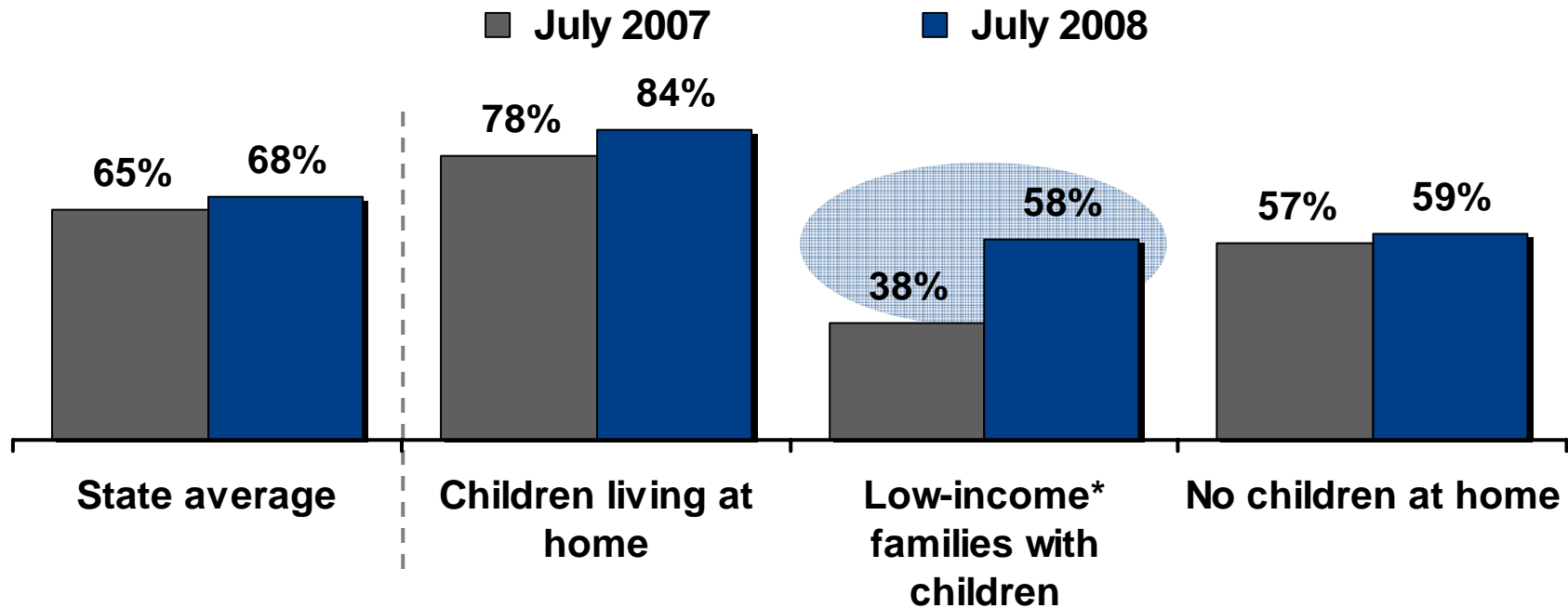
Source: July 2008 Connected Tennessee Residential Technology Assessment



# Trends in Internet Adoption (Dial-Up or Broadband) by Presence of Children

**Among low-income families with children, home Internet use increased by 53%.**

Percent of Tennessee residents with Internet service at home:



\*Low-income=annual household income less than \$25,000

Q: Do you have an Internet connection at home?  
(n=1,200 TN residents)

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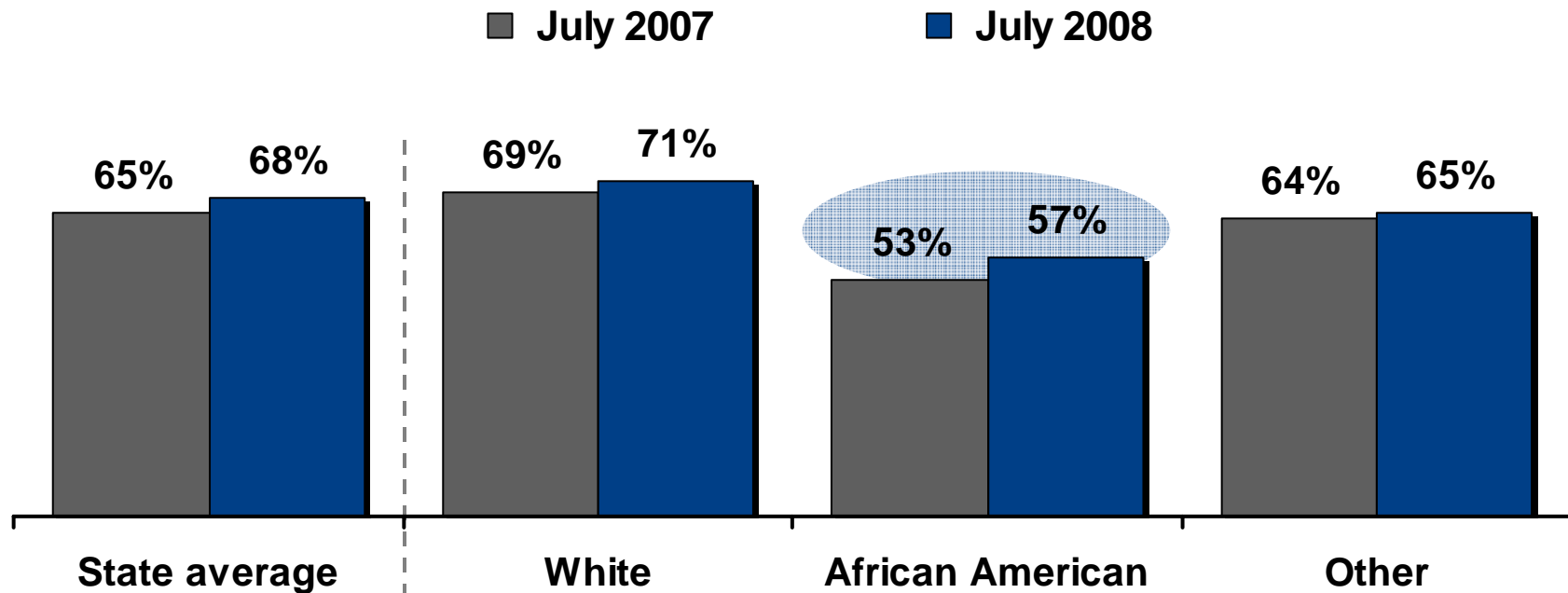
Source: July 2008 Connected Tennessee Residential Technology Assessment



# Trends in Internet Adoption (Dial-Up or Broadband) by Race

Among African Americans, home Internet use increased by 8%, more than doubling the growth among other races.

Percent of Tennessee residents with Internet service at home:



Q: Do you have an Internet connection at home?  
(n=1,200 TN residents)

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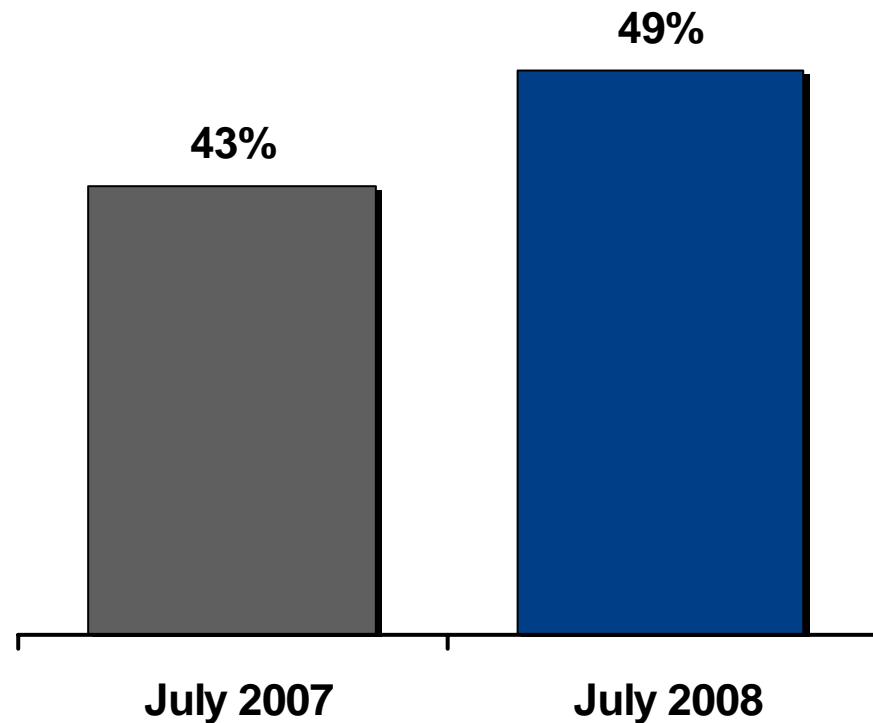


# Tennessee Residents That Have Broadband Service at Home

**Nearly one-half of all Tennessee residents (approximately 2.3 million Tennessee adults) have broadband service at home.**

**This is an increase of nearly 14% from July 2007, which compares to an estimated national increase in broadband adoption of 12%.\***

Percent of all Tennessee residents with broadband service at home:



Q: Which of the following describe the type of Internet service you have at home?

(n=1,200 TN residents)

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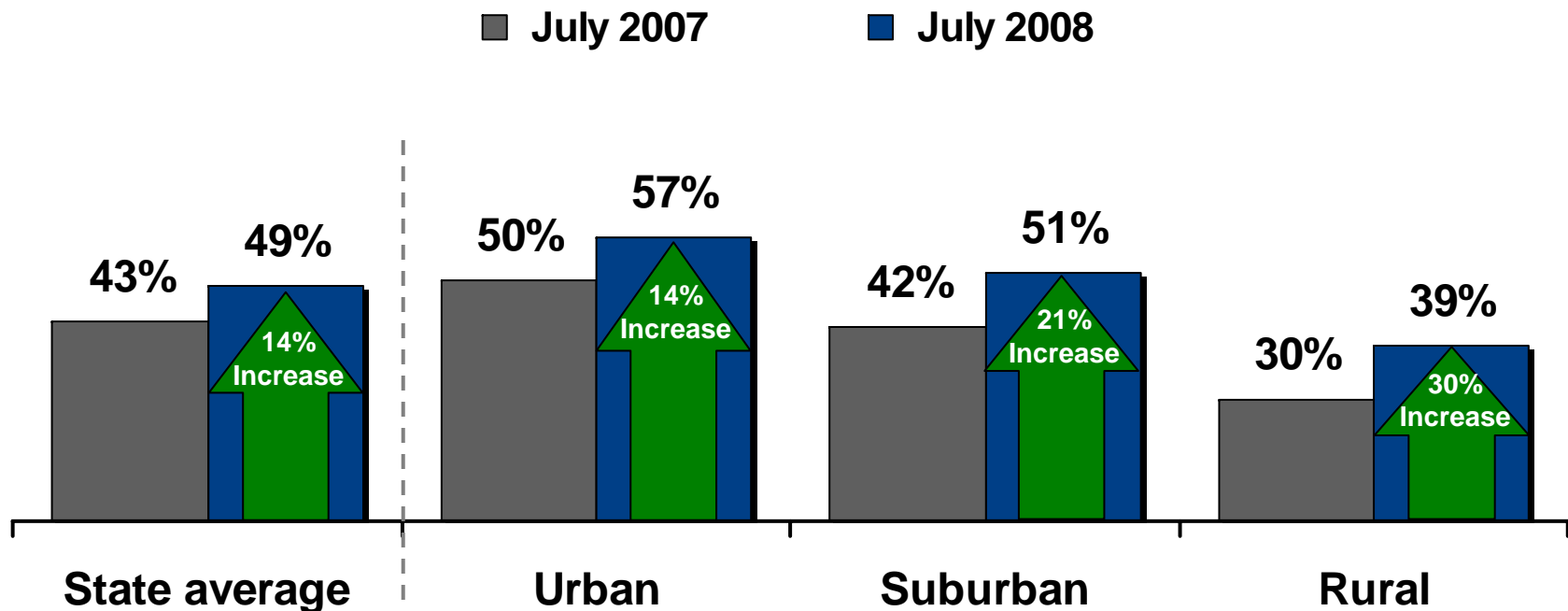
\*Estimated from national surveys conducted by Pew Internet Project from March 2007-May 2008



# Trends in Broadband Adoption by Urban-Rural Classification

Home broadband use grew across the board over the past year, with the greatest gains in rural areas where broadband adoption grew by 30%.

Percent of Tennessee residents with broadband service at home:



Q: Which of the following describe the type of Internet service you have at home?

(n=1,200 TN residents)

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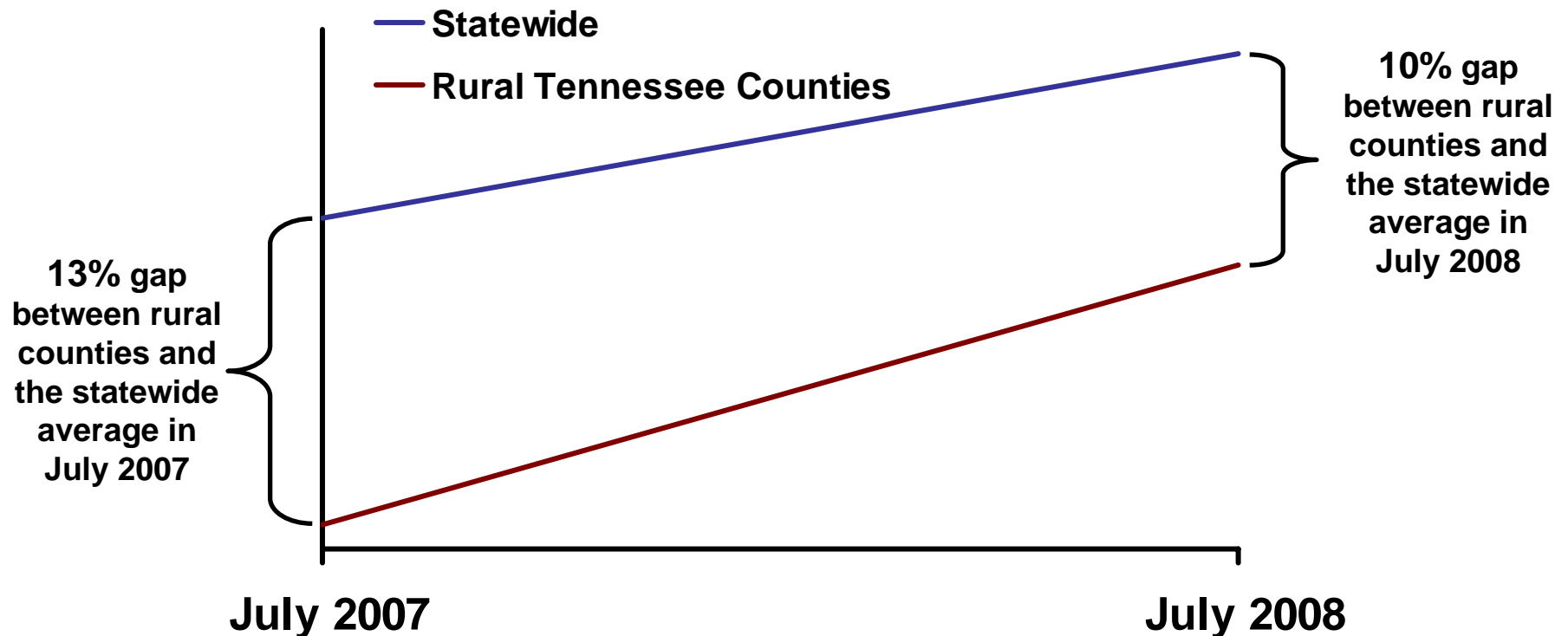
Source: July 2008 Connected Tennessee Residential Technology Assessment



# Trends in Rural Broadband Adoption

Over the past year, the rural broadband divide was cut by 23%.

Percent of Tennessee residents with broadband service at home:



Q: Which of the following describe the type of Internet service you have at home?

(n=1,200 TN residents)

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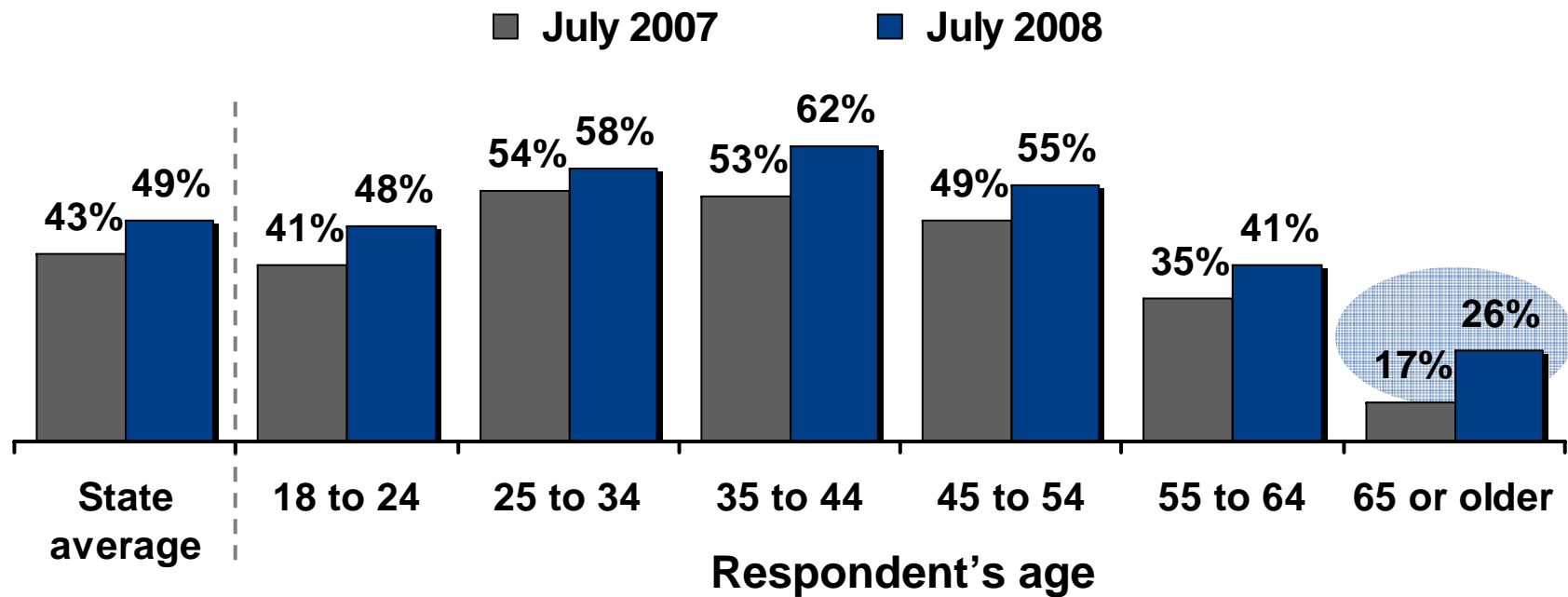
Source: July 2008 Connected Tennessee Residential Technology Assessment



# Trends in Broadband Adoption by Age

**Among those age 65 and older, broadband adoption increased by 53%.**

**Percent of Tennessee residents with broadband service at home:**



Q: Which of the following describe the type of Internet service you have at home?

(n=1,200 TN residents)

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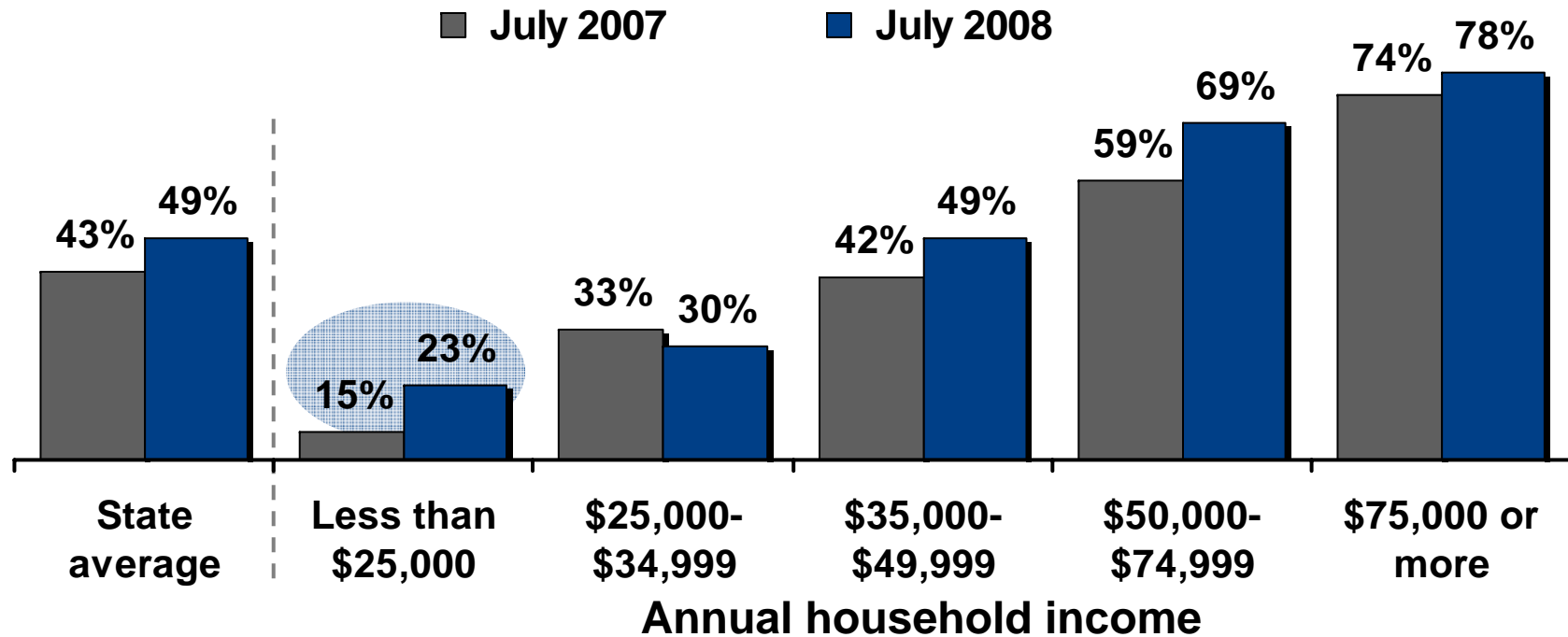
Source: July 2008 Connected Tennessee Residential Technology Assessment



# Trends in Broadband Adoption by Income

Among residents with household incomes less than \$25,000 per year, home broadband adoption increased by 54%.

Percent of Tennessee residents with broadband service at home:



Q: Which of the following describe the type of Internet service you have at home?

(n=1,200 TN residents)

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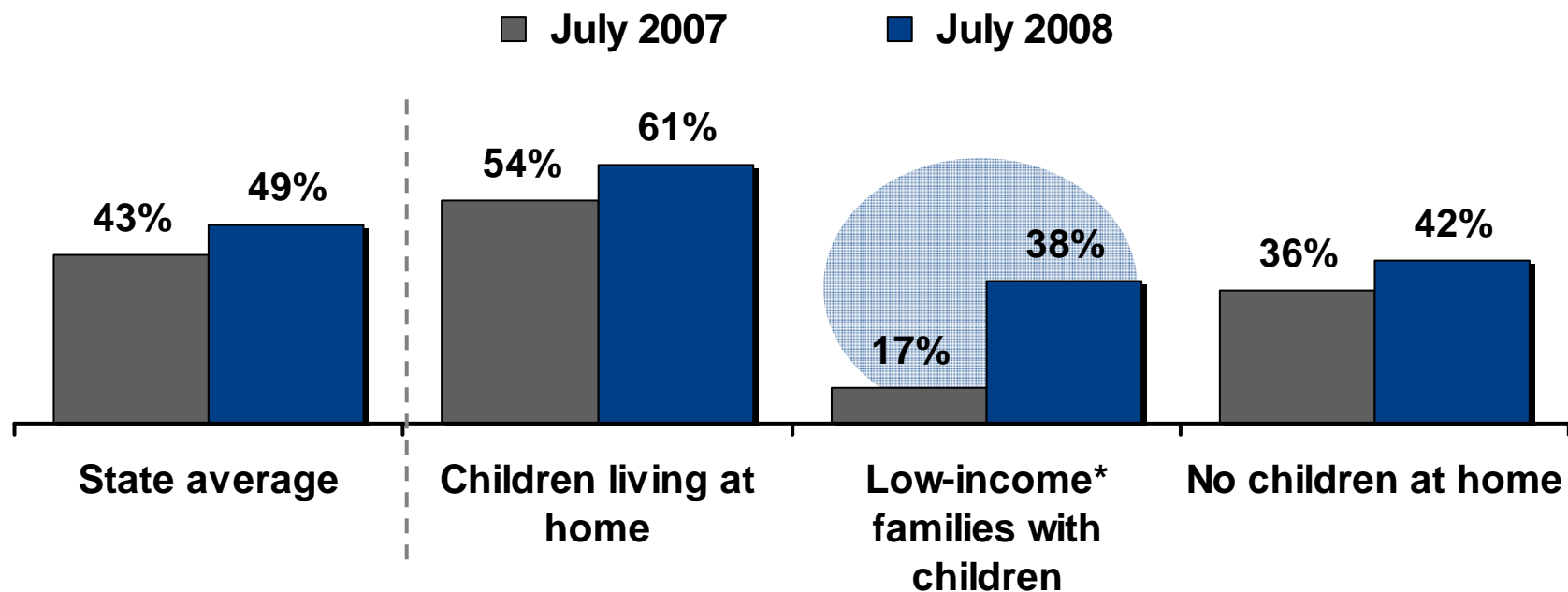
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# Trends in Broadband Adoption by Presence of Children

**Among low-income families with children, home broadband use more than doubled over the past year, growing by 124%.**

**Percent of Tennessee residents with broadband service at home:**

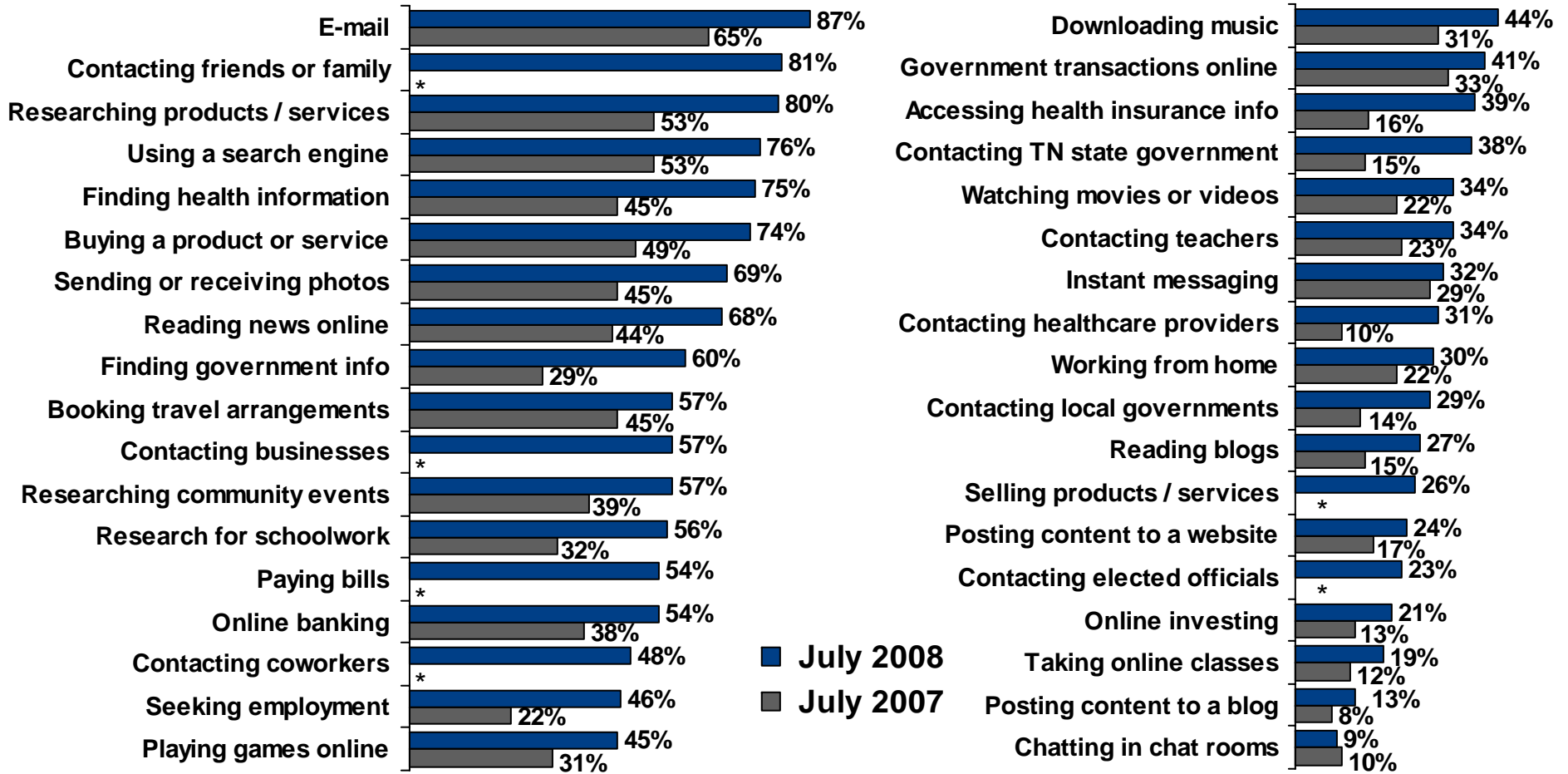


\*Low-income=annual household income less than \$25,000  
 Q: Which of the following describe the type of Internet service you have at home?  
 (n=1,200 TN residents)

Source: July 2008 Connected Tennessee Residential Technology Assessment



# Internet Application Use



(n=912 TN Internet users)

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\*Response was not an option in July 2007

Source: July 2008 Connected Tennessee Residential Technology Assessment

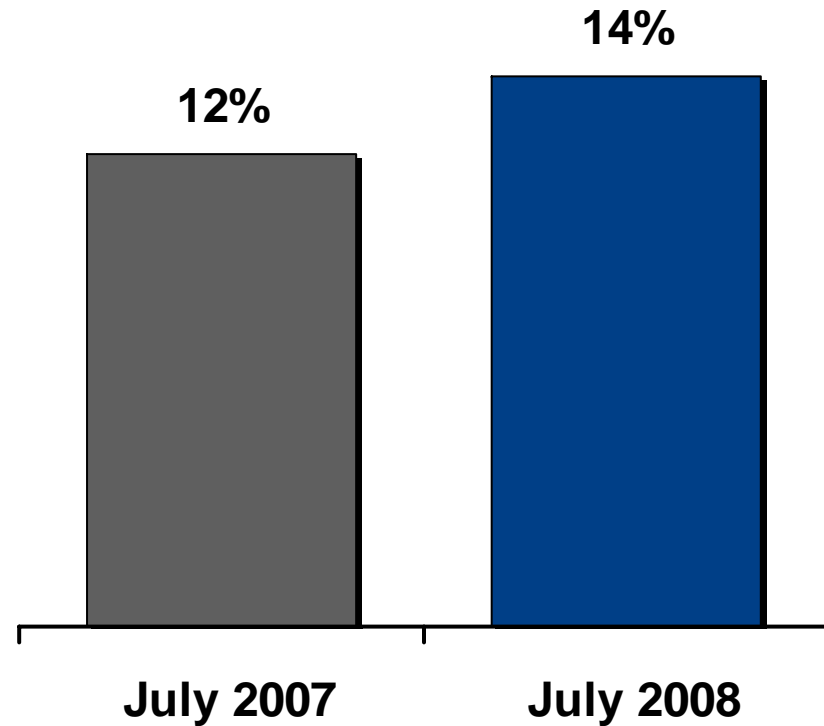


# Trends in Wi-Fi Zone (“Hot Spot”) Usage

Percent of all Tennessee residents who access Wi-Fi hot spots:

**Statewide, 14% of Tennessee residents say they access Wi-Fi hot spots using a laptop computer.**

**This is a 17% increase from the percentage of Tennessee residents who said they accessed hot spots in July 2007.**



Q: Do you regularly use Wi-Fi zones, sometimes called “hot spots” to access the Internet with your laptop?  
(n=1,200 TN residents)

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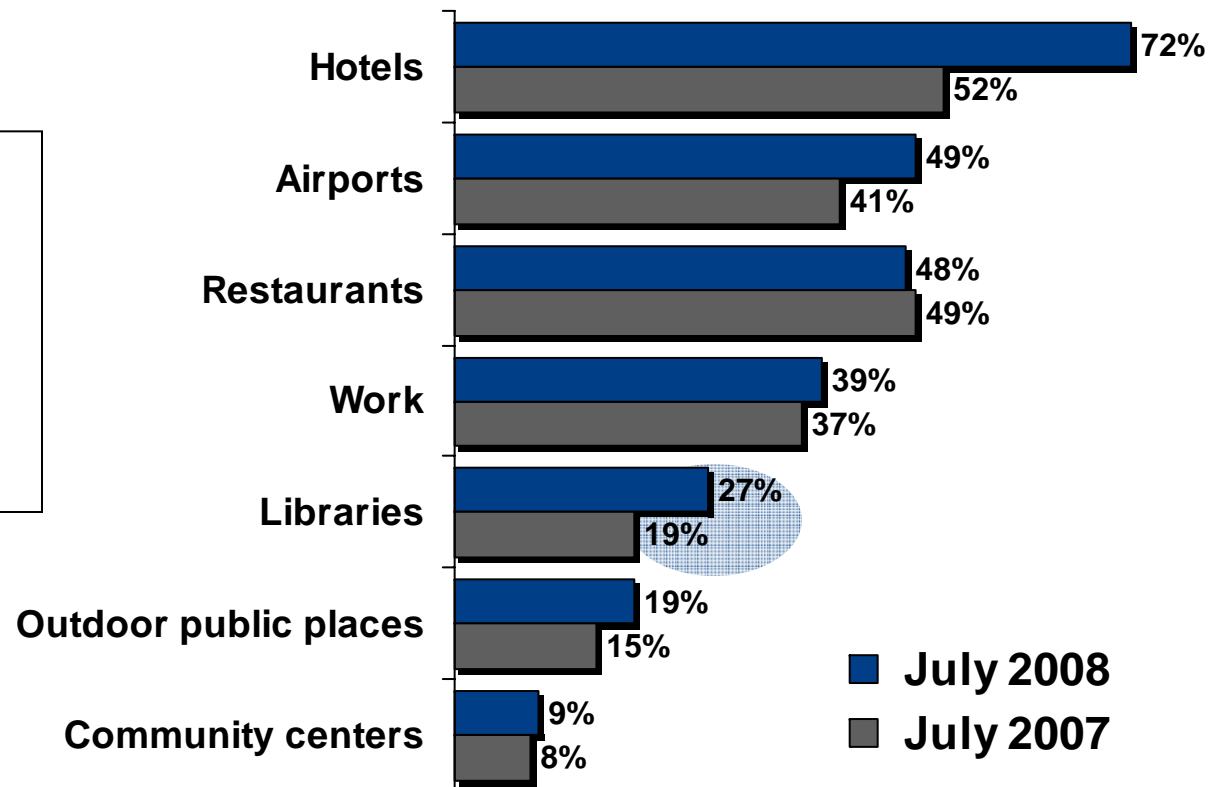
Source: July 2008 Connected Tennessee Residential Technology Assessment



# Hot Spot Usage By Location

Where Tennessee residents access wireless hot spots:

**While wireless hot spot use increased in most locations over the past year, libraries saw the largest spike in use, with 42% growth from July 2007.**



Q: Do you regularly use hotspots at any of the following locations?  
(n=170 Tennessee wireless hot spot users)

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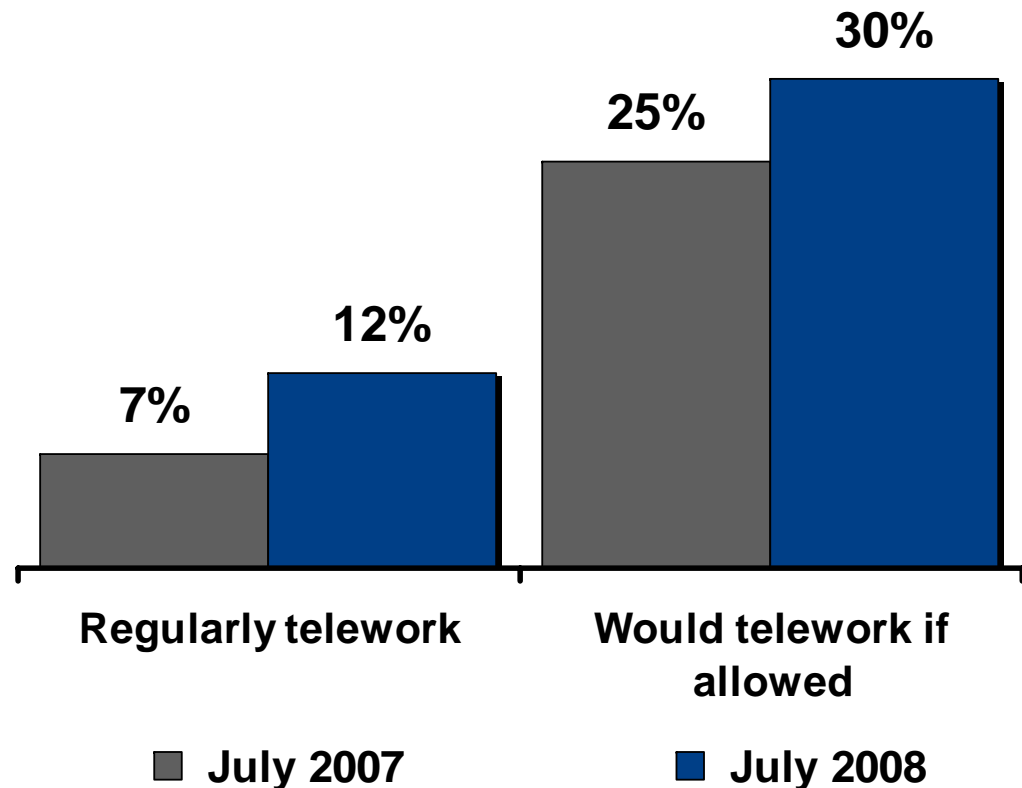
Source: July 2008 Connected Tennessee Residential Technology Assessment



# Teleworking Trends Among Tennessee Residents

Among Tennessee residents employed full-time or part-time:

The percent of employed Tennessee residents who telework nearly doubled since July 2007, while the percent of employed adults who would telework if allowed to do so increased to 30%.



Q: Which of the following describe the way you work from home? and Would you be interested in teleworking if your employer allowed it? (n=717 TN residents employed full-time or part-time)

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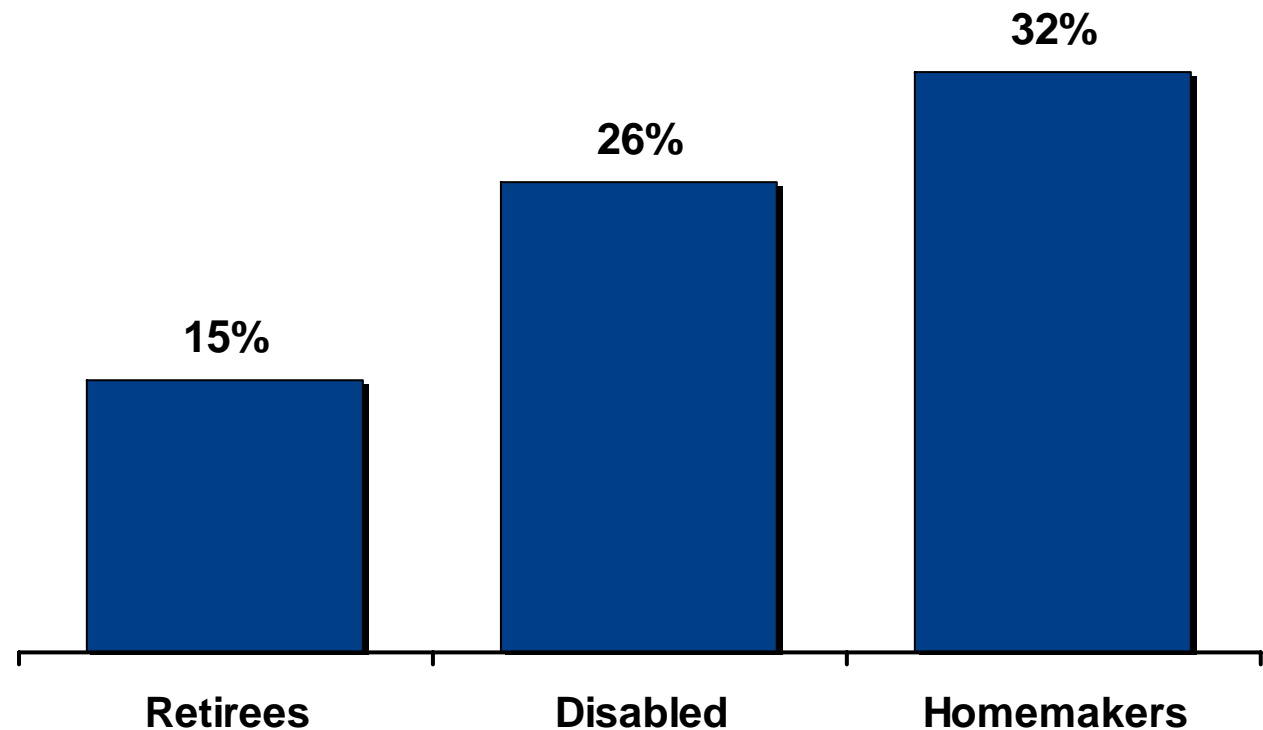
Source: July 2008 Connected Tennessee Residential Technology Assessment



# The Potential Impact of Telework on the Labor Force

Tennessee residents who do not currently work and are “very likely” or “somewhat likely” to work outside the home if allowed to telework:

**More than one-quarter of all Tennessee residents who do not work outside the home say they would be “very likely” or “somewhat likely” to telework if given the opportunity. This includes 26% of people with disabilities who are not currently employed.**



Q: If you were able to work from home through a broadband connection - commonly known as teleworking - how likely is it that you would work outside the home?

(n=483 TN residents not employed full-time or part-time)

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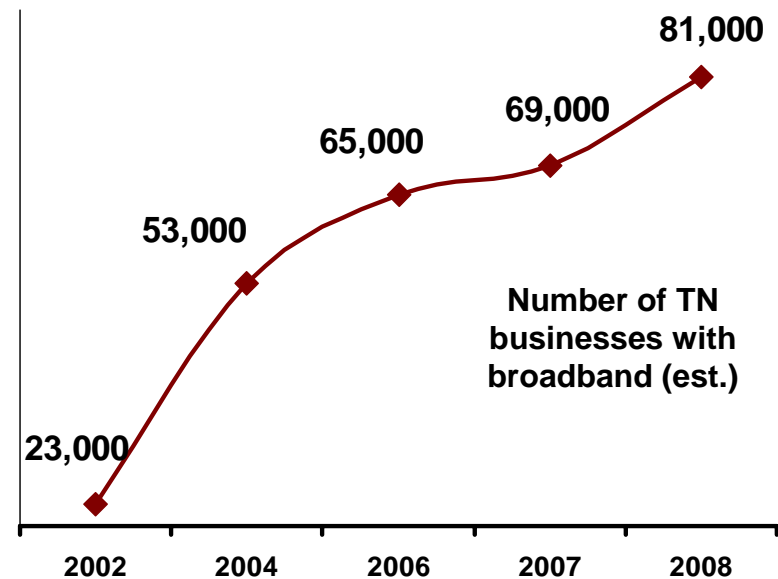
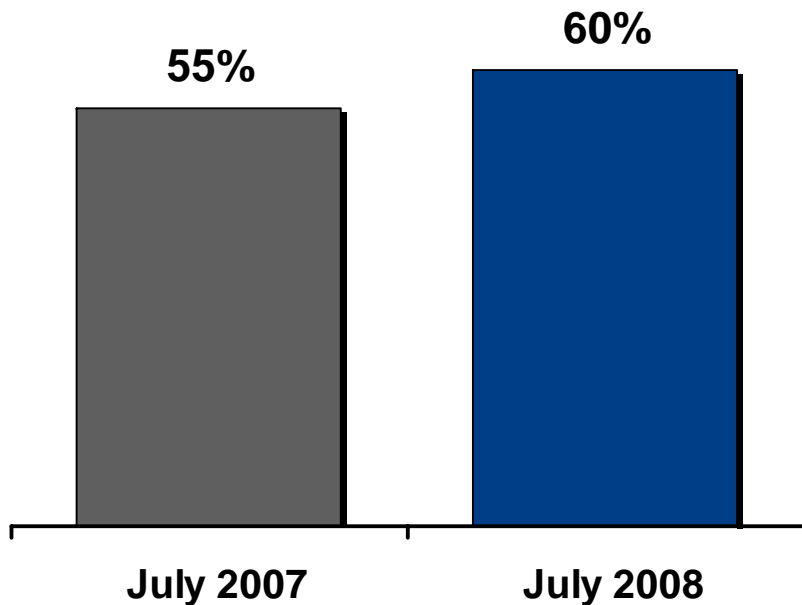
Source: July 2008 Connected Tennessee Residential Technology Assessment



# Trends in Broadband Adoption Among Tennessee Businesses

Between July 2007 and July 2008, broadband adoption grew from 55% to 60% among Tennessee businesses. This equals a 9% rate of growth.

Percent of all Tennessee businesses with broadband service:



Q: Which of the following describes the type of Internet access your company has?  
(n=808 TN businesses)

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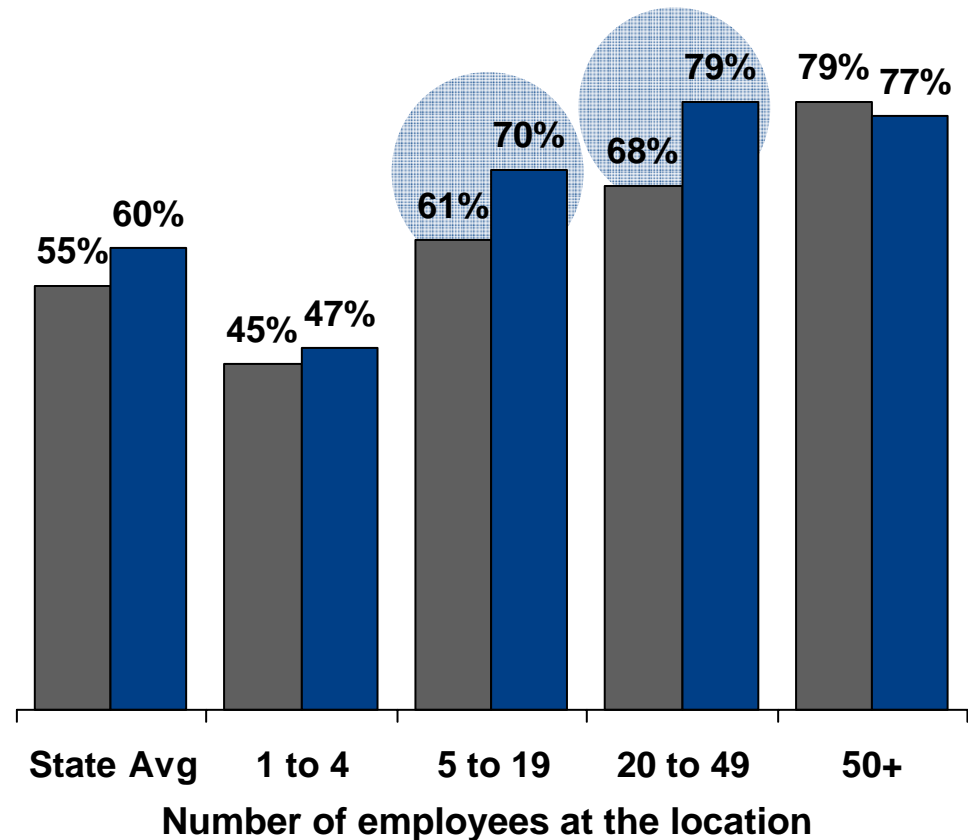
Source: July 2008 Connected Tennessee Survey of Businesses  
[www.connectedtennessee.org](http://www.connectedtennessee.org)



# Broadband Adoption Trends Among Tennessee Businesses by Company Size

■ July 2007      ■ July 2008

**Small and medium sized businesses with five to 49 employees saw the largest gains in broadband adoption over the past year, with an increase of 16%.**



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

(n=808 TN businesses)

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Source: July 2008 Connected Tennessee Survey of Businesses

[www.connectedtennessee.org](http://www.connectedtennessee.org)



# Trends in Broadband Adoption Among Tennessee Businesses by Urban-Rural Classification

**Among businesses in urban counties, broadband use increased by 19% in the past year.**

Percent of Tennessee businesses with broadband service:



Q: Which of the following describes the type of Internet access your company has?  
(n=808 TN businesses)

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Source: July 2008 Connected Tennessee Survey of Businesses  
www.connectedtennessee.org

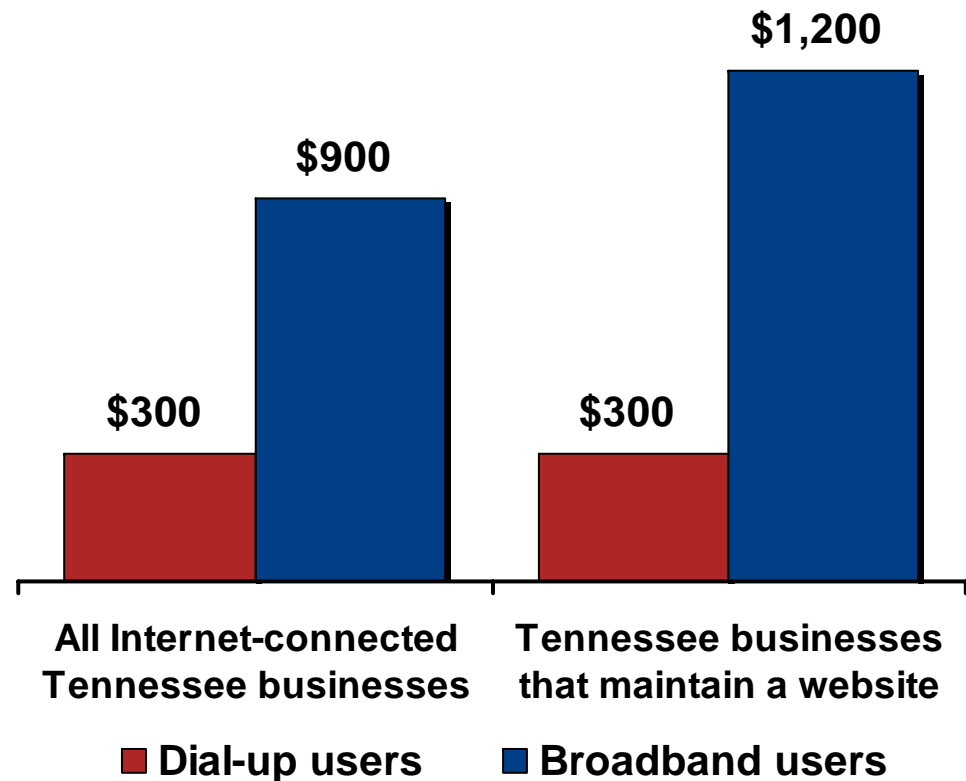


# Technology Adoption and Annual Revenues Among Tennessee Businesses (Dial-Up Versus Broadband)

**Businesses with a broadband connection have median annual revenues that are three times more than businesses on dial-up service.**

**Among businesses with websites, those with broadband have median annual incomes that are four times greater than businesses that rely on dial-up.**

Median Annual Revenues (\$000)



Q: What is your firm's approximate average annual revenue?  
(n=617 Tennessee businesses that use the Internet)  
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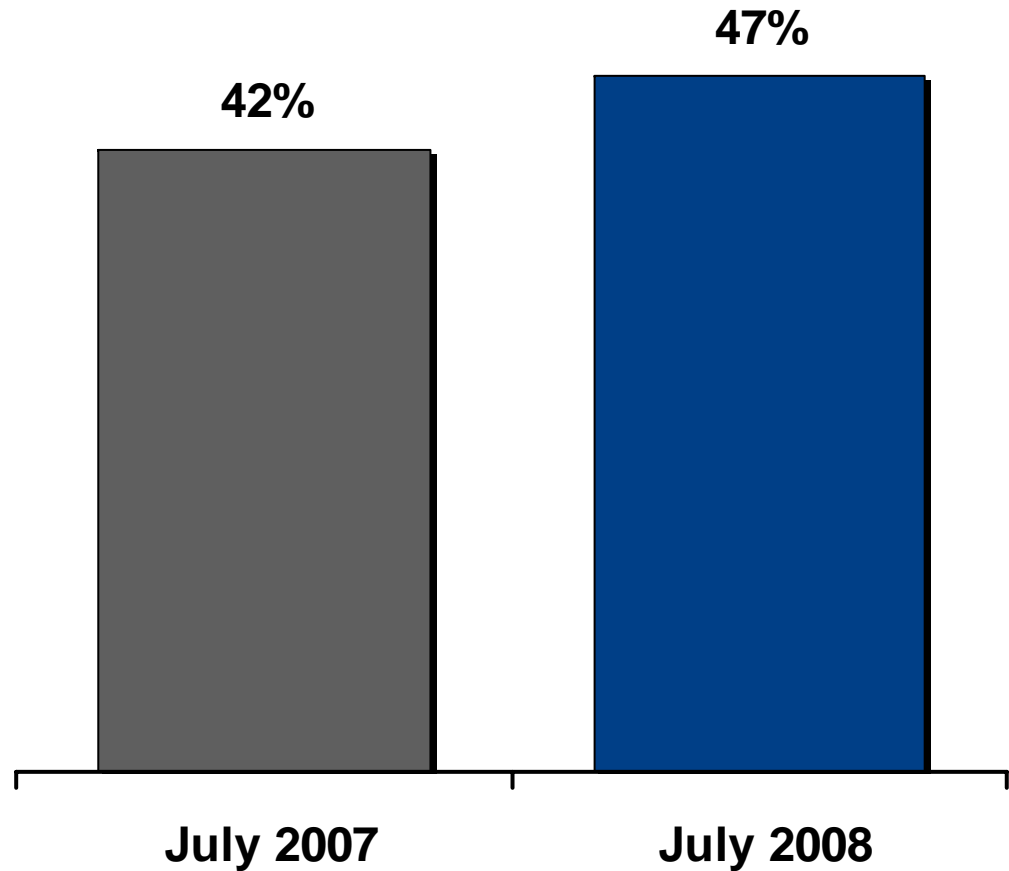
Source: July 2008 Connected Tennessee Survey of Businesses  
www.connectedtennessee.org



# Tennessee Businesses With a Website

**Statewide, 47% of all Tennessee businesses have a website. This is a 12% rate of growth since July 2007.**

Percent of all Tennessee Businesses:



Q: Does your company have a website?  
(n=808 TN businesses)

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Source: July 2008 Connected Tennessee Survey of Businesses

[www.connectedtennessee.org](http://www.connectedtennessee.org)

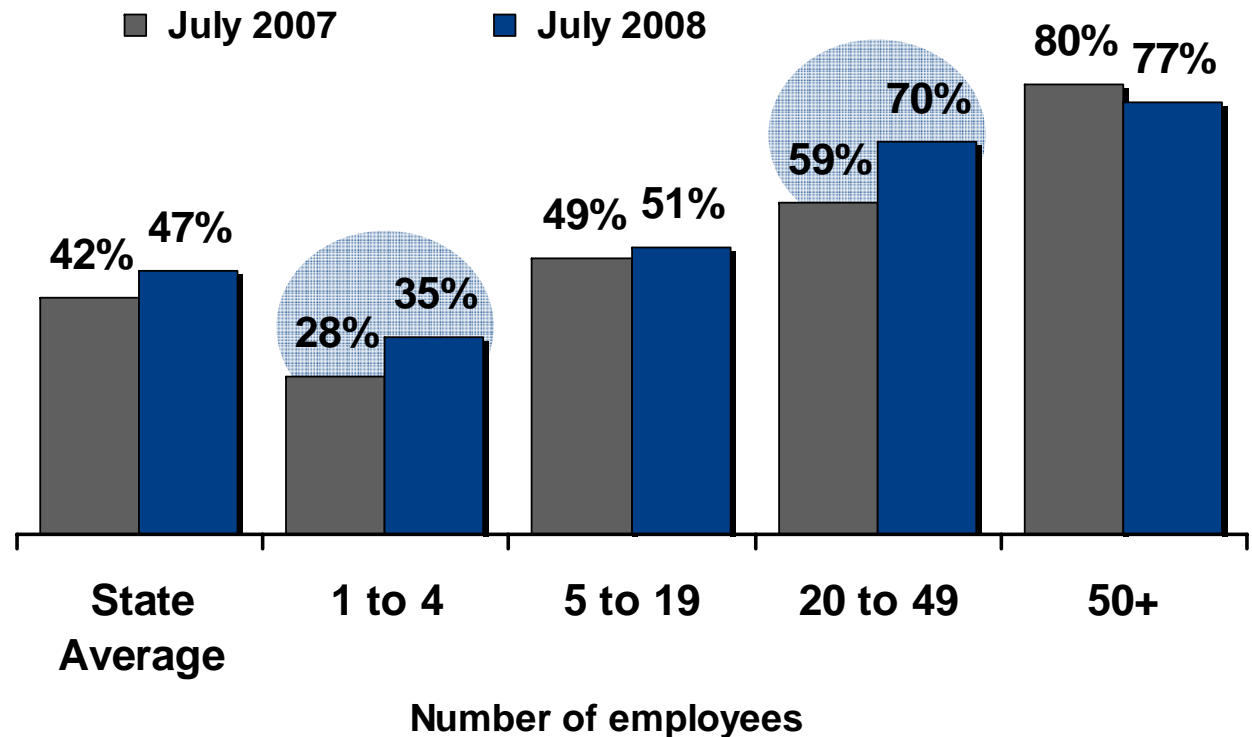


# Website Presence Among Tennessee Businesses by Company Size

Percent of Tennessee businesses that have a website:

The number of very small businesses (those with fewer than five employees) saw the greatest gains in websites, growing by 25% since July 2007.

Medium sized businesses (those with 20 to 49 employees) also realized a large growth in website presence, growing by 19% since July 2007.



Q: Does your company have a website?  
(n=808 TN businesses)

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Source: July 2008 Connected Tennessee Survey of Businesses

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