



# Programmatic Efforts to Increase Broadband Adoption and Usage – What Works and What Doesn't?

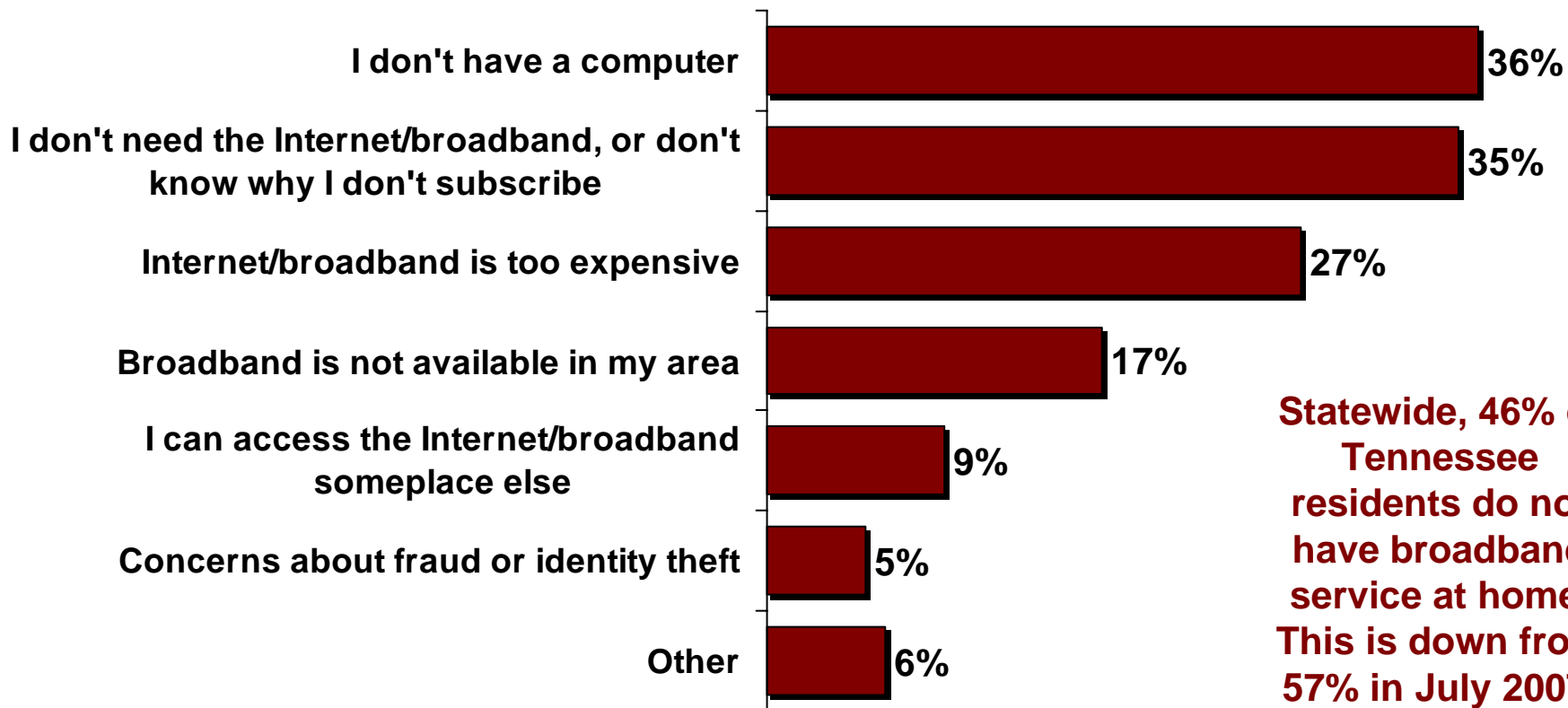
**FCC Workshop**  
**August 19, 2009**

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## *Barriers to Broadband Adoption*

Among Tennessee residents with no home broadband service



**Statewide, 46% of Tennessee residents do not have broadband service at home. This is down from 57% in July 2007.**

*(n = 558 TN residents who have no broadband connection at home)  
\*Percentages do not add up to 100% because individuals could give multiple responses.*

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Source: January 2009 Connected Tennessee® Residential Technology Assessment

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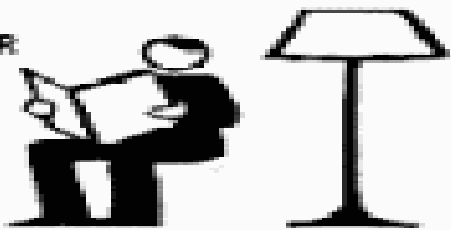
# Embracing the lessons of the Rural Electrification Act...

# WHAT ONE KILOWATT HOUR MEANS

## TO THE FARM HOME



LIGHTING FOR  
A WHOLE  
EVENING'S  
READING



CORRECT TIME  
FOR THREE WEEKS

PUMPS ALL THE  
WATER WANTED  
FOR TWO DAYS



TWO HOURS  
OF EASY  
IRONING



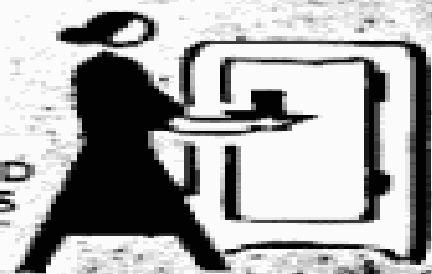
TWO THOROUGH  
HOUSE CLEANINGS



RUNS A SEWING  
MACHINE  
TWO MONTHS  
WITH AVERAGE  
USE



PRESERVES  
THE AVERAGE  
FAMILY'S FOOD  
FOR 15 HOURS



ONE LARGE  
WEEKLY WASH



# WHAT ONE KILOWATT HOUR MEANS TO THE FARM




GRINDS 100 LBS. OF GRAIN




COOLS 10 GALLONS OF MILK FOR ONE DAY



MILKS ONE COW FOR 20 DAYS



GRINDS 48 AXE HEADS OR 8 MOWER BLADES



LIGHTS 100-BIRD POULTRY HOUSE FOR SIX DAYS



HOISTS TWO TONS OF HAY



CUTS 1/2 CORD OF WOOD



CUTS ONE TON OF ENSILAGE





# Roadmap to Accelerate Local Technology Impact



**Business and Industry**

**K-12**

**Healthcare**

**Libraries**

**Higher Education**

**Community-based Organizations**

**Government**

**Agriculture**

**Tourism, Recreation and Parks**






**E-Communities**  
**Community leaders from key local sectors in every county team together to shape a locally-owned technology growth strategy.**

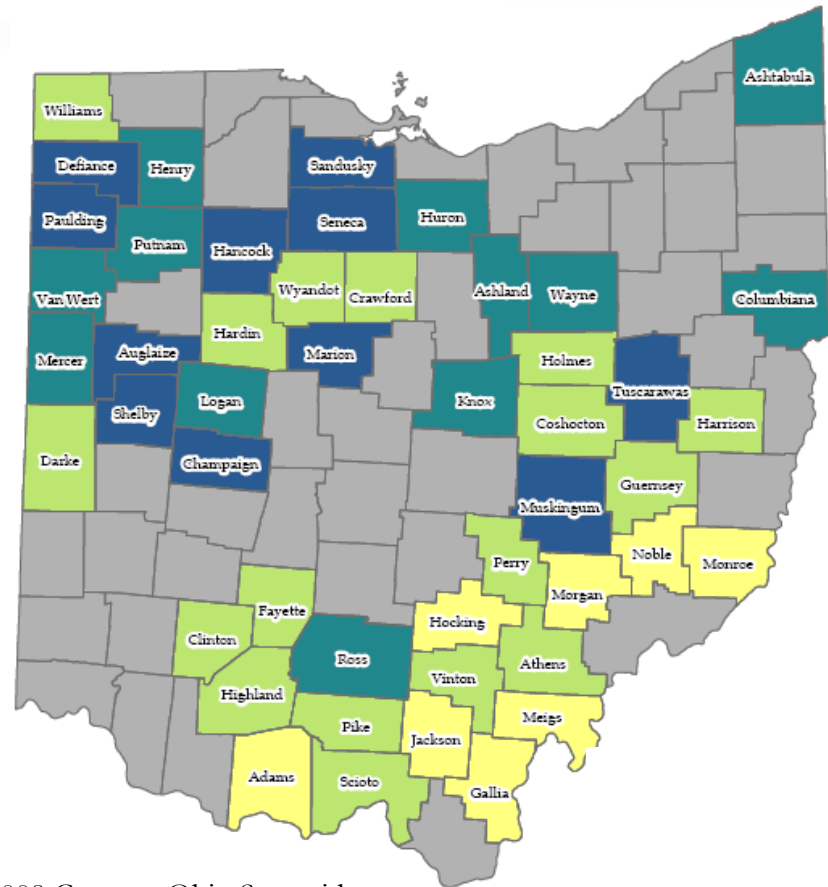
## Broadband Adoption Among Rural Ohio Counties



Among rural Ohio counties, the average broadband adoption rate is 41%. Statewide, 55% of all Ohio residents subscribe to home broadband service.

Compared to Rural County Average

-  Significantly Lower (<29%)
-  Lower (29-41%)
-  Higher (41-50%)
-  Significantly Higher (>50%)
-  Non-Rural County



Q: Which of the following describe the type of Internet service you have at home?  
(n = 10,083 OH residents)

Source: 2008 Connect Ohio Statewide Residential Technology Assessment



# TENNESSEE BROADBAND SERVICE INVENTORY

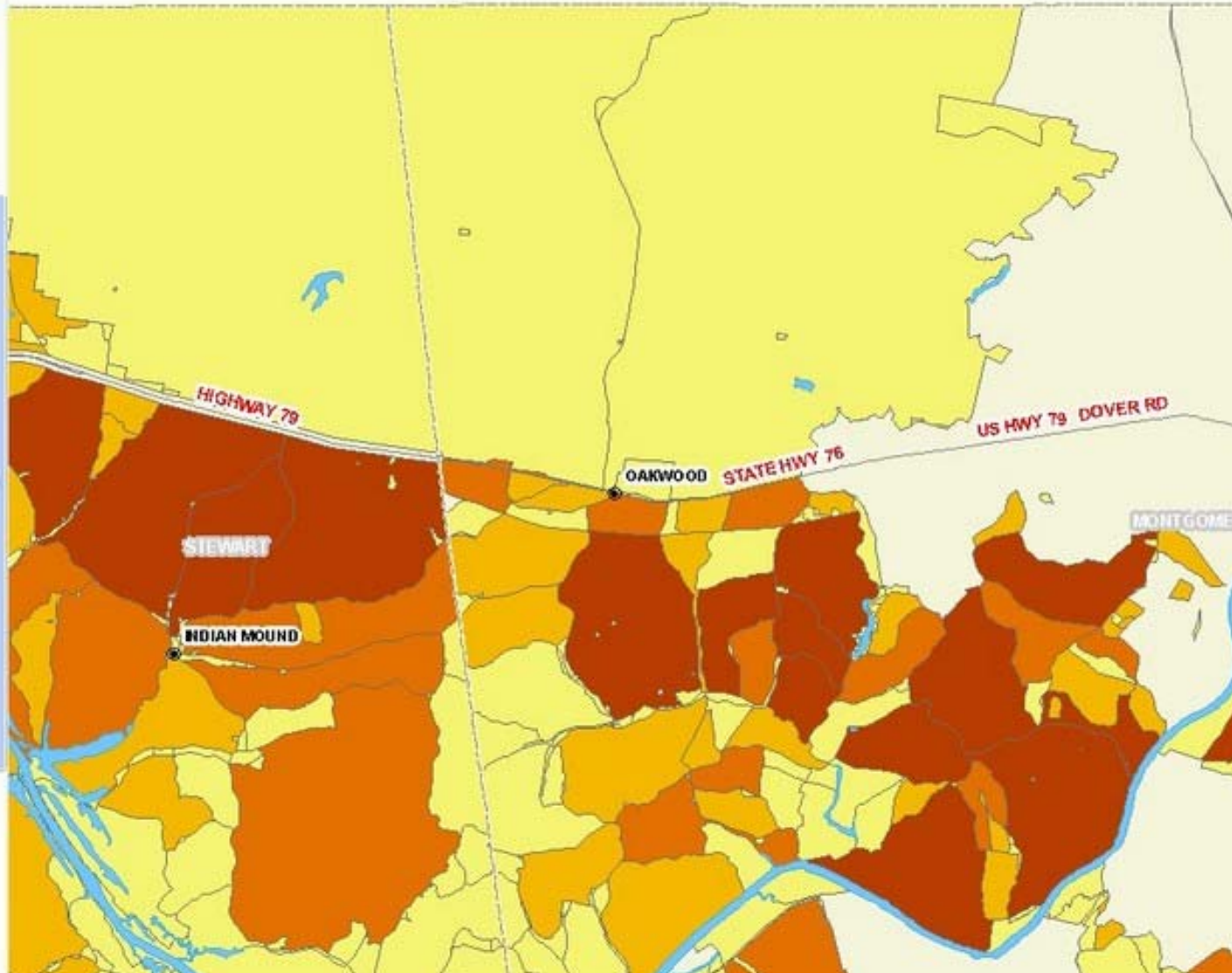
CONNECTED  
**Tennessee**  
THE TRAIL TO INNOVATION

Connected Tennessee | Connected Nation | Help | Map Your Address | Identify Broadband Providers

## Results

## Legend

- TnBroadband
  - City
  - Interstate
  - US Road
  - Local Road
  - County Boundary
  - Broadband Adoption
    - Significantly Lower (<27%)
    - Lower (27-42%)
    - Statewide Average (43%)
    - Higher (44-55%)
    - Significantly Higher (>55%)
  - National and State Parks
  - Water
  - Tennessee Broadband
    - Broadband Available
    - Mobile Wireless Broadband Availal
  - Number of Unserved Households per
    - 0 - 8
    - 9 - 20
    - 21 - 40
    - 41 - 85
    - 86+
    - Area less than 0.25 square mile
  - Number of Unserved Households, per
    - 0 - 10.9
    - 11 - 25.9
    - 26 - 50.9
    - 51 - 100.9
    - 101+
  - Aerial Imagery
    - Statewide\_400\_Pan\_Ortho





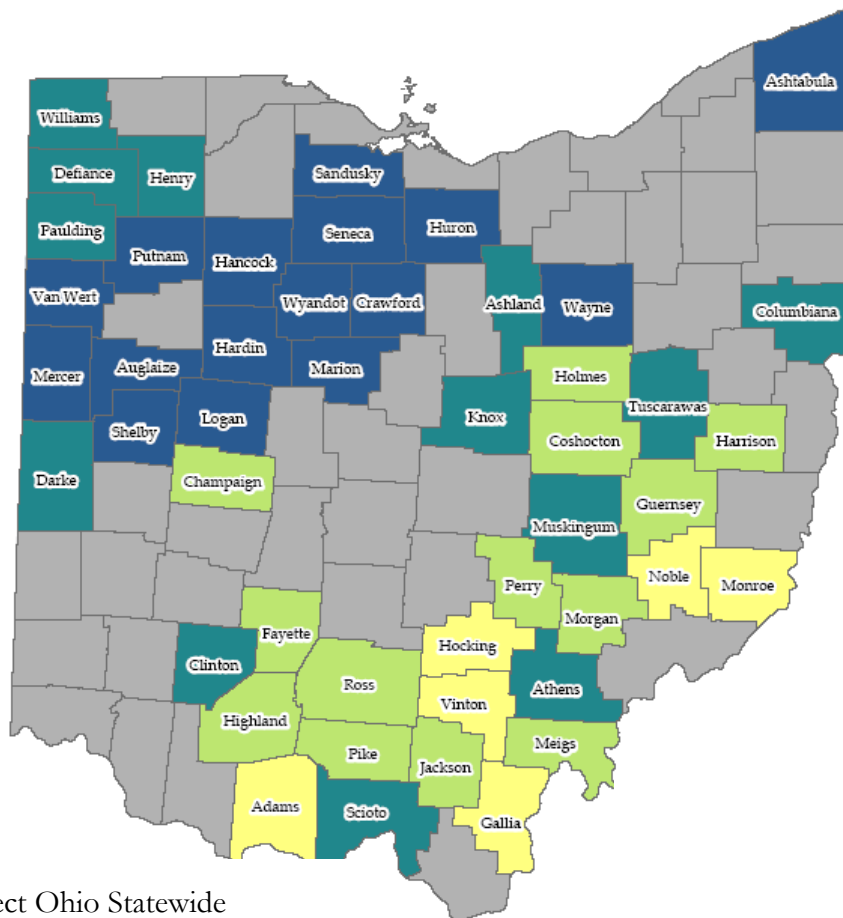


# Broadband Availability Among Rural Ohio Counties

Among rural Ohio counties, the average broadband availability rate is 79%. Across Ohio, 92% of all residents have broadband service available where they live.

## Compared to Rural County Average

- Significantly Lower (<58%)
- Lower (58-79%)
- Higher (79-89%)
- Significantly Higher (>89%)
- Non-Rural County



Source: 2008 Connect Ohio Statewide Broadband Inventory Map






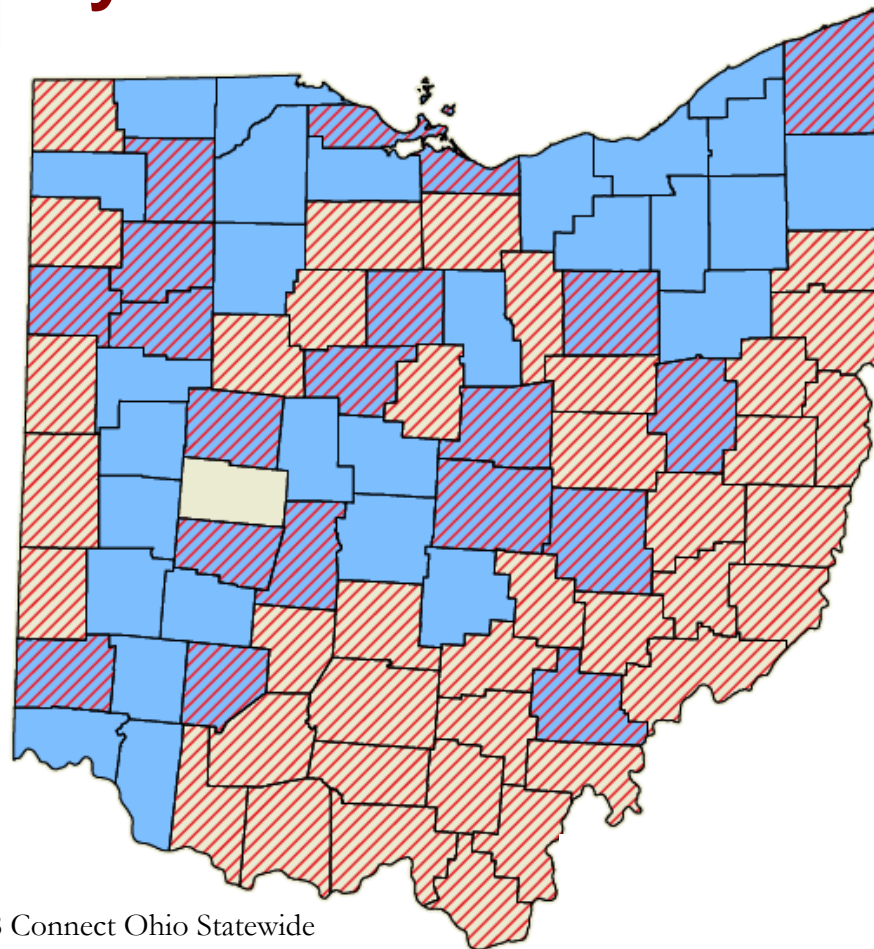
# Ohio Broadband Availability and Adoption by County

Low broadband adoption is not limited to areas with low broadband availability.

92% of Ohioans have broadband availability, yet only 55% actually subscribe.

## Legend

-  Lower Than Average Broadband Adoption (< 55%)
-  Higher Than Average Broadband Availability (>81%)
-  Higher Than Average Broadband Availability and Lower Than Average Broadband Adoption



Source: 2008 Connect Ohio Statewide Broadband Inventory Map



# eCommunity Broadband Plans

- The eCommunity methodology brings to community leaders shared intellectual property, lessons learned, best practices for developing actionable technology growth plans.
- eCommunity Leadership Teams benchmarks technology use across sectors;
- Each sector and anchor institution sets goals for improved technology use;
- County-level, 2-3 year tactical business plan for achieving goals:
  - Improved resources for technology training and coordination across the community; Local technology awareness campaigns and broadband demand creation activities (for schools, libraries, health centers, farming associations, etc); Building or enhancing borough and city websites; Interoperability improvement of city, state and federal communications assets; and Security for local government and private users.



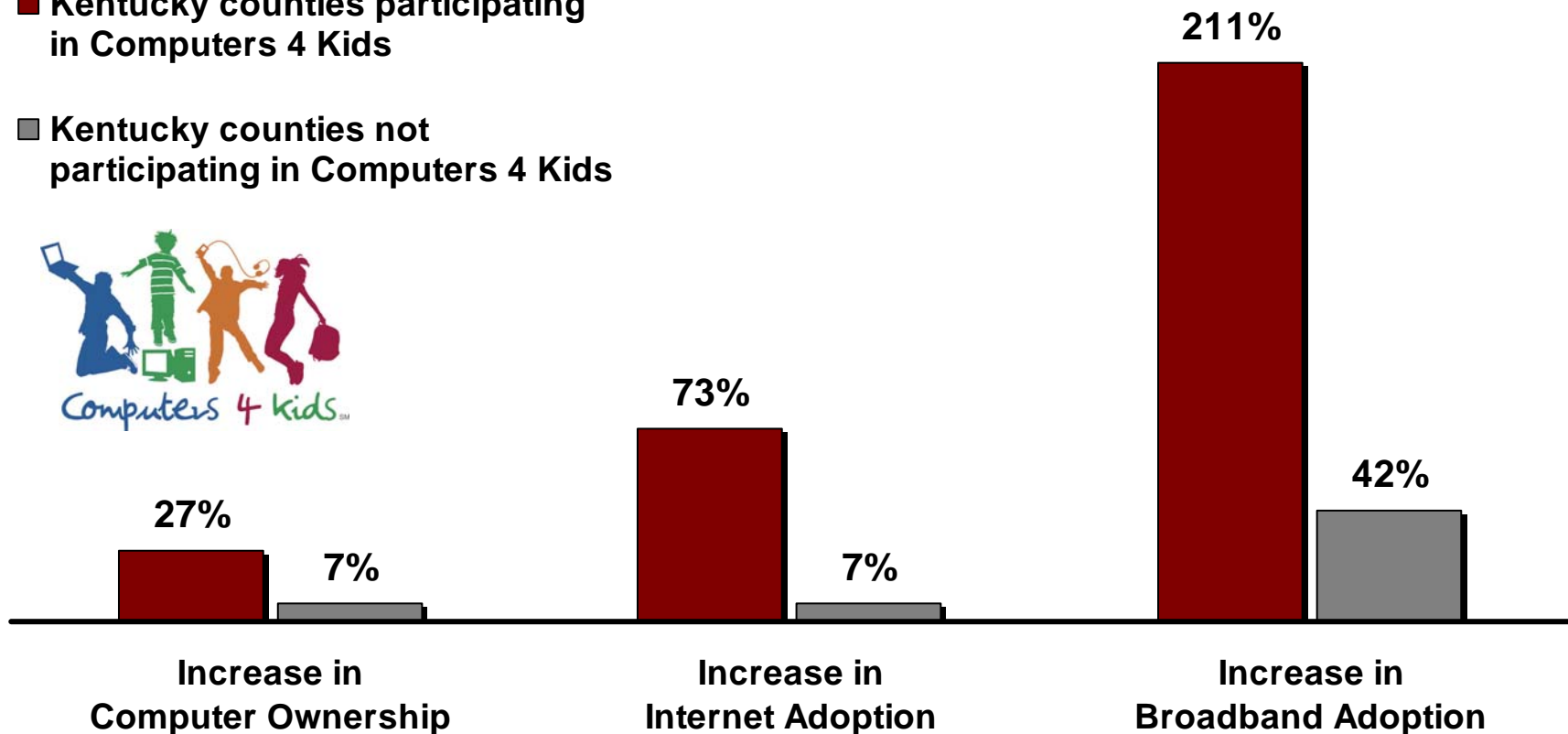
# Computers 4 Kids Every Citizen Online

- Target programs that place devices in homes that otherwise can't afford them
- Over 5000 computers distributed to date
  - TN – laptops for children in foster program
  - KY – refurbished PC's for Appalachian families in free/reduced lunch program
  - OH – “loaner laptops” for libraries in areas where home computer ownership is low

# Technology Adoption Among Low-Income Families



- Kentucky counties participating in Computers 4 Kids
- Kentucky counties not participating in Computers 4 Kids

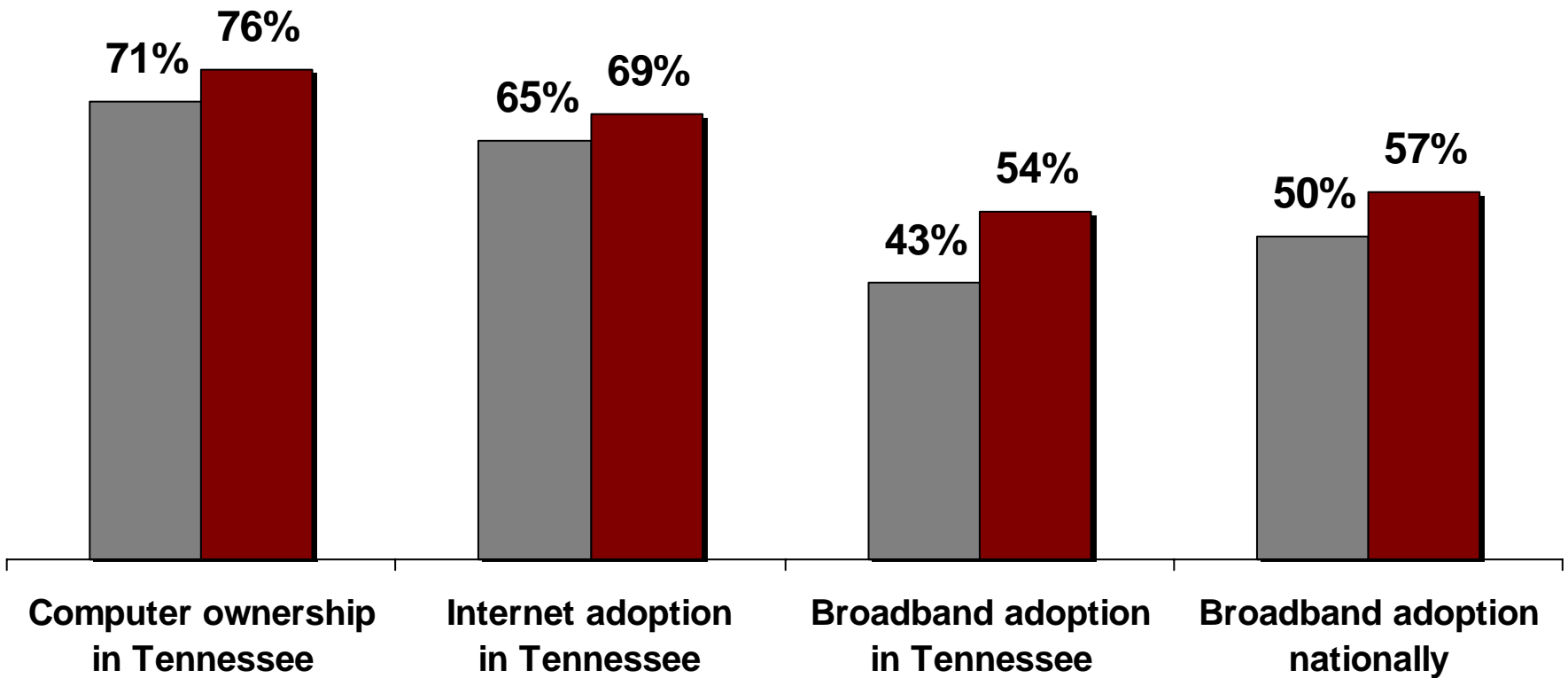


Kentucky counties participating in Computers 4 Kids include Johnson, Clay, Wolfe, McCreary, Owsley, Carter, Lawrence and Morgan Counties. Low-income families are households where children are present and the annual household income is less than \$25,000.



# Trends in Technology Adoption

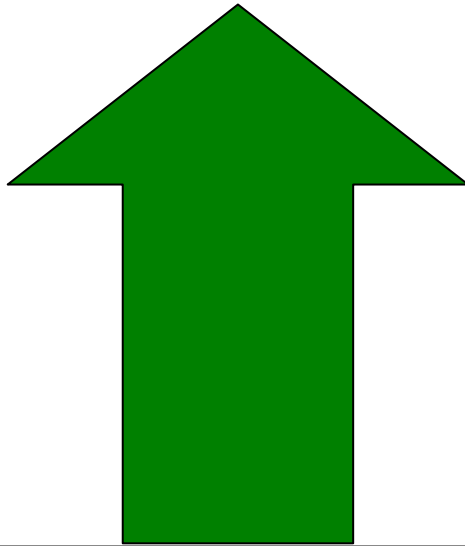
July 2007
  January 2009





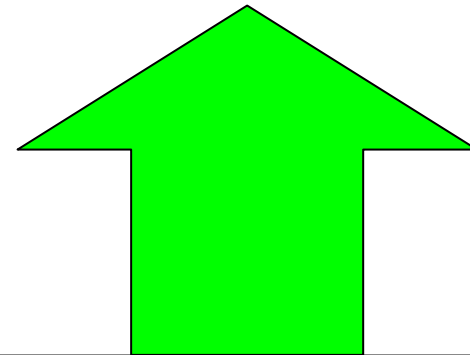
## Growth in Broadband Adoption (July 2007 – January 2009)

**11 point increase  
(26% growth rate)**



**Tennessee**

**7 point increase  
(15% growth rate)**



**United States**



# Enabling Technology. Empowering People.

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