



CARSEY **INSTITUTE**

UNIVERSITY *of* NEW HAMPSHIRE

Finding and Affording Healthy Food in Rural America

Study Results from New Hampshire



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Food Deserts

- Geographic areas without food resources

- Distances used in research on food deserts
 - One mile (USDA)

 - Five miles (Carsey)

 - Ten miles (Blanchard and Lyson)

Food Insecurity

- Access to adequate food is limited
 - By money
 - By other resources
 - In rural areas this is often
TRANSPORTATION

Link to Health

- ❑ Food insecurity more likely in food deserts
- ❑ Among children, food insecurity linked with
 - More frequent illness
 - More frequent hospitalizations
 - Iron deficiencies
 - Poorer school performance
 - Weaker social skills
 - Overweight and obesity

Nationwide Statistics

- ❑ 23.5 million Americans live more than a mile from a supermarket (USDA, 2009)

- ❑ 418 rural food desert counties (Morton and Blanchard, 2007)
 - All residents live more than 10 miles from a supermarket
 - 20 percent of all rural counties

- ❑ 17 million households (14.6 percent) were food insecure in 2008 (USDA)

Nationwide Statistics for Children

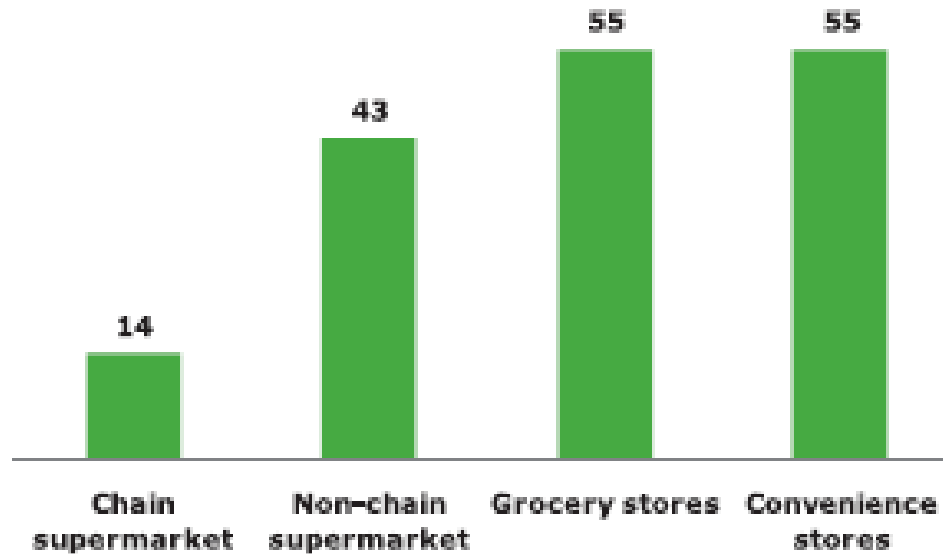
- ❑ In households with children, 21 percent were food insecure
- ❑ In rural counties (nonmetropolitan), 22 percent of households with children were food insecure

(USDA estimates)

Finding about Rural Food Deserts (Grocery Gap, The Food Trust)

Availability of Food Stores in Rural Areas by Store Type, 2000

Number of rural stores per 100 urban stores



Source: Powell et al., 2007.

Key Findings in New Hampshire

- ❑ Grocery stores unevenly distributed
- ❑ Deficit in more rural parts of state
- ❑ Those same areas have higher rates of obesity, coronary heart disease, and diabetes


Additional Key Findings

- ❑ 3.5% of population resides 5+ miles from a grocery store
- ❑ Larger percentage in more rural areas
- ❑ More than 1 in 10 households experience food insecurity
- ❑ Significantly related to income and distance from grocery store


Figure 5


Low Access Areas: Beyond 5-Mile Buffer of Selected Retail Stores


Inaccessible Areas

 Beyond 5-Mile Buffer


Political Boundaries

 State Boundary

 County Boundary

 Town Boundary


Surface Water

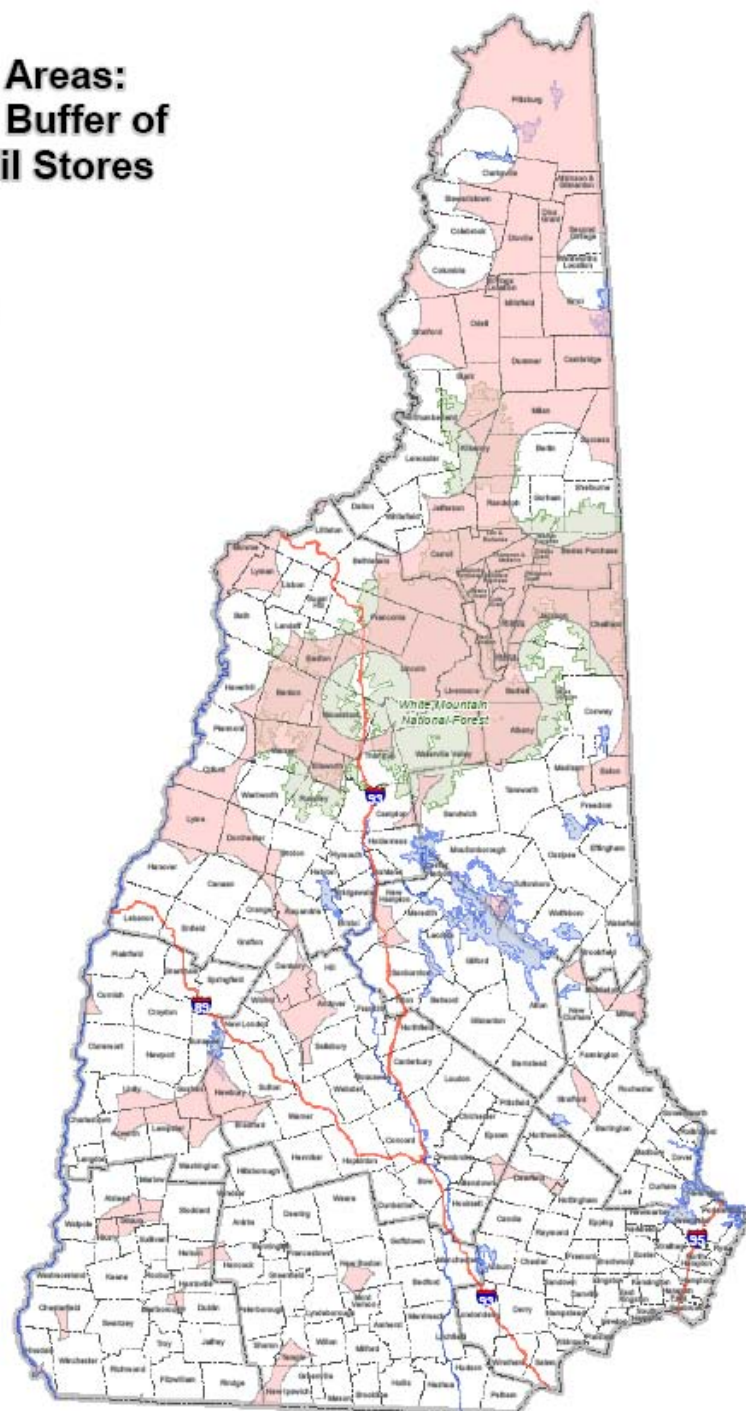
 Major Water Body

Major Routes

 Interstate

Conservation Lands

 White Mountain
National Forest



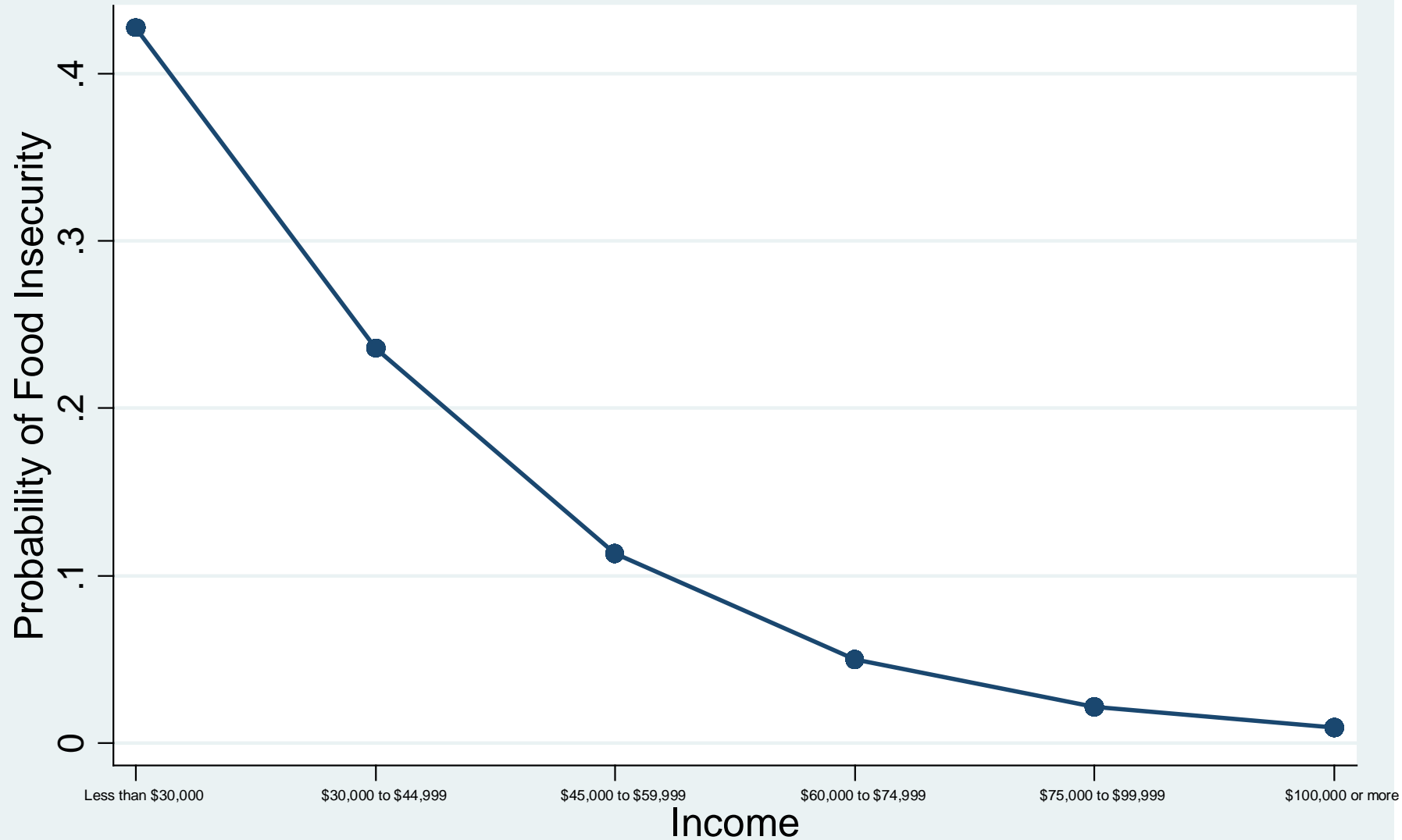
Data Sources:

Retail food sources data from
INFO USA, March 2009.

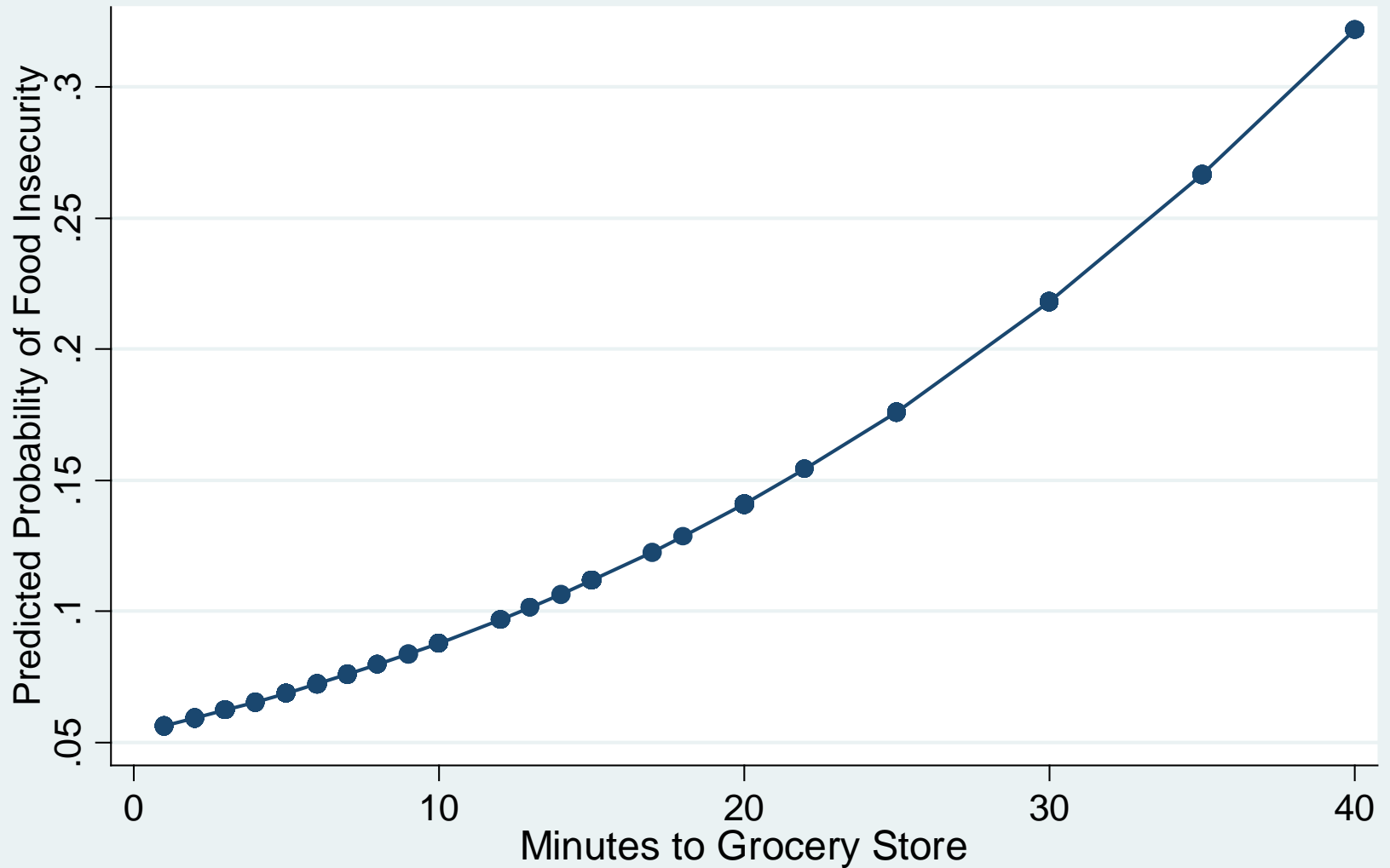
All base layers from NH GRANIT
data base, UNH.

The Effect of Income on Food Insecurity

Conditional Effect Plot



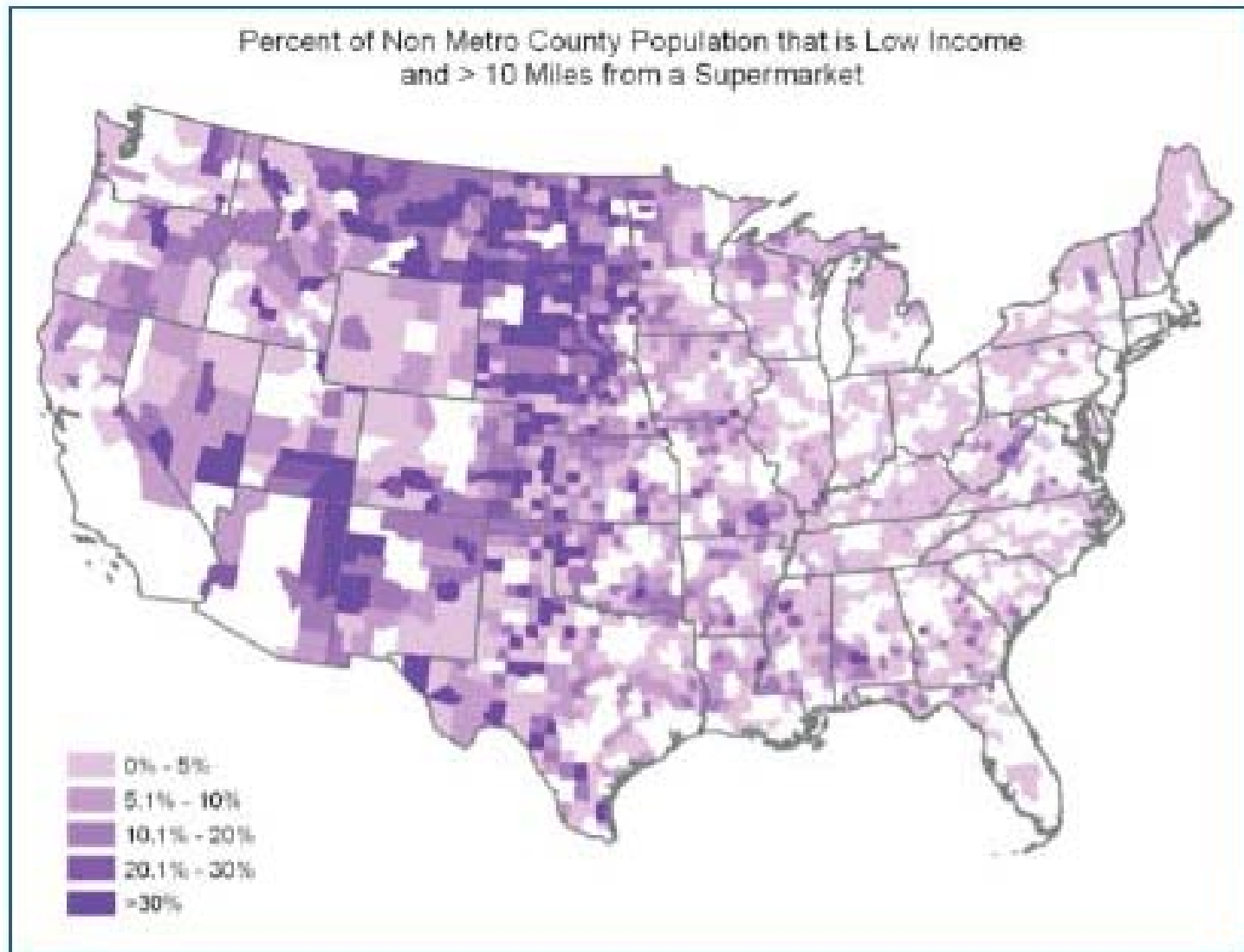
The Effect of Distance from Grocery Store on Food Insecurity Conditional Effect Plot



Implications for Rural Areas

- ❑ NH is affluent, other rural areas are not so fortunate
- ❑ In higher poverty rural areas, food deserts more common
- ❑ In higher poverty rural areas, food insecurity more common
- ❑ In more rural areas, food deserts more common

White House Task Force on Childhood Obesity, 2009 data, USDA estimates



Conclusions

- ❑ Rural families and children are more likely to live in a food desert
- ❑ Living in a food desert creates barriers to accessing healthy food
- ❑ Living in a food desert is associated with food insecurity
- ❑ Both are associated with poorer health outcomes



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