

Understanding Poverty and Food Insecurity

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ABSTRACT

Access to food is fundamental for ideal development and function. Using the data from the Feeding America.org, U.S. Department of Agriculture (USDA) and United States Census Bureau (Income), we examine the relationship between poverty and food insecurity for household members of various times and places. In the end, this research is to represent the issue with regards to measures and criteria for distinguishing poor people and food insecurity; to assess the frequency of poverty and food insecurity at the national and state levels based on Maslow's hierarchy of needs.

INTRODUCTION

- Poverty, food insecurity, and poor nutrition have serious consequences for the health and well-being of children, adults, and older adults
- Poverty reduces life expectancy and quality of life
- Food-insecure and low-income individuals can be particularly powerless against poor nutrition and obesity, because of extra risk factors related with inadequate family resources within under-resourced communities

DATA AND METHODS

Data

- USDA – Food Nutrition services Supplement Nutrition Assistant program
- FeedingAmerica.org
 - Provides information for the people who are food insecure, cost per meal, budgets and their rate annually for the years 2009 to 2018
- United States Census Bureau (Income and total population)

Method

- Joined data sets
- Observed a close relationship between poverty and food insecurity
- Built a prediction model for food insecurity using linear regression
- Collected interview data to understand the predictions better

OUTCOMES

- Poverty and food insecurity are highly correlated
- 2012 has the highest poverty and food insecurity rate
- 2018 has the lowest poverty and food insecurity rate
- Few states do not fully utilize their supplement nutrition programs as the persons who are eligible to utilize the program are more than the persons participating in the program
- Food insecurity rate can be predicted as an outcome of:
 - Poverty rate
 - Cost per meal of a program
 - Benefit of a household utilizing the program
 - Usage rate of a program

CONCLUSIONS

- Food insecurity and poverty are closely linked
 - Reducing one will likely impact the other
- Food insecurity is predicable from the cost of meals, usage rate of supplemental programs and...
 - Communities can improve outcomes because they can provide and improve usage rates of supplemental nutrition programs

ACKNOWLEDGMENTS

1. Dr. Robin Walters-Powell
2. Dr. Laura Leventhal
3. Dr. Mary Jo Geise
4. Ruth Ann Ellerbrock
5. University of Findlay Writing Center

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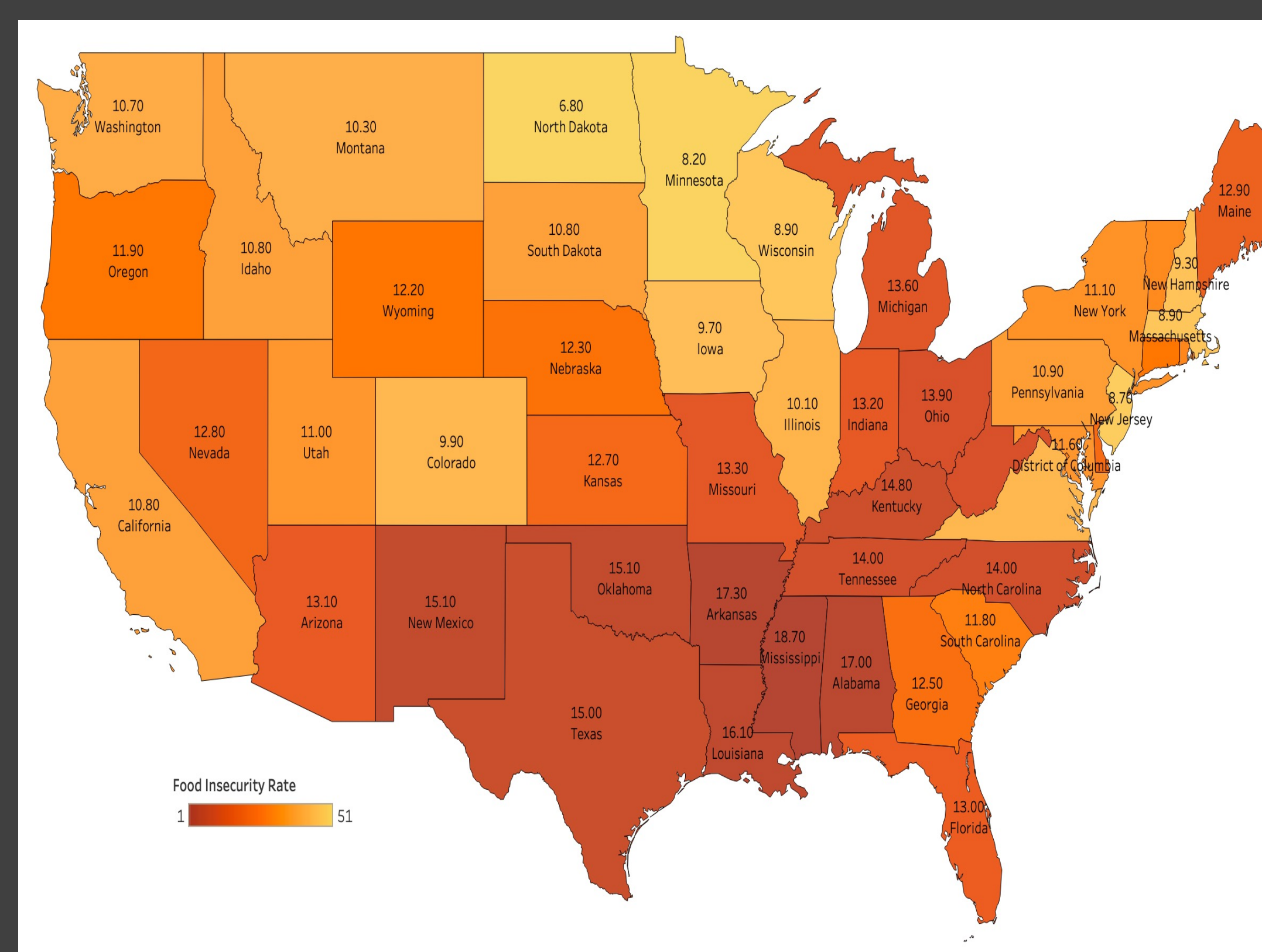
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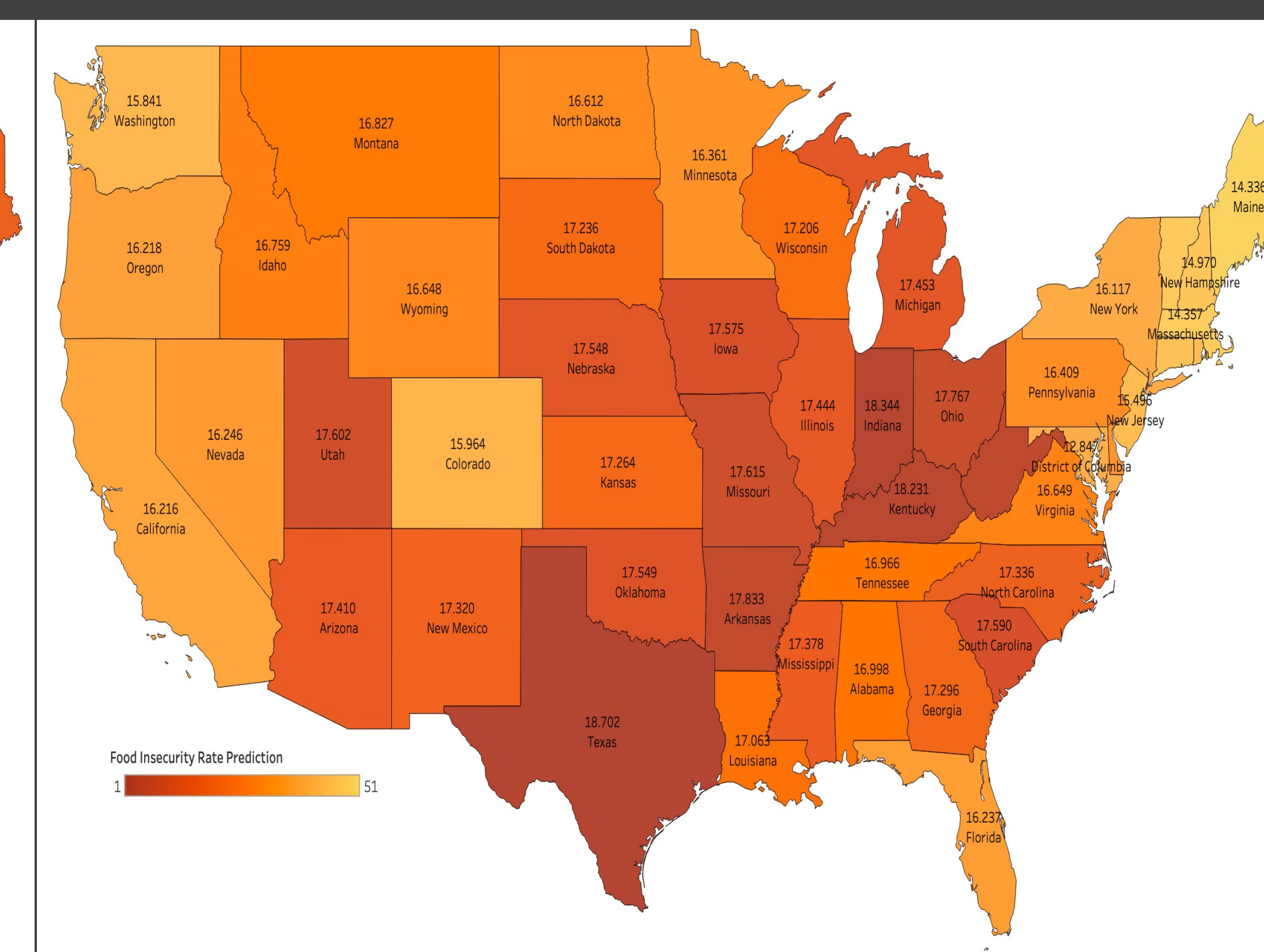
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ACTUAL INSECURITY 2018



PREDICTED INSECURITY 2018



LEARNING FROM INTERVIEW DATA

- Interview with person from Leipsic, OH
- Concludes that community assistance and involvement can reduce food insecurity
- Supports finding from predictive model that usage rate influences food insecurity
- Community actions and support can improve usage rate