



# MAP THE MEAL GAP 2017

## Highlights of Findings For Overall and Child Food Insecurity

A Report on County and Congressional District Food Insecurity and  
County Food Cost in the United States in 2015



Made possible by the generous support of The  
Howard G. Buffett Foundation, Founding Sponsor  
of the *Map the Meal Gap* research series







# FOREWORD

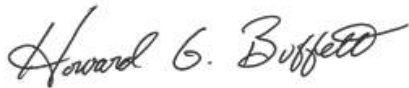
42 million Americans may not know where they will find their next meal. Hunger in the United States—its magnitude can be overwhelming; its solution complex, requiring our brightest minds and greatest resources.

Although figures show recent declines in the number of people experiencing food insecurity and the number of people living in poverty, food insecurity remains high and has not yet returned to pre-Great Recession levels. Relief has come to some, but millions of people—across every county and congressional district in the United States—still face hunger. The *Map the Meal Gap* report brings their struggle into focus.

Now in its seventh year, *Map the Meal Gap* is an integral part of the way people think about hunger in our country. This annual analysis of food insecurity at the local level is a powerful tool for advocating for hunger relief and spreading awareness about the reality of hunger in the United States. Through it, data comes to life, informing, educating and stirring individuals, lawmakers, businesses and organizations to action. Legislators, academics and community organizations use the information to develop policies, research and programs. Feeding America and anti-hunger organizations leverage *Map the Meal Gap* to help frame strategic planning and goals in their efforts to end hunger in America.

The Howard G. Buffett Foundation is proud to be the Founding Sponsor of Feeding America's signature *Map the Meal Gap* study. The breadth of its impact is staggering, exceeding the expectations set at the study's launch in 2011. By partnering with Feeding America to amplify the story of local hunger through statistics, we have helped create a singular voice for anti-hunger advocates and the very individuals seeking food assistance.

It is our belief that only through data-driven insights and decisions can our country make true and lasting progress toward ending hunger.



Howard G. Buffett  
Chairman and CEO  
The Howard G. Buffett Foundation



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# ABOUT FEEDING AMERICA

Feeding America® is the largest hunger-relief organization in the United States. Through a network of 200 food banks and 60,000 food pantries and meal programs, we provide meals to more than 46 million people each year. Feeding America also supports programs that prevent food waste and improve food security among the people we serve; educates the public about the problem of hunger; and advocates for legislation that protects people from going hungry.

## HOW WE WORK



We Secure Donations



We Move Food



We Safely Store and Distribute Donations



We Feed People in Need



# GLOSSARY

## AGENCY

A charitable organization that provides food supplied by a food bank directly to people in need through various types of programs, like food pantries or meal programs.

## AMERICAN COMMUNITY SURVEY (ACS)

A U.S. Census Bureau survey based on a sample of 3 million addresses. ACS data are used to produce *Map the Meal Gap* estimates. In order to provide valid estimates for areas with small populations, the county-level ACS data used in *Map the Meal Gap* were averaged over a five-year period.

## AVERAGE MEAL COST

The national average dollar amount food-secure people report spending per week on food, as estimated in the Current Population Survey (CPS), divided by 21 (assuming three meals eaten per day). This number is then adjusted by the cost-of-food index (see below).

## CHARITABLE FOOD PROVIDERS

Charitable feeding programs like food pantries, meal programs, kitchens and shelters through which services are provided to people in times of need.

## CHILD FOOD INSECURITY

The household-level economic and social condition of limited or uncertain access to adequate food, as reported for households with children under age 18. Child food insecurity is assessed in the Current Population Survey (CPS) and represented in U.S. Department of Agriculture (USDA) food-security reports.

## CHILD FOOD-INSECURITY RATE

The percentage of children living in households in the U.S. who experienced food insecurity at some point during the year. The child food-insecurity estimates in this study are derived from the same questions used by the USDA to identify food insecurity in households with children at the national level.

## COST-OF-FOOD INDEX

A measure that uses food price data provided by Nielsen to estimate the relative cost of food in each county. The index consists of county multipliers that reflect the cost (after taxes) of purchasing the equivalent of a USDA Thrifty Food Plan (TFP) market basket relative to the national average. These multipliers are then used to generate local estimates of the national food budget shortfall and average meal cost.

## CURRENT POPULATION SURVEY (CPS)

A nationally-representative survey conducted by the U.S. Census Bureau for the Bureau of Labor Statistics (BLS) providing employment, income, food insecurity and poverty statistics. Selected households are representative of civilian households at the state and national levels. The CPS does not include individuals living in group quarters, including nursing homes or assisted living facilities.

## FOOD BANK

A charitable organization that solicits, receives, inventories and distributes donated food and grocery products pursuant to industry and appropriate regulatory standards. The products are distributed to charitable social-service agencies, which provide groceries and meals directly to people in need through various charitable feeding programs. Some food banks also distribute food directly to individuals in need.

## FOOD BUDGET SHORTFALL

The amount of money per week food-insecure people report needing to meet their food needs, as assessed in the Current Population Survey. This amount is annualized for the purposes of this study.

## **FOOD INSECURITY**

The household-level economic and social condition of limited or uncertain access to adequate food. It is assessed in the Current Population Survey and represented in USDA food-security reports.

## **FOOD-INSECURITY RATE**

The percentage of the population that experienced food insecurity at some point during the year.

## **HIGH FOOD-INSECURITY COUNTIES**

The top 10% of counties with the highest food-insecurity (or child food-insecurity) rates as compared with rates across all counties in the United States.

## **INCOME ELIGIBILITY THRESHOLD FOR FEDERAL NUTRITION PROGRAMS**

A dollar amount tied to the federal poverty line that determines whether a household is income-eligible for federal nutrition programs like the Supplemental Nutrition Assistance Program (SNAP) or the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). Income eligibility is one aspect of eligibility, which varies by state and include other tests based on assets and net income.

## **MEAL GAP**

The equivalent of the food budget shortfall in meals. In order to arrive at the meal gap, the food budget shortfall in a specified area is divided by the average cost per meal in that area.

## **METRO-MICRO AREAS**

County-based geographic categories defined by the Office of Management and Budget (OMB). Metropolitan (metro) areas have a core urban area of 50,000 or more residents while micropolitan (micro) areas have a core urban area between 10,000 and 50,000. Metro and micro areas consist of one or more counties and include the counties containing both the core urban area, as well as any adjacent counties that have a high degree of social and economic integration with the urban core. Here we use counties categorized as part of nonmetro areas to broadly define “rural” counties although we analyze food insecurity in micro counties as well.

## **NONMETRO/RURAL COUNTIES**

Counties that are categorized as part of nonmetro areas by the Office of Management and Budget (OMB) and used here to define “rural” counties. Nonmetro counties are located outside the boundaries of metropolitan (metro) areas and are widely used to study conditions in “rural” America. They can be subdivided into micropolitan (micro) and all remaining counties (neither metro nor micro), and further subdivided using USDA ERS Rural-Urban Continuum Codes (RUCCs).

## **PERCENT OF POVERTY LINE**

A multiple of the federally established poverty guideline, which varies based on household size. These percentages are used to set income eligibility thresholds for federal nutrition programs, such as SNAP.

## **PERSISTENT-POVERTY COUNTY**

A term used by the USDA Economic Research Service (ERS) to refer to counties where at least 20 percent of the population has been living in poverty over the last 30 years.

## **RURAL-URBAN CONTINUUM CODES**

A classification scheme used by the USDA that subdivides metro counties into three categories by the population size of their metro area, and nonmetro counties into six categories by degree of urbanization and adjacency to a metro area. Here we use RUCCs to analyze food insecurity across and within metro and nonmetro counties.

## **SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM (SNAP)**

Formerly known as the Food Stamp Program, SNAP is the largest of the federal nutrition programs and provides qualified recipients with resources, in the form of an electronic payment card, to buy groceries.

# ABOUT MAP THE MEAL GAP

We believe that addressing the problem of hunger requires a thorough understanding of the problem. For the seventh consecutive year, Feeding America has undertaken the *Map the Meal Gap* analysis to continue learning about how the face of food insecurity can vary at the local level. By better understanding variations in local need, communities can develop more targeted strategies to better reach people struggling with hunger.

Although Feeding America continually seeks to meet the needs of food-insecure people, quantifying the need for food within a community can be challenging. In September 2016, the United States Department of Agriculture (USDA) Economic Research Service released its most recent food insecurity report, indicating that more than 42 million people in the United States live in food-insecure households, of whom 13 million are children (Coleman-Jensen et al., 2016a). While the magnitude of the problem is clear, national and even state estimates of food insecurity can mask the variation that exists at the local level.

Prior to the inaugural *Map the Meal Gap* release in March 2011, Feeding America used national and state-level USDA food-insecurity data to estimate the need. However, the 200 Feeding America member food banks that comprise the network are rooted in their local communities and need specific information at the ground level in order to be responsive to unique local conditions. Many food banks used poverty rates as an indicator of local food needs because it was one of few variables available at the county level. However, national data reveal that about 57% of people struggling with hunger earn incomes above the federal poverty level and 60% of people living in poor households are food secure (Coleman-Jensen et al., 2016b). Measuring need based on local poverty rates alone provides an incomplete illustration of a community's potential need for food assistance. Better community-level food-insecurity data are a valuable and unique resource for informing and engaging community members, leaders and partners in our mission to end hunger through a quantifiable and data-driven approach. In order to do this, *Map the Meal Gap* generates four types of community-level data: overall food-insecurity estimates, child food-insecurity estimates, average meal costs and food budget shortfalls.





# RESEARCH GOALS

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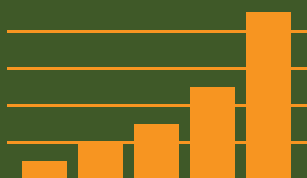
In developing *Map the Meal Gap*, Feeding America identified several research goals. These goals and the mechanisms for achieving them have remained unchanged. Community-level analysis should:



Be directly related to the need for food. The analysis estimates food insecurity at the county and congressional district level.



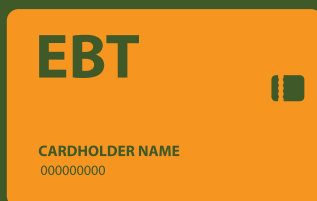
Reflect major known determinants of the need for food, such as unemployment and poverty. The model estimates food insecurity by examining the relationship between food insecurity and unemployment, poverty and other factors.



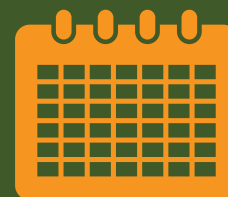
Be based on well-established, transparent analytical methods. The statistical methods are well-known and use data from publicly-available sources.



Provide data on all counties in the U.S. Using the American Community Survey (ACS) data for all counties, this is possible.



Help identify need by the income categories that inform eligibility for major federal nutrition programs so that communities can better understand what strategies can be leveraged in the fight against hunger. The model draws on information about income levels in counties. The income data is used to estimate the number of food-insecure individuals whose resources suggest they are eligible for federal assistance programs. It also estimates the number of people whose incomes may be too high to qualify for federal nutrition programs but who still need help meeting their families' food needs.



Be updated on an annual basis to reflect changing conditions. By using annual, national USDA food-insecurity data, county-level estimates can be calculated each year. The data presented in this report are drawn from 2015 Bureau of Labor Statistics data and the American Community Survey averages from the rolling 2011-2015 period (the most recent time data available across all counties).





# METHODOLOGY OVERVIEW

*THE FOLLOWING PROVIDES ADDITIONAL  
INFORMATION ON THE METHODOLOGY  
FOR THIS STUDY.*

A more detailed technical brief is available  
online at [map.feedingamerica.org](http://map.feedingamerica.org).

Section

1



## FOOD-INSECURITY ESTIMATES

Before producing county-level estimates, we assess the state-level relationship between food insecurity and associated factors using Current Population Survey (CPS) data supplemented with data from the Bureau of Labor Statistics (BLS). The specific variables used are: unemployment, poverty, homeownership, and other demographic variables that are publicly available at both the county and state level. County-level estimates are derived from the state-level relationships that exist between these variables and food insecurity. Food-insecurity estimates at the county level may vary more from year to year than state or national estimates due to smaller geographies, particularly in counties with very small populations. For that reason, we take efforts to guard against unexpected fluctuations that can occur in these counties by using five-year averages from the American Community Survey (ACS). However, unemployment is based on a one-year average estimate for each county as reported by the BLS. Estimates are sorted by income categories associated with eligibility for federal nutrition programs, such as the Supplemental Nutrition Assistance Program (SNAP), using ACS data on population and income at the county level.

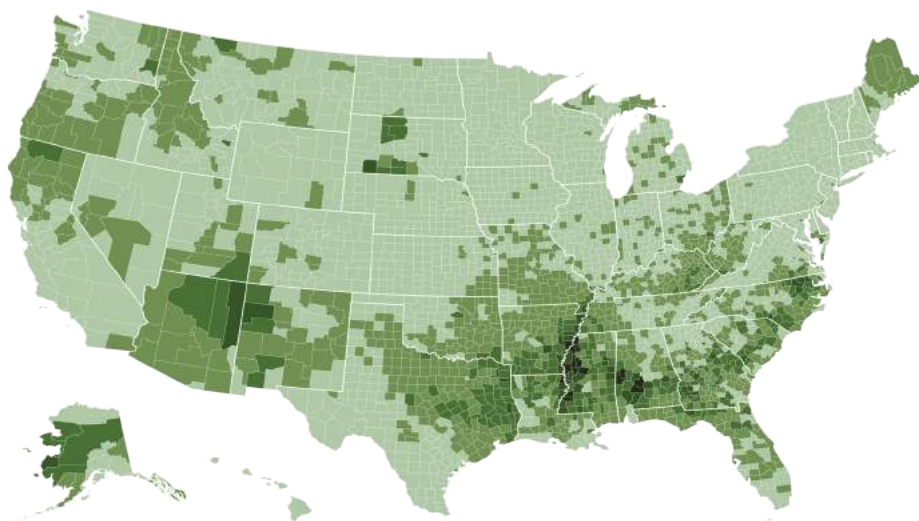
## ESTIMATING FOOD INSECURITY AT THE COUNTY LEVEL

Using the annual USDA Food Security Survey, we model the relationship between food insecurity and other variables at the state level and, using information for these variables at the county level, we establish food-insecurity rates by county.

Visit [map.feedingamerica.org](http://map.feedingamerica.org) for a complete printable, interactive map of county-level food insecurity and food cost data.

The food-insecurity model demonstrates the relationship between food insecurity and several indicators including unemployment and poverty.

As expected, after controlling for other factors, higher unemployment and poverty rates are associated with higher rates of food insecurity. A one percentage-point increase in the unemployment rate leads to a 0.51 percentage-point increase in the overall food-insecurity rate, while a one percentage-point increase in poverty leads to a 0.23 percentage-point increase in food insecurity.



Food Insecurity Rates

4-14%

15-19%

20-24%

25-29%

30%+

A complete printable, interactive map that illustrates the *Map the Meal Gap* data can be found online at

[map.feedingamerica.org](http://map.feedingamerica.org)

## WHAT ABOUT UNDEREMPLOYMENT?

Underemployment occurs when a person is in the labor force, but is not obtaining sufficient hours or wages to make a living. This includes people who work less than full-time but would be working full-time if possible, and people who are in jobs not commensurate with their training or financial needs. Although unemployment continues to be associated with food insecurity, underemployment is another important condition that can lead to a strained household food budget. Currently, uniform BLS data on underemployment are not available at the county level; as a result, underemployment cannot be included in the *Map the Meal Gap* model estimating county-level food insecurity.



## CHILD FOOD-INSECURITY ESTIMATES

Children are particularly vulnerable to the economic challenges facing families today. Although food insecurity is harmful to any individual, it can be especially devastating to children due to their critical stage of development and the potential for long-term consequences. Feeding America has replicated the food-insecurity model used for the general population to reflect the need among children (*see page 31 for results*).

Similar to the calculations used to derive food-insecurity estimates for the overall population, CPS data are used to assess the relationship between state-level child food-insecurity and associated variables (e.g. unemployment rates, child poverty rates, homeownership rates for

families with children, etc.) that are publicly available at the county, congressional district, and state levels through the CPS, BLS and ACS.

Child food-insecurity estimates are sorted by the income categories used to identify eligibility for federal child nutrition programs (above and below 185% of the poverty line) such as the National School Lunch Program (NSLP), the School Breakfast Program (SBP) and the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) in order to estimate how many food-insecure children are eligible and ineligible for federal child nutrition programs.

## WHAT ABOUT SENIOR FOOD INSECURITY?

Nationally, we know that at least 5.7 million seniors (age 65 and older) are food insecure, with rates as high as 15% in Arkansas and Louisiana (Ziliak & Gundersen, 2016). We also know that the aging population has unique socioeconomic circumstances that may increase their need for food assistance and the need among community partners for local-level senior food-insecurity estimates. The *Map the Meal Gap* model, however, cannot currently produce local estimates of food insecurity among seniors. This is because key variables such as unemployment and homeownership are not as applicable to this demographic. The sample size of seniors at the county level is often too small to allow for estimates as reliable as those for children and the general population.

## FOOD PRICE VARIATION

In order to compare food prices across the country, a relative price index was developed by Nielsen, on behalf of Feeding America.<sup>1</sup> Nielsen analyzed nationwide sales data from Universal Product Code (UPC)-coded food items and assigned each UPC-coded food item to one of the 26 food categories in the USDA's Thrifty Food Plan (TFP).<sup>2</sup> These categories, representing major food groups, were weighted within the TFP market basket based on pounds purchased per week by age and gender. The market basket total was then translated into a county-specific multiplier (normalized to a mean value of 1) so that food prices can be compared across geographies. This multiplier can be applied to any dollar amount to estimate the relative local price of the item in question.

1. In cases of counties with populations smaller than 20,000, Nielsen imputed a price based on data collected from all surrounding counties. The USDA TFP market basket is used to understand the relative differences in major food categories in a standardized way.

2. It is not intended to evaluate the appropriate mix of food that people might purchase.



# FOOD BUDGET SHORTFALL AND NATIONAL AVERAGE MEAL COST

## FOOD BUDGET SHORTFALL REPORTED BY FOOD-INSECURE INDIVIDUALS IN 2015



The CPS asks respondents how much additional money they would need to buy enough food for their household (this follows questions regarding weekly food expenditures but precedes food-insecurity questions). On average, in 2015, food-insecure individuals reported needing an additional \$17.38 per person per week, an increase of more than 3% from \$16.82 in 2014. This amount is the average weekly food budget shortfall that food-insecure people experience.

To arrive at an annualized food budget shortfall experienced by all food-insecure people, this value is first multiplied by the number of food-insecure persons. Because USDA analyses of CPS data reveal that food-insecure households are not food insecure every day of the year, but typically experience food insecurity for about seven months per year, 7/12 is used as a multiplier to arrive at the total estimated annual food budget shortfall across all food-insecure individuals (Coleman-Jensen et al., 2016a).

In recognition that food costs are not the same across the nation, the average food budget shortfall was also adjusted using the county multiplier from the local cost-of-food index, with 1 representing the national cost-of-food index.

## FOOD-SECURE INDIVIDUALS' AVERAGE COST PER MEAL




To help equate the dollar amount of the food budget shortfall to meals, it is translated into an estimated meal shortfall, or “meal gap,” using an average meal cost. The national cost-per-meal was derived from CPS data about how much the respondent’s household spends on food in a week. We only include food costs reported by food-secure households to ensure that the result reflects the cost of an adequate diet. According to CPS data, we find that food-secure individuals spend an average of \$61.74 per week, which, when divided by 21 (based on the assumption of three meals per day, seven days per week), amounts to an average meal cost of \$2.94.

As with the food budget shortfall, the average meal cost of \$2.94 is adjusted to reflect differences in food prices across counties by using the cost-of-food index described previously in the Food Price Variation section. This local cost of a meal can then be used to translate the local food budget shortfall into an estimated number of additional meals needed. Estimates of meal costs and meal gaps are not intended to be definitive measures; however the concept of a “meal” provides communities with a context for the scope of need.

Although food prices are one of many cost pressures that people face in meeting their basic needs (housing, utilities and medical expenses are other critical components), the ability to reflect differences in food costs across the country provides insight into the scope of the problems facing people who are food insecure and struggling to make ends meet.





**THE DECLINE IN  
FOOD INSECURITY  
DOESN'T TELL THE  
WHOLE STORY FOR  
PEOPLE IN NEED**

Section

**2**



Across the U.S., 42 million people (13%) lived in food-insecure households in 2015, a significant decline from 48 million in 2014 (Coleman-Jensen et al., 2016a). It is undoubtedly good news that nearly 6 million fewer individuals are struggling to regularly put adequate food on the table. In fact, it continues the downward trend in food insecurity from its peak of 17% of the U.S. population in 2009, the last year of the Great Recession. The prevalence of food insecurity, however, only tells part of the story.

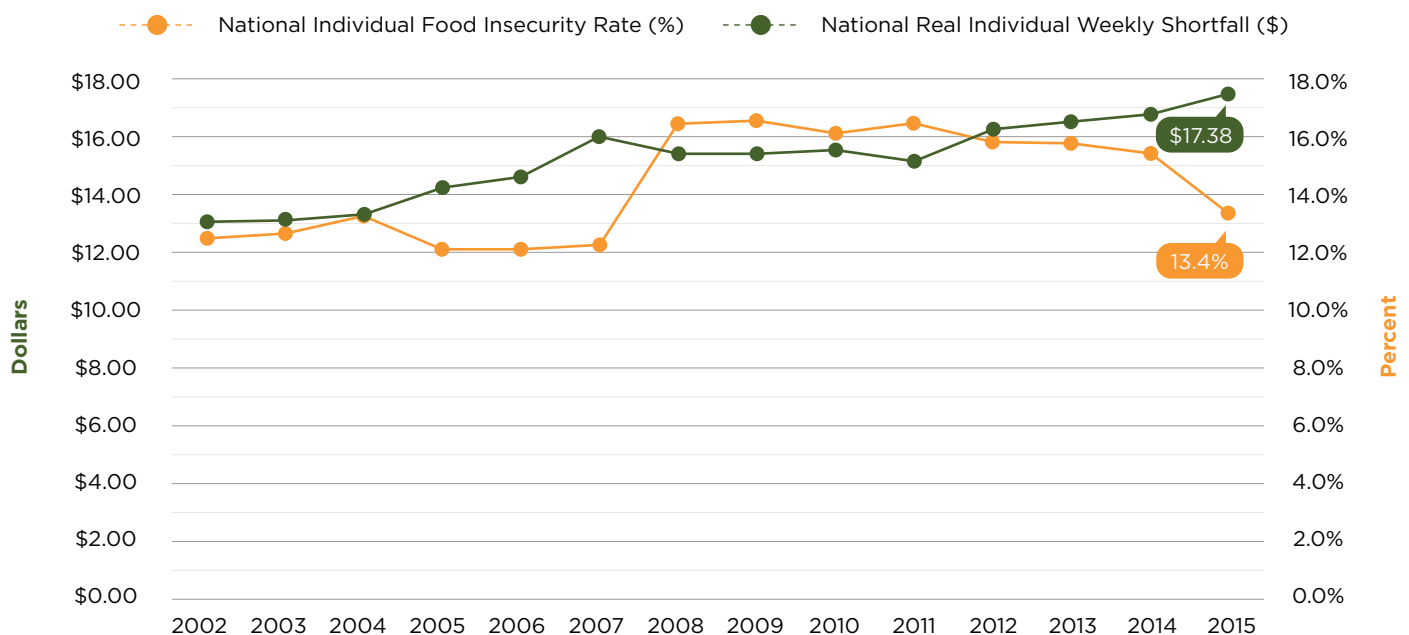
Food-insecurity rates alone don't provide insight into how the challenges facing food-insecure individuals have changed over time. One way to examine changing need among people struggling with hunger is to look at changes in how much additional money they report needing each week to meet their food needs, or the food budget shortfall.

In 2015, food-insecure households reported needing an additional \$17.38 per person per week, on average, to meet their food needs. When accounting for inflation, this shortfall represents a 3% increase from 2014 and a 13% increase since 2008, the first full year of the Great Recession. Despite the national decline in food insecurity rates, the amount of money food-insecure individuals report needing continues to rise.

The increasing size of the food budget shortfall helps shed some light on the hidden struggles of food-insecure individuals and families across the country. Although the total number of people living in food-insecure households has decreased, individual need among people who are food insecure has increased. Despite the economic recovery and reductions in unemployment and poverty, millions of people still struggle to get by because of persistent economic challenges, such as underemployment and stagnant wages. In addition, rising costs for essentials, especially rent and housing expenses, continue to put real cost pressure on low-income families, many of whom already report having to make regular spending tradeoffs to help ensure they have sufficient food.

*Although the total number of people living in food-insecure households has decreased, individual need among people who are food insecure has increased.*

**Figure 01: Individual Weekly Shortfall Continues to Rise in 2015**



# COUNTY-LEVEL FOOD INSECURITY:

## *RESULTS AND DISCUSSION*

*Map the Meal Gap* estimates the number of food-insecure individuals and children in every county and congressional district in the United States. The study also estimates the share of the food-insecure population who likely qualify for federal nutrition assistance programs like SNAP.

Section

3

# TRENDS IN COUNTY FOOD INSECURITY

This section reviews findings from the seventh year that Feeding America has conducted *Map the Meal Gap*. To identify any notable shifts, food-insecurity estimates for 2015 (the focus of this year's study) are compared to those in each of the prior four years.

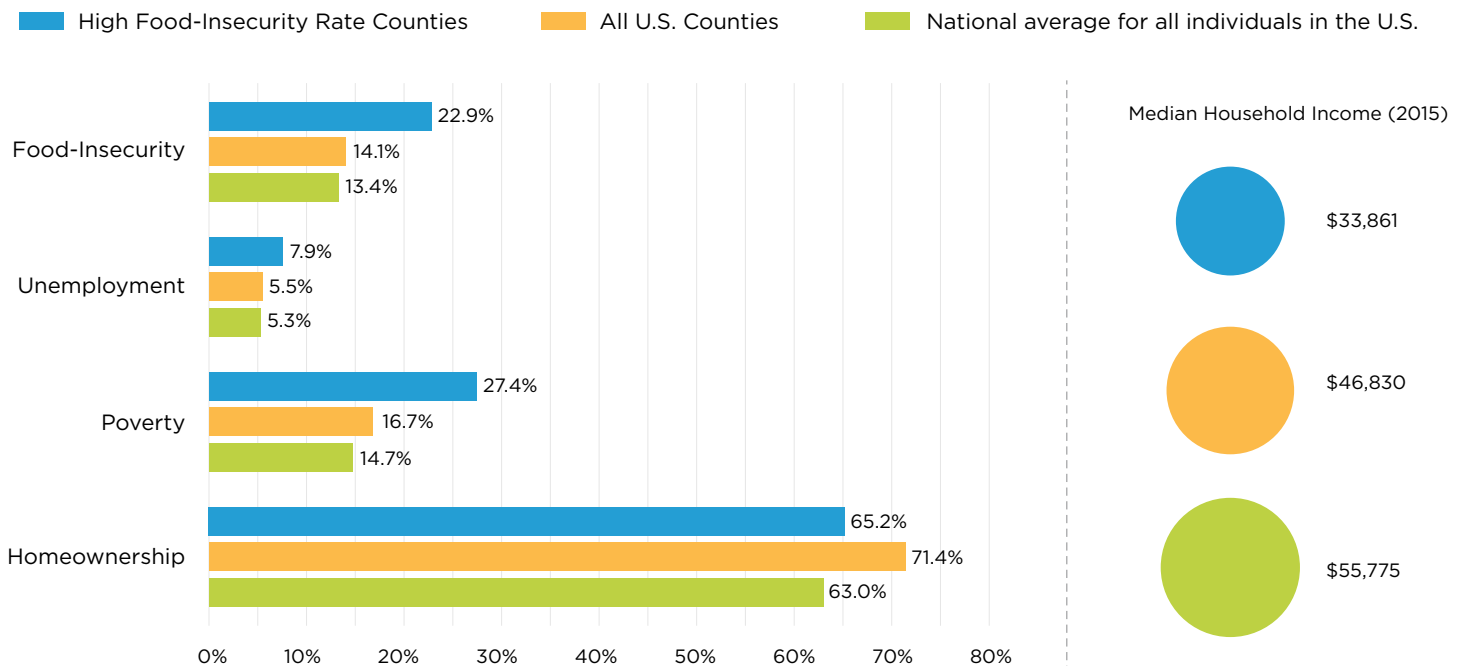
Nationally, the food-insecurity rate dropped significantly from 15% in 2014 to 13% in 2015 (Coleman-Jensen et al., 2016a).<sup>3</sup> Poverty, an economic variable associated with food insecurity, stayed approximately the same, while unemployment, another variable in the *Map the Meal Gap* food-insecurity model, decreased (see Figure O2).

At the county level, we find that food-insecurity rates in 2015 range from a high of nearly 38% in Jefferson County, Mississippi to a low of 3% in Grant County, Kansas. The average county food-insecurity rate in 2015 is approximately 14% compared to the average rate in 2014 of nearly 15%. Less than one percent (N=18) of all 3,142 counties in the U.S. experienced a statistically significant change between 2014 and 2015, with all but one county experiencing a decrease. When 2015 estimates are compared to those from prior years, however, there are

more counties with a statistically significant difference in their food-insecurity rate. Rates are significantly different for 9% (271) of all counties since 2013, 10% (312) since 2012, and 17% (542) since 2011. Poverty and unemployment, two economic variables associated with food insecurity, decreased, though not as substantially as food insecurity (see Figure O2). The average unemployment rate across counties decreased from 6.3% to 5.5%, while the average poverty rate remained about the same at 16.7% (compared to 16.8% in 2014). Across all counties, homeownership fell slightly from 2014 to 2015. Although the average median income across counties edged upwards from \$46,599 in 2014 to \$46,830 in 2015, as it did nationally, counties with the highest rates of food insecurity witnessed an average median income decline in real terms, from \$34,092 in 2014 to \$33,861 in 2015, suggesting a widening gap between the most disadvantaged counties in the United States and the rest of the country.<sup>4</sup>

The following sections explore current (2015) county-level findings in greater detail. Any statistically significant differences are noted.

**FIGURE O2: AVERAGE COUNTY-LEVEL ECONOMIC INDICATORS, 2015**



3. The food-security module asks individuals about the prior 12 months, although it is plausible that individuals' responses may be most affected by their recent experience.

4. Median income data have been adjusted for inflation to 2015 values.



# COUNTIES WITH THE HIGHEST RATES OF FOOD INSECURITY

Of the 3,142 counties in the United States, we looked at the top 10% (N=314) for which food-insecurity rates are the highest in the nation.<sup>5</sup>

Although the average food-insecurity rate across U.S. counties remains at roughly 14%, the average rate for these 314 “high food-insecurity rate” counties is 23%. In other words, within these highest risk counties, nearly 1 in 4 residents struggles with hunger.

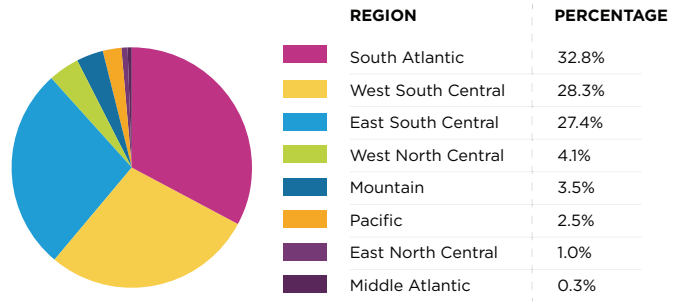
## Geography

To understand geographical variation across these counties, we analyzed them using the U.S. Office of Management and Budget (OMB) categories of metropolitan (metro) and micropolitan (micro) areas. We also considered less populous and more remote counties associated with neither metro nor micro areas. Most counties, whether metro or nonmetro, micro or other, contain a combination of urban and rural populations. For the purposes of this study, we define “rural” counties as those that fall within the broader category of nonmetro counties. In other words, rural (nonmetro) counties are located outside the boundaries of more populous metro areas, and may be part of smaller micro areas or even less populated and more remote geographic areas.

Consistent with 2014 findings, high food-insecurity counties are more likely to be rural compared to the average U.S. county (see Figure 04). While rural counties make up 63% of all counties, they represent 76% of counties with the highest rates of food insecurity. The share of remote rural counties not associated with micro or metro areas remained approximately the same in 2015 (51% in 2015 versus 50% in 2014). Conversely, the proportion of high food-insecurity metro counties as of 2015 is lower when compared to all counties (24% versus 37%), and roughly the same as in 2014 (24% in 2015 versus 26% in 2014).

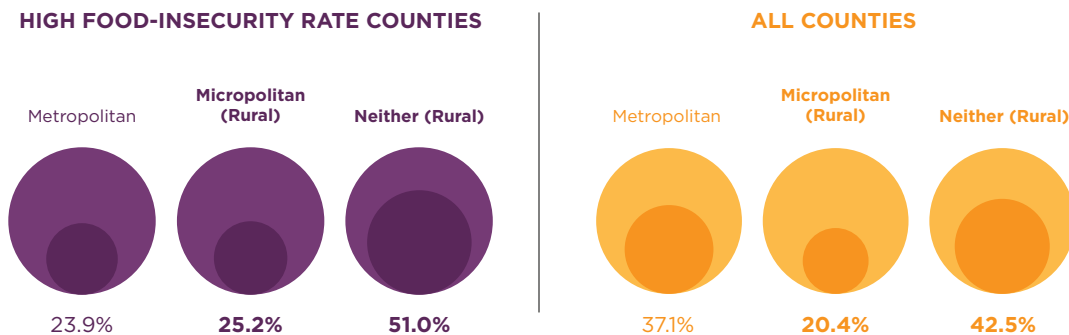
High food-insecurity rate counties are located in eight of the nine U.S. Census Bureau geographic divisions (see Figure 03).<sup>6</sup> The South, which encompasses the South Atlantic, East South Central, and West South Central divisions, contains 89% of the high food-insecurity rate counties. Although New England is not represented among the distribution of high food-insecurity rate counties, this area includes some of the most populous counties in the U.S. and thus, some of the largest numbers of food-insecure individuals.

**Figure 03: High Food-Insecurity Rate Counties by Census Division**



**9 OUT OF 10 COUNTIES WITH THE HIGHEST RATES OF FOOD INSECURITY ARE LOCATED IN THE SOUTH.**

**FIGURE 04: HIGH FOOD-INSECURITY RATE COUNTIES BY GEOGRAPHIC AREAS, 2015**



5. All 3,142 counties defined by the U.S. Census Bureau were included in the analysis of 2015 data.

6. Information about the U.S. Census Bureau Regions and Divisions can be found at [http://www2.census.gov/geo/pdfs/maps-data/maps/reference/us\\_regdiv.pdf](http://www2.census.gov/geo/pdfs/maps-data/maps/reference/us_regdiv.pdf).

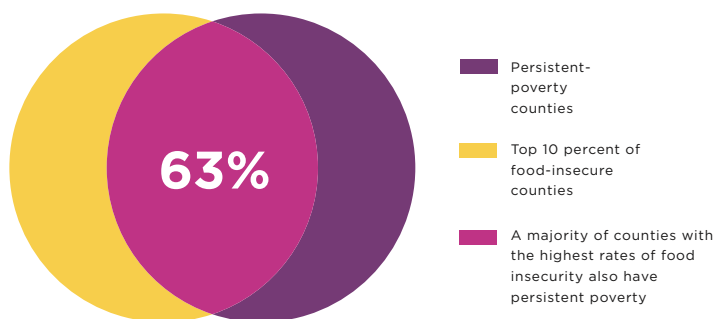
## Unemployment, Poverty, Median Income and Homeownership

By definition, high food-insecurity rate counties are more economically disadvantaged than the average U.S. county and the U.S. population as a whole, as seen in Table O1 on page 11. The average annual unemployment rate among high food-insecurity counties was nearly 8%, compared to 6% across all counties, with the county-equivalent Kuskokwim Census Area, Alaska having the highest unemployment rate at 23%. The average poverty rate across these counties was also high, averaging 27% compared to 17% for all counties, and as high as 53% in Oglala Lakota County, South Dakota. Not surprisingly, the average median household income in this group was lower than the national average: \$33,861 versus \$46,830 for all counties. The lowest median income in the group was \$19,328 in McCreary County, Kentucky, less than half of the average of all counties. Homeownership rates were also lower in these counties at an average of 65% compared to 71% for all counties.

## PERSISTENT-POVERTY COUNTIES

The USDA Economic Research Service (ERS) developed the term persistent poverty to track counties with consistently high percentages of people living below the poverty line. A county is considered a persistent-poverty county if at least 20% of its population has been living in poverty over the last 30 years (USDA ERS, 2016). There is great overlap between these counties and those that fall into the top 10% for food insecurity; nearly two-thirds (63%) of the “high food-insecurity rate” counties are also persistent-poverty counties. This confluence of long-standing poverty and heightened food insecurity underscores that low-income people living in these areas have been facing a number of interrelated problems that require complex, long-term solutions.

**FIGURE O5: OVERLAP BETWEEN TOP 10% OF FOOD INSECURE COUNTIES AND PERSISTENT-POVERTY COUNTIES**



Some racial and ethnic minority groups in the U.S., such as African Americans and American Indians, are disproportionately at risk for food insecurity,<sup>7</sup> especially in these counties that have consistently struggled with poverty. In addition to having above-average food-insecurity rates, persistent-poverty counties include a disproportionate share of counties with majority non-white populations, highlighting the deep and pervasive nature of the systemic challenges faced by many minority communities.

For example, while majority African-American counties form only 3% (N=105) of the 3,142 counties in the U.S., 92% (N=97) of them are high food-insecurity rate counties and 71% are persistent-poverty counties.<sup>8</sup> With an average poverty rate of 31%, majority-African-American counties disproportionately experience poverty when compared to both high food-insecurity rate counties (27%) and the average county (17%). One such disadvantaged community is Jefferson County, Mississippi, where 86% of residents are African American. With a poverty rate of 49%, Jefferson County also has the highest food-insecurity rate in the U.S. at nearly 38%.

Similarly, nearly three-quarters (72%) of majority-American Indian counties are persistent-poverty counties, with an average poverty rate of 37%. Even though majority-American Indian counties represent less than 1% of all counties in the U.S. (N=25), most of them also fall into the high food-insecurity rate category.<sup>9</sup> Although a relatively small percentage of the total U.S. population identifies as American Indian, county-level analysis helps bring to light the obstacles faced by reservation communities (Gordon & Oddo, 2012; Gundersen, 2008). For example, Apache County, Arizona, which includes parts of the Navajo Nation, Zuni and Fort Apache reservations, is designated as a persistent-poverty county with a poverty rate more than double the national average (37% versus 17%) and a food insecurity rate of 27%.

7. Coleman-Jensen, A., C. Gregory, & A. Singh. Household Food Security in the United States in 2015: Statistical Supplement. U.S. Department of Agriculture, Economic Research Service, September 2016. Print.

8. This analysis was completed for all non-Hispanic African Americans.

9. This analysis was completed for all non-Hispanic American Indians.

## FURTHER EXPLORATIONS OF COUNTIES

The following section analyzes county food insecurity by other dimensions, including low prevalence, large numbers of people, as well as rurality and region.

### Low Food-Insecurity Rates

Nearly half (N=22) of the 50 counties with the lowest food-insecurity rates are found in North Dakota. This is consistent with the state's low unemployment rate and below-average poverty rate. In these 22 North Dakota counties, the estimated number of food-insecure individuals ranges from 40 to 5,400, and the food-insecurity rate ranges from 4% to 6%.

Highlighting the critical difference between food-insecurity rates and number of food-insecure people, Suffolk County, New York is one of the 50 counties with the lowest food-insecurity rates, at just under 6%; however, there are still over 88,000 people who are food insecure in this county. It is important to note, as shown in Figure 06, that in more populous areas, low food-insecurity rates do not necessarily translate into low numbers of food-insecure people.

**LOW FOOD-INSECURITY RATES DO NOT NECESSARILY TRANSLATE INTO LOW NUMBERS OF FOOD-INSECURE PEOPLE.**



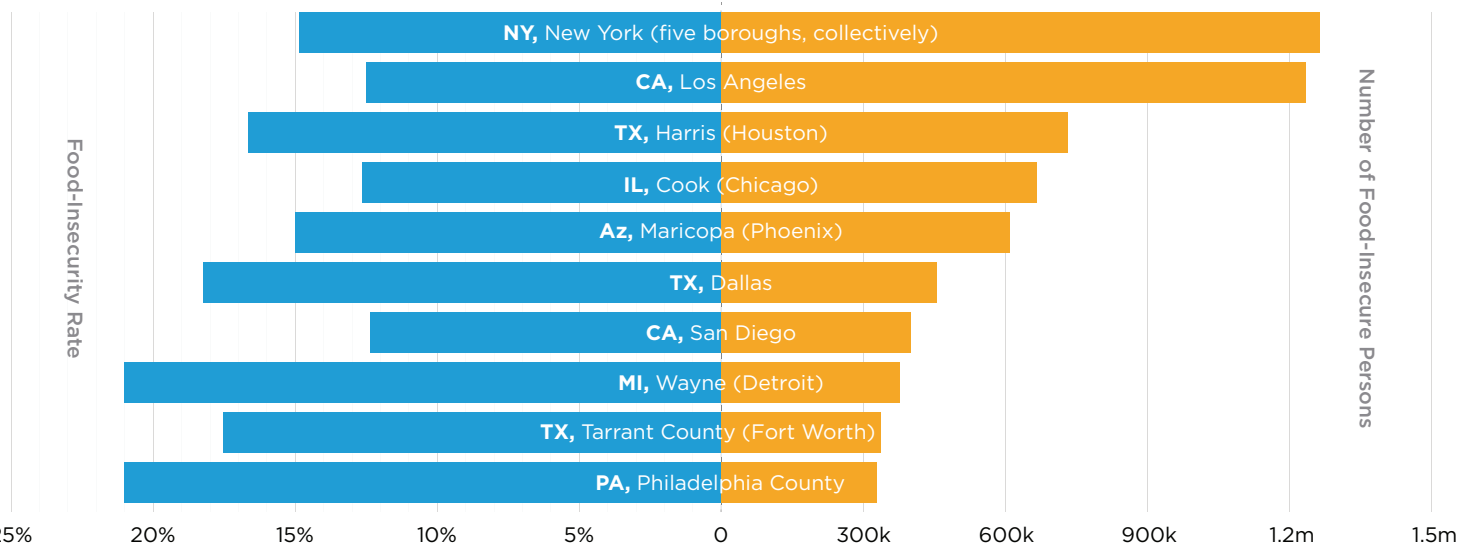
### Largest Numbers of Food-Insecure Individuals

While food-insecurity rates help illustrate the prevalence of need, populous counties with relatively low food-insecurity rates are home to some of the largest numbers of food-insecure people (see Figure 06).

Among the 50 counties with the highest number of food-insecure people, the average food-insecurity rate is 15%, slightly exceeding the average across all counties. Although average unemployment (5%) and homeownership (55%) rates in these counties are lower than the average across all counties, their average poverty rate is roughly equivalent to the national average at 17%.

While most of the 50 counties with the largest numbers of food-insecure people encompass the entirety of large cities, there are some exceptions. Oakland County, Michigan (153,310 food-insecure individuals) includes the suburbs northwest of Detroit, and DeKalb County, Georgia (139,970 food-insecure individuals) includes parts of Atlanta, but also suburbs to the east of the city, illustrating that the issue of hunger is not isolated to large metropolitan areas.

**FIGURE 06: COUNTIES WITH THE HIGHEST NUMBER OF FOOD-INSECURE INDIVIDUALS, 2015**

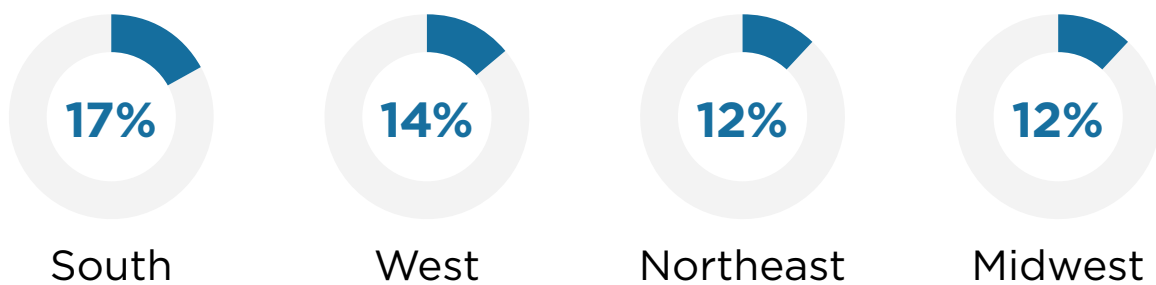




## Food Insecurity in Rural America

There are multiple ways to define an area as rural or urban. Here, we use two related measures to define a county's geography that highlight how need varies across rural and urban counties. First, we use the U.S. Office of Management and Budget (OMB) definitions of metropolitan (metro) and nonmetropolitan (nonmetro) to define urban and rural counties, respectively.<sup>10</sup> Across rural (nonmetro) counties, the average food-insecurity rate is 15%, compared to the average rate across all counties as well as more urban (metro) counties (14%). Although rural counties make up 63% of all counties, they account for 67% of counties with higher-than-average food-insecurity rates and 76% of the "high-food insecurity rate" counties discussed on page 17.

We also examine rural and urban county food-insecurity by U.S. Census Regions, which further reveals patterns in the geography of food insecurity. For instance, rural counties in the South have some of the highest rates of food insecurity in the country while urban counties in the Northeast have some of the lowest. In fact, rural counties in the South have the highest average food-insecurity rate in the country (17%) when compared to regional averages from rural counties in the West (14%), Northeast (12%) and Midwest (12%) regions.



In the South region, some of the most food-insecure counties are those with small towns far from big cities. One such county is Leflore County, Mississippi, which has a food-insecurity rate of 33% and contains the town of Greenwood, population of 16,000. The nearest city to Greenwood is Jackson, Mississippi, nearly 100 miles away. Conversely, urban counties in the Northeast boast some of the lowest rates of food insecurity in the country. Among urban counties across Census regions, the lowest average county food-insecurity rates are in the Northeast (11%), followed by the Midwest (12%), West (13%), and South (15%).

The variation in county food-insecurity rates becomes even more apparent using the USDA classification system known as Rural-Urban Continuum Codes (RUCCs). Using this classification, metro counties are subdivided into three categories based on the population size of their metro area; nonmetro counties are subdivided into six categories based on their degree of urbanization and adjacency to a metro area. Using these definitions, rural counties in the South with populations of 20,000 or more that are not adjacent to a major metro area have relatively high rates of food insecurity (18% on average). Conversely, urban counties in the Northeast with populations of 1 million or more tend to have much lower rates of food insecurity (11% on average).

Analyzing food insecurity by geography highlights that individuals' need for food may vary across rural and urban communities, as well as by region. As practitioners and policymakers seek to address food insecurity across the United States, they should strive to include areas that are more difficult to reach, and where communities may have insufficient infrastructure and resources needed to help meet the needs of their food-insecure neighbors.



<sup>10</sup> In prior analyses, we defined "rural" counties as those outside the boundaries of both metro and micro areas. However, using the broader nonmetro category to define rural counties, as we do this year, is a common research practice and consistent with how the USDA defines rural areas in its annual analysis of food insecurity.

# FOOD INSECURITY AND INCOME

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Estimating food-insecurity rates by level of income can provide important insight into the potential strategies that can be used to address hunger.

Federal nutrition programs like SNAP use various income thresholds to determine a family or individual's eligibility for that program. These income thresholds are tied to multiples (e.g., 100%, 135%, 185%) of the federal poverty line. The poverty guidelines, which vary by household size, reflect a minimum amount of money that a family needs to purchase basic necessities.

## What is the Federal Poverty Line?

The poverty thresholds were established in 1963 based on research that indicated the average family spent about one-third of its annual income on food. The official poverty level was set by multiplying food costs by three for a “bare bones” subsistence meal plan (Blank & Greenberg, 2008). Although the figures are updated annually to account for inflation, they do not take into account that modern family budgets are divided very differently than they were more than 50 years ago (Blank & Greenberg, 2008). Now household budgets include myriad expenses that have increased relative to food prices or were virtually non-existent when the official poverty measure was created.

## SNAP and Other Federal Nutrition Programs

Federal food assistance programs such as SNAP, WIC, and school meals (SBP and NSLP) determine eligibility thresholds by multiplying the official poverty line by 130% or 185% to provide a rough proxy for need beyond the scope of the official poverty level (see Figure 07). SNAP eligibility thresholds are state-specific and range from 130% to 200% of poverty, while WIC and reduced-price school meals are typically only available to children in households with incomes below 185% of poverty.

For example, the current poverty guideline for a family of four in the lower 48 states was a pre-tax income of \$24,600. To determine the income limit for SNAP eligibility, one would multiply \$24,600 by 130% to arrive at \$31,980. This means that, among other eligibility criteria, in order to be eligible for SNAP, a family of four must be earning less than \$31,980.<sup>11</sup>

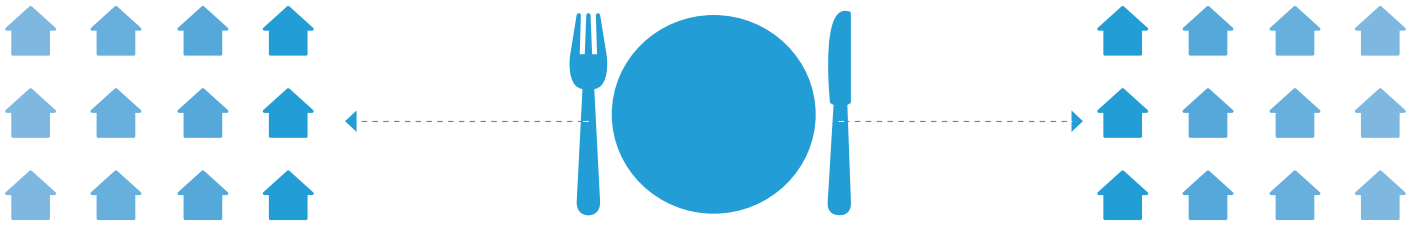
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**IN ORDER TO BE ELIGIBLE FOR  
SNAP, A FAMILY OF FOUR MUST  
BE EARNING LESS THAN \$31,980.**

---

Because of the common use of these federal nutrition program thresholds, the *Map the Meal Gap* analysis estimates how many food-insecure people's incomes fall within each income bracket. First, we estimate the percentage of food-insecure individuals whose incomes fall at or below the SNAP eligibility level (130% of poverty or the state threshold, if higher). Then we estimate the percentage of those whose incomes are too high to be eligible for SNAP, yet are within the threshold for other major federal nutrition programs (between 130 and 185% of poverty or the state threshold). Finally, we estimate the percentage of incomes that are too high to be eligible for any government food assistance (above 185% of poverty or the state threshold). Areas with a high percentage of food-insecure individuals eligible for SNAP (based on gross income) might benefit from increased awareness, outreach and application assistance for enrollment in SNAP. Looking across income eligibility estimates provides context for determining what federal and state programs are available to food-insecure people and what gaps are left to be addressed by charitable food assistance providers like food banks. Understanding the overlap between food insecurity and federal nutrition program eligibility provides local agencies with the level of information needed to tailor programs to meet local need.

11. The SNAP gross income eligibility level varies across states, ranging from 130 to 200 percent of the federal poverty level. The SNAP net income eligibility level must fall at or below 100 percent of the federal poverty level.



## Eligibility for Federal Nutrition Programs

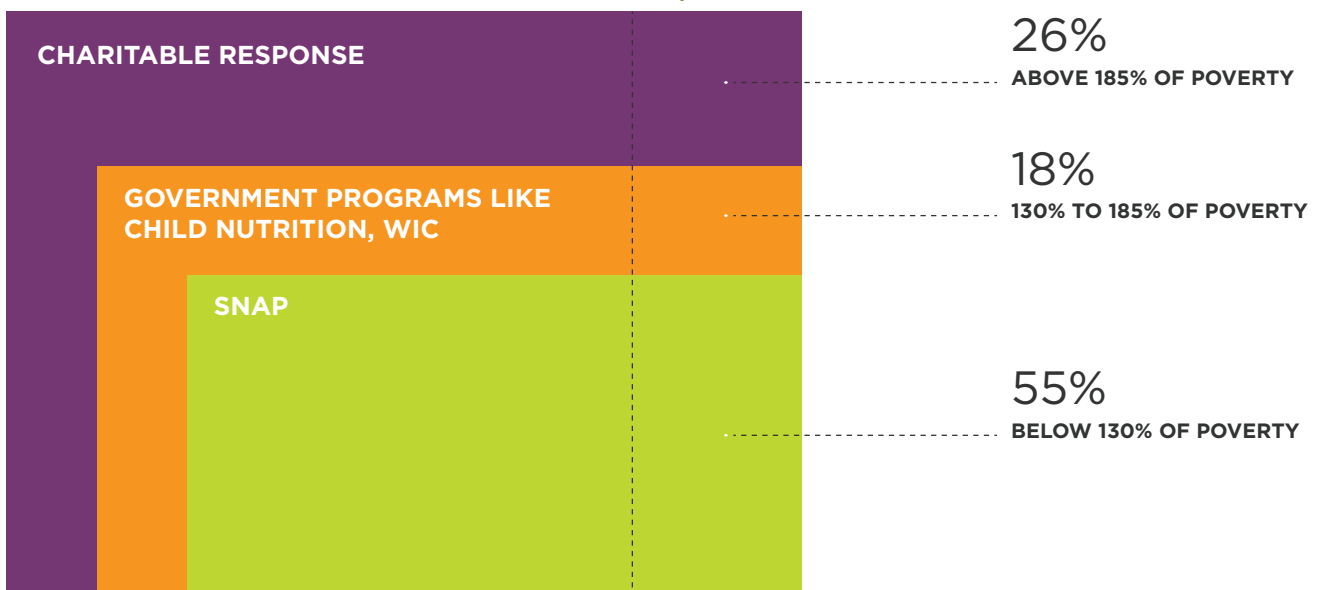
Across the country, there are 76 counties where the majority of food-insecure people are not income-eligible for any government food assistance programs. Most of these (68%) are metro counties with higher-than-average median incomes. For example, Douglas County, Colorado (near Denver, Colorado) is home to 28,280 food-insecure people, two-thirds (69%) of whom are likely ineligible for government food assistance.

Additionally, many states contain a mix of counties wherein some counties include a majority food-insecure population that are eligible for SNAP while other counties have a majority food-insecure population that is likely ineligible for any form of federal food assistance. For example, in Virginia, there are seven counties where more than half of food-insecure individuals are estimated to have incomes too high to be eligible for any government food assistance programs; yet, Virginia also has 82 counties where a majority of food-insecure people live in households that are likely income-eligible for SNAP.

Among the high food-insecurity rate counties, it is much less common that food-insecure individuals have incomes above 185% of poverty, which would make them ineligible for government food assistance. On average, only about 18% of food-insecure people in these counties have incomes that likely disqualify them from federal food assistance programs. Still, this indicates that even in high food-insecurity counties there are individuals in need who may fall outside the federal safety net and must instead rely on family, friends and charitable response when they need help.

## FIGURE 7: SNAP AND OTHER GOVERNMENT PROGRAMS

FOOD-INSECURE INDIVIDUALS AND INCOME ELIGIBILITY, 2015







**FOOD INSECURITY  
IN CONGRESSIONAL  
DISTRICTS**

Section

**4**

In addition to developing county-level food-insecurity estimates, Feeding America develops estimates for congressional districts using the same methodology.

In congressional districts, food insecurity ranged from a low of 4% in Illinois' 4th congressional district, to a high of 29% in Mississippi's second congressional district. Congressional districts that fall within the top 10% for high food-insecurity rates (44 districts) had an average food-insecurity rate of 23%. When compared to national averages, the districts with the highest food-insecurity rates also had higher-than-average unemployment (9% versus 6%) and poverty (22% versus 15%), and lower-than-average median income (\$42,344 versus \$57,945).

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Much like the high food-insecurity rate counties (Figure 04 on page 17), the high food-insecurity rate congressional districts are heavily concentrated in the South. It is important to note that no congressional district is free of food insecurity. Even in the most food-secure district, Illinois' fourth congressional district, 4% of the population, representing more than 29,000 individuals are estimated to be food insecure. The wealthiest districts, representing the 10% with the highest median incomes, are also not immune to the issue of hunger: they are home to an average of 73,000 people who are food-insecure. Cumulatively, the wealthiest congressional districts remain home to more than 3 million food-insecure men, women and children.

*Cumulatively, the wealthiest congressional districts remain home to more than 3 million food-insecure men, women and children.*







**FOOD PRICE  
VARIATION ACROSS  
THE UNITED STATES**

Section

**5**



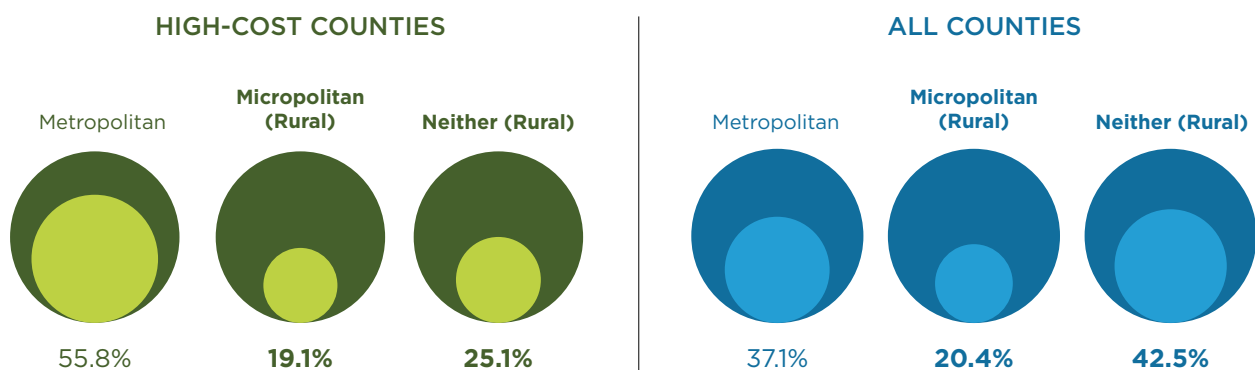
The first phase of *Map the Meal Gap* focuses on understanding the local population in need by estimating county and congressional district food-insecurity rates. In conjunction, Feeding America sought to understand how much additional financial support food-insecure people report needing and how local food prices might alter the relative cost of meeting that need.

To address this goal, we developed local estimates for the additional money for food that food-insecure individuals report needing (the food budget shortfall). Recent research indicates that food costs can directly impact food insecurity (Nord et al., 2014); thus, food prices represent an important component of cost-of-living that affects households' ability to afford food. To understand how regional and local variations in food costs may present challenges for the food-insecure population, Feeding America worked with Nielsen to create a county-level food cost index.

In 2015, the average meal cost across the continental U.S. was \$2.94, a slight increase from \$2.89 in 2014.<sup>12</sup> Local food prices varied from 69% to 191% of the national average, resulting in meal cost variations ranging from as little as \$2.04 in Maverick County, Texas to as much as \$5.61 in Crook County, Oregon. Across all counties where the average meal cost is higher than the national average, there are an estimated 25.9 million food-insecure people. Among counties with the top 10% highest food-insecurity rates, food prices reach as high as 126% of the national average (\$3.69 per meal in Richmond City (County), Virginia). For a household struggling to afford housing, utilities, transportation and other basic necessities, the additional burden of high food prices can have a significant impact on a household's budget.

## FIGURE 09: COUNTIES WITH HIGHER FOOD PRICES

### HIGH-COST COUNTIES BY GEOGRAPHIC AREA, 2015



The top 10% of counties with the most expensive food costs (319) have an average meal cost of \$3.50, 19% higher than the national average of \$2.94. There are 56 counties where the cost of a meal is at least 25% more than the national average (\$3.68 or higher). Among the 10% of counties with highest meal costs, more than half (56%) are located in metro areas (versus 37% of all counties), while 44% are in rural (nonmetro) areas (versus 63% of all counties). See Table 04 for a breakout of high-cost counties by geographic area.

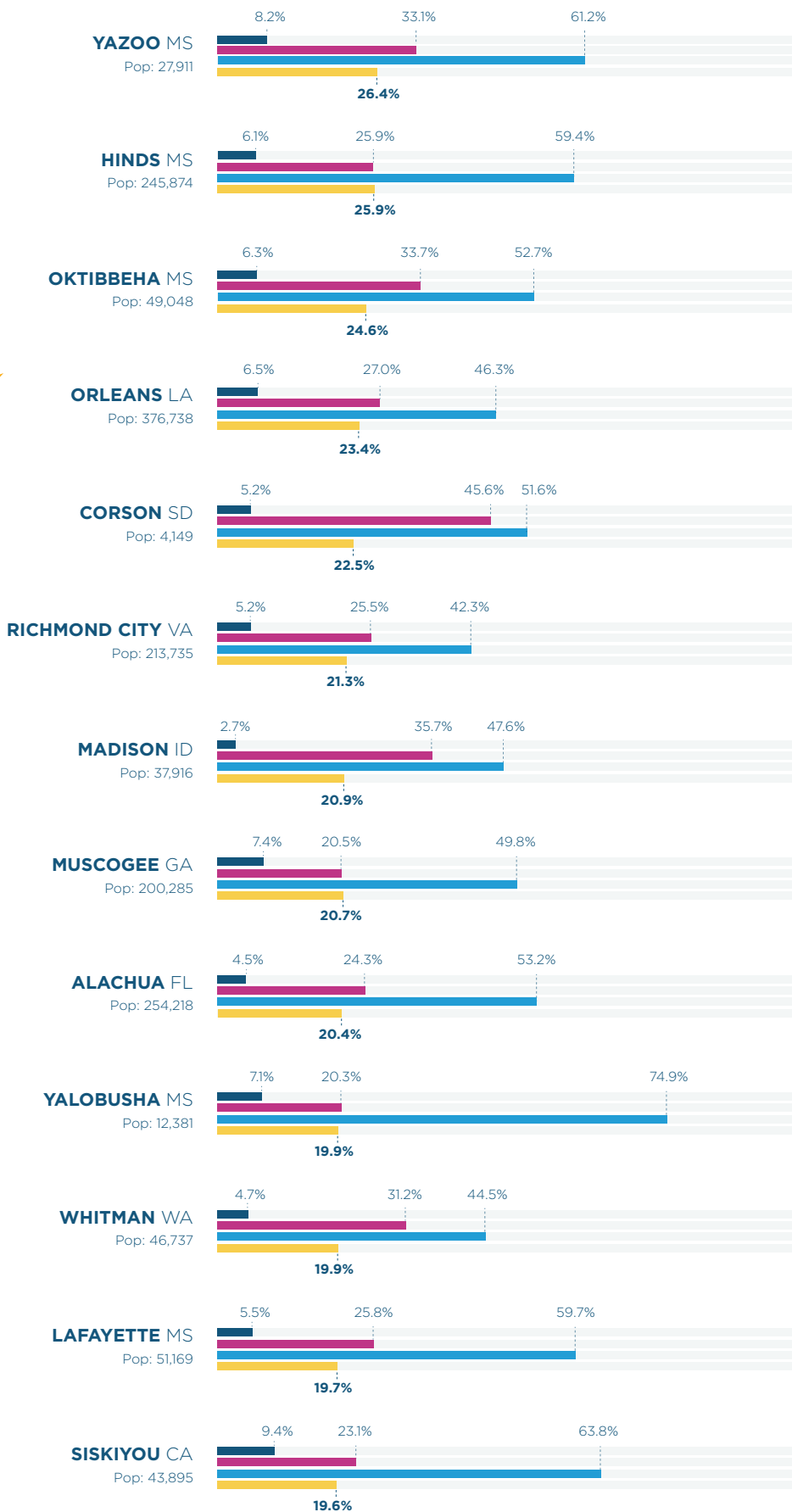
As noted above, a larger share of counties with the highest meal costs are part of populous urban metro areas. Food prices also tend to be higher in metro counties overall. But meal costs vary substantially by nonmetro county and region. For example, some of the highest meal costs in the country are in rural (nonmetro) counties adjacent to a major metro area. In one of these counties, Crook County, Oregon, the cost per meal is \$5.61, nearly twice that of the national average; however, the largest municipality in Crook County is Prineville, population 9,000, which is about 200 miles from Portland, Oregon. Other counties that rank among those with the highest meal costs are in the Northeast and are part of more urban metro areas; one example is Bristol County, Rhode Island, where the meal cost is \$4.16, making it one of the top 15 counties with the highest meal costs in the United States.

In some cases, the meal cost may be high in part due to the expense of transporting food to a resort area or an island. For example, Nantucket County, Massachusetts, where the average cost of a meal is \$3.38, is a popular island vacation destination with a high median income. There are a few other counties with a significant resort or vacation presence among the highest meal-cost areas, such as Aspen in Pitkin County, Colorado (\$3.38) and Napa County, California (\$3.88).

12. The calculations for variance of food price and the highest meal cost among high food-insecure counties exclude Alaska and Hawaii; the total number of food-insecure people in counties with food costs higher than the national average includes all 50 states.

**FIGURE 10: HIGHEST FOOD INSECURITY AND HIGHEST FOOD COST COUNTIES, 2015\***

■ Unemployment Rate     ■ Poverty Rate  
 ■ Homeownership Rate     ■ Food-Insecurity Rate



Average Local Weighted Cost Per Meal:

**\$3.24**  
 TO  
**\$3.69**

**HIGH FOOD INSECURITY COUPLED WITH HIGH FOOD COST**

There are 13 high food-insecurity counties (see discussion on page 26) that also have high meal costs, falling into both the top 10% for highest food-insecurity rates and highest meal costs (see Figure 10). An average of one in five individuals in these counties is food insecure, totaling nearly 350,000 food-insecure people who live in areas with higher-than-average meal costs. While these counties do not face the highest food prices in the nation, the average cost per meal is \$3.38, 15% higher than the national

	Percent White, Non-Hispanic	Percent Hispanic	Percent African American, Non-Hispanic
<b>YAZOO MS</b> Pop: 27,911	36.5%	4.8%	57.4%
<b>HINDS MS</b> Pop: 245,874	26.6%	1.6%	70.1%
<b>OKTIBBEHA MS</b> Pop: 49,048	57.4%	1.6%	36.9%
<b>ORLEANS LA</b> Pop: 376,738	30.8%	5.5%	59.0%
<b>CORSON SD</b> Pop: 4,149	30.9%	0.6%	0.3%
<b>RICHMOND CITY VA</b> Pop: 213,735	39.9%	6.4%	48.4%
<b>MADISON ID</b> Pop: 37,916	89.8%	6.6%	0.7%
<b>MUSCOGEE GA</b> Pop: 200,285	42.4%	7.3%	44.2%
<b>ALACHUA FL</b> Pop: 254,218	62.7%	8.9%	19.6%
<b>YALOBUSHA MS</b> Pop: 12,381	58.8%	1.6%	38.7%
<b>WHITMAN WA</b> Pop: 46,737	80.3%	5.4%	2.1%
<b>LAFAYETTE MS</b> Pop: 51,169	70.4%	2.3%	24.0%
<b>SISKIYOU CA</b> Pop: 43,895	78.0%	11.5%	1.4%

average of \$2.94. Richmond City (County), Virginia and Lafayette County, Mississippi have the highest average meal costs in this group at \$3.69 and \$3.63, respectively.

These 13 counties also struggle with higher-than-average poverty rates (29% average compared to 17% nationally), higher unemployment rates (6.1% compared to 5.5%) and low homeownership (54% compared to 71%). Eight of these 13 counties have experienced persistent poverty.

These 13 counties are also geographically diverse; a majority (N=9) are located in the South, two are in the Pacific, one in the Midwest, and one in the Mountain region. Six of these counties can be considered urban (metro) and seven rural (nonmetro). The populations of the seven rural counties range from under 5,000 to more than 50,000.



The background of the entire page is a close-up, top-down view of many bright orange oranges. The oranges are densely packed, filling the frame with their textured, bumpy skin and vibrant color. The lighting is even, highlighting the natural texture of the fruit.

# CHILD FOOD INSECURITY:

## *RESULTS AND DISCUSSION*

Although childhood food insecurity declined significantly between 2014 and 2015, the results of *Map the Meal Gap* find that children remain at risk in every county in the United States.

Section

6

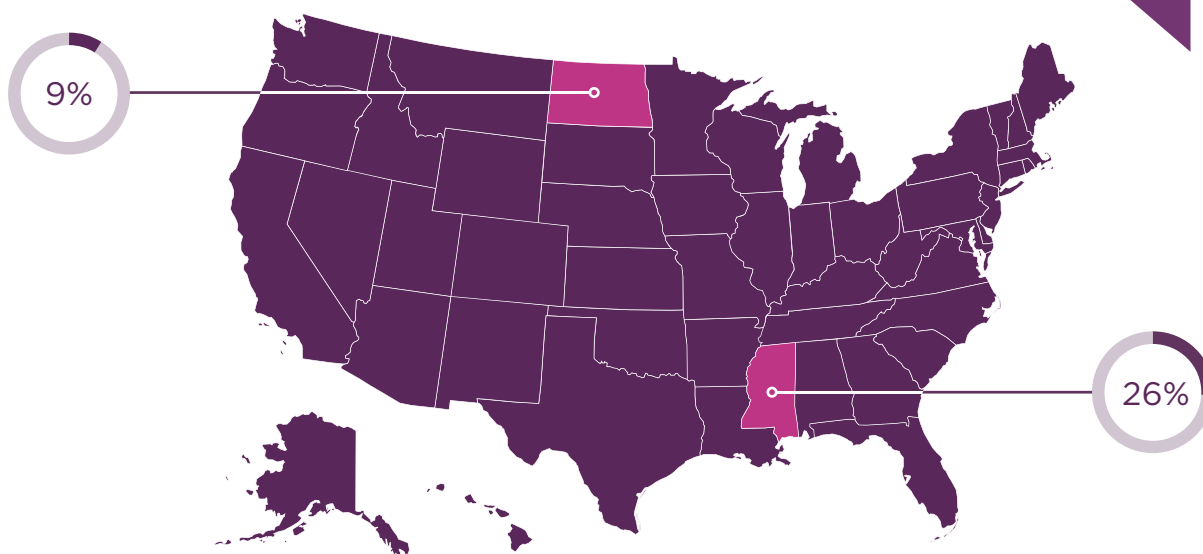
The percent of children estimated to be food insecure at the county level ranged from a low of 6% to a high of 41%.<sup>13</sup> Child food-insecurity rates declined substantially from 2014, though they remain higher than those among the general population. Although households with children have slightly higher median incomes on average, they may also experience greater budgetary constraints, due to larger household sizes and the fact that some household members rely on caregivers or do not contribute to household income (Coleman-Jensen et al., 2013). The following sections summarize key findings about child food-insecurity estimates from the *Map the Meal Gap* model, including a discussion on income and regional variations.

## CHILD FOOD INSECURITY AT THE STATE LEVEL

Child food-insecurity rates are considerably higher than food-insecurity rates among the general population, a phenomenon observed at the national level in the annual USDA report and mirrored at the state and county level in this study. State estimates of child food insecurity are presented in Figure 11 on page 30-31.<sup>14</sup>

The percent of children living in food-insecure homes ranges from a low of 9% in North Dakota to a high of 26% in Mississippi. Even in the most food-secure state (North Dakota), 1 in 11 children are food insecure. Additionally, 16 of the 20 states with the highest child food-insecurity rates also have the highest rates of food insecurity among the general population. These 16 states with the highest need are dispersed throughout the U.S., representing all areas of the country except the Mid-Atlantic, West North Central and Pacific.<sup>15</sup> Some states in the Mid-Atlantic, despite having lower child food-insecurity rates, have high absolute numbers of children living in food-insecure households because they are densely populated. For example, New York (19%) is home to 819,460 food-insecure children.

*The percent of children living in food-insecure homes ranges from a low of 9% in North Dakota to a high of 26% in Mississippi.*

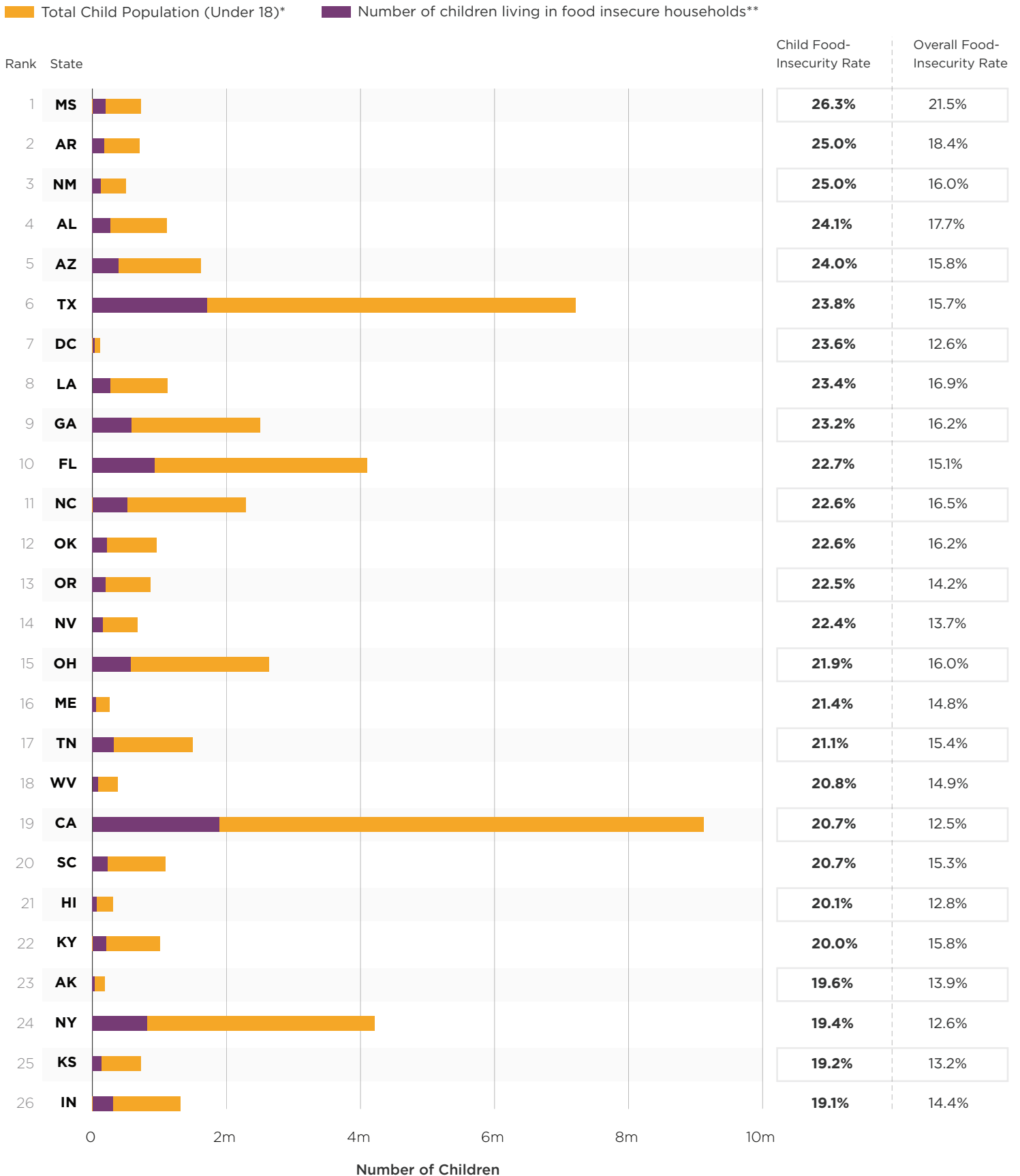


13. Results indicate that child food insecurity exists in every county in the U.S. with a population under age 18. The 2015 ACS dataset does not contain adequate data for Loving, TX and Kalawao, HI. As a result, child food insecurity rates could not be estimated for these two counties

14. Based on one-year state data aggregated from 2015 congressional districts rather than the three-year state averages provided in the USDA's annual report on household food security

15. See footnote on page 13 for a complete list of states included in each geographic region and division.

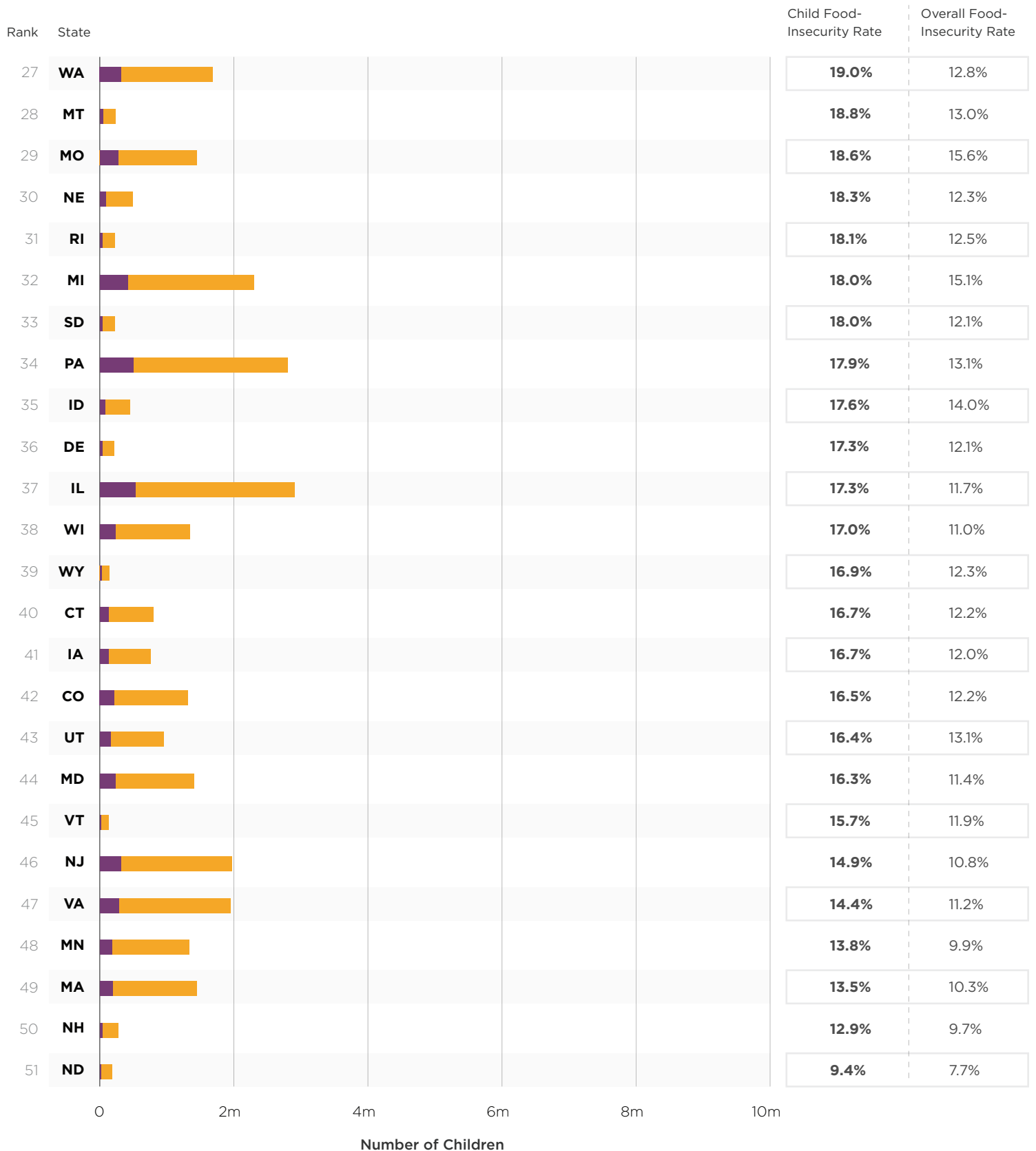
# FIGURE 11: CHILDHOOD FOOD INSECURITY BY STATE, 2015



\* The total child population is an aggregation of the child population for congressional districts in each state. This data comes from the 2015 American Community Survey, U.S. Census Bureau.

\*\* Coleman-Jensen, A. et al. (2016). Household Food Security in the United States in 2015. USDA ERS.

■ Total Child Population (Under 18)\*
 ■ Number of children living in food insecure households\*\*



**U.S.** Total Child Population (Under 18)\*

**73,455,000**

Number of children living in food insecure households\*\*

**13,118,000**

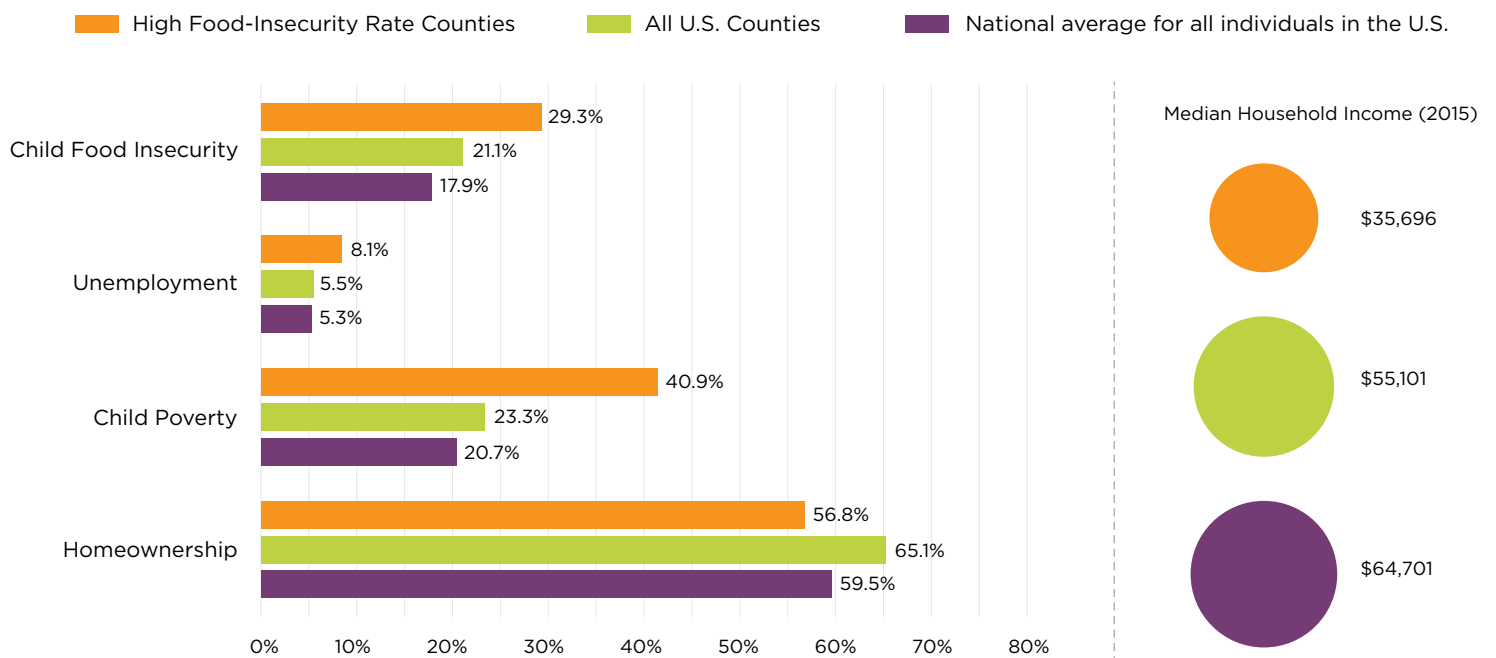


# CHILD FOOD INSECURITY AT THE COUNTY LEVEL

## County Child Food Insecurity Changes Between 2014 and 2015

Nationally, the percent of children living in food-insecure households fell significantly, from 20.9% in 2014 to 17.9% in 2015 (Coleman-Jensen et al., 2016a; see Figure 12). Consistent with this national trend, several counties across the country showed statistically significant decreases in child food insecurity; although county level estimates may be less stable from year to year than those at the state or national level due to smaller sample sizes, particularly in counties with very small populations of children. Because of the likelihood for inaccurate estimates from smaller sample sizes, specific county comparisons between 2014 and 2015 are not provided in this report.

**Figure 12: Average Child Food Insecurity and County-Level Economic Indicators, 2015**



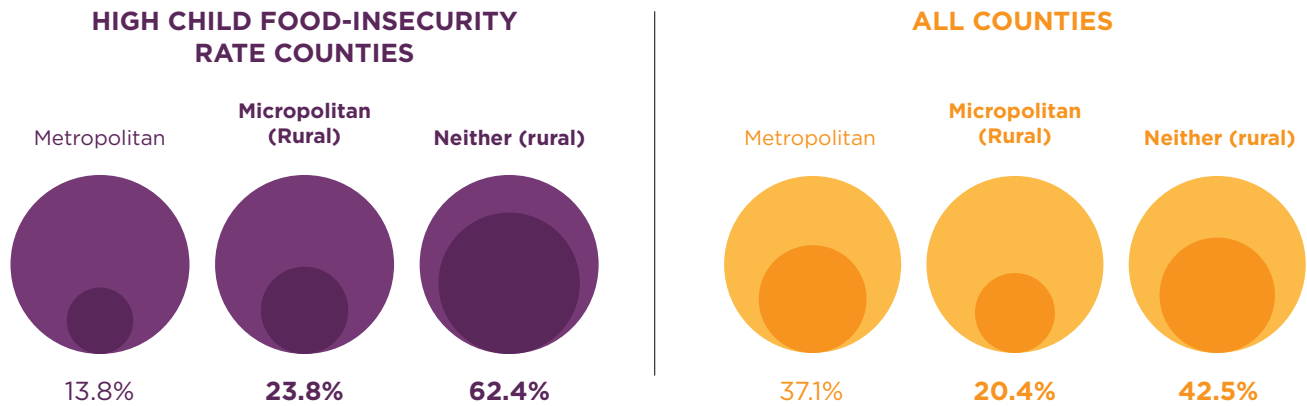
## County Child Food-Insecurity Rates

The variation in rates of child food insecurity at the county level demonstrates that this issue is much more pervasive in specific communities, although no county is free of child food insecurity. Across the 314 counties that fall into the top 10% for the highest child food-insecurity rates, the percent of children living in food-insecure households ranges from 27% to 41%. These counties also have notably higher poverty rates compared to the rest of the nation. Across the highest child food-insecurity counties, an average of 41% of children live in poverty, compared to 23% across all U.S. counties. These counties also suffer from low median incomes and high unemployment rates (see Figure 12).

Similar to the overall population, there is considerable overlap between the counties with the highest rates of child food insecurity and the persistent-poverty counties identified by the USDA: more than half (N=167) of the high child food-insecurity rate counties (N=316) are also persistent poverty counties. In 11 of the top 10% of

counties with the highest child food insecurity rates, more than 35% of children live in food-insecure households, including Issaquena County, Mississippi with a rate of 41%. Ten of these counties are designated as persistent-poverty counties by the USDA and are home to a majority non-white population, consistent with the overall findings that minority groups in some of these communities are disproportionately affected by longstanding poverty and systemic challenges. Two counties, Issaquena County, Mississippi and Kusilvak Census Area, Alaska, have higher child food-insecurity rates than even the highest rate of food-insecurity among the general population: 38% in Jefferson County, Mississippi. It is important to note that child food insecurity is more pervasive in rural areas. Eighty-six percent of high child food-insecurity counties are classified as rural, even though only 63% of U.S. counties are rural (see Figure 13).

**Figure 13: Child Food Insecurity in Rural America**



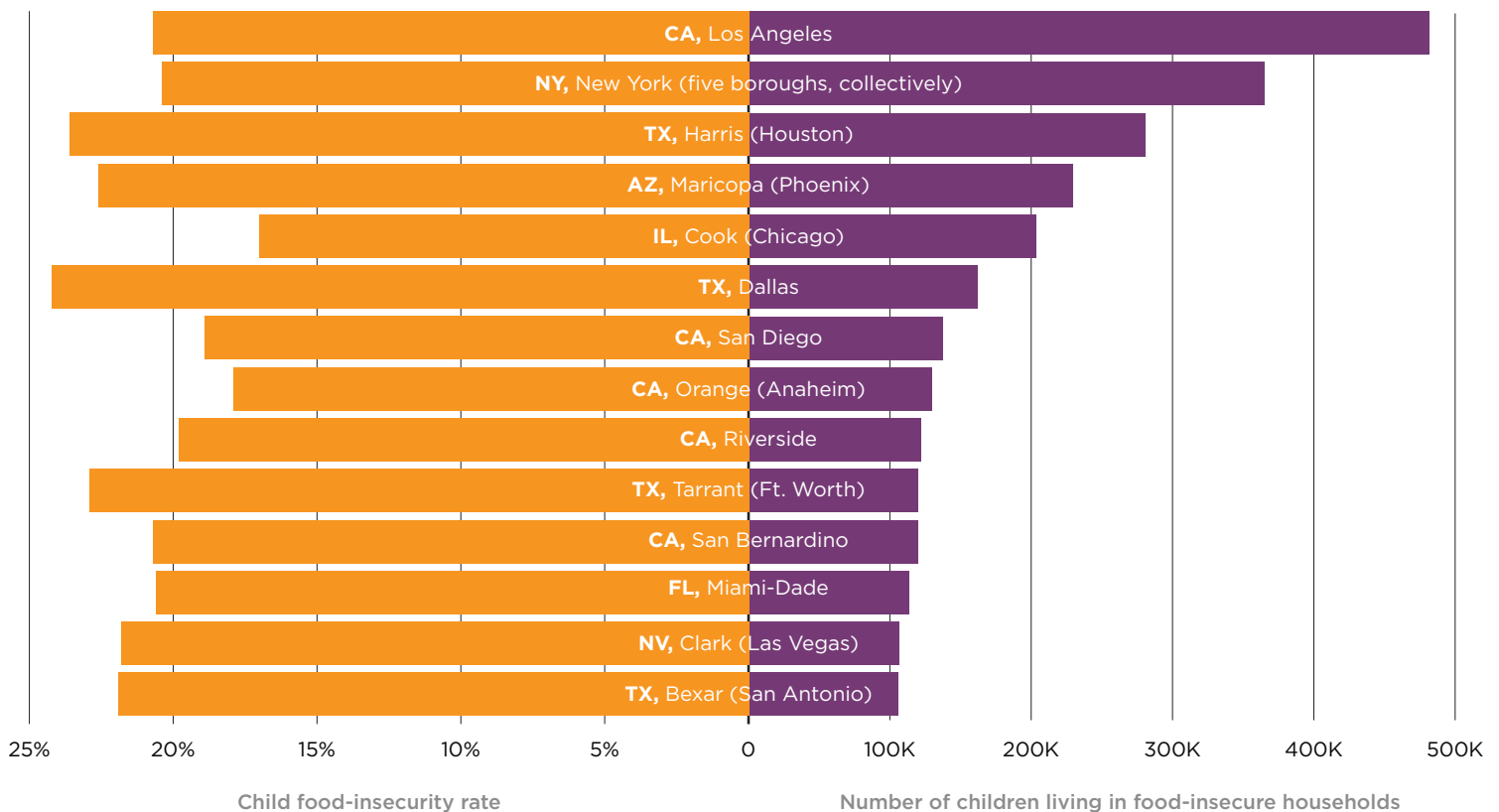
**Counties With the Largest Numbers of Food-Insecure Children**

Although the rate of child food insecurity is one important indicator of need, even counties with modest rates may still be home to large numbers of children whose families are food insecure. There are 14 counties in the U.S. with more than 100,000 food-insecure children (see Figure 14). For example, Los Angeles County, California is home to over 480,000 food-insecure children. Cook County, Illinois and Harris County, Texas both fall into this group and contain the third and fourth most populous cities in the United States (Chicago and Houston, respectively). Across the five counties that comprise New York City, there are nearly 400,000 food-insecure children in total. Counties

with more than 100,000 food-insecure children have an average child food-insecurity rate of 21%, an average child poverty rate of 25% and an average unemployment rate of 6%.

Although these counties may exhibit lower rates of child food insecurity than others, the fact that they are home to a large number of food-insecure children illustrates that they still face real challenges in addressing the need in their communities due to the sheer number of children whose families may be in need.

**FIGURE 14: COUNTIES WITH MORE THAN 100,000 FOOD-INSECURE CHILDREN, 2015**



# CHILD FOOD INSECURITY AT THE CONGRESSIONAL DISTRICT LEVEL

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Similar to findings at the county and state level, no congressional district is free of child food insecurity. Rates range from an estimated low of 9% (more than 16,000 children) in North Dakota's At Large congressional district to 31% (more than 50,000 children) in Georgia's 2nd congressional district. The congressional district with the largest number of food-insecure children is California's 16th, where an estimated 66,350 children (29%) live in food-insecure homes.

The congressional districts with the highest rates of child food insecurity (the 45 that fall into the top 10% among all districts) have an average rate of 27%, compared to 20% of children in the average district. Incomes in these districts are also much lower; the average child poverty rate across these districts is 35%, compared to 21% in the average district.

## CHILD FOOD INSECURITY AND INCOME

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In recognition of the importance of federal child nutrition programs to the development of low-income children, *Map the Meal Gap* also provides estimates around whether children in food-insecure households are income-eligible for these programs.

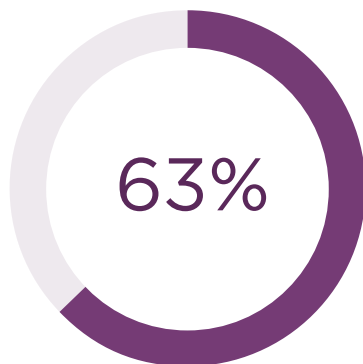
In 95% of U.S. counties (N=2,999), a majority of food-insecure children live in households with incomes at or below 185% of the federal poverty line, meaning they are likely eligible for government programs targeted for children like WIC and school lunch. Among the high child food-insecurity counties, an average of 81% of food-insecure children live in households with incomes below 185% of the poverty line. Consequently, the overwhelming majority of food-insecure children in these counties are likely eligible to receive assistance from child nutrition programs. It is nonetheless critically important to understand the income composition of the food-insecure population in each county and congressional district to help flag where outreach may be needed to maximize participation in these programs.

These data can enable state and local legislators, food banks and other community leaders to tailor efforts to best address the need within their own communities and understand where they can strengthen the safety net to ensure no child suffers. Children's vulnerability to recessions and other economic shifts depends on the strength of the social safety net.



### Charitable and Federal Food Assistance

As high levels of food insecurity persist, the number of families turning to charitable food assistance organizations remains at high levels. In 2013, more than 46 million people, representing nearly 15.5 million households, received assistance through the Feeding America network of food banks. Of the 46 million individuals reached by food banks, more than 12 million were children, 3.5 million of whom were ages 5 or younger. Nearly two-thirds (63%) of households served by Feeding America report planning to get food at meal or grocery programs on a regular basis to help with their monthly food budget, as opposed to waiting to come on an emergency basis (Hunger in America, 2014).

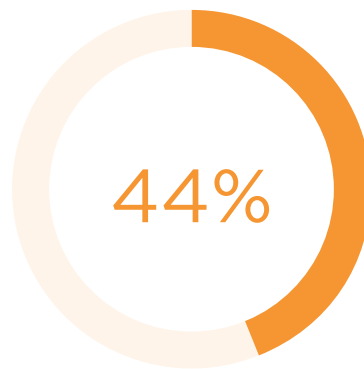


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**NEARLY 63% OF HOUSEHOLDS SERVED BY FEEDING AMERICA REPORT PLANNING TO GET FOOD AT MEAL OR GROCERY PROGRAMS ON A REGULAR BASIS TO HELP WITH THEIR MONTHLY FOOD BUDGET**

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While charitable assistance plays a critical role in helping families meet their food needs, federal nutrition programs are the first line of defense against hunger. WIC supports pregnant, breastfeeding and postpartum women and their infants and children up to age 5. In federal fiscal year 2016, more than 7 million women, infants and children participated in WIC (USDA, FNS, 2017). The NSLP, SBP and Summer Food Service Program (SFSP) provide meals to low-income children in school and during school breaks. Over 100,000 schools operate NSLP and during federal fiscal year 2016, 22 million children received free or reduced-price lunch through NSLP (USDA FNS, 2017). SNAP provides electronic benefit cards to households to purchase groceries, and although it is not limited to children, 44% of all SNAP participants in federal fiscal year 2015 were children (approximately 20 million children) (Gray et al., 2016).



**44% OF ALL SNAP PARTICIPANTS IN FEDERAL FISCAL YEAR 2015 WERE CHILDREN**

## Limitations of Federal Nutrition Programs

Although many food-insecure households are also low-income, households with incomes substantially higher than the poverty line can also experience food insecurity. There may be a number of reasons why these households struggle. As discussed in the Methodology Overview (see page 7), unemployment is a strong risk factor for food insecurity; however, other challenges such as income shocks, medical expenses, living in a high-cost area and underemployment may also contribute to these households' struggles to meet their food needs. In the Feeding America research report *In Short Supply: American Families Struggle to Secure Everyday Essentials*, low-income families reported altering their food purchasing habits in order to afford non-food necessities such as soap, personal hygiene products and diapers, highlighting that non-food needs can place equal burden on a struggling household (Santos et al., 2013).

In many counties, there are still food-insecure children whose households have incomes above 185% of poverty, which likely render them ineligible for any federal assistance targeted specifically to children. In more than 100 counties, a majority of food-insecure children are unlikely to be eligible for assistance. Examples of food-insecure children are found in diverse locations around the country. For example, in Daggett County, Utah, approximately 30% of all children are food insecure and 93% of these children live in households with incomes above 185% of the poverty line. In Suffolk County, New York, over half (51%) of the estimated 45,860 food-insecure children are living in households with incomes above 185% of the poverty level. Some counties also have high child food-insecurity rates and low median incomes, but relatively high percentages of children living in ineligible households. In Clinch County, Georgia, for example, 30% of children are estimated to be food insecure and family median income is \$19,864 (less than one third the national average). However, 1 in 3 food-insecure children in Clinch County (32%) are estimated to reside in households with incomes too high to qualify for government food programs.



**1 IN 5 FOOD-INSECURE CHILDREN ARE ESTIMATED TO LIVE IN HOUSEHOLDS THAT DON'T QUALIFY FOR GOVERNMENT FOOD PROGRAMS.**





## IMPLICATIONS FOR POLICY & PRACTICE

Feeding America conducts *Map the Meal Gap* annually to gain a clearer understanding of food insecurity at the local level. The findings demonstrate a profound need for both public and private food assistance in every part of the country. The information shows that strong anti-hunger programs are needed at the local and national level.

Section

7



The *Map the Meal Gap* project is focused on equipping communities, service providers, and policymakers with data and analytical tools to help them understand the prevalence and dynamics of food insecurity at the local level so that they may better respond to the need. The data in this report suggest that there are several key areas where policymakers and program administrators can more effectively address food insecurity.

In 2015, national food insecurity rates finally experienced a modest, albeit statistically significant decline from the prior year, continuing the downward trend since the 2011 peak following the Great Recession. Although fewer people nationwide are food insecure, *Map the Meal Gap 2017* finds that the individual need among people who are food insecure has increased, as evidenced by the increased amount of money food-insecure families report needing to meet their food needs. The report also shows that despite these improvements, food insecurity still persists in every community in the United States. This is important for policymakers as they consider benefit levels and eligibility rules for federal programs as well as support for charitable programs.

Furthermore, recent research demonstrates a number of negative health consequences associated with food insecurity, particularly among children and seniors (Gundersen & Ziliak, 2015; Gundersen et al., 2011; Seligman et al., 2014; Seligman et al., 2009). Those particularly vulnerable are older adults between age 50 and 64, as they are not yet of retirement age and thus ineligible for safety net programs like Medicare and Social Security (Baby Boomers and Beyond, 2015). Ensuring that food-insecure individuals – children and seniors in particular – have access to adequate and nutritious food may not only help reduce their risk of developing associated physical and mental health issues, but also improve the strength of the broader community. When residents in need are provided with the social support they need to thrive, everyone benefits (Hansen, 2010). The health consequences and economic costs of food insecurity make confronting it an economic, political and social imperative.



## SNAP

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Federal nutrition assistance programs support millions of Americans who are working or looking for work, as well as Americans who may be unable to work, like seniors and people living with disabilities. The Supplemental Nutrition Assistance Program (SNAP) is the cornerstone of the federal nutrition safety net and is one of the country's most successful federal programs, and has shown a demonstrated impact on improving food insecurity for those who access it (Rosenbaum, 2013). SNAP provides responsive assistance to Americans during times when they are struggling. The program is designed to respond to changes in need; expanding as the economy falters and during natural disasters, and shrinking as the economy improves and families get back on their feet. Although the program is not explicitly targeted towards children, SNAP continues to serve as the first line of defense against child hunger. In 2015, 44% of SNAP participants were children (USDA, 2016). Any changes to SNAP that would create additional hurdles for those in need, such as block-granting the program at the state level or capping its funding level, would undermine the program's ability to ensure families and children have food on the table.

## TEFAP AND CSFP

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Some federal programs leverage the resources and structure of the charitable food assistance network to meet the nutritional needs of struggling families. Many Feeding America network food banks across the country serve as distribution partners for USDA's The Emergency Food Assistance Program (TEFAP), which helps provide low-income households and individuals with critical nutrition assistance in the form of donated foods. Similarly, the Commodity Supplemental Food Program (CSFP) is a USDA program that distributes food to low-income seniors, in many cases through the Feeding America network.

## CHILD NUTRITION PROGRAMS

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Other federal nutrition programs that are designed to feed children, like The Special Supplemental Nutrition Program for Women, Infants, and Children and programs that feed children in school, daycare, afterschool and summer settings. There is strong evidence that WIC and SNAP participation reduce household food insecurity (Metallinos-Katsaras et al., 2011; Mabli et al., 2013). Together, these programs weave a comprehensive nutritional safety net that serve children where they live, learn and play.



Despite their current reach, federal nutrition programs could do more to address food insecurity by improving the number of eligible individuals who participate. For example, compared to nearly 22 million children who receive free or reduced-price lunches each school day in 2015, only 12 million received breakfast during the school year and even fewer children (less than 4 million) received food assistance during the summer (USDA, 2016). In rural areas, like Leflore County, Mississippi, which has a food insecurity rate of 33%, it may be particularly difficult for eligible people to access these programs. As this report demonstrates, some of the most food-insecure counties are those in the South with small towns far from big cities. Residents of rural areas face transportation barriers to accessing grocery stores or program sites, and difficulties in obtaining application assistance or recertification for federal nutrition programs like SNAP. In rural areas, improved program access and innovative delivery models, along with streamlining program requirements for program providers and applications for individuals can help to improve participation rates. Policymakers should support alternative summer food delivery models, such as delivering meals to low-income neighborhoods rather than requiring families to find transportation to a summer site or allowing families to pick up a week's worth of meals to eat at home rather than requiring children to travel to the site each day.

State governments can also do more to ensure vulnerable populations have access to SNAP. For instance, only 42% of seniors who are eligible for SNAP are actually enrolled in the program, and some enrollees, such as individuals with disabilities, lack the resources to support themselves

without federal assistance. Restrictive time limits on those willing to work but unable to find sufficient employment can impede people's ability to receive SNAP benefits for the duration of their need. Policies like simplifying applications for senior populations and ensuring appropriate training, job placement or volunteer slots for able-bodied adults who are unemployed and food insecure, can help states ensure that their programs are effectively reaching those in need.

Research released by the USDA and further confirmed in this report show that not all food-insecure people qualify for federal nutrition assistance because many have incomes that place them above the threshold for program eligibility. The charitable sector has stepped in to serve those millions of individuals in need, along with families who do participate in federal programs but whose need extends beyond the level of benefits they receive.

Outside of the support provided by federal programs, Feeding America food banks across the country are also critical sources of food assistance for struggling families. In order to meet this need, food banks and other community organizations rely on support from a variety of sources, including individual and corporate giving, government commodities, and in-kind donations from the food industry. Reducing barriers to donation can help divert excess food from the landfill while giving food banks an opportunity to get this food to the tables of families in need. In addition to federal program interventions, legislators can also leverage tax policy to help strengthen the charitable sector.

The *Map the Meal Gap* studies are intended to shed light on the issue of food insecurity as a problem that exists in all communities across the United States. As evidenced throughout the report, the dimensions of food insecurity vary based on income, poverty, unemployment and homeownership across different regions, population densities and local economies. We encourage others to examine how local-level food-insecurity data relates to other indicators, such as health data, housing cost pressures and other measures of economic status. It is our hope that food banks, partner agencies, policymakers, business leaders, community activists and concerned citizens will use this data in their efforts towards ending hunger in America.





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