MAP THE MEAL GAP 2015

HIGHLIGHTS OF FINDINGS FOR OVERALL AND CHILD FOOD INSECURITY

MAP THE MEAL GAP

A Report on County and Congressional District Level Food Insecurity and County Food Cost in the United States in 2013

THE HOWARD G. BUFFETT FOUNDATION

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

FEEDING AMERICA®

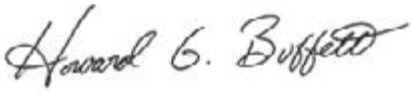
FOREWORD

The United States is one of the richest countries in the world yet every night, millions of Americans go to bed hungry. As a farmer, a businessman, and an advocate for improving the lives of others, I know that good information is an important starting point if we are going to solve big problems like hunger. I am proud to partner with Feeding America to advance their mission to end hunger in our country and provide stability for those in need.

The Howard G. Buffett Foundation is pleased to be the Founding Sponsor of Feeding America's signature study, *Map the Meal Gap*. In order to make our nation stronger and create a brighter future for everyone, we must first shine a light on the hidden hunger crisis in America and equip our citizens with the tools to fight for hunger relief where it is needed.

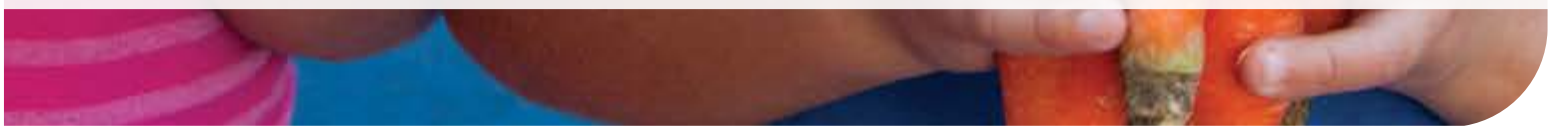
Since its inception in 2011, *Map the Meal Gap* has transformed the way Feeding America and anti-hunger advocates define and approach the need for food at the local level by providing critical information about the nature and extent of hunger in communities across the United States through a simple, accessible tool made available to the public.

Map the Meal Gap is building awareness and a growing understanding of how food insecurity impacts the different regions of our country. Working together, the Howard G. Buffett Foundation and Feeding America are on the leading edge of hunger research. It is our hope that as we continue to produce innovative, insightful portraits of hunger in the United States, we are helping to inspire new ideas and shape the national conversation around hunger.



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

CONTENTS



FEEDING AMERICA

ABOUT FEEDING AMERICA

Feeding America is the nationwide network of 200 food banks that leads the fight against hunger in the United States. Together, we provide more than 3 billion meals to more than 46 million people through 60,000 food pantries and meal programs in communities across America.

For more than 35 years, the Feeding America network has been assisting food-insecure families. Feeding America also supports programs that 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.

The Feeding America network serves nearly every metropolitan, suburban and rural community in all 50 states, DC and Puerto Rico. The Feeding America network serves people regardless of race, age, religion or status.

HOW WE WORK

WE SECURE DONATIONS

The Feeding America network secures donations from national and local retailers, food companies and government agencies.

WE MOVE FOOD

The Feeding America network of food banks moves donated food and grocery products to where they are needed most.

WE SAFELY STORE AND DISTRIBUTE DONATIONS

Member food banks ensure the safe storage and reliable distribution of donated goods to local charitable feeding programs.

WE FEED PEOPLE IN NEED

Food banks provide food and grocery items to people in need at food pantries, soup kitchens, youth programs, senior centers and emergency shelters.

GLOSSARY

AGENCY
A charitable organization that provides the food supplied by a food bank directly to clients in need through various types of programs.

AMERICAN COMMUNITY SURVEY (ACS)
A sample survey of 3 million addresses administered by the U.S. Census Bureau. In order to provide valid estimates for areas with small populations, the county-level data extracted from the ACS for *Map the Meal Gap* were averaged over a five-year period.

AVERAGE MEAL COST
The national average amount of money spent per week on food by food-secure people, as estimated in the Current Population survey, divided by 21 (assuming three meals eaten per day).

CHILD FOOD INSECURITY
A condition assessed in the Current Population Survey and represented in U.S. Department of Agriculture (USDA) food-security reports. It is 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 (CFI) RATE
The approximate percentage of children (under 18 years old) living in households in the U.S. that experienced food insecurity at some point during the year. The child food-insecurity measures reflected in this study are derived from the same set of questions used by the USDA to establish the extent of food insecurity in households with children at the national level. "Child food insecurity" and "CFI" are used interchangeably throughout this report.

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. Households are selected to be representative of civilian households at the state and national levels. The CPS does not include information on individuals living in group quarters, including nursing homes or assisted living facilities.

EMERGENCY FOOD ASSISTANCE
Charitable feeding programs whose services are provided to people in times of need. Examples include food pantries, kitchens and shelters.

FEDERAL NUTRITION PROGRAM ELIGIBILITY THRESHOLD
The point at which household income is deemed too high to allow for eligibility for federal nutrition programs such as the National School Lunch Program (NSLP) or the special supplemental Nutrition Program for Women, Infants, and Children (WIC).

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 the products directly to clients through various programs. Some food banks also distribute food directly to clients in need.

FOOD BUDGET SHORTFALL
The weekly (or annualized) additional dollars food-insecure people report needing to meet their food needs, as assessed in the Current Population Survey.

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

FOOD-INSECURITY RATE
The percentage of the population that experienced food insecurity at some point during the year.

HIGH FOOD-INSECURITY COUNTIES
The counties with food-insecurity (or child food-insecurity) rates falling into the top 10 percent as compared with the food-insecurity (or child food-insecurity) rates among all counties in the United States.

THE MEAL GAP
A conversion of the total annual food budget shortfall in a specified area divided by the weighted cost per meal in that area. The meal gap number represents the translation of the food budget shortfall into a number of meals.

METROPOLITAN/MICROPOLITAN
Metropolitan areas contain a core urban area of 50,000 or more residents and micropolitan areas contain a core urban area of at least 10,000 (but fewer than 50,000) residents, as defined by the U.S. Office of Management and Budget (OMB). Each metropolitan or micropolitan area consists of one or more counties and includes the counties containing the core urban area, as well as any adjacent counties that have a high degree of social and economic integration with the urban core. In this report, rural counties are those that are represented as neither metropolitan nor micropolitan by the OMB.

PERCENT OF POVERTY LINE
A multiple of the federally established poverty guideline, which varies based on household size. These percentages are used to set federal nutrition program thresholds for eligibility, such as the SNAP threshold.

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.

PRICE INDEX/LOCAL COST OF FOOD INDEX
A number used to indicate relative differences in prices across geographies. In the case of this report, the index for any particular county is equal to the cost of a standard market basket of goods in that county divided by the average market basket cost across the U.S. as calculated by Nielsen.

SNAP ELIGIBILITY THRESHOLD
A dollar amount (based on percent of poverty line) at which a household's income is deemed too high to be eligible for the Supplemental Nutrition Assistance Program (SNAP, formerly the Food Stamp Program). Income eligibility is one aspect of eligibility, which also includes assets and net income. These income thresholds and other eligibility tests vary by state.

WEIGHTED COST PER MEAL
A local estimate of meal costs calculated by multiplying the average meal cost by the appropriate food cost price index for the specific geographic area.

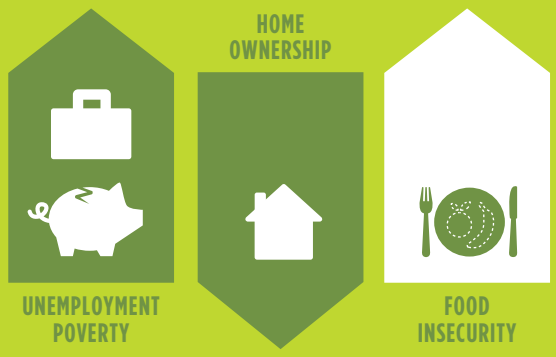
WHAT IS FOOD INSECURITY?

LACK OF ACCESS, AT TIMES, TO ENOUGH FOOD FOR AN ACTIVE, HEALTHY LIFE FOR ALL HOUSEHOLD MEMBERS

FOOD INSECURITY EXISTS IN EVERY COUNTY IN THE U.S.

49M PEOPLE* — **1 in 6**

16M CHILDREN — **1 in 5**



AS POVERTY AND UNEMPLOYMENT INCREASE — AND — HOME OWNERSHIP DECREASES **FOOD INSECURITY INCREASES**

FOOD-INSECURE PEOPLE REPORT NEEDING AN ADDITIONAL FOOD BUDGET OF

$16.28 PER PERSON/WEEK

ANNUALIZED ACROSS ALL FOOD-INSECURE PEOPLE IN THE U.S. THAT IS A

$24.2B FOOD BUDGET SHORTFALL

*Coleman-Jensen, A., C. Gregory, & A. Singh. Household Food Security in the United States in 2013. U.S. Department of Agriculture, Economic Research Service, September 2014. Print.

ABOUT *MAP THE MEAL GAP 2015*

We believe that addressing the problem of hunger requires a thorough understanding of the problem itself. For the fifth consecutive year, Feeding America has undertaken the *Map the Meal Gap* project to continue learning about the face of food insecurity at the local level. By understanding the population in need, communities can better identify strategies for reaching the people who most need food assistance.

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 of 2014, the Economic Research Service at the United States Department of Agriculture (USDA) released its most recent report on food insecurity, indicating that 49 million people in the United States are living in food-insecure households, nearly 16 million of whom are children (Coleman-Jensen et al., 2014). 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 state and national level USDA food-insecurity data to estimate the need.

RESEARCH GOALS

In developing the *Map the Meal Gap* analysis, Feeding America identified several research goals for the project. 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.

It should 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.

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

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

It should 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 nutrition 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.

It should be updated on an annual basis to reflect changing conditions. By using national and annual USDA food-insecurity data, county-level estimates can be calculated each year. The data presented in this report are drawn from 2013 Bureau of Labor Statistics data and the American Community Survey averages from the rolling 2009-2013 period (the most recent time data available across all counties).

However, food banks are rooted in their local communities and need specific information at the ground level in order to be responsive to unique local conditions. While state and national level food-insecurity data were available, food banks used poverty rates as the default indicator of local food needs because it was one of few variables available at the county level. However, national data reveal that about 55 percent of people struggling with hunger actually have incomes above the federal poverty level and 57 percent of poor households are food secure (Coleman-Jensen et al., 2014). Measuring need based on local poverty rates alone provides an incomplete illustration of the potential need for food assistance within our communities. More accurate assessments of need across all income levels within our service areas assist the Feeding America network in strategic planning for charitable food services, as well as inform the public policy discussion so that vital federal nutrition programs can better serve those in need.

Most importantly, better community-level data is a valuable resource for engaging community members, leaders and partners in our quest 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: food-insecurity estimates, child food-insecurity estimates, food price variations and food budget shortfalls.

A complete printable, interactive map of these data can be found online at **map.feedingamerica.org**.

METHODOLOGY OVERVIEW

The following provides additional information on the methodology for this study.

A more detailed technical brief is also available at **map.feedingamerica.org**.

FOOD-INSECURITY ESTIMATES

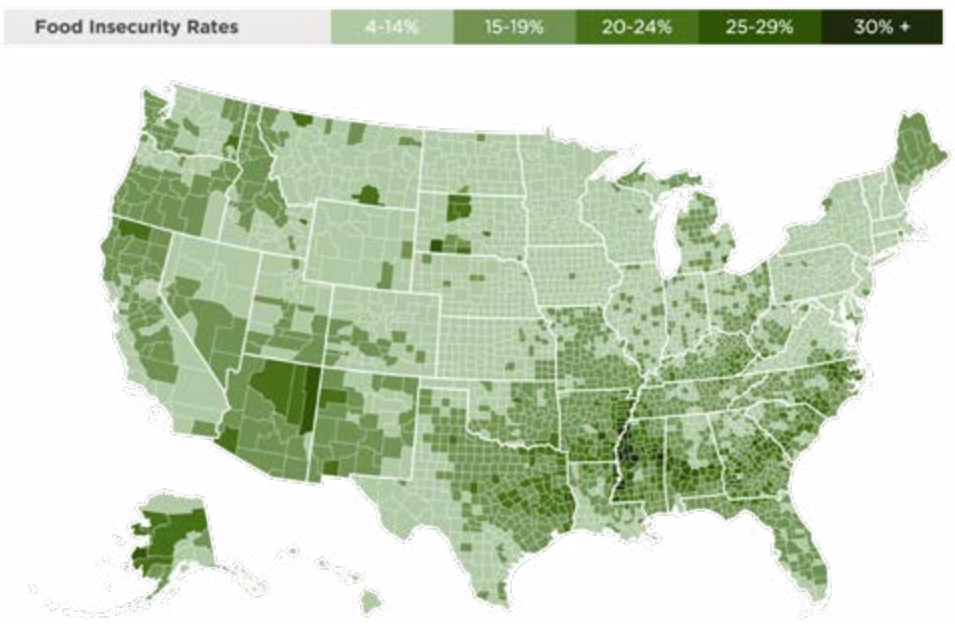
Current Population Survey (CPS) data supplemented with data from the Bureau of Labor Statistics (BLS) were used to assess the relationship between food insecurity and its determinants at the state level. In particular, the following indicators were used: the unemployment rate, the poverty rate, median income, the homeownership rate, the percent African American and the percent Hispanic. These variables were selected because they are publicly available at both the county and state level and are associated with food insecurity. In addition, the model controls for state-specific and year-specific factors. County-level estimates were derived from the state-level relationships that exist between these indicators and food insecurity. Estimates were sorted by income categories associated with eligibility for federal nutrition programs, such as the Supplemental Nutrition Assistance Program (SNAP) using American Community Survey (ACS) data on population and income at the county level.

The food-insecurity model illuminates the effect that the unemployment rate, the poverty rate and other factors have on food insecurity.

ESTIMATING FOOD INSECURITY AT THE COUNTY LEVEL

FIGURE 01

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 by county.



Visit **map.feedingamerica.org** for a complete printable, interactive map of county-level food insecurity and food-cost data.

As expected, all else equal, 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 0.18 increase in food insecurity. Although the effect of a one percentage point increase in unemployment is larger than a one percentage point increase in poverty as described above, the mean value of poverty is higher than unemployment. To control for this we evaluate what occurs when unemployment and poverty are both at their mean values and consequently find that the relative effect of unemployment is higher than poverty for the full population.

CHILD FOOD-INSECURITY ESTIMATES

Recognizing that children are particularly vulnerable to the economic challenges facing families today, Feeding America has replicated the food-insecurity model used for the general population to reflect the need among children (see page 26 for results).

Similar to the methodology used to derive food-insecurity estimates for the overall population, CPS data were used to assess the relationship between the proportion of children in any state living in food-insecure households and key indicators of food insecurity. The following indicators were used to calculate estimates of child food insecurity at the county, congressional district and state levels: unemployment rates, child-poverty rates, median income for families with children, homeownership rates for families with children, percent African American children and percent Hispanic children. As with the overall food-insecurity estimates, these variables were selected because they are associated with food insecurity and are publicly available at the county, congressional district and state levels through the CPS, BLS and ACS.

Estimates were also developed to sort the child food-insecurity estimates into categories based on household income; for the child food-insecurity portion of this study, the categories are based on eligibility for child nutrition programs (above and below 185 percent 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).

FOOD PRICE VARIATION

Nielsen, on behalf of Feeding America, analyzed nationwide sales data from Universal Product Code (UPC)-coded food items to establish a relative price index that allows for comparisons of food prices across the country.[1] Nielsen assigned each UPC-coded food item to one of the 26 food categories in the USDA Thrifty Food Plan (TFP). These categories were weighted within the TFP market basket based on pounds purchased per week by age and gender. This total market basket was then translated into a county-specific multiplier (normalized to a value of 1).

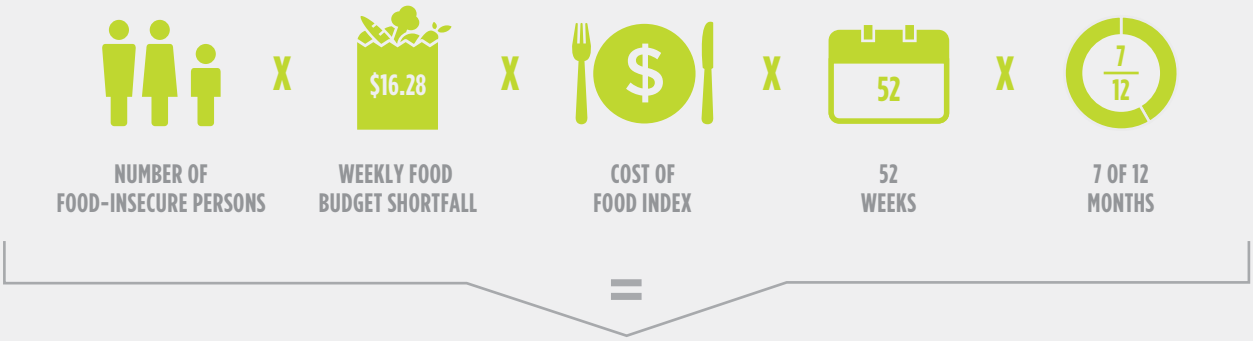
This multiplier can be applied to any dollar amount to estimate the relative local price of the item in question. The use of the TFP market basket is simply a standardized way to understand the relative differences in major food categories and was not selected to reflect any evaluation of the appropriate mix of food that people might purchase.

UNDEREMPLOYMENT

Underemployment occurs when a person is in the labor force, but is not obtaining enough hours or wages to make ends meet. This includes people who work part-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 a key driver of food insecurity, underemployment can also lead to a limited household budget for food and is not accounted for in the unemployment rates produced by the Bureau of Labor Statistics. Unfortunately, underemployment cannot be included in the model estimating county-level food insecurity because the data are not available.

[1] In cases of counties with populations smaller than 20,000, Nielsen imputed a price based on data collected from all surrounding counties.

FIGURE 02



FOOD BUDGET SHORTFALL AND NATIONAL AVERAGE MEAL COST

There is a question on the CPS that 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, food-insecure individuals reported needing an additional $16.28 per person per week, a three percent increase from $15.82 in 2012.

A general estimate of the total budget shortfall among the food insecure can be arrived at by multiplying this amount by the number of food-insecure persons. Because analyses of the CPS data by the USDA reveal that food-insecure households are not food insecure every day of the year but typically struggle with hunger for about seven months per year, 7/12 is used as a multiplier to arrive at an estimated annual food budget shortfall (Coleman-Jensen et al., 2014).

In recognition that food costs are not the same across the nation, the average food budget shortfall was adjusted by the local cost-of-food index for each county. The national cost-of-food index is set at 1. The national average is expressed as the equation above in *Figure 02*.

The food budget shortfall is then translated into an estimated meal shortfall, or "meal gap," using a national average per-meal cost. The national cost-per-meal estimate was derived from a question on the CPS asking how much the respondent's household spends on a food in a week. We only include food-expenditure data as 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 $58.59 per week, which, when divided by 21 (based on the assumption of three meals per day, seven days per week), amounts to an average cost per meal of $2.79.

As with the food budget shortfall, the per-meal cost of $2.79 is adjusted for differences in food prices across counties by 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 food budget shortfall into an estimated number of missing meals. The cost-per-meal and meal-gap estimates 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 the 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 additional insight into the scope of the problems facing those who are food insecure and struggling to make ends meet.

COUNTY-LEVEL FOOD INSECURITY: RESULTS AND DISCUSSION

The *Map the Meal Gap* research provides detailed information for every county and congressional district in the United States, including the food-insecurity rate, the number of individuals who are food insecure and income eligibility for federal programs within the food-insecure population.

TRENDS IN COUNTY FOOD-INSECURITY RATES BETWEEN 2011 AND 2013

The following section reviews findings from the fifth year that Feeding America has conducted the *Map the Meal Gap* analysis. Food-insecurity rates for the most recent three-year period (2011-2013) were compared to look for any notable shifts. Food-insecurity estimates at the county level may be less stable from year to year than those at the state or national level due to smaller geographies, particularly in counties with very small populations. Efforts are taken to guard against unexpected fluctuations that can occur in these populations by using the five-year averages from the ACS for key variables, including poverty, median income, homeownership and the percent of the population that is African American or Hispanic. The other key variable in the model—unemployment—is based on a one-year average estimate for each county as reported by the Bureau of Labor Statistics. The model looks at the relationship between all of these variables and the rate of food insecurity as reported by the USDA in order to generate the estimates.

Nationally, the food-insecurity rate remained essentially unchanged between 2013 and 2012 at 15.8 percent and 15.9 percent respectively (Coleman-Jensen et al., 2014). Poverty, a key national and county-level economic indicator that influences food insecurity, also stayed approximately the same, although unemployment, another key driver of the *Map the Meal Gap* food-insecurity model, decreased (see *Table 01*). The average unemployment rate of the counties decreased from 7.7 percent to 7.3 percent, while the average poverty rate increased slightly from 16.3 percent to 16.7 percent. Similar to the average poverty rate, average county-level food-insecurity rates across the country increased slightly between 2012 and 2013, from 14.7 percent to 15.1 percent for all counties, although individual county changes were statistically significant in less than one percent of counties. The average of high food-insecurity rate counties—that is, the 10 percent of counties with the highest rates of overall food insecurity—increased slightly from 22.5 percent to 23.0 percent. Similar to the averages among all counties, the average poverty rate of the high food-insecurity rate counties again increased from 2012 to 2013 while unemployment rates continued to decrease,[2] mirroring the national-level findings (see *Table 01*). Across all counties, homeownership fell slightly from 2012 to 2013, but median household income increased in 2013; however, among counties with the highest rates of food insecurity, homeownership inched upward while median household income edged downward.

These one-year changes between 2012 and 2013 are also consistent with the two-year trends since 2011. Similar trends hold even when the analysis is limited to the 135 counties (4 percent of all counties) that experienced a statistically significant change in food insecurity between 2011 and 2013. The average county-level food-insecurity rate across these counties increased (from 12.5 percent in 2011 to 14.1 percent in 2013). Poverty rates for these counties increased from 2011 to 2013 (13.6 percent versus 15.2 percent) while unemployment rates decreased (6.5 percent to 6.0 percent), mirroring the national-level findings. In addition, homeownership fell from 2011 to 2013 across these 135 counties (74.2 percent versus 71.9 percent) while median household income remained essentially unchanged ($43,768 versus $43,804).

The following sections explore current county-level findings in greater detail. Please note that while substantial changes between 2012 and 2013 are highlighted, small changes are not.

AVERAGE COUNTY-LEVEL ECONOMIC INDICATORS, 2013 TABLE 01

	Food-Insecurity Rates		Unemployment Rates		Poverty Rates		Homeownership Rates		Median Household Income	
County Grouping	2012	2013	2012	2013	2012	2013	2012	2013	2012	2013
High Food-Insecurity Rate Counties	22.5%	23.0%	11.3%	10.5%	26.7%	27.1%	66.0%	66.3%	$33,480	$33,382
All U.S. Counties	14.7%	15.1%	7.7%	7.3%	16.3%	16.7%	72.6%	72.2%	$45,644	$45,937
National Average for All Individuals in the U.S.	15.9%	15.8%	8.1%	7.4%	15.9%	15.8%	63.9%	63.5%	$51,371	$52,250

[2] 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.

COUNTIES WITH THE HIGHEST RATES OF FOOD INSECURITY

To better understand those counties with the highest rates of food insecurity, we looked at those falling within the top 10 percent of the 3,143 counties in the United States (N=315).[3]

Although the average of all the U.S. counties' food-insecurity rates remains at just over 15 percent, the average food-insecurity rate for these 315 "high food-insecurity rate" counties is still 23 percent. In other words, within these highest risk counties, nearly one in four residents is struggling with hunger.

GEOGRAPHY

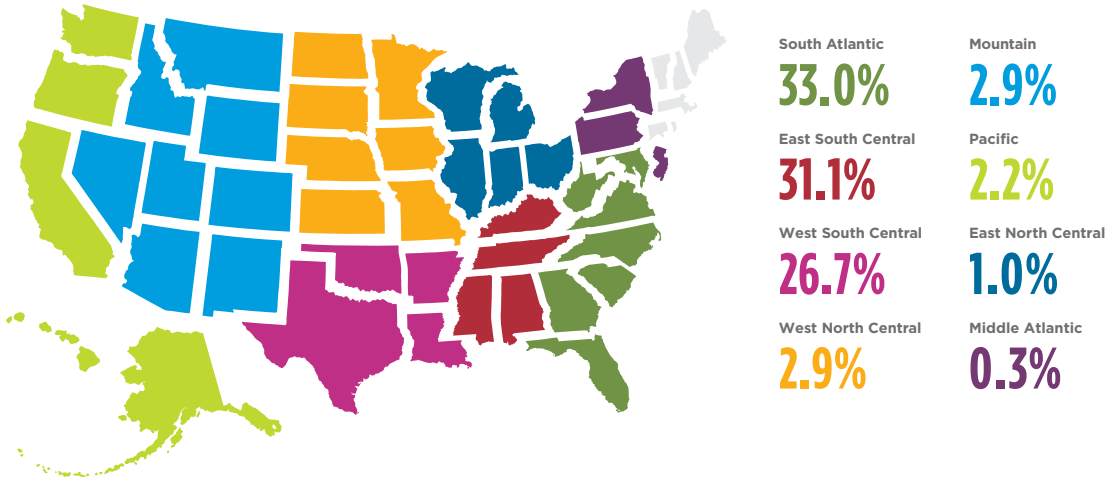
High food-insecurity rate counties were analyzed according to the geographic classifications of metropolitan, micropolitan and nonmetropolitan ("rural").[4] Consistent with findings in 2012, the high food-insecurity rate counties were less likely to be metropolitan than the average county in the U.S. and more likely to be rural, as shown in *Table 02* on page 13. For the second straight year, the proportion of high food-insecurity counties that were rural continued to grow in 2013 (54 percent in 2013 versus 52 percent in 2012 and 48 percent in 2011). The proportion of high food-insecurity counties that were metropolitan, however, fell slightly again in 2013 (22 percent) when compared to 2012 (24 percent) and 2011 (23 percent). The high food-insecurity rate counties are found in eight of the nine Census geographic divisions identified by the U.S. Census Bureau (see *Figure 03*),[5] with the heaviest concentrations found in the South Atlantic and East South Central states. Encompassing the South Atlantic, East South Central, and West South Central divisions, the South contains over 90 percent of the high food-insecurity rate counties. Although the New England division is not represented in the high food-insecurity rate counties, this area includes some of the most populous counties in the U.S. and thus, has some of the largest numbers of food-insecure individuals (see page 14).

UNEMPLOYMENT, POVERTY, MEDIAN INCOME AND HOMEOWNERSHIP IN HIGH FOOD-INSECURITY AREAS

By definition, the high food-insecurity rate counties are more economically disadvantaged than the national average for all counties and for the U.S.

HIGH FOOD-INSECURITY RATE COUNTIES BY CENSUS DIVISION, 2013 [6]

FIGURE 03



[3] All 3,143 counties defined by the U.S. Census Bureau were included in the analysis of 2013 data.

[4] These geographic entities are defined by the U.S. Office of Management and Budget (OMB). See Glossary for more information.

[5] Information about the U.S. Census Bureau Regions and Divisions can be found online at https://www.census.gov/geo/maps-data/maps/pdfs/reference/us_regdiv.pdf.

[6] East North Central states include IL, IN, MI, OH, WI; East South Central states include: AL, KY, MS, TN; Middle Atlantic states include: NJ, NY, PA; Mountain states include: AZ, CO, ID, MT, NV, NM, UT, WY; New England states include: CT, MA, ME, NH, RI, VT; Pacific states include: AK, CA, HI, OR, WA; South Atlantic states include: DC, DE, FL, GA, MD, NC, SC, VA, WV; West North Central States include: IA, KS, MN, MO, NE, ND, SD; West South Central states include: AR, LA, OK, TX.

population as a whole, as seen in *Table 01* on page 11. The average annual unemployment rate for this group of counties was nearly 11 percent in 2013, compared to seven percent across all counties. Yuma County, Arizona had the highest unemployment rate in 2013 at 28 percent. The average of county-level poverty rates among this group was also high, averaging 27 percent in 2013 compared to 17 percent for all counties, and as high as 53 percent in Shannon County, South Dakota.

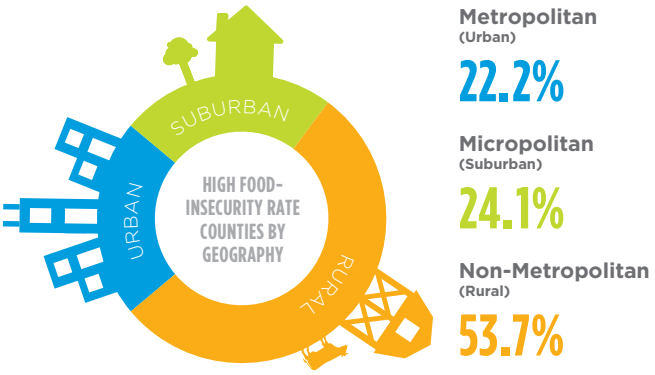
90% THE SOUTH CONTAINS OVER 90 PERCENT OF THE HIGH FOOD-INSECURITY RATE COUNTIES.

Not surprisingly, the average median household income in this group was lower: $33,382 versus $45,937 for all counties. The lowest median income in the group was $19,986 in Owsley County, Kentucky, less than half of the average of all counties.

Homeownership rates were also lower in the high food-insecurity counties at an average of 66 percent compared to 72 percent for all counties.

HIGH FOOD-INSECURITY RATE COUNTIES BY GEOGRAPHIC AREAS

CHART 01



HIGH FOOD-INSECURITY RATE COUNTIES BY GEOGRAPHIC AREAS, 2013

TABLE 02

County Type	High Food-Insecurity Rate Counties	All Counties
METROPOLITAN	22.2%	37.1%
MICROPOLITAN	24.1%	20.4%
NON-METRO/RURAL	53.7%	42.5%

PERSISTENT-POVERTY COUNTIES

The USDA Economic Research Service (ERS) developed the term persistent poverty to track counties with consistently high percentages of the overall population living below the poverty line. A county is considered a persistent-poverty county if at least 20 percent of its population has been living in poverty over the last 30 years (USDA ERS, 2014). Currently there are 353 of these counties, 85 percent of which are located in non-metro, or rural, communities. There is a high degree of overlap between these counties and those that fall into the top 10 percent for food insecurity: nearly two-thirds (63%) of the counties with the highest rates of food insecurity are also considered persistent poverty counties. This confluence of the two categories underscores the point that low-income people living in these areas are facing a number of interrelated problems that require complex, long-term solutions.

FURTHER EXPLORATIONS OF COUNTIES

The following section provides detail on counties with low food-insecurity rates and counties with high numbers of food-insecure individuals.

LOW FOOD-INSECURITY RATES

Twenty-six of the 34 counties with the lowest estimated food-insecurity rates during 2013 are found in North Dakota. This is consistent with the state's low unemployment rate and below-average poverty rate. The number of food-insecure individuals in these 26 North Dakota counties ranges from 30 to 5,270, and the food-insecurity rate ranges from four percent to seven percent. Fairfax County, Virginia, with a food-insecurity rate of just over six percent, is one of the 34 counties with the lowest estimated food-insecurity rates; however, there are still over 67,000 people who are food-insecure in this county. It is important to note, as shown in *Table 03*, that in more populous areas, low food-insecurity rates do not necessarily translate into low numbers of food-insecure people.

COUNTIES WITH THE LARGEST NUMBER OF FOOD-INSECURE INDIVIDUALS

While food-insecurity rates among the population are an important indicator of the extent of need, there are a number of counties that may not have the highest food-insecurity rates but in terms of population, represent some of the biggest challenges. As seen in *Table 03*, the top 10 geographies with respect to the number of food-insecure persons are all in large metropolitan areas, consistent with their large populations.

The average of the food-insecurity rates for the 50 counties with the highest number of food-insecure people is 16 percent, the average of unemployment rates is eight percent and the average of homeownership rates is 56 percent. The food-insecurity and unemployment

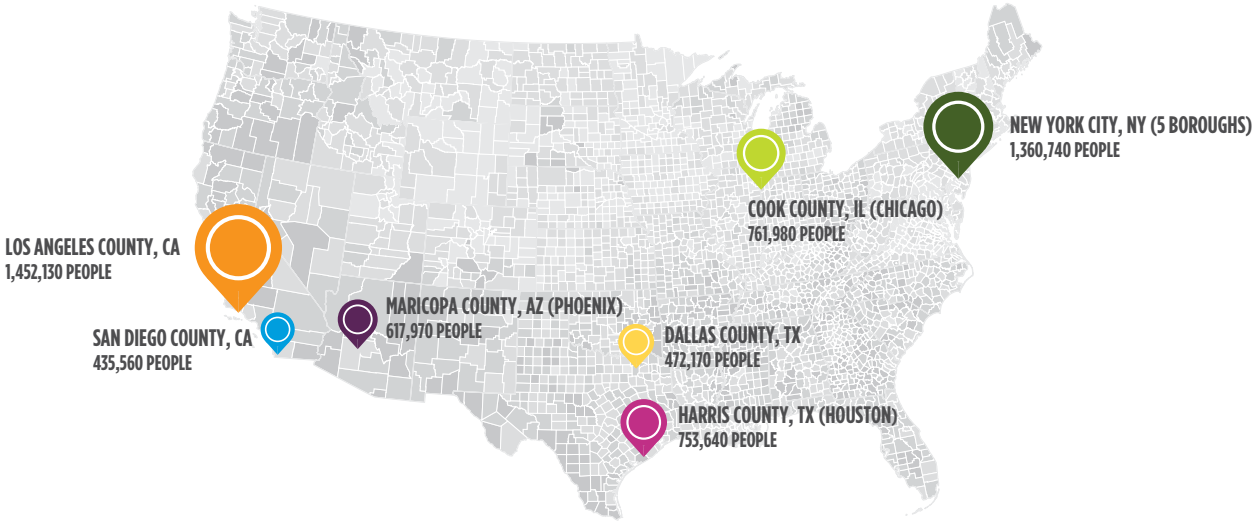
COUNTIES WITH THE HIGHEST NUMBER OF FOOD-INSECURE INDIVIDUALS, 2013 TABLE 03

State	County (Metro Area)	Number of Food Insecure Persons	Food Insecurity Rate
CA	LOS ANGELES	1,452,130	14.7%
NY	NEW YORK (FIVE BOROUGHS, COLLECTIVELY)	1,360,740	16.5%
IL	COOK (CHICAGO)	761,980	14.6%
TX	HARRIS (HOUSTON)	753,640	18.0%
AZ	MARICOPA (PHOENIX)	617,970	15.9%
TX	DALLAS	472,170	19.6%
CA	SAN DIEGO	435,560	13.9%
MI	WAYNE (DETROIT)	377,630	20.9%
CA	ORANGE (ANAHEIM)	349,090	11.4%
TX	TARRANT (FORT WORTH)	341,210	18.5%

rates exceed the national average for all counties, and the homeownership rate is lower. The average poverty rate among these counties is slightly higher than the national average at 17 percent.

Although most of the 50 counties with the largest number of food-insecure individuals contain large urban cities, there are some exceptions, such as Oakland County, Michigan (167,180 food insecure), which includes suburbs northwest of Detroit, and DeKalb County, Georgia (141,060 food insecure), which includes parts of the city and the suburbs to the east of Atlanta. Of these top 50 counties, 40 percent are home to a majority white, non-Hispanic population while 24 percent have at least one-third Hispanic residents and 14 percent have at least one-third African-American, non-Hispanic residents. Because minority communities are often at higher risk of food insecurity, an analysis of counties with a high percentage of non-white residents is presented later in this report (see "Food Insecurity and Race" on p. 17).

COUNTIES WITH THE LARGEST NUMBERS OF FOOD-INSECURE INDIVIDUALS, 2013 FIGURE 04



FOOD INSECURITY AND INCOME

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

Eligibility for many food assistance programs is tied to multiples of the federal poverty line. The poverty guidelines, which vary by family composition, are set to reflect a minimum amount of money that is needed for a family to purchase basic necessities. The thresholds were first set in 1963 and were based on research that indicated that the average family spent about one-third of its annual income on food. The official poverty level was set by multiplying food costs for a "bare bones" subsistence meal plan by three (Blank & Greenberg, 2008). Since then the figures have been updated annually to account for inflation, but have otherwise remained unchanged, despite the fact that modern family budgets are divided very differently than they were more than 50 years ago (Blank & Greenberg, 2008), and now include myriad expenses that were virtually non-existent when the official poverty measure was created.

Food assistance programs such as SNAP, WIC, SBP and NSLP determine eligibility by multiplying the official poverty line by 130 percent or 185 percent to

provide a rough proxy for need beyond the scope of the official poverty level (see *Chart 02*).[7] State-specific SNAP eligibility ceilings range from 130-200 percent, while WIC and reduced-price lunches are typically not available for children in households with incomes above 185 percent of poverty. For example, the current poverty guideline for a family of four in the lower 48 states is a pre-tax income of $24,250 (U.S. Department of Health and Human Services, 2015). To determine the limit for SNAP eligibility, one would multiply $24,250 by 130 percent to arrive at $31,525, the income limit for a family of four to be eligible for SNAP benefits, among other eligibility criteria.[8]

$31,525 THE INCOME LIMIT FOR A FAMILY OF 4 TO BE ELIGIBLE FOR SNAP BENEFITS

Because of these commonly used federal nutrition program thresholds, the *Map the Meal Gap* analysis estimates the percentage of food-insecure people who fall into each income bracket. Specifically, we estimate the percentage of food-insecure individuals who fall below the SNAP eligibility level (130 percent of poverty or the state-specific threshold, when it is a higher multiple), the percentage of those whose incomes are below the threshold for other major federal nutrition programs (185 percent of poverty or the state-specific threshold) and those whose income places them above the ceiling for government food assistance (above 185 percent of poverty or above the state-specific threshold).

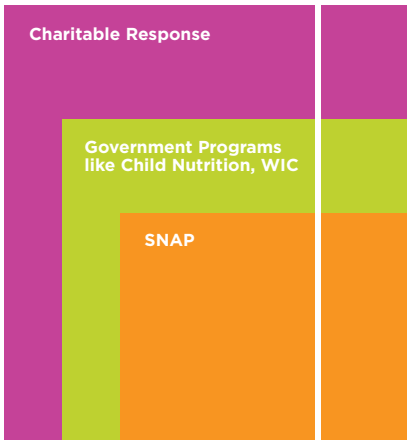
Areas with a particularly high percentage of food-insecure individuals eligible for SNAP (based on gross income) might benefit from increasing awareness and outreach for enrollment in SNAP. Looking across income eligibility estimates provides context for determining what federal and state programs are available to food-insecure people and what gaps are left to be addressed by private food assistance. Understanding the overlap between food insecurity and federal nutrition program thresholds also provides an additional level of information for concerned agencies to use when tailoring their programs to meet local need.

26% ABOVE 185% OF POVERTY LINE

NATIONALLY, 26 PERCENT OF FOOD-INSECURE INDIVIDUALS ARE ABOVE 185 PERCENT OF THE POVERTY LINE AND TYPICALLY ARE INELIGIBLE FOR MOST FOOD ASSISTANCE PROGRAMS

SNAP AND OTHER GOVERNMENT PROGRAMS FOOD-INSECURE INDIVIDUALS AND INCOME ELIGIBILITY, 2013

CHART 02



ELIGIBILITY FOR FEDERAL NUTRITION PROGRAMS

Nationally, 26 percent of food-insecure individuals are above 185 percent of the poverty line and are typically ineligible for most food assistance programs (see *Chart 02*). A closer look at income thresholds among the food-insecure population reflects significant variations in program eligibility within states and across the nation. Across the country, there are 110 counties where the majority of food-insecure people are likely ineligible for government assistance programs and most of these (75%) are in metropolitan areas that tend to have higher-than-average median incomes. For example, Douglas County, Colorado (near Denver, Colorado) is home to 29,770 food-insecure people, 80 percent of whom are likely ineligible for SNAP. Additionally, most states have both counties where a majority of the food-insecure population is likely SNAP eligible, as well as counties where the majority of food-insecure people are likely ineligible for any federal food assistance. For example, in the Commonwealth of Virginia there are 10 counties where a majority (50 percent or more) of food-insecure individuals are estimated to have incomes too high to be eligible for any assistance programs (above 185 percent of

[7] Note that these numbers remained the same between the release of *Map the Meal Gap 2014* and the current report, except in the state of California, where the thresholds changed from 130 percent for SNAP and 185 percent for other governmental aid, to 200 percent for SNAP

[8] 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.

poverty), and 80 counties where a majority of the food-insecure populations live in households that are likely SNAP eligible (based on income at or below 130 percent of poverty).

Among high food-insecurity rate counties with food-insecurity rates in the top 10 percent, the incidence of food-insecure individuals with incomes above 185 percent of poverty is less common. On average, only about 18 percent of food-insecure people in these counties have incomes that render them likely ineligible for federal food assistance programs. Still, this indicates that even in high food-insecurity counties there are food-insecure people who may rely primarily on family, friends and charitable response when they need help.

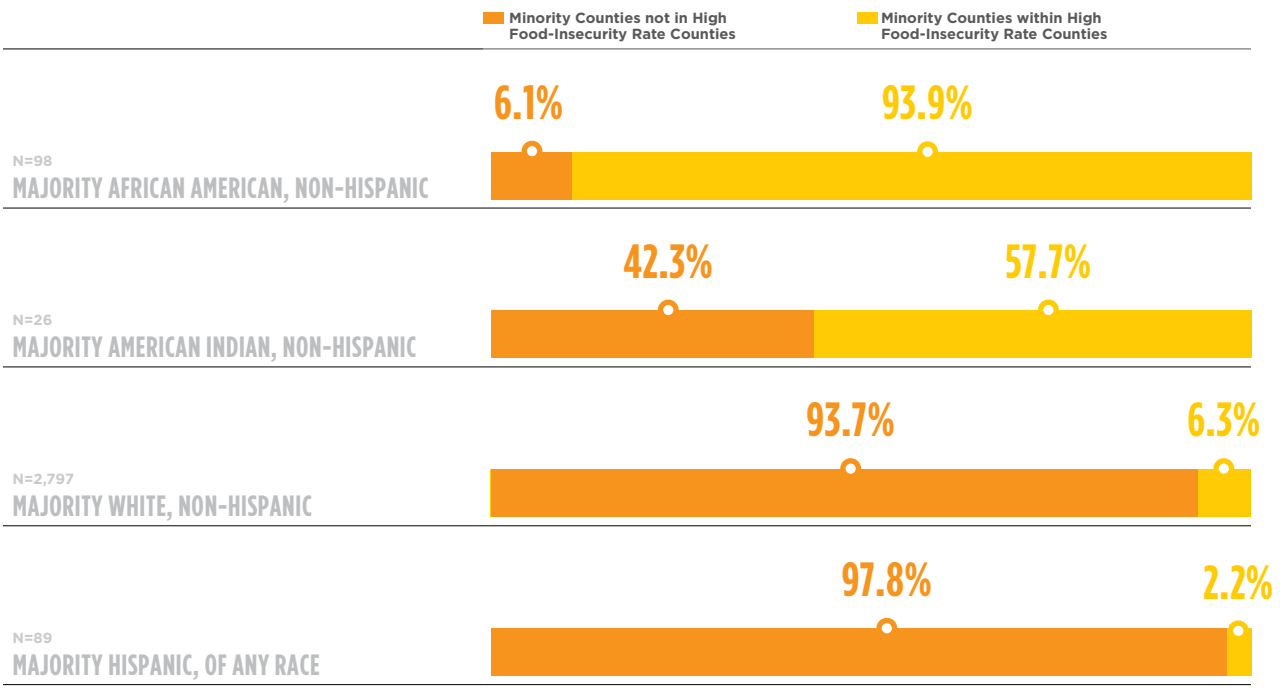
FOOD INSECURITY AND RACE

Some racial and ethnic groups in the U.S., such as African Americans, American Indians, and Latinos,[9] are disproportionately at risk for food insecurity.

As illustrated in *Chart 03*, these discrepancies become especially striking at the county level.[10] In addition to being more likely to have above-average food-insecurity rates, counties with majority non-white populations are also disproportionately represented in the USDA ERS' list of persistent-poverty counties. Most (78 percent) majority-African-American counties are persistent-poverty counties, as are 69 percent of majority-American Indian counties and 39 percent of majority-Latino counties, underscoring the deep and

PERCENTAGE OF MINORITY COUNTIES IN THE U.S. VERSUS PERCENT WITHIN HIGH FOOD-INSECURITY RATE COUNTIES, 2013

CHART 03



[9] Coleman-Jensen, A., C. Gregory, & A. Singh. Household Food Security in the United States in 2013: Statistical Supplement. U.S. Department of Agriculture, Economic Research Service, September 2014. Print.

[10] The terms "Hispanic" and "Latino" are used interchangeably by the U.S. Census Bureau and throughout this document to refer to persons of Mexican, Puerto Rican, Cuban, Central and South American, Dominican, Spanish and other Hispanic descent; they may be of any race.

pervasive nature of the systemic challenges faced by some minority communities. Further analysis of food insecurity in areas with large populations of non-whites provides some additional insight into the need among these demographic groups.

MAJORITY-AFRICAN AMERICAN COUNTIES

A total of 98 counties in 2013 are African American-majority counties, compared to 101 counties in 2012, and 94 percent (N=92) of these counties fall into the "high food-insecurity rate" county group (see *Chart 03* on page 17). These 92 counties have an average poverty rate of 30 percent, which is higher than the rate for all high food-insecurity rate counties (27 percent) and nearly double the poverty rate of all U.S. counties (17 percent). *Table 04* illustrates the top 10 majority-African American counties within the high food-insecurity rate group. Of them, Holmes County, Mississippi has the highest food-insecurity rate at 33 percent, is 83 percent African American, has a median income of $22,325, a poverty rate of 44 percent and an unemployment rate of 17 percent. Although many of the African American-majority counties are fairly small in population, there are still three high food-insecurity rate counties with an estimated food-insecure population in excess of 100,000, including Shelby County, Tennessee (Memphis and surrounding area); Dekalb County, Georgia (Atlanta and nearby suburbs); and Baltimore City (County), Maryland. More detail about majority-African American counties—particularly the disproportional impact of high food prices in these counties—can be found in the "High Food Insecurity and High Food Cost" section (see page 24).

TOP 10 MAJORITY-AFRICAN AMERICAN COUNTIES AMONG HIGH FOOD-INSECURITY RATE COUNTIES, 2013

TABLE 04

State	County	Population	Unemployment Rate	Poverty Rate	Percent African American	Homeownership Rate	Food-Insecurity Rate
MS	JEFFERSON	7,690	16.4%	40.0%	86.2%	71.5%	32.8%
MS	CLAIBORNE	9,553	15.6%	33.1%	83.8%	80.0%	30.2%
MS	HOLMES	18,931	16.5%	43.5%	83.0%	71.0%	33.4%
AL	GREENE	8,934	10.1%	32.9%	80.8%	73.2%	26.6%
AL	MACON	20,803	8.6%	27.3%	80.5%	65.7%	25.4%
VA	PETERSBURG CITY	32,326	10.0%	26.7%	78.1%	45.7%	25.0%
MS	COAHOMA	25,815	13.1%	38.2%	76.0%	53.3%	31.8%
MS	HUMPHREYS	9,258	14.2%	44.9%	75.0%	54.3%	33.3%
GA	HANCOCK	9,233	16.0%	30.6%	74.5%	77.7%	27.6%
SC	ALLENDALE	10,214	14.0%	36.0%	73.9%	63.5%	27.7%

MAJORITY-AMERICAN INDIAN COUNTIES

It is well documented that the American Indian population has higher levels of food insecurity when compared to the U.S. average (Gordon & Oddo, 2012; Gundersen, 2008). At just over 20 percent, the average food-insecurity rate of the 26 majority-American Indian counties is well above the average of all counties (15.1%). Although a relatively small percentage of the total population in the U.S. is identified as American Indian, county-level analysis helps bring to light some of the challenges in these communities. The number of majority-American Indian counties with food-insecurity rates in the top 10 percent remained disproportionally high in 2013 at 15 counties, compared to 16 counties in 2012 (see *Table 05*). Nearly 60 percent of all counties that are majority-American Indian fall into the "high food-insecurity rate" group even though they represent less than one percent of all counties in the U.S. (there are only 26 counties in the U.S. that are majority-American Indian).[11] These 15 counties, 11 of which are located in just two rural states (Alaska and South Dakota), also face a disproportionately high level of poverty: the counties' average 2013 poverty rate is 34 percent versus an average of 27 percent for all high food-insecurity rate counties and 17 percent for all U.S. counties. The counties with a sizeable, majority population of American Indians and high rates of food insecurity include McKinley County, New Mexico, which includes parts of the Navajo Nation and Zuni reservations, and neighboring Apache County, Arizona, which includes parts of the Navajo Nation, Zuni and Fort Apache reservations.

MAJORITY-AMERICAN INDIAN COUNTIES AMONG HIGH FOOD-INSECURITY RATE COUNTIES, 2013

TABLE 05

State	County	Population	Unemployment Rate	Poverty Rate	Percent American Indian	Homeownership Rate	Food-Insecurity Rate
SD	SHANNON	13,829	12.9%	53.2%	94.8%	52.5%	26.2%
AK	WADE HAMPTON	7,678	22.1%	31.4%	90.4%	71.1%	25.8%
AK	BETHEL	17,356	15.4%	22.8%	80.9%	64.2%	21.0%
AK	NORTHWEST ARCTIC	7,624	15.2%	22.0%	80.9%	56.0%	21.4%
SD	TODD	9,783	8.8%	44.6%	79.3%	46.5%	22.8%
SD	BUFFALO	1,966	12.7%	35.6%	77.4%	37.3%	24.4%
SD	DEWEY	5,419	13.3%	33.3%	74.0%	58.2%	22.0%
NM	MCKINLEY	72,373	9.3%	35.0%	72.8%	72.6%	24.3%
AZ	APACHE	71,978	19.8%	36.2%	71.5%	76.5%	28.2%
SD	ZIEBACH	2,821	6.0%	42.3%	71.3%	51.7%	20.3%
AK	NOME	9,695	11.7%	27.7%	70.5%	55.1%	21.0%
AK	YUKON-KOYUKUK	5,656	14.8%	24.2%	69.6%	70.4%	20.8%
SD	CORSON	4,078	7.3%	44.2%	65.5%	52.9%	21.2%
MT	GLACIER	13,528	10.9%	33.7%	64.2%	59.5%	20.8%
MT	BIG HORN	12,939	15.3%	25.5%	62.5%	67.4%	20.3%

[11] This analysis was completed for all non-Hispanic American Indians.

MAJORITY-LATINO COUNTIES

The number of Latino-majority counties in the U.S. grew from 86 counties in 2012 to 89 counties in 2013. Only two of these counties—Yuma, Arizona, and Luna, New Mexico—were high food-insecurity counties, six fewer than in 2012—see *Table 06* for a complete list of counties. This reduction in the prevalence of high food-insecurity rates within Latino communities mirrors the decreasing poverty rates among Hispanics nationwide. According to the U.S. Census Bureau, Hispanics were the only group among the major race and ethnic groups in 2013 to experience a statistically significant change in their poverty rate (from 26 percent in 2012 to 24 percent in 2013) and the number of people in poverty (from 13.6 million to 12.7 million).[12]

Yuma County and Luna County have similarly high rates of food insecurity, at 22 percent and 21 percent, respectively. However, there are a number of noteworthy differences between these two counties. Yuma County has a larger population (199,000 people versus 25,000 in Luna County) and a higher unemployment rate (28 percent versus 17 percent), while Luna County has a higher poverty rate (30 percent versus 20 percent in Yuma County) and a lower median income ($29,282 versus $41,595). Luna County is also designated as a 'persistent-poverty' county by the USDA ERS. Such differences between these two counties suggest that they may require different interventions to combat poverty and help local residents achieve greater stability.

As seen among African American-majority counties, there are some Latino-majority counties that have relatively large food-insecure populations. Six majority-Latino counties have over 100,000 food-insecure individuals: Miami-Dade County in Florida; Bronx County in New York; Fresno County in California; and Bexar County, Hidalgo County, and El Paso County in Texas. Though none of these counties are in the "high food-insecurity" group by food-insecurity rate, with such high numbers of food-insecure individuals, these counties warrant attention due to the large numbers of people at risk of hunger.

Another trend concerning Latino-majority counties emerges when high food-insecurity rates are compared to counties with the top agricultural sales in the United States. Among the nearly 250 most agriculturally productive counties (over $161 billion in sales) identified by the 2012 Agricultural Census (USDA, May 2014), 10 of the top 20 counties (including six in the top 10), have populations that are majority Latino. Four of those 10 counties, all located in California, also have a food-insecurity rate that is higher than the national average: Imperial County, Merced County, and Fresno County, each has a food-insecurity rate of 17 percent, and Kings County has a food-insecurity rate of 16 percent.[13] Thus, significant numbers of food-insecure people, many of whom are likely to be Latino, live in areas of the country that produce some of the nation's greatest agricultural abundance.

MAJORITY HISPANIC COUNTIES WITHIN HIGH FOOD-INSECURITY RATE COUNTIES, 2013

TABLE 06

State	County	Population	Unemployment Rate	Poverty Rate	Percent Hispanic	Homeownership Rate	Food-Insecurity Rate
NM	LUNA	25,001	16.6%	29.7%	62.5%	68.2%	20.6%
AZ	YUMA	199,026	27.7%	20.2%	60.1%	69.6%	22.3%

[12] DeNavas-Walt, C. & B. D. Proctor, Income and Poverty in the United States: 2013, U.S. Census Bureau, 2014.
[13] Based on the market value of agricultural products sold from the 2012 USDA Agricultural Census.

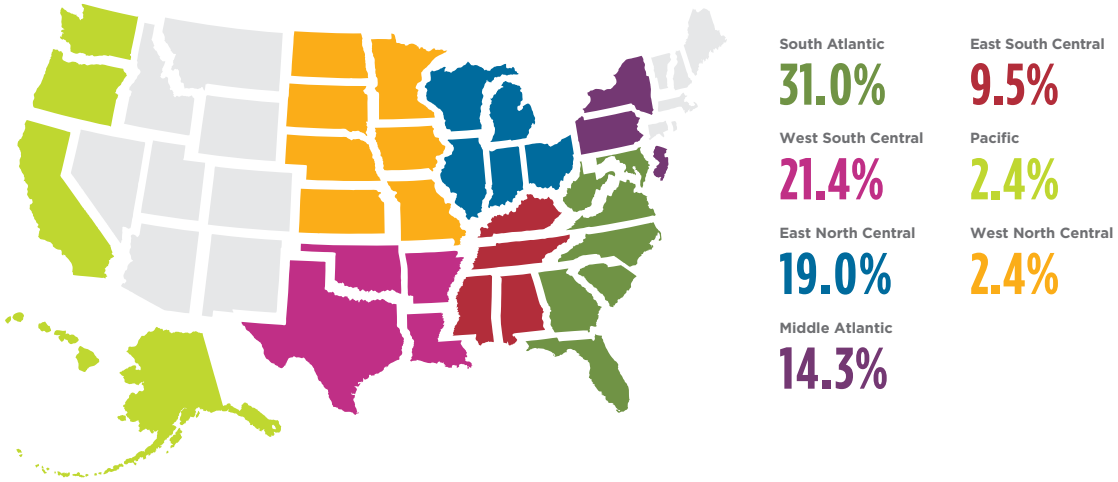
FOOD INSECURITY IN CONGRESSIONAL DISTRICTS

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

In congressional districts, food insecurity ranged from a low of six percent in Virginia's 10th congressional district to a high of 29 percent in Michigan's 13th congressional district. Congressional districts that fell into the top 10 percent for high food-insecurity rates (N=45) had an average food-insecurity rate of 24 percent. When compared to national averages, these districts with the highest food-insecurity rates also had higher-than-average unemployment (12 percent versus nine percent) and poverty (25 percent versus 16 percent) rates and lower-than-average median income ($39,445 versus $54,538). While high food-insecurity rate counties are heavily concentrated in the South (as noted in *Figure 03* on p. 12), the high food-insecurity rate congressional districts are much more geographically diverse, as shown in *Figure 03 on page 12*. As with counties, it is important to note that no congressional district is free of food insecurity. Even in the most food-secure district, Virginia's 10th congressional district, six percent of the population (more than 47,000 individuals) is estimated to be food insecure. Each of the wealthiest districts (the 10 percent of congressional districts with the highest median incomes) is home to an average of more than 81,000 people experiencing food insecurity. Cumulatively, those wealthiest districts are home to more than 3.5 million food-insecure men, women and children.

NO CONGRESSIONAL DISTRICT IS FREE OF FOOD INSECURITY

HIGH FOOD-INSECURITY RATE CONGRESSIONAL DISTRICTS BY CENSUS DIVISION, 2013 FIGURE 05



FOOD-PRICE VARIATION ACROSS THE UNITED STATES

The first phase of the *Map the Meal Gap* analysis focused on increasing understanding of the population in need by estimating county and congressional district food-insecurity rates. In conjunction, Feeding America sought to understand the additional resources people who are struggling with food insecurity feel they need and how the relative cost of meeting that need may vary due to local food prices.

To address this goal, a local-level estimation of the additional food budget that food-insecure individuals report needing was developed. In order 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. As recent research indicates that food costs can directly impact food insecurity (Nord, M., Coleman-Jensen, A., & Gregory, C., 2014), food prices represent an important critical component of cost-of-living that affects households' ability to access food.

In 2013, the average meal cost across the continental U.S. was $2.79, an increase from $2.74 in 2012. Results indicate that local 2013 food prices vary from 71 percent to 180 percent of the national average, a cost variation ranging from as little as $1.97 in Maverick County, Texas to as much as $5.01 in Crook County, Oregon.[14] Among the counties with the top 10 percent highest food-insecurity rates in the nation, food prices reach as high as 121 percent of the national average ($3.38 per meal in Richmond City, Virginia). For a household struggling to afford housing, utilities and other necessities, the additional burden of expensive food can have a significant impact on a household's budget.

[14] Alaska and Hawaii were excluded from this analysis leaving 3,109 counties as opposed to 3,143.

COUNTIES WITH HIGHER FOOD PRICES

The top 10 percent of counties with the most expensive food costs (N=322) have an average meal cost of $3.29, 18 percent higher than the national average of $2.79. There are 55 counties where the cost of a meal is at least 25 percent above the national average ($3.48 or higher). More than half (54 percent) of the high-cost counties are located in metropolitan areas (versus 37 percent of all counties), while 26 percent are in rural areas (versus 43 percent of all counties). See *Table 07* below for a breakout of high-cost counties by geographic area.

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 $3.18, is a popular island vacation destination with a high median income. There are a few other counties with a significant resort/vacation presence among the highest meal-cost areas, such as Aspen in Pitkin County, Colorado ($3.24) and Napa County, California ($3.61). While households in such areas typically have higher median incomes, the local population may also include many service-industry workers for whom higher costs can be particularly challenging. Another set of counties with relatively high costs per meal include major metropolitan areas such as New York County, NY ($4.37), the District of Columbia ($3.63) and the surrounding Virginia counties ($3.68 in Arlington County, Virginia and $3.76 in Alexandria City (County), Virginia).

HIGH FOOD-COST COUNTIES BY GEOGRAPHIC AREA, 2013 TABLE 07

County Type	High Cost Counties	All Counties
METROPOLITAN	54.3%	37.1%
MICROPOLITAN	20.2%	20.4%
NON-METRO/RURAL	25.5%	42.5%

HOW MUCH FOOD DOES YOUR DOLLAR BUY?

LOCAL FOOD COST INDEX

IN CROOK COUNTY, OREGON, $1 PURCHASES 80% LESS FOOD THAN THE NATIONAL AVERAGE

NATIONALLY, THE AVERAGE MEAL COST IS $2.79

IN MAVERICK COUNTY, TEXAS, $1 PURCHASES 30% MORE FOOD THAN THE NATIONAL AVERAGE

HIGH FOOD INSECURITY COUPLED WITH HIGH FOOD COST

There are 11 high food-insecurity counties that also have high meal costs (falling into both the top 10 percent for highest food-insecurity rates and highest prices) (see *Table 08*). While these counties do not face the highest food prices in the nation, the average cost per meal is $3.17, which is 14 percent above the national average of $2.79. The highest meal costs in this group are Richmond City (County), Virginia and Lafayette County, Mississippi at $3.38 and $3.36, respectively. These 11 counties also struggle with high poverty rates (28 percent compared to the national average of 17 percent), high unemployment rates (average is nine percent compared to seven percent) and low homeownership (59 percent compared to a 72 percent average for all counties). Nine of the 11 are also considered persistent-poverty counties. Additionally, an average of nearly one in every four individuals in these counties is food-insecure.

The 11 counties with both high food insecurity and high meal cost represent a decrease from 2012, when 18 counties fell into this category. Five of these counties are metropolitan, two are micropolitan (suburban), and four are non-metropolitan or rural. All 11 of these counties are located in the South census region. The majority (seven) are located in the East South Central census division, three counties are located in the South Atlantic division, and one county (Orleans Parish, Louisiana) is located in the West South Central division.

HIGHEST FOOD-INSECURITY AND HIGHEST FOOD-COST COUNTIES, 2013 TABLE 08

State	County	Population	Unemployment Rate	Poverty Rate	Percent White, Non-Hispanic	Percent Hispanic	Percent African American, Non-Hispanic	Homeownership Rate	Food-Insecurity Rate	Local Weighted Cost per Meal
MS	HOLMES	18,931	16.5%	43.5%	15.8%	0.2%	83.0%	71.0%	33.4%	$3.17
MS	YAZOO	28,122	10.9%	35.5%	37.0%	5.0%	56.3%	60.0%	27.2%	$3.10
AL	MACON	20,803	8.6%	27.3%	15.8%	1.4%	80.5%	65.7%	25.4%	$3.24
MS	OKTIBBEHA	48,198	8.6%	33.7%	57.9%	1.5%	36.8%	51.7%	25.2%	$3.06
MS	ATTALA	19,383	10.5%	27.7%	55.3%	1.8%	41.9%	73.6%	23.3%	$3.09
MD	BALTIMORE CITY	621,445	9.6%	23.8%	28.1%	4.3%	62.7%	48.3%	22.7%	$3.10
LA	ORLEANS	357,013	7.3%	27.3%	30.5%	5.3%	59.4%	47.3%	22.1%	$3.22
MS	YALOBUSHA	12,554	9.3%	22.2%	59.8%	0.9%	38.3%	74.6%	21.4%	$3.08
GA	MUSCOGEE	194,949	8.9%	19.6%	43.3%	6.8%	44.4%	52.6%	21.0%	$3.09
VA	RICHMOND CITY	207,878	6.9%	25.6%	39.4%	6.2%	48.9%	43.1%	20.5%	$3.38
GA	LAFAYETTE	48,905	6.7%	25.6%	70.5%	2.3%	24.1%	59.4%	20.5%	$3.36

CHILD FOOD INSECURITY: RESULTS AND DISCUSSION

The results of the *Map the Meal Gap* child food insecurity research indicate that as with overall food insecurity, children are at risk of hunger everywhere in the United States.

County-level child food-insecurity rates in 2013 ranged from a low of six percent to a high of 43 percent.[15] Food-insecurity rates among households with children are substantially higher than those found in the general population. The following summarizes key findings from state and county-level child food insecurity (CFI) results. These analyses focus on the income and regional variations illuminated by the results.

[15] Results indicate that child food insecurity exists in every county in the U.S. with a population under age 18. According to the 2013 ACS five-year estimates, the child population of Kalawao, HI is 0. In addition, the ACS dataset does not contain adequate data for households with children in Loving, TX. As a result, child food-insecurity rates could not be estimated for these two counties.

STATE ESTIMATES

Child food-insecurity (CFI) rates are considerably higher than the overall food-insecurity rates, a phenomenon observed at the national level in the annual USDA report and mirrored at the state and county level in this study. State-level estimates of child food insecurity are presented in *Table 09* on pages 28-29. The state CFI rates range from a low of 11 percent in North Dakota to a high of 31 percent in the District of Columbia. Even in the most food-secure state (North Dakota), one in 10 children struggles with hunger. Additionally, 17 of the 20 states with the highest CFI rates also have the highest-ranked overall food-insecurity rates, a finding consistent with the previous *Map the Meal Gap* study, which also found 17 states that fell into both groups in 2012 (Gundersen, C. et al., 2014).[16] These 17 high-need states are dispersed throughout the U.S., representing all areas of the country except the New England, Mid-Atlantic and West North Central regions.[17] Some states in the New England region, despite having lower CFI rates, have high absolute numbers of children living in food-insecure households because they are densely populated. For example, Massachusetts (16% CFI rate) is home to over 232,000 food-insecure children.

[16] Based on one-year state data aggregated from 2013 congressional districts rather than the three-year state averages provided in the USDA's annual report on household food security

[17] See footnote on page 15 for a complete list of states included in each region.

CHILD FOOD INSECURITY BY STATE, 2013

TABLE 09

State	Rank	Total Child Population (Under 18)[18]	Child Food-Insecurity Rate	Number of Children Living in Food-Insecure Households	Overall Food-Insecurity Rate
U.S.[19]		73,586,612	21.4%	15,772,000	15.8%
DC	1	111,532	30.5%	32,100	15.0%
MS	2	737,140	29.0%	217,220	22.7%
AR	3	711,622	28.4%	201,820	19.7%
NM	4	508,084	28.3%	145,280	17.3%
GA	5	2,490,381	28.2%	700,870	18.7%
AZ	6	1,615,962	28.0%	454,460	17.5%
TX	7	7,040,918	27.4%	1,899,310	17.6%
FL	8	4,028,730	26.7%	1,071,760	17.0%
NV	8	661,647	26.7%	176,810	15.8%
AL	10	1,109,891	26.2%	294,060	18.8%
NC	11	2,284,168	26.1%	595,240	18.3%
OK	12	947,832	26.0%	242,990	17.0%
OR	13	859,528	25.9%	223,480	15.8%
TN	14	1,492,081	25.4%	379,780	17.1%
SC	15	1,079,320	25.2%	271,560	17.1%
CA	16	9,174,184	25.1%	2,316,570	15.0%
LA	17	1,112,674	24.3%	271,500	16.8%
OH	18	2,648,786	24.2%	653,410	16.9%
WV	19	382,257	23.3%	89,880	15.8%
WA	20	1,596,184	23.1%	366,450	14.6%
ME	21	260,335	22.7%	61,080	15.5%
HI	22	307,226	22.4%	68,450	13.8%
KS	23	720,542	22.3%	161,740	14.5%
MT	24	224,096	22.1%	49,300	14.2%
NY	25	4,239,262	21.9%	938,610	13.9%

[18] The total child population is an aggregation of the child population for congressional districts in each state. This data comes from the 2013 American Communtity Survey, U.S. Census Bureau.

[19] Coleman-Jensen, A. et al. (2014). Household Food Security in the United States in 2013. USDA ERS..

State	Rank	Total Child Population (Under 18)[18]	Child Food-Insecurity Rate	Number of Children Living in Food-Insecure Households	Overall Food-Insecurity Rate
IN	26	1,587,542	21.8%	348,570	15.4%
KY	27	1,014,585	21.7%	221,780	16.4%
RI	27	212,847	21.7%	47,740	14.4%
MO	29	1,399,075	21.6%	304,810	17.0%
ID	30	426,854	21.1%	90,240	15.6%
NE	30	463,752	21.1%	97,080	13.2%
MI	32	2,243,739	20.9%	480,490	16.4%
IL	33	3,022,155	20.8%	643,040	13.6%
CO	34	1,241,325	20.6%	253,000	13.9%
PA	35	2,716,253	20.4%	564,440	14.2%
WI	35	1,305,922	20.4%	270,460	12.4%
UT	35	896,831	20.4%	179,130	14.6%
AK	38	188,366	20.0%	37,590	14.2%
SD	39	208,481	19.6%	40,040	12.4%
DE	40	203,688	19.4%	39,780	13.2%
IA	41	723,466	19.3%	139,850	12.6%
VT	42	124,130	19.2%	24,330	13.6%
MD	43	1,344,457	19.1%	258,110	12.8%
CT	44	785,342	19.0%	152,990	13.6%
WY	45	139,775	18.6%	25,420	12.8%
NJ	46	2,021,897	18.3%	374,350	12.4%
VA	47	1,864,331	16.8%	311,410	11.9%
MA	48	1,392,955	16.5%	232,150	11.5%
MN	49	1,282,594	16.0%	205,050	10.6%
NH	50	271,175	15.0%	42,170	10.8%
ND	51	160,693	10.9%	16,780	7.8%

COUNTY-LEVEL CHILD FOOD INSECURITY

The following section provides detail on county-level child food insecurity.

COUNTY CHILD FOOD-INSECURITY RATES BETWEEN 2012 AND 2013

Nationally, food-insecurity rates for households with children remained essentially unchanged, from 21.6 percent in 2012 to 21.4 percent in 2013 (Coleman-Jensen et al., 2014) (see *Table 10*). Consistent with this national trend, less than three percent of all counties showed meaningful changes in child food insecurity. It is important to note that CFI estimates at the county level may be less stable from year to year than those at the state or national level due to smaller geographies, particularly in counties with very small child populations. For example, of the 80 counties that saw a shift of four or more percentage points, only four have a child population greater than 10,000. Because of this, specific county comparisons between 2012 and 2013 are not provided in this report.

COUNTY ESTIMATES

State-level information provides a clearer picture of child food insecurity in the U.S. than a national average. The estimates at the county level further demonstrate that the problem is much more pervasive in specific communities. In each of those counties that fall into the top 10 percent for the highest child food-insecurity rates (N=319), or "high CFI counties," nearly one-third of the children are struggling with food insecurity (ranging from 30 percent to 43 percent). In addition to having high CFI rates, these counties have notably higher poverty rates in comparison to the rest of the nation. An average of 40 percent of children in these counties live in poverty compared to an average of 23 percent in all U.S. counties. These counties also suffer from low median incomes and high unemployment rates (see *Table 10*).

AVERAGE CHILD FOOD-INSECURITY AND COUNTY-LEVEL ECONOMIC INDICATORS, 2013 TABLE 10

	Child Food-Insecurity Rates		Unemployment Rates		Child Poverty Rates		Homeownership Rates*		Median Household Income*	
County Grouping	2012	2013	2012	2013	2012	2013	2012	2013	2012	2013
High Child Food-Insecurity Rate Counties	31.7%	32.3%	11.0%	10.6%	38.9%	40.3%	59.0%	58.4%	$36,425	$35,788
All U.S. Counties	23.0%	23.7%	7.7%	7.3%	23.0%	23.4%	67.5%	66.5%	$53,819	$53,930
National Average for All Individuals in the U.S.	21.6%	21.4%	8.1%	7.4%	22.6%	22.2%	60.4%	59.8%	$59,537	$60,654

*Among households with children

IN OUR NATION'S CAPITOL

NEARLY 1 IN 3 CHILDREN ARE FOOD INSECURE

Two counties—Apache County, Arizona and Jenkins County, Georgia—have CFI rates of 40 percent or higher. Apache County, Arizona has the highest CFI rate (43 percent). While more than half of the Jenkins County population is white (57 percent), nearly three quarters (72 percent) of the population in Apache County, Arizona is American Indian. This finding is

43% APACHE COUNTY, ARIZONA HAS THE HIGHEST CHILD FOOD-INSECURITY RATE

consistent with prior research, which suggests especially high rates of food insecurity among American Indian families with young children. For example, families with kindergarten-age children living on the rural Pine Ridge Reservation (located in Shannon County, South Dakota) reported food-insecurity rates of 40 percent (Bauer et al, 2012).

Seventy-five counties across the nation have higher CFI rates than the highest reported county-level food-insecurity rate for the general population, which is just over 33 percent in Holmes County and Humphreys County, Mississippi. Four counties that fall into the top 10 for agricultural sales (USDA, May 2014) are also in the top 10 percent for highest child food insecurity. These counties, all located in California, all majority-Hispanic, and all metropolitan, include Fresno County, Tulare County, Merced County, and Imperial County. The analysis also shows that child food insecurity is more pervasive in rural areas. Sixty-two percent of high CFI counties are classified as rural, even though only 43 percent of counties in the U.S. are rural (see *Table 11*).

HIGH CHILD FOOD-INSECURITY RATE COUNTIES BY GEOGRAPHIC AREAS, 2013 TABLE 11

County Type	High Child Food Insecurity Rate Counties	All Counties
METROPOLITAN	13.2%	37.1%
MICROPOLITAN	25.1%	20.4%
NON-METRO/RURAL	61.8%	42.5%

CHILD FOOD INSECURITY AT-A-GLANCE

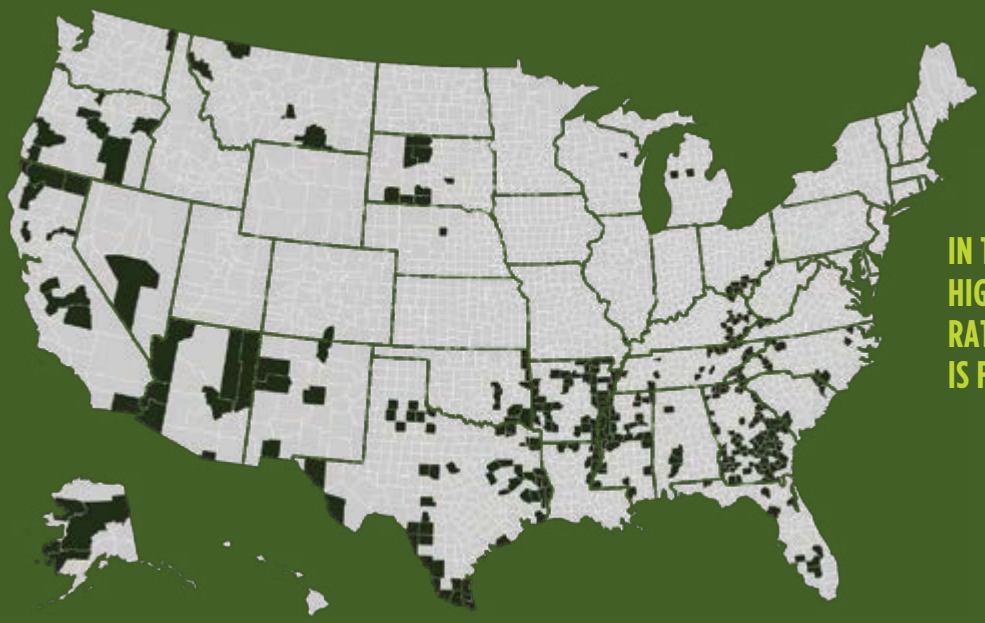
16 MILLION CHILDREN IN THE U.S. ARE FOOD INSECURE*

THAT IS **1 IN 5**

3,143
COUNTIES IN THE U.S.

319
COUNTIES IN THE TOP 10%

NEARLY 1 IN 3
KIDS STUGGLE WITH HUNGER



IN THE TOP 10% OF COUNTIES WITH HIGHEST CHILD FOOD-INSECURITY RATES, NEARLY 1 IN 3 CHILDREN IS FOOD INSECURE.

*Coleman-Jensen, A., C. Gregory, & A. Singh. Household Food Security in the United States in 2013. U.S. Department of Agriculture, Economic Research Service, September 2014. Print.

6%
BILLINGS COUNTY
N.DAKOTA

CHILD FOOD INSECURITY VARIES GREATLY FROM STATE TO STATE

43%
APACHE COUNTY
ARIZONA

62%
OF HIGH CHILD FOOD-INSECURITY COUNTIES ARE RURAL

THERE ARE 16 COUNTIES IN THE U.S. WITH MORE THAN 100,000 FOOD-INSECURE CHILDREN. IN THE FIVE BOROUGH OF NEW YORK CITY, THERE ARE MORE THAN 400,000 FOOD-INSECURE CHILDREN.

COUNTIES WITH THE LARGEST NUMBERS OF FOOD-INSECURE CHILDREN

Although the child food-insecurity rate is one important indicator of need, even counties with more modest rates may still be home to large numbers of children whose families are struggling with food insecurity. There are 15 counties in the U.S. with more than 100,000 food-insecure children (see *Table 12*). For example, Los Angeles County, California is home to nearly 600,000 food-insecure children while two of these counties—Kings and Bronx—are located within the New York City metropolitan area. We considered all five of the counties that comprise New York City for this analysis to reach an estimated 420,000 food-insecure children in total. Counties with more than 100,000 food-insecure children have an average CFI rate of 25 percent, an average child poverty rate of 26 percent and an average unemployment rate of nine percent. Each of these indicators is higher than the averages of all U.S. counties in 2013 (24 percent, 23 percent and seven percent, respectively).

Despite the fact that these counties may be perceived as less disadvantaged than counties with much higher rates of child food insecurity, the counties with large numbers of food-insecure children face real challenges in addressing the need in their communities because of the sheer number of children who may need assistance.

COUNTIES WITH MORE THAN 100,000 FOOD-INSECURE CHILDREN, 2013 TABLE 12

State	County (Metro Area)	Number of Children Living in Food insecure Households	Child Food-Insecurity Rate
CA	LOS ANGELES	590,910	24.9%
NY	NEW YORK (FIVE BOROUGHS, COLLECTIVELY)	419,580	23.6%
TX	HARRIS (HOUSTON)	305,480	26.3%
AZ	MARICOPA (PHOENIX)	255,880	25.4%
IL	COOK (CHICAGO)	254,470	20.9%
TX	DALLAS	179,020	27.1%
CA	SAN DIEGO	161,680	22.3%
CA	ORANGE (ANAHEIM)	151,310	20.6%
CA	RIVERSIDE	148,520	24.1%
CA	SAN BERNARDINO	145,320	24.7%
FL	MIAMI-DADE	132,810	24.3%
TX	TARRANT (FORT WORTH)	130,880	25.5%
NV	CLARK (LAS VEGAS)	123,310	25.3%
TX	BEXAR (SAN ANTONIO)	120,470	25.6%
MI	WAYNE (DETROIT)	102,800	22.9%

CHILD FOOD INSECURITY IN CONGRESSIONAL DISTRICTS

Looking at child food insecurity across congressional districts provides another way to highlight the high rates of children at risk of hunger across the United States. CFI rates range from an estimated low of 10 percent (nearly 17,000 children) in North Dakota (one district, at large) to 35 percent (more than 79,000 children) in California's 16th congressional district. The largest estimated number of food-insecure children across all districts is 83,100 children (or 35 percent of all children) in Arizona's seventh congressional district, which encompasses much of metropolitan Phoenix. The congressional districts with the highest rates of CFI (top 10 percent among all districts, N=47) have CFI rates of 31 percent on average, compared to 23 percent of children in the average district. These districts are also much poorer; the average child poverty rate across these districts is 36 percent, compared to approximately 22 percent in the average congressional district.

CHILD FOOD INSECURITY AND INCOME

In recognition of the importance of federal nutrition programs, *Map the Meal Gap 2015* provides CFI estimates broken down by household income: either above or below 185 percent of the poverty line, the typical eligibility cutoff for WIC and NSLP.

These breakouts provide insight into the safety-net resources that may be available to food-insecure children and their families, as well as the children whose families do not qualify for federal nutrition assistance. Millions of food-insecure children in America live in households with incomes above the eligibility threshold for federal nutrition 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.

NUTRITION ASSISTANCE TARGETING FAMILIES WITH CHILDREN

As high levels of food insecurity persist, the number of families turning to charitable assistance organizations remains at record levels. In 2013, more than 46 million people, representing nearly 15.5 million households, received assistance through the Feeding America network. Nearly two-thirds of these households (63.2 percent) plan to get food at meal or grocery programs on a regular basis to help with their monthly food budget. The number of individuals served includes more than 12 million children, of whom approximately 3.5 million were five years of age or younger (Hunger in America 2014).

While charitable assistance plays a critical role in helping families meet their food needs, the first line of defense against hunger is the safety net of federal nutrition programs. WIC supports pregnant, breastfeeding and postpartum women and their infants and children up to age five. According to the USDA, in federal fiscal year 2014, more than 8 million women, infants and children participated in WIC. The NSLP, SBP and SFSP provide meals to low-income children in school and during school breaks. Over 100,000 schools operate NSLP and during federal fiscal year 2014, more than 21 million low-income children received free or reduced price meals through NSLP. SNAP provides electronic benefit cards to households to purchase

groceries, and although it is not limited to children, 44 percent of all SNAP participants in federal fiscal year 2013 were children (approximately 21 million children) (Gray & Eslami, 2014).

Eligibility for these and other federal nutrition assistance programs is based on income criteria. These criteria require that households have incomes at or below a specified multiple of the federal poverty guideline, which varies based on household size. As discussed previously in the "Food Insecurity and Income" section (page 15), individuals in most states are eligible for SNAP if they live in households with incomes less than 130 percent of the federal poverty guideline. For the programs targeted specifically to children (WIC, NSLP and SBP), eligibility for benefits is typically set higher at 185 percent of the poverty line.[20] As an example of applying these eligibility rules, the current U.S. Health and Human Services poverty guideline for a family of four in the lower 48 states is a pre-tax income of $24,250. A family of this size would have to be earning less than $44,863 ($24,250 x 185%) in order to qualify for WIC, NSLP, or SBP.

$44,863 THE INCOME LIMIT FOR A FAMILY OF 4 TO BE ELIGIBLE FOR WIC, NSLP, OR SBP

ELIGIBILITY FOR FEDERAL NUTRITION PROGRAMS

Because of these commonly used eligibility measures, *Map the Meal Gap 2015* estimates the proportion of food-insecure children who fall into income brackets reflecting federal child nutrition program thresholds (below 185 percent of the poverty line and above 185 percent of the poverty line). Children in the former bracket are eligible for WIC, NSLP and SBP and many are also eligible for SNAP. Children in households with incomes above 185 percent of the poverty line are, in general, not eligible for any of these programs.

Ninety-six percent (N=3,009) of all counties in the U.S. have a majority of food-insecure children living in households with incomes at or below 185 percent of the federal poverty line. Among the high CFI counties (top 10 percent), on average, more than three-quarters (83 percent) of food-insecure children live in households with incomes that place them below 185 percent 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. Understanding the income composition of the food-insecure population can help flag where outreach may be needed to maximize participation in these programs.

Despite the fact that a large number of food-insecure households are also low-income, it is important to note that food insecurity also exists in households with incomes substantially higher than the poverty line. 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 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 (Santos et al., 2013).

In most counties in the U.S., there are food-insecure children living in households with incomes above 185 percent of the federal poverty level, and in four percent (N=134) of counties, the majority of food-insecure children are likely ineligible for federal nutrition assistance because they live in households with incomes above 185 percent of the poverty line. Examples of this income composition among food insecure children are found in diverse locations around the country. For example, in Borden County, Texas, approximately 27 percent of all children are food insecure and 75 percent of these children live in households with incomes above 185 percent of the poverty line. Although Douglas County, Colorado, has a lower CFI rate (15 percent) than the national average, there are an estimated 13,200 food-insecure children, 73 percent of whom live in households with incomes greater than 185 percent of poverty. In King County, Washington, nearly half (47%) of the estimated 78,600 food-insecure children are living in households with incomes above 185 percent of the poverty level. Even very high need counties may be home to high CFI rates and high program ineligibility. Wilkinson County, Mississippi, has a CFI rate of 30 percent, a family median income of $25,662—less than half the national average (DeNavas-Walt et al., 2014)—and almost a third of its food-insecure children (31 percent) live in households whose incomes likely render them ineligible for the government food safety net.

[20] These rates can vary by state. SNAP gross income eligibility thresholds, for example, range from 130% to 200% of the poverty line.

IMPLICATIONS FOR POLICY & PRACTICE

Feeding America conducts this research 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 among people in every part of the country. The data also demonstrate that locally, as well as nationally, federal nutrition programs are not currently reaching all food-insecure people.

The goals of the *Map the Meal Gap* project are focused on equipping communities, service providers and policymakers with additional analytical tools to help understand the dynamics of food insecurity at the local level so that they may use this information to better inform discussions about how to respond to the need. Map the Meal Gap data document the variation in food insecurity across communities for both the general population and for children. By categorizing the food-insecure population into income bands, the data also demonstrate the critical role of both the public and private sector in addressing food insecurity in America.

There are two key findings from the report. First, food insecurity exists in every county across the country. Second, locally, as well as nationally, not all food-insecure people qualify for federal nutrition assistance, reflecting both the important role of charitable hunger relief and the need to strengthen anti-hunger programs and policies. *Map the Meal Gap 2015* shows that there are millions of food-insecure people in counties across the United States who have incomes that render them ineligible for most federal food assistance programs. This suggests that federal nutrition programs, while targeted at our most vulnerable, do not serve all who are in need of food assistance. The charitable sector

has stepped in to serve individuals in need who are not eligible for federal nutrition assistance, to connect eligible families to federal nutrition programs, as well as to support families who participate in federal programs but whose benefits are inadequate. These findings are important for policymakers considering eligibility rules for federal programs, as well as support for charitable programs.

The consequences and costs of hunger for all ages make addressing food insecurity an economic and social imperative. Food insecurity can have wide-ranging detrimental consequences on the physical and mental health of adults, particularly among more vulnerable populations such as pregnant women and seniors. Lack of access to a nutritious and adequate food supply has implications not only for the development of physical and mental disease, but also behaviors and social skills. Food insecurity is associated with lower scores on mental and physical health exams (Stuff et al., 2004) and a range of chronic illnesses such as hypertension, hyperlipidemia and various cardiovascular risk factors (Seligman et al., 2009). Food-insecure women may be at greater risk for major depression and other mental health issues (Heflin et al., 2005). Additionally, food-insecure adults have higher risk of developing diabetes (Nelson et al., 2001; Seligman et al., 2007).

LOW-INCOME PEOPLE LIVING IN AREAS WITH HISTORICALLY HIGH RATES OF FOOD INSECURITY AND PERSISTENT POVERTY FACE COMPLICATED CHALLENGES THAT REQUIRE INNOVATIVE, PLACE-BASED INTERVENTIONS TO TARGET NEED AT THE LOCAL LEVEL.

Although food insecurity has the potential to lead to negative outcomes for individuals of any age, it can be particularly devastating among children. The structural foundation for cognitive functioning is laid in early childhood, creating the underlying circuitry on which more complex processes are built. This foundation can be greatly affected by food insecurity. Inadequate nutrition can permanently alter a child's brain architecture and stunt their intellectual capacity, affecting the child's learning, social interaction and productivity. Several studies have demonstrated that food insecurity impacts cognitive development among young children and is linked to poor school performance in older children. (For a review see Gundersen et al., 2011; Gundersen and Ziliak, 2014.) Resources targeted at combating food insecurity are an important investment for both the individual and for society as a whole. The data presented in this report suggest several focus areas for policymakers and program administrators to more effectively address food insecurity.

Currently, both federal programs and the charitable sector help meet the nutritional needs of struggling families through direct practice and policy work. One example of this type of programmatic strategy is the USDA's StrikeForce for Rural Growth and Opportunity Initiative, which aims to improve economic opportunity and quality of life in these areas. Since it began in 2010, StrikeForce has created over 400 community-based partnerships and provided support to more than 80,000 projects focused on strengthening the economy in rural America. Another practice example is the Feeding America "Collaborating for Clients" (C4C) initiative. Introduced in 2014, C4C aims to improve household stability among food bank clients by fostering and supporting structured and rigorous community-based collective impact approaches to address food insecurity and its root causes. In addition to the core services of food distribution to low-income people being offered by the Feeding America network, various member food banks are developing local partnerships to provide a broader range of services in areas such as employment support, housing, and healthcare access to help clients address the complex economic and social hardships they face. StrikeForce and C4C are but two examples of promising practice initiatives that have the potential to address the deep needs of individuals and families in some of the country's most vulnerable areas.

Federal nutrition programs, like SNAP and The Emergency Food Assistance Program (TEFAP), target the poorest and most vulnerable households to provide them with critical nutrition assistance to supplement their household food budget. Additionally, the Community Supplemental Food Program (CSFP) is targeted specifically at low-income seniors. Other programs are targeted at children, like WIC and programs that feed children in school, daycare, afterschool and summer settings. There is even strong evidence that WIC and SNAP participation reduce household food insecurity (Metallinos-Katsaras et al.,

SNAP SERVED APPROXIMATELY

10.2 MILLION

HOUSEHOLDS WITH CHILDREN EACH MONTH OF FISCAL YEAR 2013

2011; Mabli et al., 2013). While SNAP is not a child nutrition program per se, the program continues to serve as the first line of defense against child hunger. In 2013, 44 percent of SNAP participants were children, and they received 44 percent of prorated SNAP benefits (Gray, 2014). SNAP served approximately 10.2 million households with children in each month of fiscal year 2013, representing 45 percent of all SNAP households. Together, these programs weave a comprehensive nutritional safety net that reach children where they live, learn and play.

Existing federal nutrition programs could do much more to address food insecurity simply by improving participation rates among those underserved. For example, WIC participation is high among infants (85 percent of eligible infants), but significantly lower for children ages 1 through 4 (53 percent) (Johnson, et al. 2015). Similarly, compared to nearly 22 million children receiving free or reduced-price lunches each school day in 2014, only 11.5 million received breakfast and even fewer (less than 3 million) received food assistance through SFSP during the summer (USDA, 2015).

Improved program access and innovative delivery models can help to improve participation rates. For example, in the Summer Food Service Program, which experiences the lowest participation rates among the child nutrition programs at a little more than 16 percent, there were only about 42 summer food sites for every 100 school lunch programs nationwide in 2013 (USDA, 2013). In addition to increasing the number of summer feeding sites, policy makers should support alternative summer 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.

In rural areas, this gap is exacerbated by transportation barriers in accessing grocery stores or program sites and difficulties in outreach or recertification for federal nutrition programs. Consistent with existing research regarding access difficulties in rural areas, our findings reveal that child food insecurity is higher in nonmetropolitan counties. The USDA, along with charitable organizations, have provided targeted supports to these rural areas with high rates of food insecurity, including the abovementioned StrikeForce initiative and most recently by providing grants to support innovative program delivery models for children in several low-access areas. Feeding America food banks and other community organizations rely on support from a variety of sources, including individual giving, government commodities, and in-kind donations from the food industry. Reducing barriers to donation can help divert excess food from the landfill 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 by renewing and expanding the available food donation tax deductions to include farmers and growers, many of whom may live and work within these rural communities.

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. Though we reviewed this variation in light of income, poverty and racial and ethnic composition of communities, 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, policy makers, business leaders, community activists and concerned citizens will use these tools to strengthen the fight against hunger.

REFERENCES

Bauer KW, R. Widome, J.H. Himes, M. Smyth, B.H. Rock, P.J. Hannan M. Story. *High food insecurity and its correlates among families living on a rural American Indian Reservation.* American Journal of Public Health. 2012;102(7):1346–52.

Blank, R., M. Greenberg. *Improving the Measurement of Poverty*. The Hamilton Project, December 2008. Print.

"Business Cycle Expansions and Contractions." National Bureau of Economic Research, Inc. Web. March 2011.

Chartbook: The Legacy of the Great Recession. Center on Budget and Policy Priorities. Web. March 2012.

Coleman-Jensen, A., M. Nord, & A. Singh. *Household Food Security in the United States in 2012. U.S.* Department of Agriculture, Economic Research Service, September 2013. Print.

Coleman-Jensen, A., C. Gregory, & A. Singh. *Household Food Security in the United States in 2013.* U.S. Department of Agriculture, Economic Research Service, September 2014. Print.

Current Population Survey, 2013 Annual Social and Economic Supplement. U.S. Census Bureau, 2013. Print.

DeNavas-Walt, C. & B. D. Proctor, *Income and Poverty in the United States: 2013*, U.S. Census Bureau, 2014. Print.

Feeding America, *Hunger in America 2014, National Report.* August 2014. Print.

"Geography of Poverty." U.S. Department of Agriculture, Economic Research Service. Web. Jul 2014.

Gray, K.F. *Characteristics of Supplemental Nutrition Assistance Program Households: Fiscal Year 2013.* U.S. Department of Agriculture, Food and Nutrition Service, December 2014. Print.

Gordon, A. & V. Oddo. (2012). *Addressing Child Hunger and Obesity in Indian Country.* Report to Congress. Mathematical Policy Research, Alexandria, VA

Gundersen, C. (2008). *"Measuring the Extent, Depth, and Severity of Food Insecurity: An Application to American Indians in the United States."* Journal of Population Economics, 21(1), 191-215.

Gundersen, C., B. Kreider, & J. Pepper. *"The Economics of Food Insecurity in the United States."* Applied Economic Perspectives and Policy, 33(3), 281-303. 2011.

Gundersen, C., E. Engelhard, A. Satoh, & E. Waxman. *Map the Meal Gap 2014: Food Insecurity Estimates at the County Level.* Feeding America, 2014. Print.

Gundersen, C., E. Waxman, E. Engelhard, A. Satoh, & N. Chawla. *Map the Meal Gap 2013: Food Insecurity Estimates at the County Level.* Feeding America, 2013. Print.

Gundersen, C., & J.P. Ziliak. *Childhood Food Insecurity in the U.S.: Trends, Causes and Policy Options.* The Future of Children, 2014. Print.

Heflin, C.M., K. Siefert, & D.R. Williams. (2005). *Food Insufficiency and Women's Mental Health: Findings from a 3-year Panel of Welfare Recipients.* Social Science & Medicine, 61, 1971-1982.

Johnson, P., E. Huber, L. Giannarelli, & D. Betson. *National and State-Level Estimates of Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Eligibles and Program Reach, 2012.* U.S. Department of Agriculture, Food and Nutrition Service, Alexandria, VA: January 2015. Print.

Mabli, J., J. Ohls, L. Dragoset, L. Castner, & B. Santos. (2013). *Measuring the Effect of Supplemental Nutrition Assistance Program (SNAP) Participation on Food Security.* Prepared by Mathematica Policy Research for the U.S. Department of Agriculture, Food and Nutrition Service.

Monea, E. & I. Sawhill. *An Update to Simulating the Effect of the Great Recession on Poverty.* The Brookings Institution, 2011. Print.

Metallinos-Katsaras, E., K.S. Gorman, P. Wilde, & J. Kallio. (2011). *A Longitudinal Study of WIC Participation on Household Food Insecurity. Maternal and Child Health Journal,* 15, 627–33

Nelson, K., W. Cunningham, R. Andersen, G. Harrison, & L. Gelberg. (2001). *Is Food Insufficiency Associated with Health Status and Health Care Utilization Among Adults with Diabetes?* Journal of General Internal Medicine, 16, 404-411.

Nord, M., A. Coleman-Jensen & C. Gregory. *Prevalence of U.S. Food Insecurity Is Related to Changes in Unemployment, Inflation, and the Price of Food.* U.S. Department of Agriculture, Economic Research Service, June 2014. Print.

"Program Data." U.S. Department of Agriculture, Food and Nutrition Service. Web. February 2015.

Santos, R., E. Waxman, E. Engelhard. *In Short Supply: American Families Struggle to Secure Everyday Essentials.* Feeding America, 2013. Print.

Seligman, H.K., A.B. Bindman, E. Vittinghoff, A.M. Kanaya, & M.B. Kushel. (2007). *Food Insecurity is Associated with Diabetes Mellitus: Results from the National Health Examination and Nutritional Examination Survey 1999-2002.* Journal of General Internal Medicine, 22, 1018-1023

Seligman, H.K., B.A. Laraia, & A.M. Kushel. (2009). *Food Insecurity Is Associated with Chronic Disease among Low-Income NHANES Participants.* Journal of Nutrition, 140, 304-310.

Stuff, J.E., P.H. Casey, K.L. Szeto, J.M. Gossett, J.M. Robbins, P.M. Simpson, C. Connell, & M.L. Bogle. (2004). *Household Food Insecurity Is Associated with Adult Health Status.* Journal of Nutrition, 134, 2330-2335.

"2012 Census Full Report." U.S. Department of Agriculture, Census of Agriculture. Web. May 2014.

"The 2015 HHS Poverty Guidelines." U.S. Department of Health and Human Services. Web. January 2015.

"USDA StrikeForce for Rural Growth and Opportunity." U.S. Department of Agriculture. Web. 22 Jul. 2014.

ACKNOWLEDGEMENTS AND CREDITS

We appreciate the contributions of the following people for their work on *Map the Meal Gap 2015*.

Craig Gundersen, Lead Researcher,
University of Illinois at Champaign-Urbana

Amy Satoh, Co-Investigator
Feeding America

Adam Dewey, Co-Investigator
Feeding America

Michael Kato, Co-Investigator
Feeding America

Emily Engelhard, Co-Investigator
Feeding America

Brian Odeen
Nielsen

Mitch Kriss
Nielsen

Patricia Ratulangi
Nielsen

TECHNICAL ADVISORY GROUP OF FEEDING AMERICA

Craig Gundersen
University of Illinois at Champaign-Urbana

Alison Jacknowitz
American University School of Public Affairs

Robert Santos
The Urban Institute

FEEDING AMERICA NATIONAL OFFICE STAFF

Brittany Banks
Nancy Curby
Maura Daly
Lisa Davis
Angela De Paul
Scott Ferry
Ross Fraser
Elizabeth Haberkorn
Monica Hake
Stephanie Heath
Michael Huffman
Lindsey Iero
Lisa Jericho
Magdalena Kipiniak
Nell Kolpin
Dan Michel
Brittany Morgan
Elizabeth Nielsen
Stacey O'Malley
Frances Panganiban
Lauren Pett
Elizabeth Rowan Chandler
Janine Stines
Eleni Towns
Kelli Walker
Elaine Waxman

Research for *Map the Meal Gap 2015* was generously underwritten by The Howard G. Buffett Foundation and supported by Nielsen and the ConAgra Foods Foundation.

Feeding America would also like to thank Futureman Digital, Ladywithafan Design and Social Capital for their technical assistance.

For more information about Feeding America, please visit **feedingamerica.org**

35 East Wacker Drive, Suite 2000
Chicago, Illinois 60601
1.800.771.2303
www.feedingamerica.org

Support Feeding America and help solve hunger.
Donate. Volunteer. Advocate. Educate.

THE HOWARD G. BUFFETT FOUNDATION
FOUNDING SPONSOR
nielsen
ConAgra Foods Foundation