



# MAP THE MEAL GAP

HIGHLIGHTS OF FINDINGS FOR OVERALL AND CHILD FOOD INSECURITY



# 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 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 RATE (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 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 human-service agencies, which provide the products directly to clients through various programs.

## **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% 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.

## **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.

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### CHILD FOOD INSECURITY IN CONGRESSIONAL DISTRICTS

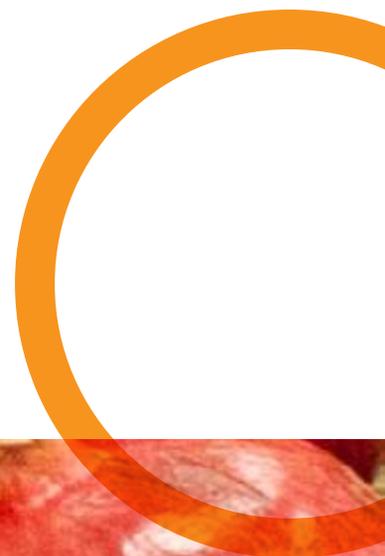
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# ABOUT FEEDING AMERICA

Feeding America is the nation's network of more than 200 food banks and the largest hunger-relief charity in the United States. Each year, Feeding America secures and distributes 3 billion pounds of food and grocery products through 61,000 agencies nationwide. Our agency network provides charitable food assistance to an estimated 37 million people in need annually.

Our strength is derived from our member food banks, which serve all 50 states, the District of Columbia and Puerto Rico. Feeding America serves nearly every metropolitan, suburban and rural community. Hunger does not discriminate and neither does the

Feeding America network. Our members serve people regardless of race, age, religion or status. For more than 35 years, the Feeding America network has been assisting low-income people who struggle to meet their daily food needs.

## HOW WE WORK



### THE DONORS AND PARTNERS

- Growers
- Processors
- Restaurants
- Manufacturers
- Distributors
- Retailers
- Convenience Stores
- Wholesalers
- Food Industry Associations
- Food Service Operators
- Food Drives

### FEEDING AMERICA

Using the latest technology, the Feeding America network distributes and tracks donated food to more than 200 certified member food banks nationwide.

### THE AGENCIES

- Food Pantries
- Youth Programs
- Community Kitchens
- Senior Centers
- Day Care Centers
- Rehabilitation Centers
- Homeless Shelters
- Kids Cafes
- Residential Shelters
- Other Charitable Organizations

### 37 MILLION AMERICANS IN NEED

- Victims of Disaster
- Children
- Working Poor
- Single-parent Families
- Unemployed
- Homeless
- Persons with Disabilities
- Older Persons

# Understanding Food Insecurity

A CLOSER LOOK AT FOOD INSECURITY IN THE U.S.\*

**49 MILLION**

INDIVIDUALS ARE FOOD INSECURE

**16 MILLION**

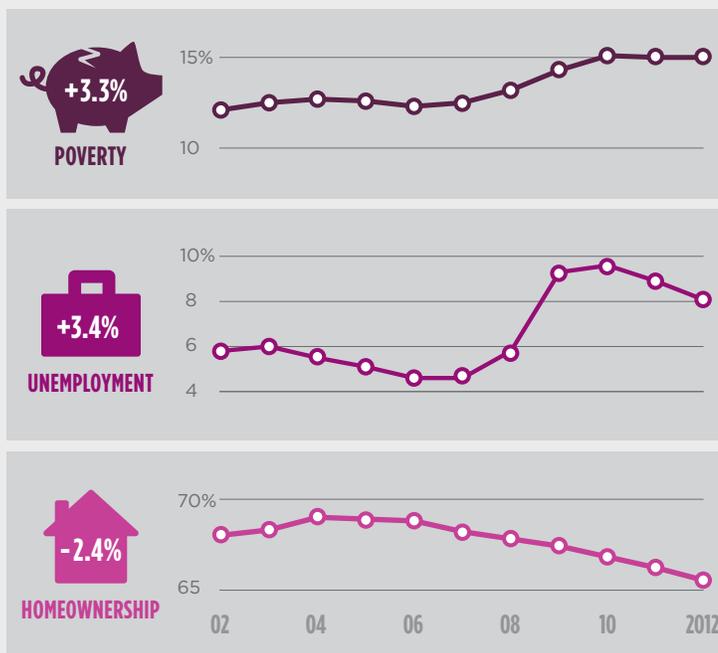
OF THEM ARE CHILDREN



WE ESTIMATED FOOD INSECURITY FOR ALL

**3,143 COUNTIES**  
IN THE UNITED STATES

## KEY FOOD INSECURITY DRIVERS OVER THE PAST DECADE†‡



## FOOD BUDGET SHORTFALL FOR FOOD-INSECURE INDIVIDUALS

FOOD-INSECURE INDIVIDUALS REPORT NEEDING AN ADDITIONAL FOOD BUDGET OF

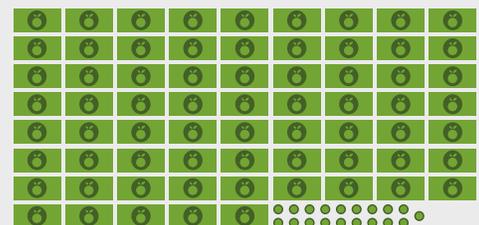
**\$2.26 PER PERSON PER DAY**



THAT'S \$15.82 PER WEEK



OR \$68.74 PER MONTH



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

\* Coleman-Jensen, A., M. Nord & A. Singh. Household Food Security in the United States in 2012. USDA Economic Research Service, 2013. Print.

† Percent African American and percent Hispanic are also key drivers of food insecurity.

‡ U.S. Census Bureau, Current Population Survey, 2001-12 and Bureau of Labor Statistics, Current Population Survey, 2001-12



# ABOUT MAP THE MEAL GAP 2014

We believe that addressing the problem of hunger requires a thorough understanding of the problem itself. For the fourth 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 2013, the Economic Research Service at the United States Department of Agriculture (USDA) released its most recent report on food insecurity, indicating that approximately 49 million people in the United States are living in food-insecure

households, nearly 16 million of whom are children (Coleman-Jensen et al., 2013). 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 assistance programs. It also estimates the number of people whose incomes may be too high to qualify for federal nutrition programs but who still need help meeting their families' food needs.

**It should be updated on an annual basis to reflect changing conditions.** By using the national and annual USDA food-insecurity data, county-level estimates can be calculated each year. The data presented in this report are drawn from 2012 Bureau of Labor Statistics data and the American Community Survey averages from the rolling 2008-2012 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 57 percent of people struggling with hunger actually have incomes above the federal poverty level and 58 percent of poor households are food secure (Coleman-Jensen et al., 2013). 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 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 [feedingamerica.org/mapthegap](http://feedingamerica.org/mapthegap).

## METHODOLOGY OVERVIEW

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

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

### 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: unemployment rate, poverty rate, median income, homeownership rates, percent African American and percent Hispanic. These variables were selected because they are publicly available at both the county

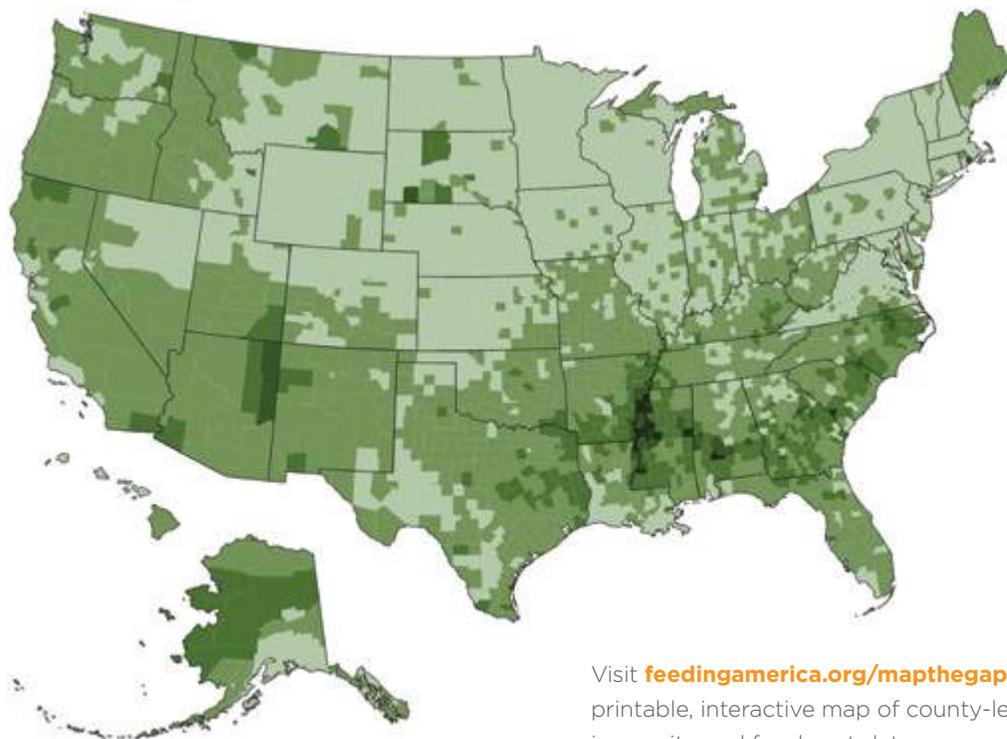
and state level and are associated with food insecurity. In addition, the model controls for state-specific and year-specific factors. County-level estimates were derived from the state-level relationships that exist between these indicators and food insecurity. Estimates were sorted by income categories 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.

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

The food-insecurity model illuminates the effect that the unemployment rate, the poverty rate and other factors (e.g., median income) have on food insecurity.

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 0.19 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 28 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.

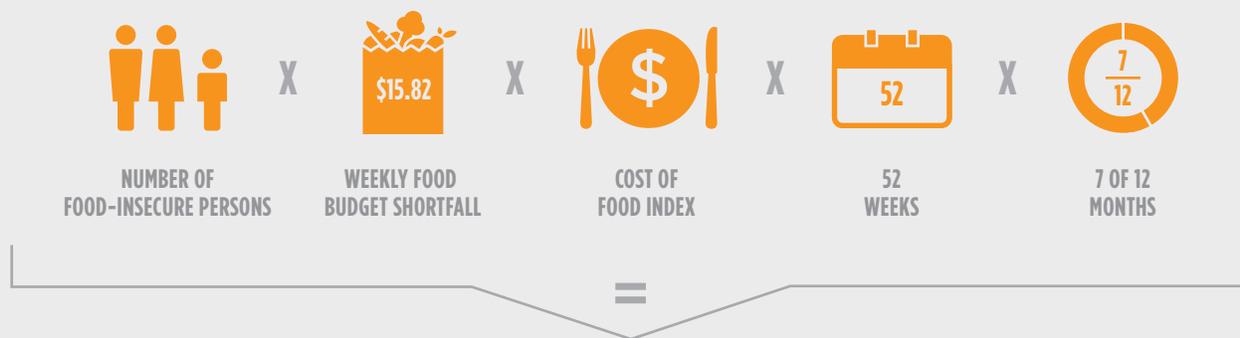
Estimates were also developed to sort the child food-insecurity estimates into categories based on household income; for the child food insecurity portion of this study, the categories are based on eligibility for child nutrition programs (above and below 185 percent of the poverty line) such as the 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.<sup>1</sup> 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.

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



## FOOD BUDGET SHORTFALL REPORTED BY FOOD-INSECURE INDIVIDUALS IN 2012

### 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 \$15.82 per person per week, a 10 percent increase from \$14.35 in 2011.

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., 2013).

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 \$57.54 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 \$2.74.

As with the food budget shortfall, the per-meal cost of \$2.74 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 their potential income-eligibility for federal programs.

## TRENDS IN COUNTY FOOD-INSECURITY RATES BETWEEN 2011 AND 2012

The following section reviews findings from the fourth year that Feeding America has conducted the *Map the Meal Gap* analysis. Food-insecurity rates for 2011 and 2012 were compared to identify 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. However, 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 USDA in order to generate the estimates.

Nationally, the food-insecurity rate remained essentially unchanged between 2012 and 2011 at 15.9 percent and 16.4 percent respectively (Coleman-Jensen et al., 2013). Similarly, poverty, a key national and county-level economic indicator that influences food insecurity, stayed approximately the same, although unemployment, another key driver of the *Map the Meal Gap* model, decreased (see Table O1).

Similar to the national-level statistics, average county-level food-insecurity rates across the country stayed the same from 2011 to 2012, remaining at 14.7 percent for all counties. The average of high food-insecurity rate counties – that is, the 10 percent of counties with

the highest rates of overall food insecurity – decreased slightly from 23.4 percent to 22.5 percent. Poverty rates for all counties and high food-insecurity rate counties again increased from 2011 to 2012 while unemployment rates continued to decrease<sup>2</sup>, mirroring the national-level findings (see Table O1). Across all counties, even among those with the highest rates of food insecurity, homeownership fell slightly from 2011 to 2012, but median household income increased in 2012.

The following sections explore county-level findings in greater detail. Please note that while substantial changes between 2011 and 2012 are highlighted, small changes are not.

### AVERAGE COUNTY-LEVEL ECONOMIC INDICATORS, 2012<sup>3</sup>

TABLE O1

County Grouping	Food-Insecurity Rates		Unemployment Rates		Poverty Rates		Homeownership Rates		Median Household Income	
	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
High Food-Insecurity Rate Counties	23.4%	22.5%	12.7%	11.3%	26.4%	26.7%	66.3%	66.0%	\$32,508	\$33,480
All U.S. Counties	14.7%	14.7%	8.6%	7.7%	15.9%	16.3%	73.0%	72.6%	\$43,417	\$45,644
National Average for All Individuals in the U.S.	16.4%	15.9%	8.9%	8.1%	15.9%	15.9%	64.6%	63.9%	\$50,502	\$51,371

<sup>2</sup> 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.

<sup>3</sup> Averages for the high food-insecurity rate counties and all U.S. counties are unweighted. All national average data come from the 2012 one-year ACS, except for food insecurity (USDA) and unemployment (BLS).

## 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=324; see Figure 03).<sup>4</sup>

Although the average of all the U.S. counties' food-insecurity rates remains at nearly 15 percent, the average food-insecurity rate for these 324 "high food-insecurity rate" counties is still approximately 23 percent. In other words, within these highest risk counties, more than one in five residents is struggling with hunger.

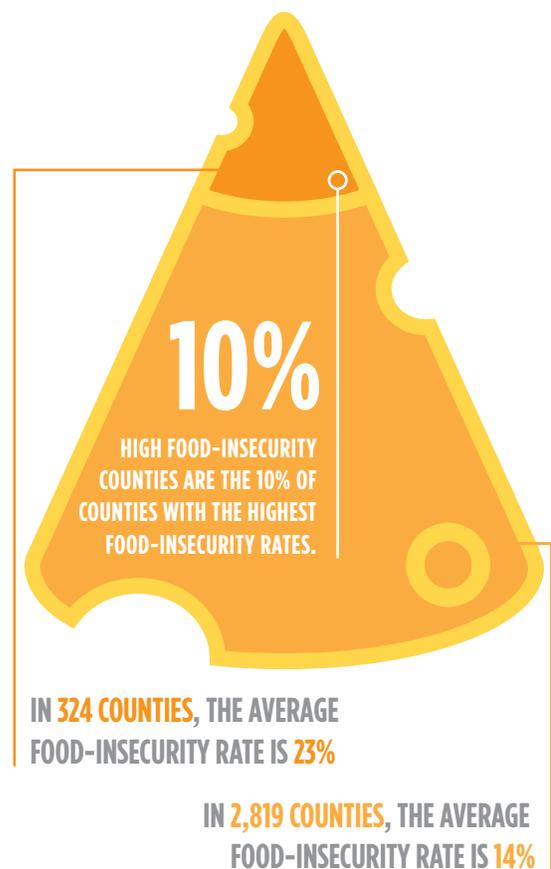
### GEOGRAPHY

High food-insecurity rate counties were analyzed according to the geographic classifications of metropolitan, micropolitan and nonmetropolitan ("rural").<sup>5</sup> Consistent with findings in 2011, 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. While not as high as the share in 2010, the proportion of high food-insecurity counties that were rural in 2012 was greater than that of 2011 (52 percent in 2012 versus 48 percent in 2011). The proportion of high food-insecurity counties that were metropolitan, however, remained virtually the same between 2011 (23 percent) and 2012 (24 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 Chart 01 on page 13),<sup>6</sup> 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 nearly 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).

FIGURE 03

THERE ARE 3,143 COUNTIES IN THE UNITED STATES.



IN HIGH FOOD-INSECURITY COUNTIES  
**MORE THAN 1 IN 5**  
INDIVIDUALS ARE FOOD INSECURE

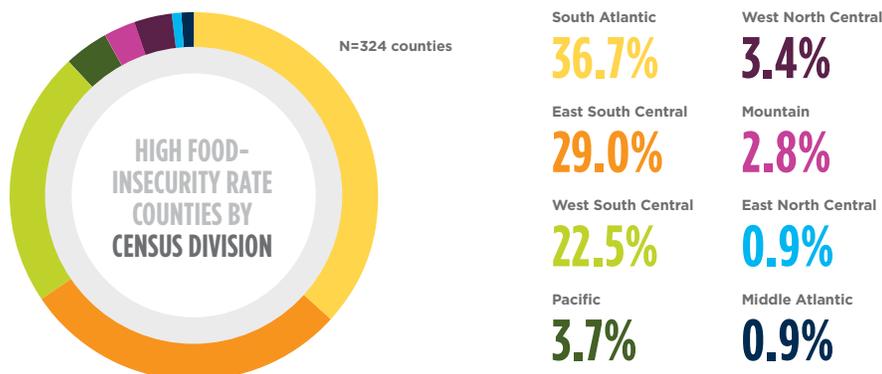
<sup>4</sup> All 3,143 counties defined by the U.S. Census Bureau were included in the analysis of 2012 data.

<sup>5</sup> These geographic entities are defined by the U.S. Office of Management and Budget (OMB). See Glossary for more information.

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

## HIGH FOOD-INSECURITY RATE COUNTIES BY CENSUS DIVISION<sup>7</sup>

CHART 01



## 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. population as a whole, as seen in Table 01 on page 11. The average annual unemployment rate for this group of counties was 11 percent in 2012, compared to eight percent across all counties. Imperial County, California had the highest unemployment rate in 2012 at 28 percent. The average of county-level poverty rates among this group was also high, averaging 27 percent in 2012 compared

to 16 percent for all counties, and as high as 50 percent in Shannon County, South Dakota. Not surprisingly, the average median household income in this group was lower: \$33,480 versus \$45,644 for all counties. The lowest median income in the group was in Owsley County, Kentucky (\$19,344). Homeownership rates were also lower in the high food-insecurity counties at an average of 66 percent compared to 73 percent for all counties, and dropping as low as 20 percent in Bronx County, New York.

## HIGH FOOD-INSECURITY RATE COUNTIES BY GEOGRAPHIC AREAS, 2012

TABLE 02

County Type	High Food-Insecurity Rate Counties	All Counties
METROPOLITAN	24.1%	37.1%
MICROPOLITAN	24.4%	20.4%
NON-METRO/RURAL	51.5%	42.5%

<sup>7</sup> 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.

## FURTHER EXPLORATIONS OF COUNTIES

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

### LOW FOOD-INSECURITY RATES

Twenty-nine of the 33 counties with the lowest estimated food-insecurity rates during 2012 remain 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 29 North Dakota counties ranges from 30 to 4,980 and the food-insecurity rate ranges from four percent to seven percent. Fairfax County, Virginia, with a rate of nearly seven percent, is one of the 33 counties with the lowest estimated food-insecurity rate; however, there are still over 70,000 people who are food-insecure in this county. It is important to note, as shown in Table O3, that populous areas' low 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 O3, the top 10 counties 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 17 percent, the average of unemployment rates is nine percent and the average of homeownership rates is 57 percent. The food-insecurity and unemployment

**COUNTIES WITH THE HIGHEST NUMBER OF FOOD-INSECURE INDIVIDUALS, 2012**

TABLE O3

State	County (Metro area)	Number of Food-Insecure Persons	Food-Insecurity Rate
CA	LOS ANGELES	1,603,910	16.3%
NY	NEW YORK (FIVE BOROUGHS, COLLECTIVELY)	1,428,810	17.4%
IL	COOK (CHICAGO)	797,090	15.3%
TX	HARRIS (HOUSTON)	765,970	18.7%
AZ	MARICOPA (PHOENIX)	601,540	15.7%
TX	DALLAS	476,540	20.0%
CA	SAN DIEGO	451,710	14.6%
MI	WAYNE (DETROIT)	387,340	21.3%
FL	MIAMI-DADE	384,390	15.3%
CA	ORANGE (ANAHEIM)	369,320	12.2%

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 are associated with large urban cities, there are some exceptions, such as Hidalgo County, Texas (138,490 food insecure), which is composed of many densely-populated smaller towns, and Kern County, California (143,310

food insecure), which is nearly the size of the state of New Jersey and includes the city of Bakersfield along with large expanses of rural areas. Of these top 50 counties, more than one-third (38 percent) are majority non-Hispanic white counties while 28 percent have at least one-third Hispanic residents and 14 percent have at least one-third non-Hispanic, African American 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.

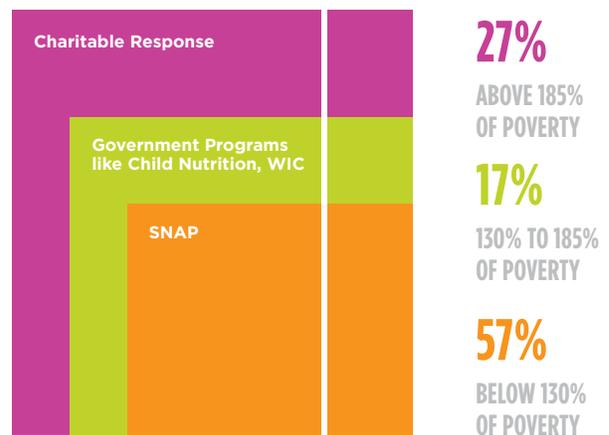
## FOOD INSECURITY AND INCOME

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-INSECURE INDIVIDUALS AND INCOME ELIGIBILITY, 2012<sup>8</sup>

CHART 02



<sup>8</sup> Coleman-Jensen, A., Nord, M., & Singh, A. (2013). Household Food Security in the United States in 2012. USDA, ERS.

## SNAP AND OTHER GOVERNMENT PROGRAMS

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 on page 15).<sup>9</sup> 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 2012 poverty guideline for a family of four in the lower 48 states was a pre-tax income of \$23,050. To determine the limit for SNAP eligibility, one would multiply \$23,050 by 130 percent to arrive at \$29,965, the income limit for a family of four to be eligible for SNAP benefits in 2012, among other eligibility criteria.<sup>10</sup>

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 the SNAP program. Looking across income bands provides context for determining what federal and state programs are available to food-insecure people and what gaps are left to be filled 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.

## ELIGIBILITY FOR FEDERAL NUTRITION PROGRAMS

Nationally, 27 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 on page 15). 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 141 counties where the majority of food-insecure people are likely ineligible for government assistance programs and most of these (75 percent) are in metropolitan areas that tend to have higher-than-average median incomes. For example, Douglas County, Colorado, which is near Denver, Colorado, has 28,440 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, there are 15 counties in the Commonwealth of Virginia 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 poverty), while there are 72 counties that have food-insecure populations where a majority have incomes that likely make them SNAP eligible (at or below 130 percent of poverty).

Among the high food-insecurity rate counties (those 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 19 percent of food-insecure people have incomes too high for eligibility for federal food assistance programs in these counties. Still, even in high food-insecurity counties there are a considerable number of food-insecure people who may rely primarily on family, friends and charitable response when they need help.

<sup>9</sup> Note that these numbers remained the same between 2011 and 2012, except in the state of New York, where the thresholds changed from 130 percent for SNAP and 185 percent for other governmental aid, to 200 percent for SNAP.

<sup>10</sup> 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.

## FOOD INSECURITY AND RACE

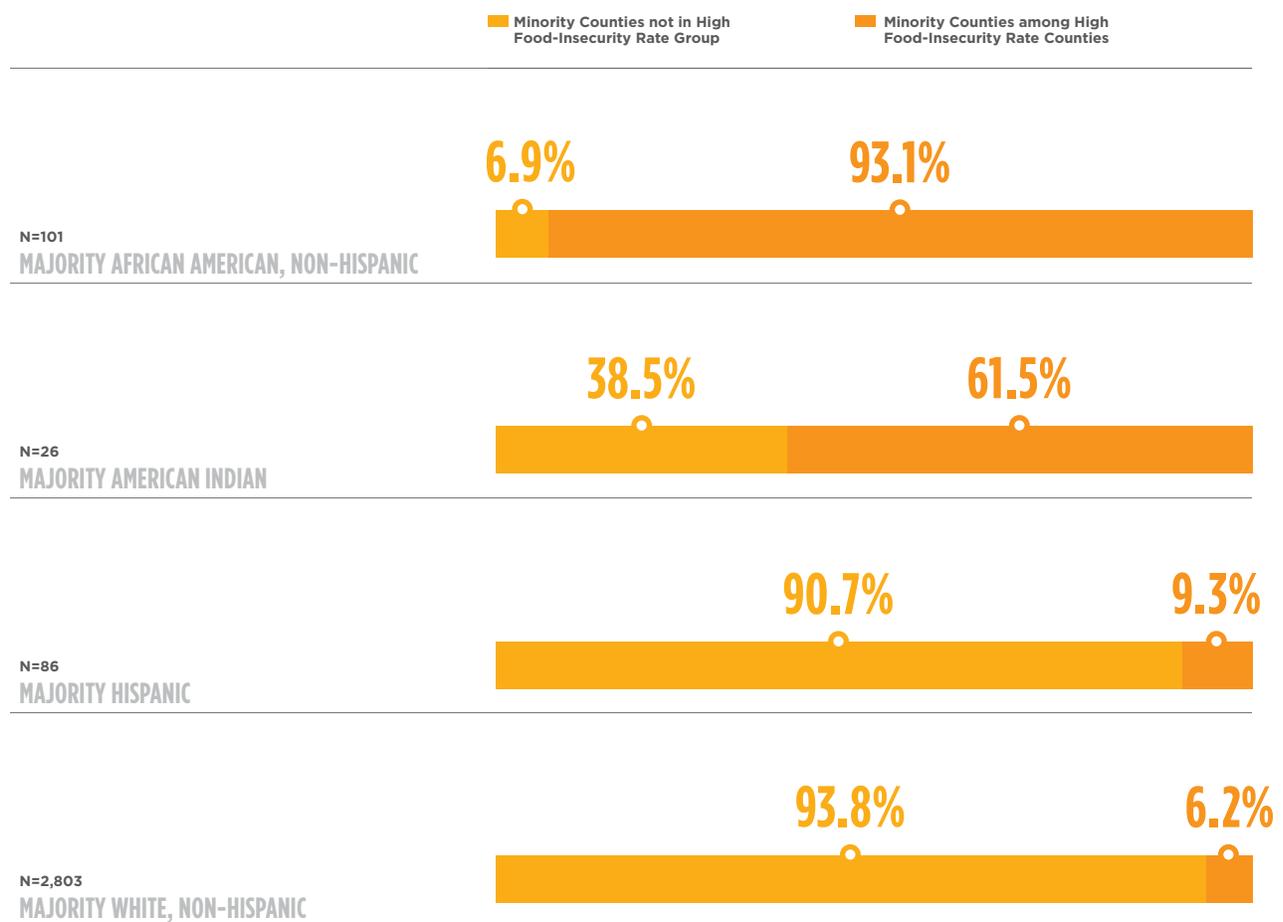
It is well-documented that some racial and ethnic groups in the U.S. such as American Indians, Latinos and African Americans, are disproportionately at risk for food insecurity.

As illustrated in Chart 03, these discrepancies become especially striking at the county level.<sup>11</sup> Further analysis of food insecurity in areas with large populations of

non-whites provides some additional insight into the challenges faced by minority communities.

### MINORITY COUNTIES IN THE U.S. VS. HIGH FOOD-INSECURITY RATE COUNTIES, 2012

CHART 03



<sup>11</sup> For the purposes of this comparison, racial groups (i.e. African American, American Indian, Hispanic and White) are mutually exclusive of each other. Because the U.S. Census Bureau considers Hispanic/Latino as an ethnicity rather than a race, majority Hispanic counties may include individuals of any race who are also of Hispanic descent.

## MAJORITY-AMERICAN INDIAN COUNTIES

It is well known that the American Indian population has higher levels of food insecurity when compared to the U.S. average (Gordon & Oddo, 2012; Gundersen, 2008). Although a relatively small percentage of the food-insecure population in the U.S. is identified as American Indian, county-level analysis brings into focus the challenges for these communities. The number of majority-American Indian counties with food-insecurity rates in the top 10 percent continued to rise in 2012, bringing the total to 16 counties from 15 in 2011 (see Table O4). While the increase was not as dramatic as seen between 2010 and 2011, these counties continue to represent over 60 percent of all counties that are majority-American

Indian (note that there are only 26 counties in the U.S. that are majority-American Indian).<sup>12</sup> These 16 counties, 12 of which are located in just two rural states (Alaska and South Dakota), face a disproportionately high level of poverty. The counties' average 2012 poverty rate is 33 percent versus an average of 27 percent for all high food-insecurity rate counties and 16 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 Hopi, Zuni and Navajo Nation reservations, and neighboring Apache County, Arizona, which includes Fort Apache and Zuni reservations.

**MAJORITY-AMERICAN INDIAN COUNTIES  
AMONG HIGH FOOD-INSECURITY RATE COUNTIES, 2012**

TABLE O4

State	County	Population	Unemployment Rate	Poverty Rate	Percent American Indian	Homeownership Rate	Food-Insecurity Rate
SD	SHANNON	13,683	13.7%	49.5%	93.7%	51.8%	25.6%
AK	WADE HAMPTON	7,556	21.5%	29.7%	90.3%	68.7%	24.6%
SD	TODD	9,711	9.0%	44.6%	83.7%	47.1%	22.7%
AK	BETHEL	17,184	15.2%	21.8%	81.2%	64.7%	20.0%
AK	NORTHWEST ARCTIC	7,601	15.1%	19.0%	80.4%	55.2%	20.3%
SD	BUFFALO	1,950	14.3%	33.3%	78.9%	40.6%	24.2%
NM	MCKINLEY	71,888	8.7%	33.6%	72.8%	71.9%	22.2%
SD	DEWEY	5,358	13.2%	30.3%	72.3%	56.9%	21.1%
AZ	APACHE	71,618	19.6%	34.0%	72.0%	76.2%	25.7%
AK	NOME	9,580	11.6%	26.5%	71.5%	54.3%	20.3%
SD	ZIEBACH	2,796	7.4%	41.1%	70.0%	54.0%	20.4%
AK	YUKON-KOYUKUK	5,637	14.7%	22.9%	68.6%	71.3%	19.7%
SD	CORSON	4,046	8.3%	41.7%	64.8%	55.1%	21.0%
MT	GLACIER	13,422	10.2%	29.1%	64.0%	59.9%	19.6%
MT	BIG HORN	12,872	12.8%	26.8%	61.8%	65.3%	19.8%
SD	MELLETTTE	2,057	7.6%	41.1%	56.3%	61.5%	19.7%

<sup>12</sup> This analysis was completed for all non-Hispanic American Indians.

## MAJORITY-AFRICAN AMERICAN COUNTIES

A total of 101 counties in 2012 are African American-majority counties, compared to 104 counties in 2010 and 2011, and 93 percent (N=94) of these counties fall into the “high food-insecurity rate” county group (see Chart 03 on page 17). These 94 counties have an average poverty rate of 29 percent, which is higher than the rate for all high food-insecurity rate counties (27 percent) and all U.S. counties (16 percent). Table 05 illustrates the top 10 majority-African American counties within the high food-insecurity rate group. Humphreys County, Mississippi, the county with the highest food-insecurity rate in the country, is 75 percent African American, has a median income of \$24,783, a poverty rate of 41 percent and an unemployment rate of 16 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; DeKalb County, Georgia; 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).

## MAJORITY-LATINO COUNTIES

The number of Latino-majority<sup>13</sup> counties in the U.S. grew from 82 counties in 2011 to 86 counties in 2012. Eight of these counties (9 percent) were high food-insecurity counties, five fewer than in 2011—see Table 06 on page 20 for a complete list of counties.

Latino-majority counties in the highest food-insecurity rate group continue to have substantially higher poverty and unemployment rates when compared to the rest of the nation. The average poverty rate for these counties in 2012 is 30 percent, compared to 27 percent for all high food-insecurity counties and 16 percent for all U.S. counties. This rate

**TOP 10 MAJORITY-AFRICAN AMERICAN COUNTIES AMONG HIGH FOOD-INSECURITY RATE COUNTIES, 2012**

TABLE 05

State	County	Population	Unemployment Rate	Poverty Rate	Percent African American	Homeownership Rate	Food-Insecurity Rate
MS	JEFFERSON	7,743	14.4%	41.1%	86.2%	69.6%	31.9%
MS	CLAIBORNE	9,681	13.0%	35.8%	83.8%	77.5%	29.0%
MS	HOLMES	19,207	16.5%	42.6%	83.4%	71.5%	32.7%
AL	MACON	21,214	9.8%	28.1%	82.5%	67.5%	26.0%
AL	GREENE	9,067	11.4%	32.9%	81.8%	70.3%	27.5%
VA	PETERSBURG CITY	32,226	11.3%	24.9%	79.3%	46.7%	25.4%
MS	HUMPHREYS	9,399	15.9%	41.2%	75.0%	57.0%	32.8%
MS	COAHOMA	26,099	12.8%	37.4%	74.8%	54.0%	30.8%
GA	HANCOCK	9,422	17.0%	31.4%	74.7%	75.0%	28.1%
AL	SUMTER	13,669	11.6%	38.1%	74.1%	65.0%	28.4%

<sup>13</sup> 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.

is also higher than the 29 percent average poverty rate for high food-insecurity counties that are majority-African American. Latinos in these counties are also disproportionately affected by unemployment with an average unemployment rate of 18 percent compared to 11 percent for all high food-insecurity rate counties, and eight percent for all U.S. counties. Unemployment for these Latino-majority counties did return to its 2010 level, increasing slightly from 17 percent in 2011.

Three of the eight high food-insecurity rate, majority-Hispanic counties are located in Texas, while other states represented include Arizona, California, New Mexico and New York. As with African American-majority counties, there are some Latino-majority counties that have relatively large 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. While Bronx County remains in the “high food insecurity” group, Hidalgo is no longer in the top 10 percent highest food-insecurity rate counties.

Another interesting detail about Latino-majority counties emerges when high food-insecurity rates are compared to counties with the top agricultural sales in the United States. Merced County, California falls into the top five for highest agricultural sales in the U.S. and is also in the top 10 percent highest food-insecurity rate counties.<sup>14</sup> Fresno and Tulare counties in California are also in the top five counties, are majority-Latino and have above-average food-insecurity rates of 19 percent and 18 percent, respectively. Thus, there are significant numbers of food-insecure people in areas of the country that produce some of the nation’s greatest agricultural abundance and they are likely to be disproportionately Latino.

**MAJORITY-HISPANIC COUNTIES  
AMONG HIGH FOOD-INSECURITY RATE COUNTIES, 2012**

TABLE 06

State	County	Population	Unemployment Rate	Poverty Rate	Percent Hispanic	Homeownership Rate	Food-Insecurity Rate
TX	STARR	60,882	15.0%	39.9%	98.3%	79.1%	19.4%
TX	ZAVALA	11,753	14.1%	36.4%	93.3%	69.3%	19.6%
TX	WILLACY	21,983	14.0%	37.7%	87.2%	75.0%	19.8%
CA	IMPERIAL	173,487	28.3%	23.0%	80.3%	57.0%	22.7%
NM	LUNA	25,162	17.2%	29.7%	61.7%	67.1%	22.9%
AZ	YUMA	196,420	27.5%	21.4%	59.6%	69.6%	24.3%
CA	MERCED	256,398	17.0%	24.6%	55.0%	54.2%	19.4%
NY	BRONX	1,386,364	12.7%	29.3%	53.5%	19.9%	21.8%

<sup>14</sup> Based on the market value of agricultural products sold from the 2007 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.

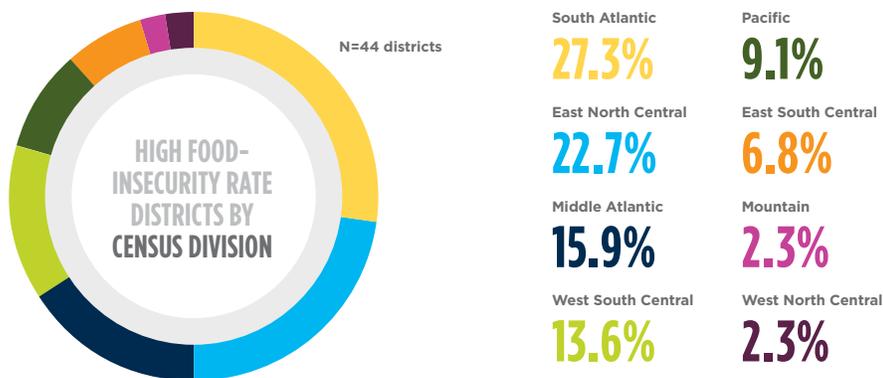
In congressional districts, food insecurity ranged from a low of six percent in Virginia's 10th congressional district to a high of 30 percent in Michigan's 13th congressional district. Congressional districts that fell into the top 10 percent for high food-insecurity rates (N=44) had an average food-insecurity rate of 25 percent. When compared to national averages, these districts with the highest food-insecurity rates also had higher-than-average unemployment (14 percent vs. eight percent) and poverty (26 percent vs. 16 percent) rates and lower-than-average median income (\$37,724 vs. \$51,371). While high food-insecurity rate counties are heavily concentrated in the South (as noted in Chart 01 on p. 13), the high food-insecurity

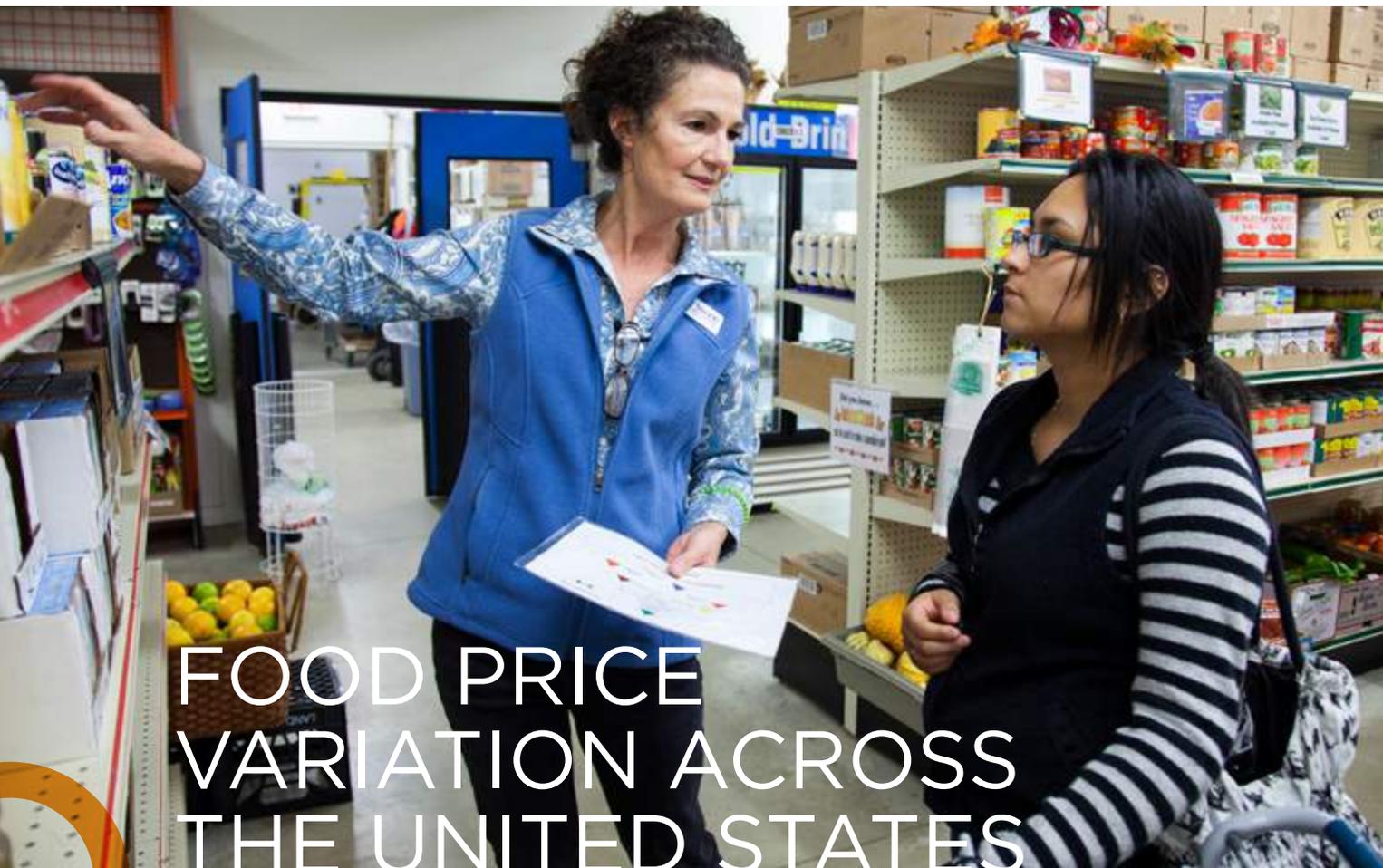
rate congressional districts are much more geographically diverse, as shown in Chart 04 below.

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 45,000 individuals) is food insecure. Each of the wealthiest districts (the 10 percent of congressional districts with the highest median incomes) is home to an average of 79,000 people experiencing food insecurity. Cumulatively, those wealthiest districts are home to more than 3 million food-insecure men, women and children.

### HIGH FOOD-INSECURITY RATE CONGRESSIONAL DISTRICTS BY CENSUS DIVISION

CHART 04





# 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 level food-insecurity rates. In conjunction, Feeding America sought to understand the amount of additional food 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. Although the analysis does not imply causality between food costs and food insecurity, food prices are an important component of cost-of-living and relate directly to the research focus on food.

In 2012, the average meal cost (the average amount that a food-secure individual reports spending) across the continental U.S. was \$2.74, a slight increase from \$2.67 in 2011. Results indicate that local 2012 food prices vary from 70 percent to 201 percent of the national average, a cost variation ranging from as little as \$1.93 in Maverick County, Texas to as much as \$5.50 in Crook County, Oregon.<sup>15</sup> Among the counties with the top

10 percent highest food-insecurity rates in the nation, food prices reach as high as 122 percent of the national average (\$3.34 per meal in Orleans Parish (County), Louisiana). 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.

## HIGH FOOD-COST BY GEOGRAPHIC AREA, 2012

TABLE 07

County Type	High Food-Cost	All Counties
METROPOLITAN	55.1%	37.1%
MICROPOLITAN	20.3%	20.4%
NON-METRO/RURAL	24.7%	42.5%

## COUNTIES WITH HIGHER FOOD PRICES

The top 10 percent of counties with the most expensive food costs (316 in total) have an average meal cost of \$3.23, 18 percent higher than the national average of \$2.74. There are 50 counties where the cost of a meal is at least 25 percent above the national average (\$3.43 or higher). More than half (55 percent) of the high-cost counties are located in metropolitan areas (versus 37 percent of all counties), while 25 percent are in rural areas (versus 42 percent of all counties). See Table 07 above for a breakout of high-cost counties by geographic area.

In some cases, the meal cost may be high primarily 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

\$3.19, is a popular vacation area with a high median income. There are a few other counties with a significant resort/vacation presence among the highest meal-cost areas, for example, Aspen in Pitkin County, Colorado (\$3.14) and Napa County, California (\$3.34). While households in areas with a significant resort/vacation presence typically have higher median incomes, the areas also include many service 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 (\$3.99), the District of Columbia (\$3.89) and the Virginia counties surrounding the nation's capital (\$3.52 in Arlington County, Virginia and \$3.72 in Alexandria City (County), Virginia).

<sup>15</sup> Alaska and Hawaii were excluded from this analysis leaving 3,109 counties as opposed to 3,143.



## HIGH FOOD INSECURITY COUPLED WITH HIGH FOOD COST

There are 18 high food-insecurity counties that also have high meal costs (they fall into both the top 10 percent for highest food-insecurity rates and highest prices) (see Table O8 on page 25). While these counties do not face the highest food prices in the nation, the average cost per meal is \$3.26, which is 19 percent above the national average of \$2.74. The highest meal costs in this group are Orleans Parish (County), Louisiana and Richmond City (County), Virginia at \$3.41 and \$3.35 respectively. These 18 counties also struggle with high poverty rates (30 percent compared to the national average of 16 percent), high unemployment rates (average is 10 percent compared to eight percent) and low homeownership (57 percent compared to a

73 percent average for all counties). Additionally, an average of more than one in every five individuals in these counties is food-insecure.

The 18 counties with both high food insecurity and high meal cost represent a substantial change from 2011, when only nine counties fell into this category. Seven of these counties are rural, while the remaining are split between metropolitan (six counties) and micropolitan (five counties). With the exception of East North Central and New England, every census region in the country has at least one county with both high food insecurity and high meal cost.

**HIGHEST FOOD-INSECURITY AND  
HIGHEST FOOD-COST COUNTIES, 2012**

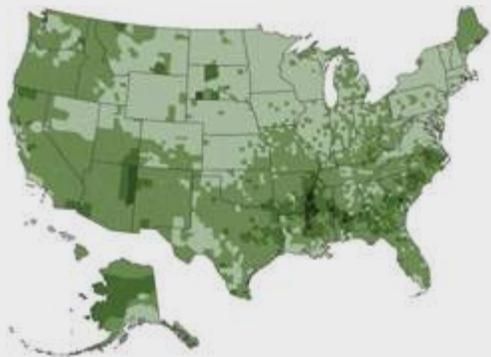
TABLE 08

State	County	Population	Unemployment Rate	Poverty Rate	Percent White, Non-Hispanic	Percent Hispanic	Percent African American, Non-Hispanic	Home-ownership Rate	Food-Insecurity Rate	Local Weighted Cost per Meal
MS	HOLMES	19,207	16.5%	42.6%	15.9%	0.1%	83.4%	71.5%	32.7%	\$3.17
MS	YAZOO	28,220	11.4%	34.3%	37.2%	4.9%	56.2%	60.6%	26.8%	\$3.30
AL	MACON	21,214	9.8%	28.1%	15.4%	1.3%	82.5%	67.5%	26.0%	\$3.18
MS	OKTIBBEHA	47,486	9.2%	34.2%	58.1%	1.5%	36.8%	50.1%	25.1%	\$3.05
MS	ATTALA	19,454	11.1%	28.1%	55.5%	1.7%	42.2%	74.6%	22.8%	\$3.09
SD	TODD	9,711	9.0%	44.6%	9.5%	2.8%	0.2%	47.1%	22.7%	\$3.11
LA	ORLEANS	341,407	7.8%	27.2%	30.4%	5.2%	59.7%	47.6%	22.3%	\$3.41
NY	BRONX	1,386,364	12.7%	29.3%	10.9%	53.5%	30.3%	19.9%	21.8%	\$3.08
VA	RICHMOND CITY	205,348	8.5%	26.7%	39.1%	6.1%	49.7%	44.1%	21.7%	\$3.35
ID	MADISON	37,311	5.5%	36.2%	90.6%	5.9%	0.6%	50.3%	20.9%	\$3.09
GA	MUSCOGEE	191,278	9.1%	18.8%	43.7%	6.5%	44.5%	54.3%	20.6%	\$3.05
MS	YALOBUSHA	12,647	9.6%	19.8%	59.9%	1.3%	38.0%	73.7%	20.3%	\$3.04
NC	HYDE	5,810	10.9%	23.3%	58.7%	6.2%	34.3%	73.4%	20.1%	\$3.03
CA	LAKE	64,360	15.0%	23.7%	74.1%	17.2%	2.2%	63.3%	19.9%	\$3.30
GA	FULTON	929,535	9.6%	16.8%	41.0%	7.8%	43.8%	54.6%	19.8%	\$3.04
SD	MELLETTTE	2,057	7.6%	41.1%	37.8%	1.8%	0.0%	61.5%	19.7%	\$3.27
WA	WHITMAN	44,997	6.3%	32.3%	81.7%	4.7%	2.0%	46.8%	19.6%	\$3.10
MS	LAFAYETTE	47,586	7.3%	23.5%	70.6%	2.2%	24.1%	62.4%	19.4%	\$3.32

## Map the Meal Gap at a Glance

PERCENTAGE OF PEOPLE PER COUNTY WHO ARE FOOD INSECURE

4 - 14%   15 - 19%   20 - 24%   25 - 29%   30% +



  
OVERALL



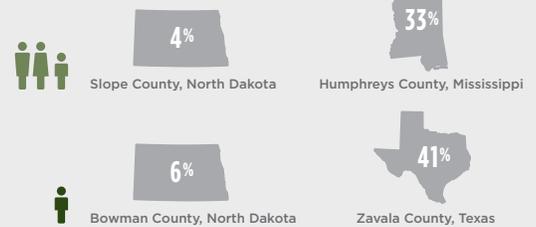
  
CHILD

FOOD INSECURITY  
EXISTS EVERYWHERE



CHILDREN  
ARE AT HIGHER RISK

FOOD INSECURITY RANGE



WHAT DOES "HIGH FOOD INSECURITY" MEAN?



FOOD INSECURITY AND RACE

**324 COUNTIES**  
ARE HIGH FOOD-INSECURITY COUNTIES  
MINORITIES ARE DISPROPORTIONATELY AFFECTED

 Non-High Food-Insecurity Counties    High Food-Insecurity Counties

 **94**

There are 101 Majority-African American Counties in the U.S.

 **16**

26 Majority-American Indian Counties

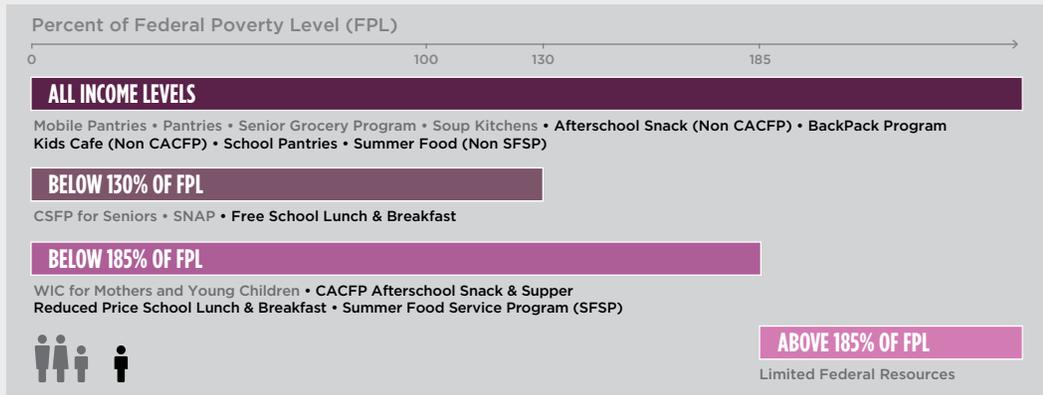
 **8**

86 Majority-Hispanic Counties

 2,803 Majority-White, Non-Hispanic Counties

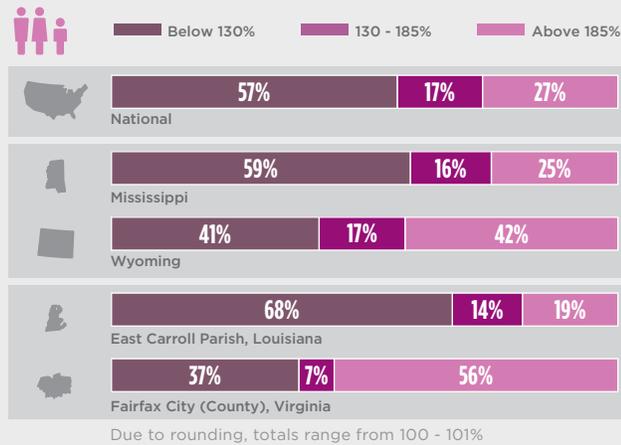
122 counties have no majority race and are therefore not represented in this data set.

SERVICES FOR FOOD-INSECURE INDIVIDUALS BASED ON INCOME

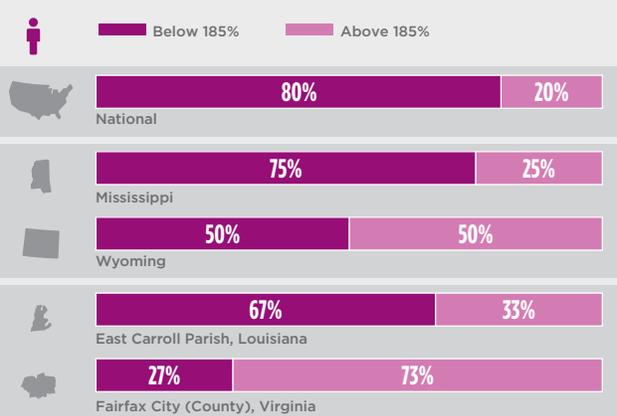


NATIONALLY,  
**27%**  
OF FOOD-INSECURE  
INDIVIDUALS  
MAY BE INELIGIBLE  
FOR GOVERNMENT  
ASSISTANCE

OVERALL FOOD INSECURITY AND INCOME-LEVEL VARIATION



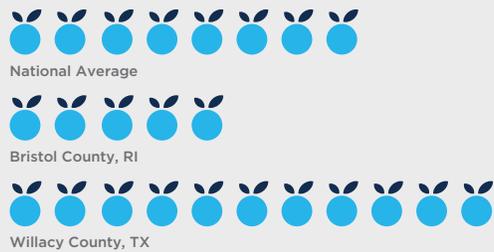
CHILD FOOD INSECURITY AND INCOME-LEVEL VARIATION



HOW FAR DOES A GROCERY BUDGET GO?

IN BRISTOL COUNTY, RHODE ISLAND, ONE DOLLAR PURCHASES

**47% LESS FOOD**  
THAN THE NATIONAL AVERAGE



HOW DOES THE PRICE OF A MEAL VARY NATIONALLY?





# CHILD FOOD INSECURITY: RESULTS AND DISCUSSION

The results of the *Map the Meal Gap 2014: 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 ranged from a low of six percent in 2012 to a high of 41 percent<sup>16</sup>. 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.

<sup>16</sup> Results indicate that child food insecurity exists in every county in the U.S. with a population under age 18. The American Community Survey for 2012 estimates the child populations of Kalawao, HI and Loving, TX as 0.



## 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 30-31. The state CFI rates range from a low of 11 percent in North Dakota to a high of 29 percent in New Mexico. Even in the most food-secure state, 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 highly consistent with previous *Map the Meal Gap* studies, which found 16 states that fell into both groups in 2011.<sup>17</sup> These 17 high-need states are dispersed throughout the U.S., representing all areas of the country except New England, Mid-Atlantic and the West North Central regions.<sup>18</sup> Some states in the New England region, however, have high absolute numbers of children living in food-insecure households because they are densely populated. For example, Massachusetts is home to over 230,000 food-insecure children.

<sup>17</sup> Based on one-year state data aggregated from 2012 congressional districts rather than the three-year state averages provided in the USDA's annual report on household food security.

<sup>18</sup> See footnote on page 13 for a complete list of states included in each region.

## CHILD FOOD INSECURITY BY STATE, 2012

TABLE O9

State	Rank	Total Child Population (Under 18)*	Child Food-Insecurity Rate	Number of Children Living in Food-Insecure Households	Overall Food-Insecurity Rate
U.S. <sup>19</sup>		73,710,410	21.6%	15,898,000	15.9%
NM	1	515,848	29.2%	150,390	18.6%
MS	2	747,669	28.7%	214,720	22.3%
AZ	3	1,619,585	28.2%	456,760	17.8%
GA	4	2,495,747	28.1%	700,780	18.9%
NV	4	664,422	28.1%	186,380	16.8%
DC	6	109,452	28.0%	30,600	14.5%
AR	7	711,629	27.7%	196,950	19.4%
FL	8	4,000,973	27.6%	1,103,850	17.9%
TX	9	6,981,175	27.4%	1,909,470	18.3%
OR	10	860,746	27.3%	235,410	16.7%
NC	11	2,284,002	26.7%	608,850	18.6%
SC	12	1,080,976	26.4%	284,880	18.0%
CA	13	9,239,306	26.3%	2,426,510	16.2%
AL	14	1,124,975	25.8%	289,960	18.6%
OK	15	936,284	25.6%	239,380	17.2%
OH	16	2,659,925	25.2%	671,090	17.2%
TN	17	1,494,217	24.7%	368,530	17.1%
ME	18	265,987	24.1%	64,200	15.5%
HI	19	302,881	23.9%	72,390	14.2%
LA	20	1,119,124	23.4%	261,960	16.9%
WA	20	1,585,029	23.4%	370,380	15.0%
KS	22	721,277	22.5%	162,400	14.8%
MI	23	2,267,623	22.3%	505,730	16.8%
MT	24	220,140	22.0%	48,500	14.6%
MO	24	1,403,706	22.0%	308,110	17.1%

\* The total child population is an aggregation of the child population for congressional districts in each state. These data come from the 2012 American Community Survey, U.S. Census Bureau.

<sup>19</sup> Coleman-Jensen, A., et al., (2013). Household Food Security in the United States in 2012. USDA ERS.

State	Rank	Total Child Population (Under 18)*	Child Food-Insecurity Rate	Number of Children Living in Food-Insecure Households	Overall Food-Insecurity Rate
NY	26	4,261,010	21.8%	927,150	14.1%
IN	26	1,589,419	21.8%	345,730	15.7%
WV	28	384,220	21.7%	83,190	15.0%
KY	29	1,017,979	21.6%	220,170	16.7%
IL	29	3,063,051	21.6%	661,950	14.2%
ID	29	424,752	21.6%	91,730	15.8%
CO	32	1,231,307	21.3%	262,110	14.6%
RI	32	216,962	21.3%	46,150	14.7%
WI	34	1,316,750	20.7%	273,140	12.6%
NE	34	462,802	20.7%	95,680	13.4%
UT	36	887,188	20.7%	183,320	15.5%
PA	37	2,737,454	20.6%	562,770	14.3%
VT	38	123,889	19.8%	24,530	13.4%
CT	39	792,766	19.6%	155,380	13.9%
AK	39	187,265	19.6%	36,650	14.0%
MD	41	1,342,935	19.3%	259,330	13.1%
IA	41	722,666	19.3%	139,200	12.7%
WY	43	136,610	19.2%	26,190	13.0%
NJ	44	2,026,738	18.5%	375,240	13.0%
SD	44	204,222	18.5%	37,770	12.3%
DE	46	204,920	18.3%	37,430	13.0%
MA	47	1,401,255	16.6%	232,270	11.9%
NH	48	275,022	16.2%	44,440	10.9%
VA	48	1,854,632	16.2%	299,600	12.1%
MN	50	1,277,800	16.1%	205,910	10.7%
ND	51	154,098	10.6%	16,350	7.7%

## COUNTY-LEVEL CHILD FOOD INSECURITY

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

### COUNTY CHILD FOOD-INSECURITY RATES BETWEEN 2011 AND 2012

Nationally, food-insecurity rates for households with children remained essentially unchanged, from 22.4 percent in 2011 to 21.6 percent in 2012 (Coleman-Jensen et al., 2013) (see Table 10). Consistent with this national trend, less than two percent of all counties experienced meaningful changes in child food insecurity. It is important to note that 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 child populations. Because of this, specific county comparisons between 2011 and 2012 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=318), or “high CFI counties,” nearly one-third of the children are struggling with food insecurity (ranging from 29 percent to 41 percent). In addition to having high CFI rates, these counties are very poor in comparison to the rest of the nation. An average of 39 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).

Three counties—Yuma County, Arizona; Starr County and Zavala County, Texas—have CFI rates of 40 percent or higher. All three are located near the Mexican border where over three quarters of the child population is Hispanic. Zavala County in Texas has the highest CFI rate (41 percent). Sixty-nine counties across the nation

**FOOD INSECURITY AND INDICATORS AMONG COUNTIES WITH THE HIGHEST RATES OF CHILD FOOD INSECURITY (UNWEIGHTED AVERAGES), 2012**

TABLE 10

County Grouping	Child Food-Insecurity Rates		Unemployment Rates		Child Poverty Rates		Homeownership Rates*		Median Household Income*	
	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
High Food-Insecurity Rate Counties	32.2%	31.7%	12.2%	11.0%	37.3%	38.9%	60.2%	59.0%	\$36,597	\$36,425
All U.S. Counties	22.5%	23.0%	8.6%	7.7%	22.0%	23.0%	68.4%	67.5%	\$51,439	\$53,819
National Average for All Individuals in the U.S.	22.4%	21.6%	8.9%	8.1%	22.5%	22.6%	61.6%	60.4%	\$58,035	\$59,537

\* Among households with children

have higher CFI rates than the highest reported county-level food-insecurity rate for the general population, which is 33 percent in Humphreys County, Mississippi. The analysis also shows that child food insecurity is more pervasive in rural areas. Fifty-nine percent of high CFI counties are classified as rural, compared to 43 percent of counties in the U.S. (see Table 11).

**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 16 counties in the U.S. with more than 100,000 food-insecure children (see Table 12 on page 34). Two of these counties—Kings and Bronx—are located within the New York metropolitan area; we considered all five of the counties that comprise the New York metro area for this analysis. Of the counties that are home to more than 100,000 food-insecure children, only one of these (Bronx County, New York, with a CFI rate of 30 percent) is also among the top 10 percent of counties for high CFI rates. Counties with more than 100,000 food-insecure children have an average child food-insecurity rate of 25 percent, an average child poverty

rate of 25 percent and an average unemployment rate of nine percent. Each of these indicators is higher than the averages of all U.S. counties in 2012 (22 percent, 23 percent and eight percent, respectively).

**41%** OF ALL CHILDREN LIVING IN ZAVALA COUNTY, TEXAS ARE FOOD INSECURE

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 more than 100,000 food-insecure children face real challenges in addressing the need in their communities because of the sheer number of children who may need assistance.

**HIGH CHILD FOOD-INSECURITY RATE COUNTIES BY GEOGRAPHIC AREAS, 2012**

TABLE 11

County Type	High Child Food-Insecurity Rate Counties	All Counties
METROPOLITAN	15.4%	37.1%
MICROPOLITAN	25.5%	20.4%
NON-METRO/RURAL	59.1%	42.5%

## COUNTIES WITH MORE THAN 100,000 FOOD-INSECURE CHILDREN, 2012

TABLE 12

State	County (Metro area)	Number of Children Living in Food-insecure Households	Child Food-Insecurity Rate
CA	LOS ANGELES	620,090	25.8%
NY	NEW YORK (FIVE BOROUGHES, COLLECTIVELY)	420,470	23.7%
TX	HARRIS (HOUSTON)	298,860	26.1%
IL	COOK (CHICAGO)	255,180	20.8%
AZ	MARICOPA (PHOENIX)	248,090	24.6%
TX	DALLAS	175,810	26.8%
CA	SAN DIEGO	163,780	22.6%
CA	ORANGE (ANAHEIM)	156,460	21.2%
CA	RIVERSIDE	155,220	25.1%
CA	SAN BERNARDINO	152,950	25.8%
FL	MIAMI-DADE	141,710	26.0%
TX	BEXAR (SAN ANTONIO)	125,290	27.0%
NV	CLARK (LAS VEGAS)	124,600	25.5%
TX	TARRANT (FORT WORTH)	122,550	24.2%
MI	WAYNE (DETROIT)	102,790	22.3%

## 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 11 percent (more than 16,000 children) in North Dakota to 38 percent (more than 80,000 children) in New York's 15th congressional district. The largest estimated number of food-insecure children across all districts is 86,000 children (or 37 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=44) have CFI rates of 33 percent on average, compared to 24 percent of children in the average district. These districts are also much poorer; the average child poverty rate across these districts is 38 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 2014: Child Food Insecurity* 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 who do not qualify for assistance. Millions of food-insecure children in America are 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.

### GOVERNMENT NUTRITION ASSISTANCE TARGETING FAMILIES WITH CHILDREN

Due to the continuing persistence of food insecurity, the number of families turning to the food assistance safety net remains at record levels. In 2009, nearly one in every five children in the United States lived in a family that received assistance from Feeding America pantries, kitchens and/or shelters. This represents approximately 14 million children nationwide, more than 3 million of whom were age 5 and under. Additionally, need for charitable food assistance grew substantially since it was last assessed in 2006—there was a 50 percent increase in the number of children being served by the Feeding America network between 2005 and 2009— as families began relying more heavily on the network to help address their needs (Cohen et al., 2010).

While charitable assistance plays a critical role in helping families meet their food needs, the first line of defense against hunger is enrollment in federal nutrition programs. SNAP provides electronic benefit cards to households to purchase groceries. In federal fiscal year 2012, 45 percent (more than 20 million children) of all

SNAP participants were children (Gray & Eslami, 2014). WIC supports pregnant, breastfeeding and postpartum women and their infants and children up to age 5. In federal fiscal year 2013, nearly 9 million women, infants and children participated in WIC (Gray & Eslami, 2014). The NSLP, SBP and Summer Food Service Program (SFSP) provide meals to low-income children in school and during school breaks. Over 100,000 schools operate NSLP and during federal fiscal year 2013, more than 21 million low-income children received free or reduced price meals through NSLP.

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), persons 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.<sup>20</sup> As an example of applying these eligibility rules, the 2012 U.S. Health and Human Services poverty guideline for a family of four in the lower 48 states was a pre-tax income of \$23,050. A family of this size would have to be earning less than \$42,643 ( $\$23,050 \times 185\%$ ) in order to qualify for WIC, NSLP, or SBP.

### ELIGIBILITY FOR FEDERAL NUTRITION PROGRAMS

Because of commonly used program eligibility measures, *Map the Meal Gap 2014: Child Food Insecurity* estimates the proportion of food-insecure children who fall into income brackets reflecting federal child nutrition program thresholds (below 185 percent of

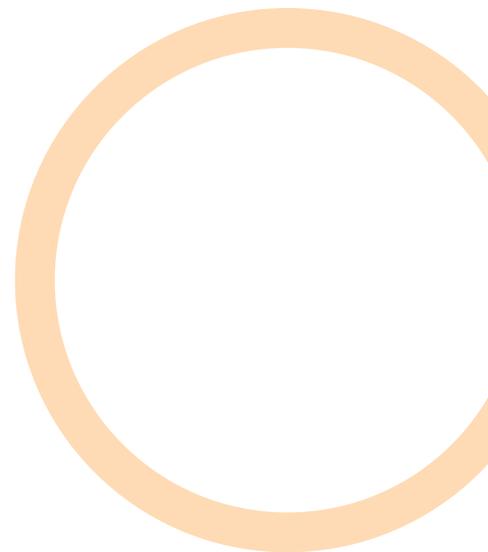
<sup>20</sup> These rates can vary by state. SNAP gross income eligibility thresholds, for example, range from 130% to 200% of the poverty line.

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-four percent (N=2,967) 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 (80 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 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 under-employment of parents 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., at least some food-insecure children live in households with incomes above 185 percent of the federal poverty level, and in 6 percent (N=184) of counties, the majority of food-insecure children 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 Sierra County, California, approximately 30 percent of all children are food insecure and 49 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 12,600 food-insecure children, 72 percent of whom live in households with incomes greater than 185 percent of poverty. In King County, Washington, half of the 79,320 food-insecure children are living in households with incomes above 185 percent of the poverty level. Even very needy counties may be home to high CFI rates and high program ineligibility. Washington County, Mississippi, has a CFI rate of 33 percent, a family median income of \$27,364—less than half the national average (DeNavas-Walt et al., 2013)—and almost a third of its food-insecure children (32 percent) in households whose incomes likely render them ineligible for the government food safety net.





# IMPLICATIONS FOR POLICY

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, federal nutrition programs are not currently reaching all food-insecure people, reflecting both the important role of charitable hunger relief and the need to strengthen anti-hunger programs and policies.

*Map the Meal Gap 2014* 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 assistance, as well as families who participate in federal programs but whose benefits are inadequate to get them through the month. These findings are important for policymakers considering eligibility rules for federal programs, as well as support for charitable programs.

Food insecurity can have wide-ranging detrimental consequences on the physical and mental health of adults, and 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).

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.)

The consequences and costs of hunger make addressing food insecurity an economic and societal imperative. 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 nutrition programs and the charitable sector help meet the nutritional needs of struggling families. 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.

**45%** OF ALL SNAP PARTICIPANTS IN 2012 WERE **CHILDREN**

Other programs are targeted at children, like WIC and programs that feed children in school, daycare, afterschool, and summer settings. 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 2012, 45 percent of SNAP participants were children (Gray & Eslami, 2014). 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 (81 percent of eligible infants), but significantly lower for children ages 1 through 4 (47 percent) (Harper, et al., 2009). Similarly, compared to more than 21 million children receiving free or reduced-price lunches each school day in 2013, only 11 million received breakfast and even fewer (2 million) received food assistance during the summer (Gray & Eslami, 2014).

Improved program access and innovative delivery models can help to improve participation rates. For example, there are only about 42 summer food sites for every 100 school lunch programs nationwide. 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 program sites. Consistent with existing research regarding access difficulties in rural areas, our findings reveal that child food insecurity is higher in nonmetropolitan counties. Several policy opportunities exist to improve program delivery in these areas, such as expanding mobile summer feeding sites to reach children in rural communities and other low-access areas.

The *Map the Meal Gap* studies are intended to shed light on the issue of food insecurity as a problem that exists in all localities 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.

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# ACKNOWLEDGEMENTS AND CREDITS

We appreciate the contributions of the following people for their work on *Map the Meal Gap 2014* and *Map the Meal Gap 2014: Child Food Insecurity*.

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Research for *Map the Meal Gap 2014* and *Map the Meal Gap 2014: Child Food Insecurity* was generously supported by the Howard G. Buffett Foundation, Nielsen and the ConAgra Foods Foundation. Feeding America would also like to thank Futureman Digital and Mightybytes for their technical assistance.

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