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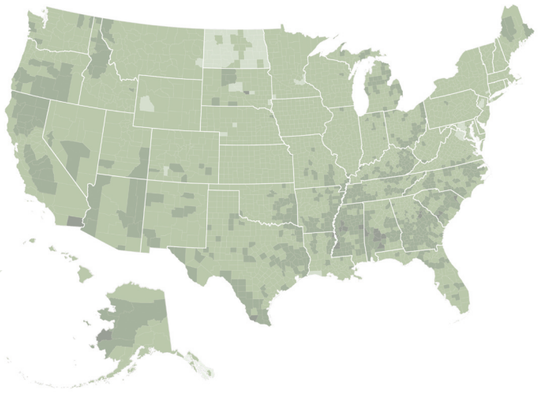
MAP THE MEAL GAP 2012
HIGHLIGHTS OF FINDINGS



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MAP THE MEAL GAP

A Report on County and Congressional District Level Food Insecurity and County Food Cost in the United States in 2010

THE HOWARD G. BUFFETT FOUNDATION

nielsen

GLOSSARY OF KEY TERMS

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

AMERICAN COMMUNITY SURVEY (ACS) The ACS is a sample survey of three million addresses administered by the 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* was collected and 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).

CURRENT POPULATION SURVEY (CPS) A nationally representative survey conducted by the 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. Emergency food programs include food pantries, soup 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 (as assessed in the **Current Population Survey**) The weekly (or annualized) additional dollars **food insecure** people report needing to meet their food needs.

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

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 less 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 neither represented as metropolitan or micropolitan by the OMB.

PERCENT OF POVERTY LINE A multiple of the federally established poverty line, 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.

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**.

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 three billion pounds of food and grocery products through 61,000 agencies nationwide. Our agency network provides emergency food assistance to an estimated 37 million people in need annually.

Our strength is derived from our member food banks, which serve all fifty states, the District of Columbia and Puerto Rico, reaching nearly all metropolitan, suburban and rural communities. Hunger does not discriminate and neither does the Feeding America network—our members serve people regardless of their race, age or religion. For more than 30 years, our members have 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
United States Department of Agriculture

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

About *Map the Meal Gap 2012*

As the dynamics of the economy shift and Congress makes policy decisions affecting the nutrition safety net, it becomes increasingly important to understand the picture of food insecurity in the diverse communities across the country. Feeding America believes that addressing the problem of hunger requires a thorough understanding of the problem itself. For the second consecutive year, Feeding America has undertaken the *Map the Meal Gap* project to continue learning about the face of hunger at the local level. By understanding the population in need, communities can better identify strategies for reaching the people who most need food assistance.

At Feeding America, our mission is to feed America's hungry through a nationwide network of member food banks and engage our country in the fight to end hunger. Although we seek to meet the needs of food insecure individuals and families, it is not always easy to quantify the need for food within each of our communities. 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 (e.g. "49 million people living in the U.S. are at risk of hunger"). Yet food banks are rooted in their local communities and need better information at the ground level in order to be responsive to unique local conditions. Until recently, poverty rates have been the indicator most typically used to identify the need for food by food banks because it is one of the few indicators available at the county level. However, national food insecurity data reveal that about 58% of those struggling with hunger actually have incomes *above* the federal poverty level and 59% of poor households are food secure.[1] Thus, 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 can assist Feeding America and our network of food banks in strategic planning for charitable food services that best support struggling families, 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 can serve as an important resource for engaging community leaders and partners in the journey from the aspiration of ending hunger to achievement through a quantifiable and data-driven approach.

In order to do this, *Map the Meal Gap* generates three types of community-level data:

County-level and Congressional District-level food insecurity estimates by income categories;

Estimates of food price variation across all counties; and

Estimates of the food budget shortfall that food insecure individuals report experiencing.

The food budget shortfall is drawn from national Current Population Survey (CPS) data reported by individuals experiencing food insecurity and is then translated into an estimated meal shortfall, using a national average per-meal cost. Although the cost per meal is not intended to be a definitive measure, the concept of a "meal" provides communities with a context for the scope of need in their area using a notion that is easily relatable and understood. In recognition that food costs are not the same across the nation, the per-meal cost is then adjusted for differences in food prices across counties. Although food prices are not the most significant cost pressures that people face in meeting their basic needs (housing, utilities and medical expenses are all other critical components), the ability to reflect differences in food costs does provide additional insight into the scope of the problems facing those who are food insecure and are struggling with hunger. By incorporating these three types of community-level data into *Map the Meal Gap*, Feeding America and our network of food banks have a much better understanding of where and what food insecurity looks like in communities across the nation, and as a result, allows us to better respond to the need.

[1] Coleman-Jensen, A., Nord, M., Andrews, M. & Carlson, S. (2011). *Household Food Security in the United States in 2010*. USDA, ERS.

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. They are outlined below.

Community-level analysis should be directly related to the need for food.
To do this, we focused the analysis on estimating 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
We developed a model to estimate county-level food insecurity by examining the relationship between food insecurity and unemployment, poverty and other factors.

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 also draws on information about income levels in counties. The income data will be used to estimate the number of food insecure individuals whose resources suggest they are eligible for federal assistance programs, such as SNAP (formerly the Food Stamp Program), WIC (Special Supplemental Nutrition Program for Women, Infants, and Children), the National School Lunch Program and the Summer Food Service Program. 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 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.
With the release of the American Community Survey (ACS) data for all counties, up-to-date community estimates for all counties is possible.

It should be updated on an annual basis to reflect changing conditions.
By using the national USDA food insecurity data released each year, county-level estimates can be calculated each year. The data presented in this report are drawn from 2010 (or American Community Survey averages from the rolling 2006-2010 period), the most recent time period available.

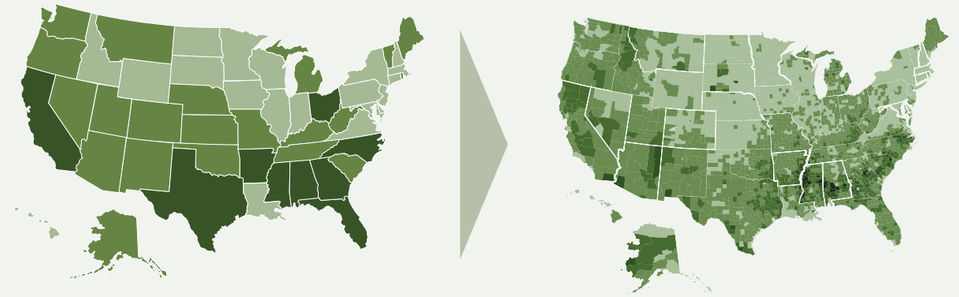
Methodology Overview

The following provides some additional information on the methodology for this study. A technical brief is also available at **feedingamerica.org/mapthegap** for those interested in greater detail.

FOOD INSECURITY ESTIMATES

Current Population Survey data supplemented with data from the Bureau of Labor Statistics was 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, percent African American and Hispanic. These data points were selected because they are publicly available at both the county and state level and are associated with our area of interest. 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 the above indicators and food insecurity. Estimates were sorted by income categories associated with eligibility for federal nutrition programs using ACS data on population and income at the county level. **The results indicate that no county is free from food insecurity.** Counties ranged from a low of 5% of the population that experienced food insecurity in 2010 to a high of 37%.

CHART 1: **ESTIMATING COUNTY-LEVEL FOOD INSECURITY, 2010**



Food Insecurity by County

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.

COST OF FOOD INDEX

The Nielsen Company, 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. 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. [2] 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 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.

[2] In cases where there were missing data (12% of counties), The Nielsen Company imputed a price based data collected from all surrounding counties. This method differs slightly from 2009, where data were imputed from the next-nearest county. See the technical brief for more information about imputation methods.

FOOD BUDGET SHORTFALL

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 $14.30 per person per week. 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 reveals that food insecure households are not food insecure every day of the year but typically struggle with hunger for about 7 months per year, 7/12 is used as a multiplier to arrive at an estimated annual food budget shortfall.[3] For each county, the average food budget shortfall was adjusted by the local cost of food index. The national cost of food index is set at 1. The national average is expressed as the following equation:

Food budget shortfall reported by food insecure individuals in 2010

NATIONAL AVERAGE MEAL COST

Another question on the CPS (which precedes the food insecurity questions) asks respondents how much money their household usually spends on food in a given week. The average dollar amount that food secure individuals spent on food each week was divided by 21 (based on the assumption of three meals per day, seven days per week) to arrive at an average cost per meal ($2.52). It should be noted that the per-meal cost of $2.52 was derived from food expenditures reported by food secure individuals to ensure that the result reflected the cost of an adequate diet. The national average of $2.52 was then weighted by the cost of food index to estimate the cost per meal for each locality. This local cost of a meal is used in this analysis to translate the food budget shortfall into a representation of the number of meals food insecure people report that they are unable to afford.

2010 *Map the Meal Gap* Data

A complete printable, interactive map of county-level food insecurity and food cost data can be found online at **feedingamerica.org/mapthegap**. Downloadable food insecurity information for congressional districts is also available.

[3] Coleman-Jensen, A., Nord, M., Andrews, M. & Carlson, S. (2011). *Household Food Security in the United States in 2010*. USDA, ERS.

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. In order to further our understanding specifically within these geographies, we looked at counties and congressional districts through various lenses, including focusing on areas with exceptionally high food insecurity rates and those with very large numbers of food insecure individuals.

TRENDS IN COUNTY FOOD INSECURITY RATES BETWEEN 2009 AND 2010

This report reviews findings from the second year that Feeding America has conducted the *Map the Meal Gap* analysis, providing a first-time opportunity to look at trends between 2009 and 2010. Differences between the two years were compared to identify any notable shifts in food insecurity rates at the county level. 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 American Community Survey for key variables, including poverty, median income, 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 in 2010 was slightly lower than in 2009—16.1% of individuals and 14.5% of households were identified as food-insecure, versus 16.6% of individuals and 14.7% of households in 2009.[4] While unemployment is the strongest predictor of food insecurity in this model, during this period, there was a modest increase in the national unemployment rate.[5] While the average annual unemployment rate was 0.3% higher in 2009, the unemployment rate improved over the course of 2010, and had fallen from a high of 10% in October 2009 to 9.4% by December 2010, the month in which the household food security data is collected.[6] The national poverty rate is also an important factor, and it trended upward slightly from 14.3% in 2009 to 15.1% in 2010 (see Table 2).[7]

As was the case at the national level, in general, county-level food insecurity rates across the country also showed modest decline. Notably, when looking at the top 10% of counties with the highest food insecurity rates, the average county-level unemployment and poverty rates both decreased between 2009 and 2010.[8] Those counties which experienced a four percentage point or greater change in their food insecurity estimates were flagged for further examination. Out of 3,143 counties analyzed, only 17 experienced declines in food insecurity rates equal to or beyond the threshold of four percentage points. In 12 of these counties, the unemployment rate declined, and in the remaining five where the unemployment rate had risen, the poverty rate had declined. It is interesting to note that the five counties with a combination of higher unemployment but lower poverty rates were all located in Texas and that all of these had a high percentage of Latino residents. In all five of these counties, more than four out of five individuals are Hispanic. Most of the counties that experienced declines in their food insecurity rates are relatively small in population—the two largest are Elkhart, Indiana, with an estimated food insecure population of more than 33,000 in 2010 and Starr County, Texas, with more than 15,000 individuals estimated to be struggling with food insecurity.

There were five counties that experienced an increase in their food insecurity estimate of 4% or greater between 2009 and 2010. All are relatively small counties located in the South (three in Georgia and one each in Alabama and Louisiana). All five counties have majority African American, non-Hispanic populations ranging from 55% to 85% of the population. The unemployment rate rose between 2009 and 2010 in all five of these counties and in four of the five counties, the poverty rate also went up, markedly in some cases.

The following sections explore these findings in greater detail. Please note that while substantial changes between 2009 and 2010 are highlighted, small changes are not.

[4] Coleman-Jensen, A., Nord, M., Andrews, M. & Carlson, S. (2011). *Household Food Security in the United States in 2010*. USDA, ERS.

[5] The national unemployment rate increased from 9.3 percent in 2009 to 9.6 percent in 2010. U.S. Bureau of Labor Statistics.

[6] The food insecurity module asks individuals about the prior 12 months, although it is plausible that individuals' responses may be most affected by their recent experience.

[7] DeNavas-Walt, C., Proctor, B.D., & Smith, J.C. (2011). *Income, Poverty, and Health Insurance Coverage in the United States: 2010*. U.S. Census Bureau.

[8] There are 321 counties that fall into the top 10% of counties with the highest food insecurity rates. Within these counties, the average county-level unemployment rate decreased from 13.5 in 2009 to 13.3 percent in 2010. The average county-level poverty rate also decreased very slightly from 25.9 in 2009 to 25.8 percent in 2010.

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% of the 3,143 counties in the United States (N=321).[9] Although the average of all the U.S. counties' food insecurity rates is nearly 16%, the average food insecurity rate for these 321 "high food insecurity rate" counties is 24%. In other words, within these highest risk counties, nearly one in every four residents is struggling with hunger.

TABLE 1: **HIGH FOOD INSECURITY RATE COUNTIES BY GEOGRAPHIC AREAS, 2010**

County Type	High Food Insecurity Rate Counties	All Counties
Metropolitan	16.5%	35.0%
Micropolitan	28.3%	21.9%
Non-metro/Rural	55.1%	43.1%
TOTAL	100%	100%

GEOGRAPHY

The group of high food insecurity rate counties was further analyzed according to the geographic classifications of metropolitan, micropolitan and nonmetropolitan ("rural").[10] Consistent with findings in 2009, 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 1.

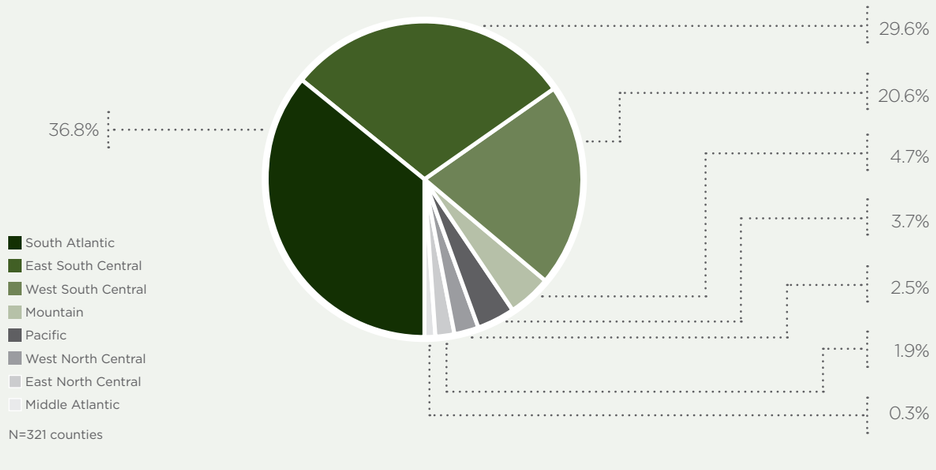
The high food insecurity rate counties are found in eight of the nine Census geographic divisions identified by the U.S. Census Bureau (see Chart 2 on page 10).[11] The heaviest concentrations of these counties are found in the East South Central and South Atlantic states. While the New England division is not represented in the high food insecurity rate counties, it should be noted that this area does include some of the most populous counties in the U.S. and thus, has some of the largest numbers of food insecure individuals (see the "Largest Numbers of Food Insecure Individuals" section).

[9] All 3,143 counties defined by the Census Bureau were included in the 2010 analysis. In the 2009 Map the Meal Gap report, however, a total of 3,137 counties were analyzed out of the 3,143 for which data is provided by the Census Bureau. For three counties (two in Alaska and one in Hawaii), the BLS did not provide 2009 unemployment data. For three additional counties (all in Alaska), the county-defined area changed between 2008 and 2009 and therefore, these counties were not included in the 2009 analysis.

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

[11] Information about the U.S. Census Bureau Regions and Divisions can be found online at www.census.gov/geo/www/reg_div.txt.

CHART 2: HIGH FOOD INSECURITY RATE COUNTIES BY CENSUS DIVISION, 2010



UNEMPLOYMENT, POVERTY AND MEDIAN INCOME IN HIGH FOOD INSECURITY

The high food insecurity rate counties are more economically disadvantaged compared to the national average for all counties and for the U.S. population as a whole, as seen in Table 2. The average annual unemployment rates for this group of counties was 13% in 2010, compared to 9% across all counties. The highest unemployment rate among these counties was found in Imperial, California: over 28% in 2009, and nearly 30% in 2010. The average of county-level poverty rates among this group was also extraordinarily high, averaging nearly 26% for the high risk group and as high as 54% in Shannon, South Dakota. Not surprisingly, the average median household income in this group was considerably lower than for all counties—$32,110 versus $44,270. The lowest median income in the group was in Owsley, Kentucky ($19,351).

TABLE 2: AVERAGE COUNTY-LEVEL ECONOMIC INDICATORS, 2010[12]

	Food Insecurity Rates		Unemployment Rates		Poverty Rates		Median Household Income	
County Grouping	2009	2010	2009	2010	2009	2010	2009	2010
High Food Insecurity Rate Counties	22.1%	24.0%	13.5%	13.3%	25.9%	25.8%	$31,078	$32,110
All U.S. Counties	16.2%	15.6%	9.0%	9.2%	15.4%	15.5%	$43,442	$44,270
National average for all individuals in the U.S.	16.6%	16.1%	9.3%	9.6%	14.3%	15.1%	$50,221	$50,046

Further Explorations of Counties and Congressional Districts

As mentioned previously, we explored results across counties and congressional districts in the U.S. from a number of perspectives. The following sections provide detail on counties with low food insecurity rates, large populations of food insecure individuals, and food insecurity within various income bands.

LOW FOOD INSECURITY RATES

As was the case in 2009, nine of the ten counties with the lowest estimated food insecurity rates during 2010 are in North Dakota. This is consistent with the low unemployment rate for this state during both 2009 and 2010. In these nine counties, the number of food insecure individuals ranges from a low of 40 in Slope, North Dakota (6% food insecure) to a high of 1,050 people in Williams, North Dakota (5%). Loudoun, Virginia is one of the ten counties with the lowest estimated food insecurity rate; however, there are over 17,000 people who are food insecure in this county. It is important to note, as described in the section below, in populous areas low rates do not always translate into few 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 3 on page 12, the top nine counties with respect to the number of food insecure persons are all in large metropolitan areas, consistent with their large populations.

[12] Averages for the high food insecurity rate counties and all U.S. counties are unweighted averages.

TABLE 3: **COUNTIES WITH THE HIGHEST NUMBER OF FOOD INSECURE INDIVIDUALS, 2010**

State	County (Metro Area)	Food Insecure Population	Food Insecurity Rate
CA	Los Angeles	1.6 million	16.8%
NY	New York (five boroughs, collectively)	1.2 million	15.7%
IL	Cook (Chicago)	808,000	15.6%
TX	Harris (Houston)	739,000	18.7%
AZ	Maricopa (Phoenix)	605,000	16.1%
TX	Dallas	455,000	19.6%
CA	San Diego	448,000	14.8%
MI	Wayne (Detroit)	425,000	22.7%
FL	Miami-Dade	413,000	16.9%

The average of the food insecurity rates for the 50 counties with the highest number of food insecure people is 17% and the average of unemployment rates in 2010 is 11%. In both in 2009 and 2010, food insecurity and unemployment rates exceed the national average for all counties. The average poverty rate among these counties is on par with the national average at nearly 16%.

Although most of these top 50 counties are associated with large urban cities, there are some exceptions, such as Hidalgo, Texas (153,000 food insecure, ranked 45 among the 50), which is composed of many densely populated smaller towns; and Kern, California (162,000 food insecure, ranked 38), 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 the top 50 counties with the largest number of food insecure people, more than one-third (38%) are non-Hispanic, majority-white counties, down from 50% in 2009. Additionally, one in six 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 nonwhite residents is presented later in this brief.

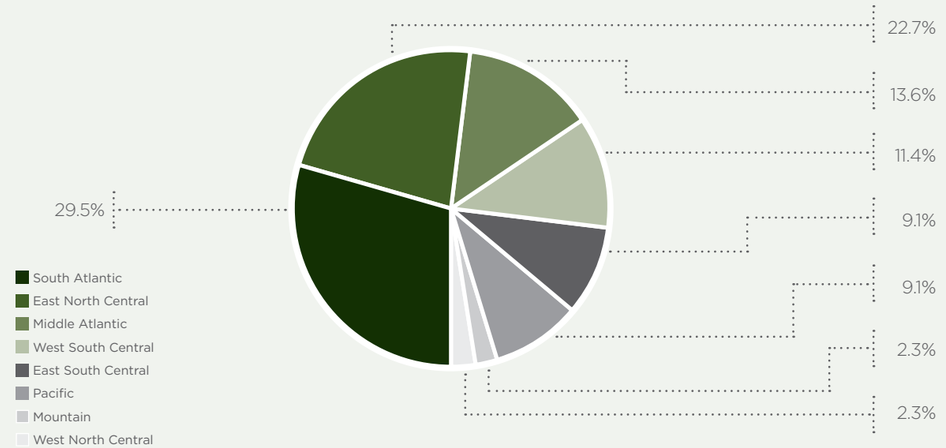
FOOD INSECURITY IN CONGRESSIONAL DISTRICTS

In addition to developing county-level food insecurity estimates, Feeding America developed estimates for congressional districts using the same methodology. Food insecurity rates in congressional districts had a narrower range than counties. In congressional districts, the range was from a low of 7% to a high of 36%. County-level food insecurity rates ranged from 5% to 37%. Congressional districts that fell into the top 10% for high food insecurity rates (N=44) had an average food insecurity rate of 26%. These "high food insecurity rate districts" also had higher-than national average unemployment (16% vs. 9%) and poverty rates (26% vs. 16%) and lower-than-average median income ($36,891 vs. $ 44,270).

While high food insecurity rate counties are heavily concentrated in the South (as noted above), the high food insecurity rate congressional districts are much more geographically diverse, as shown in Chart 3 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 Congressional District 10, 7% of the population (over 60,000 individuals) is food insecure. Each of the wealthiest districts (the 10% of congressional districts with the highest median incomes) is home to an average of 83,000 people experiencing food insecurity. Cumulatively, those wealthiest districts are home to nearly 3.7 million food insecure men, women and children.

CHART 3: **HIGH FOOD INSECURITY RATE DISTRICTS BY CENSUS DIVISION, 2010**



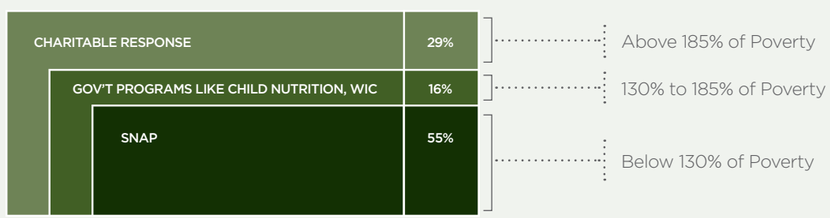
Food Insecurity and Income Bands

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 thresholds, 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.[13] 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 fifty years ago,[14] and now include myriad expenses that were virtually non-existent when the official poverty measure was created.

Despite having incomes above the poverty line, millions of Americans are in need of food assistance for themselves and their families. As a consequence, food assistance programs—SNAP, WIC, School Breakfast and School Lunch—determine eligibility by multiplying the official poverty line by 130% or 185% to provide a rough proxy for need beyond the scope of the official poverty level (see Chart 4).[15] For example, the 2010 poverty guideline for a family of four in the lower 48 states was a pre-tax income of $22,050. To determine the limit for SNAP eligibility, one would multiply $22,050 by 130% to arrive at $28,665. Thus, $28,665 is the income limit for a family of four to be eligible for SNAP benefits in 2010, among other eligibility criteria.[16]

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 individuals who fall below the SNAP eligibility level (130% of poverty or the state-specific threshold, when it is a higher multiple), the percentage of food insecure whose incomes are below the threshold for other major federal nutrition programs (185% of poverty or the state-specific threshold) and those whose income places them above the ceiling for government food assistance (above 185% of poverty or above the state-specific threshold).

CHART 4: **FOOD INSECURE INDIVIDUALS AND INCOME ELIGIBILITY, 2010**[17]



[13] Blank, R.M. & Greenberg, M.H. *Improving the Measurement of Poverty*. The Brookings Institution, Washington, D.C. 2008.

[14] ibid.

[15] Note that these numbers remained the same between 2009 and 2010.

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

[17] Coleman-Jensen, A., Nord, M., Andrews, M. & Carlson, S. (2011). *Household Food Security in the United States in 2010*. USDA, ERS.

SNAP AND OTHER GOVERNMENT PROGRAMS

Understanding the income distribution of the food insecure population is valuable because it can inform discussion of what assistance programs may be available to help address the need. Households with income that places them above 185% of poverty have few government resources available to them because SNAP eligibility ceilings are typically closer to 130-185%. Additionally, WIC and reduced price lunches are typically not available for children in households with incomes above 185% of poverty. 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. Income banding 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 emergency 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. For example, areas with a high proportion of food insecure persons with incomes under 130% of the poverty line may wish to especially emphasize SNAP outreach.

ELIGIBILITY FOR FEDERAL NUTRITION PROGRAMS

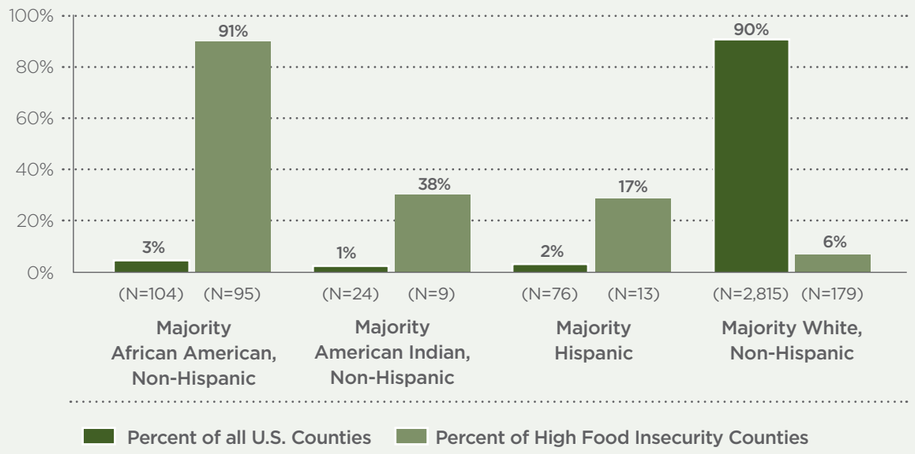
Based on national statistics, about 29% of food insecure individuals are above 185% of the poverty line and are typically ineligible for most food assistance programs (see Chart 4). A closer look at income thresholds among the food insecure population reflects significant variations in program eligibility within states and across the nation. Across the country, 42 states have counties where a majority of the food insecure population is likely SNAP eligible alongside counties where the majority of food insecure people are likely ineligible for any federal food assistance.

For example, there are 29 counties in the Commonwealth of Virginia where a majority (50% or more) of food insecure individuals are estimated to have incomes too high to be eligible for any assistance programs (above 185% of poverty), while there are 33 counties that have populations where a majority (50% or more) have incomes that likely make them SNAP eligible (at or below 130% of poverty). Counties with a higher proportion of food insecure people who are likely ineligible for government assistance programs are often found in metropolitan areas with higher median incomes (74% of the counties with majority ineligibles are metropolitan). Among the high food insecurity rate counties (those with food insecurity rates in the top 10%), the incidence of food insecure individuals with incomes above 185% is less common—on average, only about one-quarter of food insecure people have incomes too high for eligibility for food assistance programs in these counties. Still, even in high food insecurity counties there are a considerable number of food insecure people who can only rely on family, friends and charitable response when they need help.

Food Insecurity and Race and Ethnicity

It is well-documented that some racial and ethnic groups in the U.S., including American Indians, Latinos and African Americans, are disproportionately at risk for food insecurity. As illustrated in Chart 5, these discrepancies become especially striking at the county level.[18] Further analysis provides some additional insight into the challenges faced by minority communities by examining food insecurity among counties with large populations of nonwhites.

CHART 5: **PERCENT OF COUNTIES IN THE U.S. VERSUS PERCENT OF COUNTIES WITHIN HIGH FOOD INSECURITY RATE COUNTIES, 2010**



[18] For the purposes of this comparison, racial groups (i.e. African American, American Indian, and White) are mutually exclusive of each other and of Hispanic ethnicity. However, because the U.S. Census Bureau counts Hispanic/Latino as an ethnicity rather than a race, majority Hispanic counties may include individuals of any race.

COUNTIES WITH HIGH PERCENTAGES OF AMERICAN INDIANS

It is well known that the American Indian population has substantially higher levels of food insecurity when compared to the U.S. average.[19,20] Although a relatively small percentage of the food insecure population in the U.S. is identified as American Indian, county-level analysis brings into sharp relief the challenges for these communities in certain areas of the country. Among the high food insecurity rate counties (those with food insecurity rates in the top 10%) are 12 counties where American Indians make up more than a quarter of the population.[21] In nine of these counties, they represent more than 50% of residents (note that there are only 25 counties in the U.S. that are majority American Indian—see Table 4). These nine counties face a disproportionately high level of poverty: the counties' average 2010 poverty rate is 39% versus an average of 26% for all high food insecurity rate counties and nearly 16% for all U.S. counties. The largest counties with a sizeable, majority population of American Indians and high rates of food insecurity include McKinley, New Mexico (73% American Indian, 23% food insecure), which includes parts of the Hopi, Zuni and Navajo Nation reservations; and neighboring Apache, Arizona (72% American Indian, 27% food insecure), which includes Fort Apache and Zuni reservations. Four of the counties with very high percentages of American Indians in the high food insecurity rate group are located in South Dakota (see Table 4).

TABLE 4: **MAJORITY AMERICAN INDIAN COUNTIES WITHIN HIGH FOOD INSECURITY RATE COUNTIES, 2010**

State	County	Population	Unemployment Rate	Poverty Rate	Percent American Indian	Food Insecurity Rate
AK	Wade Hampton	7,398	20.4%	31.4%	**91.7%**	**27.4%**
SD	Shannon	13,437	11.9%	53.5%	**91.3%**	**26.3%**
SD	Buffalo	1,932	13.6%	49.3%	**88.9%**	**26.5%**
SD	Todd	9,575	6.9%	48.8%	**85.0%**	**21.8%**
WI	Menominee	4,251	15.5%	31.6%	**79.6%**	**21.8%**
NM	McKinley	70,663	9.6%	33.4%	**73.3%**	**23.4%**
AZ	Apache	70,312	16.4%	34.4%	**72.4%**	**27.1%**
SD	Ziebach	2,765	6.4%	46.0%	**69.9%**	**20.8%**
AK	Yukon-Koyukuk	5,635	15.4%	23.6%	**68.5%**	**22.2%**

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

[20] 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*, v21(1), 191-215.

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

COUNTIES WITH THE HIGHEST PERCENTAGE OF AFRICAN AMERICANS

There were some interesting changes between 2009 and 2010 with respect to African-American majority counties.First, the number of counties that are majority African American grew from 93 counties in 2009 to 104 in 2010. Second, more of these majority counties fell into the "high food insecurity rate" county group when compared to 2009 (see Table 5). In 2009, approximately 80% of these counties were among those with the highest 10% of food-insecurity rates. In 2010, 91% (N=95) reached this threshold. Table 5 illustrates the top 10 majority African American counties within the high food insecurity rate group. Many of the African American-majority counties are fairly small in population, although a striking percentage of the residents are affected by food insecurity. However, there are also two high food insecurity rate counties with an estimated food insecure population in excess of 100,000, including Baltimore City, Maryland and Dekalb, Georgia.

The growth in the number of African-American majority counties among those with the top 10% food insecurity rates reflects the lack of improvement in the economic circumstances of these communities over the two-year period, despite the official "end" of the Great Recession. All of the African American majority counties continued to suffer from a higher-than-average collective poverty rate (27% in both 2009 and 2010), and the 95 counties that also have the highest food insecurity rates had a slightly higher average poverty rate (28% in 2010, versus an average of nearly 16% for all U.S. counties). The average unemployment rate for this group persisted at 13% (compared to an average of 9% for all U.S. counties). 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.

TABLE 5: **TOP TEN MAJORITY AFRICAN AMERICAN COUNTIES WITHIN HIGH FOOD INSECURITY RATE COUNTIES, 2010**

State	County	Population	Unemployment Rate	Poverty Rate	Percent African American	Food Insecurity Rate
MS	Jefferson	7,970	16.8%	39.0%	**86.1%**	**34.9%**
GA	Hancock	9,649	22.4%	26.8%	**85.2%**	**35.9%**
MS	Claiborne	9,928	16.3%	35.0%	**84.6%**	**33.4%**
AL	Macon	21,699	13.2%	27.4%	**83.1%**	**29.1%**
MS	Holmes	19,597	19.5%	43.4%	**82.5%**	**37.4%**
AL	Greene	9,255	16.9%	30.8%	**80.4%**	**32.2%**
VA	Petersburg City	32,303	12.8%	20.2%	**79.1%**	**25.4%**
GA	Clay	2,981	8.7%	34.2%	**76.3%**	**27.4%**
MS	Humphreys	9,610	14.5%	42.9%	**75.1%**	**32.9%**
MS	Coahoma	26,681	13.9%	35.5%	**74.5%**	**30.6%**

COUNTIES WITH THE HIGHEST PERCENTAGE OF HISPANICS/LATINOS

The number of Latino majority counties in the U.S. also grew slightly between 2009 and 2010, from 70 to 76 counties. However, there was a decline in the percentage of Latino-majority counties that fell into the highest 10 percent of food insecurity rates.[22] In 2009, more than 1 in 4 Latino-majority counties fell into this group (29%, or 20 counties), while the percentage in 2010 dropped to about one in six (17%, or 13 counties)—see Chart 5 on page 16 for details on 2010.[23] The seven counties that no longer fall into the highest food insecurity rate group still have higher than average poverty, unemployment and food insecurity rates, but not high enough to place them in the top 10% for highest food insecurity. For example, Cameron, Texas and Tulare, California fell off the list as the rates in these two counties decreased from 23 and 22 percent in 2009 to 21 and 20 percent in 2010, respectively. It should be noted that the USDA reports a slight decrease in food insecurity rates for Latino individuals between 2009 and 2010, from 29.7% to 27.9%.[24]

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. Table 6 illustrates the top 10 majority Hispanic counties within the high food insecurity rate group. The average of 2010 poverty rates is 30% (compared to 28% for high food insecurity rate, majority African American counties; and 16% for all U.S. counties). This was a slight improvement over the 2009 average of 32%. When looking at unemployment, however, Latinos are disproportionally affected with an average unemployment rate of 18% (versus 13% for high food insecurity rate, majority African American counties; and 9% for all U.S. counties).

An average of median incomes in these counties is somewhat higher than in the high food insecurity rate, majority African American counties, ($32,241 versus $29,802), but this may reflect larger household size and is still well below the national average of $44,270. Seven of the 13 high food insecurity rate, majority Hispanic counties are located in Texas, while other states represented include New Mexico, California and Arizona.

As with African American-majority counties, there are some Latino-majority counties that have relatively large populations. While some of these do not fall into the high food insecurity rate counties, they are still worth noting due to their high absolute numbers of food insecure people. Four majority Latino counties have over 100,000 food insecure individuals: Miami-Dade in Florida; Bronx in New York; and Bexar, Hidalgo, and El Paso in Texas.

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. Two counties that fall into the top five for highest agricultural sales in the U.S. are also in the top 10% highest food insecurity rate counties: Merced and Fresno, California.[25] An additional two of top five counties are majority Latino and have food insecurity rates near 20%: Tulare County and Monterey County in California. Thus, there are significant numbers of food insecure families in areas of the country that produce some of the nation's greatest agricultural abundance and they are likely to be disproportionately Latino.

[22] The terms "Hispanic" and "Latino" are used interchangeably by the US 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.

[23] The decrease in Latino-majority counties could partly be due to the coefficient on the "percentage of Hispanics" becoming substantially more negative in 2010 versus in 2009. This change is small and statistically insignificant, but in heavily Latino counties, this can have a large influence. Some heavily Latino states saw declines in their food insecurity rates from 2009 to 2010. In addition, even when these declines are not large, the total population in states like Texas and California is large and thus food insecurity rates are weighted more heavily.

[24] Coleman-Jensen, A., Nord, M., Andrews, M. & Carlson, S. (2011). *Household Food Security in the United States in 2010*. USDA, ERS.

[25] Based on the market value of agricultural products sold from the 2007 USDA Agricultural Census.

As with counties, congressional districts with majority populations of color are disproportionately impacted by food insecurity. Of the 327 majority White, non-Hispanic congressional districts, only 2% (N=5) of them are in the high food insecurity districts (top 10%). Of the 30 majority Hispanic and 25 majority African America districts, 17% (N=5) and 88% (N=22) are in the high food insecurity districts, respectively.

TABLE 6: **TOP TEN MAJORITY HISPANIC COUNTIES WITHIN HIGH FOOD INSECURITY RATE COUNTIES, 2010**

State	County Name	Population	Unemployment Rate	Poverty Rate	Percent Hispanic	2010 Food Insecurity Rate
TX	Starr	59,989	17.9%	38.0%	**98.3%**	**25.3%**
TX	Maverick	52,493	15.2%	33.6%	**95.3%**	**22.5%**
TX	Zapata	13,609	11.0%	37.6%	**91.9%**	**20.9%**
TX	Zavala	11,658	15.6%	43.0%	**91.9%**	**25.4%**
TX	Hidalgo	736,973	11.8%	34.4%	**90.2%**	**20.7%**
TX	Willacy	21,769	12.4%	43.4%	**86.3%**	**23.8%**
TX	Presidio	7,703	17.3%	24.1%	**82.8%**	**22.3%**
AZ	Santa Cruz	46,051	16.3%	25.2%	**82.0%**	**20.7%**
CA	Imperial	168,052	29.7%	21.4%	**79.0%**	**27.6%**
NM	Luna	25,252	18.7%	32.8%	**60.1%**	**27.0%**

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 how much additional food those who are struggling with food insecurity feel they need and how the relative cost of meeting that need may vary due to food prices at the local level.

To address this goal, for the second consecutive year, *Map the Meal Gap* developed a local-level estimation of the additional food budget that food insecure individuals report needing.

In order to understand how regional and local variations in food costs may present challenges for the food insecure population, Feeding America worked with The Nielsen Company to develop a county-level food cost index.[26] Although the analysis does not infer 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. The results indicate that food prices across the continental U.S. vary from 71% to 219% of the national average (see examples in Chart 6 on page 23).

Assuming that a meal costs $2.52[27] on average (the average amount that a food secure individual reports spending), the analysis reveals cost variation ranging from as little as $1.80 in Zavala, Texas to as much as $5.51 in Union, South Dakota. Among the counties with the top 10% highest food insecurity rates in the nation, food prices reach as high as 143% of the national average (or $3.60 per meal in Colusa, California). For a food insecure 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.

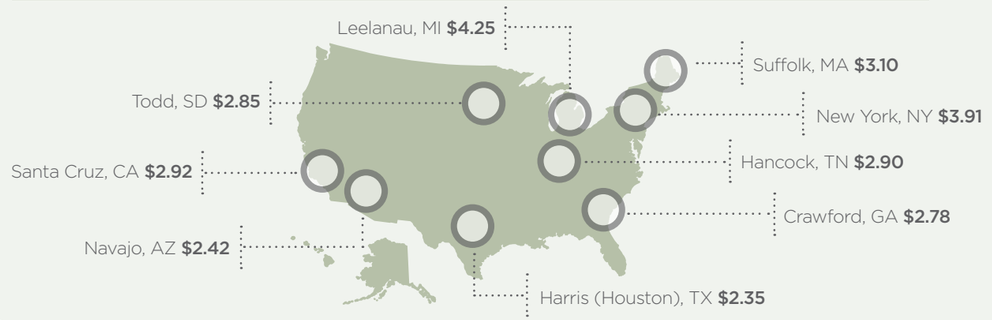
[26] In cases where there is missing or distorted data, The Nielsen Company imputes a price. In 2009, this imputation method was based on data collected from the next-nearest county. In 2010, The Nielsen Company updated this method by basing imputations on data collected from all surrounding counties. However, this did not affect all counties. See the technical brief for more information about imputation methods.

[27] The national cost per meal is based on information gathered from the Current Population Survey. The national cost per meal decreased slightly from $2.54 in 2009 to $2.52 in 2010. This decrease is small and statistically insignificant. Additionally, the cost is not the same as a usual price index insofar as it measures how much people spend on food rather than the price of a market basket. Thus, while in general, we anticipate that the national cost per meal will go up over time and track inflation, it won't necessarily do so. This cost is also calculated only for those who are food secure rather than the full population. Thus, as the composition of this group changes, so too will the cost per meal.

Counties with Higher Food Prices

The top 10% of counties with the most expensive food costs (321 in total) have an average meal cost of $3.04, meaning that the market basket of food in these counties is 21% more expensive than the national average. There are 58 counties where the cost of a meal is at least 25% above the national average ($3.15 or higher).

CHART 6: **FOOD PRICE VARIATION ACROSS THE U.S., 2010**



Many of the high cost counties are located in rural or mountainous areas, where transportation may be more challenging and there may be fewer retail outlets. Nearly half of all high cost counties are located in rural areas (48% of all counties, versus the U.S. average of 43%) as shown in Table 7.

In some cases, the high meal cost is primarily due to the expense of transporting food to a resort area or an island. For example, Nantucket, Massachusetts, where the average cost of a meal is $4.44, 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, Colorado ($4.20) and Napa, California ($3.00). 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 ($3.91), the District of Columbia ($3.44), and the northern Virginia counties surrounding the nation's capital (as high as $4.05 in Manassas Park City, VA and $3.86 in Falls Church City, VA). A breakout of counties by metropolitan, micropolitan and rural/nonmetropolitan areas is shown in Table 7. It is interesting to note that the percentage of high cost counties in non-metro/rural areas decreased from 59% in 2009 to 49% in 2010. High cost counties in metropolitan areas experienced the reverse, increasing from 26% in 2009 to 36% in 2010.

TABLE 7: **HIGH COST COUNTIES BY GEOGRAPHIC AREA, 2010**

County Type	High Cost Counties	All Counties, U.S.
Metropolitan	35.5%	35.0%
Micropolitan	15.9%	21.9%
Non-metro/Rural	48.6%	43.1%
Total	100%	100%

High Food Insecurity Coupled with High Food Cost

There are 48 counties in the United States that fall into the top 10% categories for both food insecurity rates and food price costs, as listed in Table 8 on pages 26 and 27. While these counties do not face the highest food prices in the nation, the average cost per meal is $2.91, which is 15% above the national average of $2.52. The highest meal cost in this group is $3.60 in Colusa, California and the lowest is $2.81 in Lee, Kentucky; Wilkinson, Mississippi; and Quitman, Georgia. The higher-than-average meal cost in these counties is particularly notable because the average of these counties' household median incomes ($29,557) is well below the average of all U.S. counties ($44,270). These counties also struggle with high poverty rates (28% compared to the national average of 16%) and high unemployment rates (average is 14% compared to 9%). Additionally, an average of more than one in every four individuals in these counties is food insecure.

WHERE ARE THE COUNTIES WITH HIGH FOOD COSTS AND HIGH FOOD INSECURITY RATES, AND WHO LIVES IN THEM?

The majority of the high cost/high food insecurity counties are non-metropolitan or rural areas (71% of this group versus 43% of all counties in the U.S.) and they are most often found in the Southeastern region of the United States (33 of the 48 counties).[28] However, there are also counties in Western states, including California, Idaho, and Texas.[29] There is only one county from a West North Central state, Todd County in South Dakota, home to the Rosebud Sioux Tribe and the Rosebud Indian Reservation. There are no counties from the Northeast represented in this group. About 10% of these counties are metropolitan and 19% are micropolitan area counties. Overall, the counties are small in population—the largest county in this group is Richmond City, Virginia, with a 2010 population of 202,000 and an estimated food insecure population of 43,000 (21% food insecure). The next largest county is Lake, California with a 2010 population of 64,000 and an estimated food insecure population of 14,000 (22% food insecure).

Often, state- or national-level population statistics mask racial and ethnic variation by county. More than half (58%) of the 48 counties that have both high food costs and high food insecurity rates are majority non-Hispanic African American, up from 32% in 2009. Both this high rate and its substantial increase are particularly striking given that only 3% of all counties in the U.S. are majority African American. Within the 48 counties with both high food costs and high food insecurity rates, African Americans represent an average of 48% of the counties' populations. The percent African American reaches as high as 86% in Jefferson, Mississippi, which has the highest percentage of African Americans of any county in the United States. Jefferson is also one of the poorest counties in the nation with a poverty rate of 39%, and it has a very high food insecurity rate at 35%. The average meal cost of a meal in Jefferson is $2.87, 14% above the national average.

Among the 48 counties with both high costs and high food insecurity rates, the average proportion of the population that is Latino is only 4%. However, the Latino rate reaches as high as 92% in Zapata, Texas and 53% in Colusa, California. The average percentage of non-Hispanic whites in these counties is 44%, but reaches as high as 98% in Hancock, Tennessee.

The vast majority of these counties have a small America Indian population (2%, on average), but in Todd, South Dakota (which includes the Rosebud Sioux Reservation), the percentage identifying as America Indian is 85%.

[28] Census Division: East South Central.

[29] Census Divisions: Pacific, Mountain and West South Central.

TABLE 8: HIGHEST FOOD INSECURITY AND HIGHEST FOOD COST COUNTIES, 2010[31]

State	County	Population	Unemployment Rate	Poverty Rate	Percent White, Non-Hispanic	Percent Hispanic	Percent African American	Food Insecurity Rate	Local Weighted Cost per Meal
AL	Wilcox	12,012	21.7%	38.5%	26.7%	0.3%	72.9%	**36.4%**	**$2.94**
MS	Jefferson	7,970	16.8%	39.0%	13.7%	0.0%	86.1%	**34.9%**	**$2.87**
MS	Noxubee	11,747	18.6%	35.6%	27.8%	0.4%	70.0%	**33.4%**	**$2.91**
MS	Claiborne	9,928	16.3%	35.0%	14.8%	0.1%	84.6%	**33.4%**	**$2.87**
MS	Humphreys	9,610	14.5%	42.9%	23.7%	1.6%	74.7%	**32.9%**	**$2.86**
AL	Greene	9,255	16.9%	30.8%	18.0%	1.0%	80.4%	**32.2%**	**$2.95**
AL	Sumter	13,871	14.2%	34.8%	24.1%	0.7%	73.5%	**30.5%**	**$2.90**
MS	Tunica	10,817	17.4%	25.7%	23.8%	2.0%	73.0%	**30.3%**	**$2.87**
AL	Perry	10,684	16.3%	28.8%	29.5%	1.2%	68.0%	**29.9%**	**$2.88**
MS	Quitman	8,551	13.6%	34.8%	29.7%	0.0%	70.1%	**29.8%**	**$2.90**
MS	Sharkey	4,797	12.9%	34.9%	26.4%	0.3%	73.2%	**29.6%**	**$2.84**
AL	Lowndes	11,731	15.4%	27.3%	25.3%	0.9%	72.8%	**29.3%**	**$3.09**
AL	Macon	21,699	13.2%	27.4%	15.0%	0.6%	82.7%	**29.1%**	**$2.92**
AL	Bullock	10,923	14.7%	25.3%	22.1%	1.6%	74.2%	**28.5%**	**$3.04**
AL	Conecuh	13,382	16.3%	30.6%	51.8%	0.3%	46.2%	**27.7%**	**$2.84**
GA	Quitman	2,528	13.4%	31.6%	42.8%	1.1%	55.2%	**27.4%**	**$2.81**
MS	Wilkinson	10,070	12.4%	28.1%	29.1%	0.6%	70.1%	**27.3%**	**$2.81**
MS	Yazoo	28,402	12.5%	33.0%	37.9%	2.9%	57.4%	**27.0%**	**$2.92**
GA	Randolph	7,724	13.0%	28.0%	35.9%	0.2%	60.7%	**27.0%**	**$2.89**
MS	Kemper	10,470	13.3%	28.3%	36.1%	0.6%	59.3%	**26.8%**	**$2.93**
MS	Tallahatchie	15,270	11.6%	32.5%	36.9%	4.7%	57.6%	**26.2%**	**$2.84**
MS	Jefferson Davis	12,666	12.4%	26.2%	39.2%	0.4%	59.0%	**25.6%**	**$2.84**
GA	Calhoun	6,488	10.6%	28.8%	33.6%	5.1%	60.9%	**25.3%**	**$2.87**
AL	Hale	16,168	12.1%	24.6%	39.6%	0.4%	59.2%	**24.9%**	**$2.87**
NC	Northampton	22,161	11.8%	21.7%	38.9%	1.3%	58.2%	**24.8%**	**$2.84**
GA	Stewart	5,831	10.6%	24.2%	35.9%	0.6%	62.7%	**24.6%**	**$2.88**
GA	Dooly	14,283	11.4%	27.1%	43.4%	5.3%	51.1%	**24.3%**	**$2.90**
MS	Benton	8,652	13.6%	26.0%	60.7%	0.3%	38.3%	**23.8%**	**$2.83**
MS	Yalobusha	12,869	13.0%	26.2%	60.4%	0.7%	38.6%	**23.5%**	**$2.90**
MS	Walthall	15,530	12.9%	22.3%	52.6%	1.3%	45.5%	**23.3%**	**$2.82**
AL	Pickens	19,917	11.3%	26.9%	55.9%	1.1%	42.2%	**22.9%**	**$2.87**
CA	Lake	64,371	18.1%	19.1%	75.2%	16.3%	2.1%	**22.4%**	**$2.95**
MS	Jasper	17,383	11.8%	18.6%	46.2%	0.5%	52.1%	**22.4%**	**$2.85**
GA	Greene	15,844	11.5%	23.6%	54.8%	4.9%	39.1%	**22.1%**	**$2.99**
ID	Boundary	10,792	15.6%	18.8%	92.0%	3.6%	0.0%	**22.0%**	**$3.01**
TN	Hancock	6,782	15.4%	30.3%	98.0%	0.3%	0.2%	**22.0%**	**$2.90**
MS	Clarke	16,808	12.5%	23.1%	64.0%	0.2%	35.1%	**22.0%**	**$2.84**
CA	Siskiyou	44,690	17.6%	17.1%	80.2%	10.0%	1.3%	**21.8%**	**$2.93**
SD	Todd	9,575	6.9%	48.8%	9.8%	2.7%	0.2%	**21.8%**	**$2.85**
MS	Webster	10,139	14.3%	25.4%	78.0%	1.2%	18.9%	**21.8%**	**$2.83**
TN	Lake	7,827	10.7%	28.7%	68.5%	1.3%	28.0%	**21.6%**	**$2.87**
ID	Valley	9,846	16.3%	15.4%	95.8%	3.1%	0.0%	**21.4%**	**$3.45**
VA	Richmond city	201,828	10.1%	25.3%	38.5%	5.6%	50.9%	**21.4%**	**$2.96**
AL	Choctaw	14,111	11.4%	18.7%	55.4%	0.4%	42.9%	**21.1%**	**$2.85**
MS	Carroll	10,608	10.9%	23.6%	64.2%	0.1%	34.6%	**21.0%**	**$2.86**
TX	Zapata	13,609	11.0%	37.6%	8.1%	91.9%	0.0%	**20.9%**	**$2.82**
KY	Lee	7,865	12.6%	31.6%	97.7%	0.4%	1.3%	**20.9%**	**$2.81**
CA	Colusa	21,165	20.4%	15.0%	42.0%	52.6%	0.9%	**20.7%**	**$3.60**

[31] This table is sorted in descending order by the food insecurity rate.

Implications

The goals of the *Map the Meal Gap* project have been focused on equipping communities, service providers and policymakers with additional analytical tools to help understand the dynamics of food insecurity at the local level and to use this information to better inform discussions about how to respond to the need. The findings presented here document the food insecurity variation across communities.

Though we reviewed this variation in light of income, poverty and racial and ethnic composition of communities, we encourage others to examine how county-level food insecurity data can be paired with other indicators, such as health data, housing cost pressures and other measures of economic status.

Understanding income distribution among the food insecure can inform discussions about what programs and strategies can be leveraged on behalf of those struggling with hunger. The *Map the Meal Gap* analysis also provides a way to describe the food budget shortfall that food insecure individuals report and to show how food costs can vary across communities. It is our hope that food banks, partner agencies, policy makers, business leaders, community activists and concerned citizens will use these tools to fully engage in the fight against hunger.

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