



# Kansas City Metro Hunger Atlas<sup>1</sup>

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Food insecurity is on the rise in the U.S. While 11.1% of households were food insecure in 2007, just one year later, in 2008, that number jumped to 14.6% (Andrews and Nord, 2009). And the increase includes types of households that typically have less food vulnerability, including households with children. Many food insecure households seek assistance from food pantries. An estimated 4.1 million households accessed emergency food from a food pantry at least once in 2008, an increase from the previous year.

The recession has impacted Missouri like much of the rest of the country. The unemployment rate has nearly doubled since 2005 from 5.4% to 9.4% as of December 2009. According to the US Department of Agriculture, 15.8 percent of Missouri's nearly six million residents were food insecure in 2008. This suggests that 934,034 residents faced uncertainty in acquiring sufficient food for their household. Further, the USDA estimates that 7.2 percent of the population, or roughly 425,636 Missourians, had "very low food security" (formerly "food insecure with hunger") in 2008, suggesting they experienced hunger. Trends in food insecurity and hunger suggest cause for concern, as current averages for both measures have continuously increased over the first decade of this century.

## Definitions:

*Food secure:* A household measure suggesting that all members of the household had adequate access to sufficient food at all times to lead active and healthy lives.

*Low food security* (or, prior to 2005, food insecure): Households that have problems or difficulties in accessing sufficient food.

*Very low food security* (or, prior to 2005, food insecure with hunger): Households that have problems or difficulties in accessing sufficient food and that experience reductions in the normal eating patterns and food intake of some household members due to lack of money and other resources.

*Food uncertainty:* This term is equivalent to low food security. However, the levels of food uncertainty reported are estimates based on statistical analysis by Drs. Colleen Heflin, Joan Hermsen and Matt Foulkes.

Source: Nord, Coleman-Jensen, Andrews, and Carlson. (2010) Household food security in the United States, 2009. *Economic Research*, Report No. (ERR-108) pp. 68.

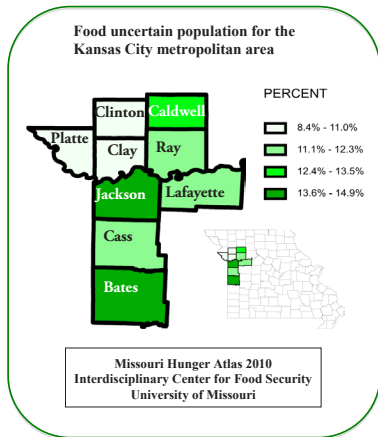
<sup>1</sup> This report was prepared by the Interdisciplinary Center for Food Security at the University of Missouri. The Center was established in 2004 in the College of Agriculture, Food and Natural Resources. Participating faculty come from four MU colleges and are engaged in integrated programs of research, training, and extension focused on domestic food security issues.

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This brief assesses the extent of food insecurity and food uncertainty in the Missouri counties of the Kansas City metropolitan area. It also begins to gauge how well public programs are doing in meeting the needs of those of our fellow citizens who have difficulty acquiring sufficient amounts and qualities of food. The concept of food security, as the Food Assistance and Nutrition Research Program within the United States Department of Agriculture defines it, refers to access by all people at all times to enough food for an active, healthy life.

County-level estimates for food uncertainty and hunger in Missouri counties reveal wide variation in the Kansas City metropolitan area (see Figure 1).

**Figure 1: Food Uncertain Population**



While the metropolitan area is generally lower than the statewide average for food uncertainty, two Missouri counties in the metropolitan area have comparatively high levels of food uncertainty. One of the more rural counties in the metropolitan region, Bates County, leads the region in the percent of households that are food uncertain (14.8%). Additionally, the core urban county in the region, Jackson County, exhibits high levels of food uncertainty (14.6%). These two counties also show higher levels of hunger than the rest of the metropolitan area, with an estimated 5.0% of the population in Bates County and 4.8% of the population in Jackson County being food uncertain with hunger.

The Kansas City metropolitan area is also home to some of the lowest food uncertain county rates in the state. Platte County has an estimated 9.3% food uncertain households and 3.3% food uncertain with hunger. Clinton and Clay County estimates are 10.4% and 10.9% food uncertain and 3.6% and 3.7% food uncertain with hunger, respectively. Please see Table 1 for a comparison with other Missouri counties in the region.

**Table 1: Food Uncertain Population**

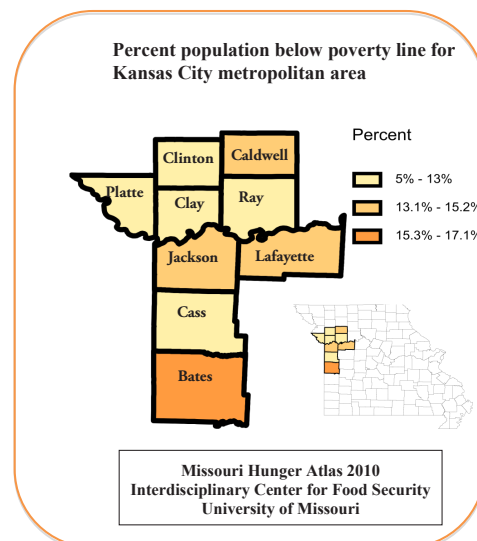
Food Uncertainty			
	% Households Food Uncertain	% Households w/Children Food Uncertain	% Food Uncertain with Hunger
Bates	14.8%	19.9%	5.0%
Caldwell	13.4%	18.7%	4.5%
Cass	11.6%	14.1%	4.0%
Clay	10.9%	14.9%	3.7%
Clinton	10.4%	15.7%	3.6%
Jackson	14.6%	20.0%	4.8%
Lafayette	12.2%	16.6%	4.1%
Platte	9.3%	12.6%	3.3%
Ray	11.8%	16.0%	4.1%
State of Missouri*	15.8%	23.4%	7.2%

\*At the state level, the term "food insecure" is equivalent to "food uncertain"

Food uncertainty estimates are based on modeling of variables related to citizenship, age, race, female headed households, poverty, median household income, and unemployment. Data on four of these variables are detailed for Missouri counties in the Kansas City metropolitan area in Table 2

One of the key drivers of food insecurity is poverty. In 2008, the U.S. poverty rate was 13.2 percent, with the state of Missouri slightly higher than the national average at 13.5%. There is a wide gap in the Kansas City metropolitan area with regards to poverty, with Platte, Clay, and Cass counties having the lowest poverty rates at 7 percent. Bates County has the highest poverty rate at 16 percent, with Caldwell and Jackson counties not far behind at 15 and 14 percent, respectively (see Figure 2).

**Figure 2: Poverty Population Map**



Median household income and unemployment rate are other key variables relating to poverty and food uncertainty. Median household income statistics show a wide income disparity among the counties of the region. The lowest incomes in the region are found in more rural counties of the metropolitan area, with Bates County having \$36,904 in median household income and Caldwell County with \$39,417. At the higher end of the income ladder, median household income climbs to above \$60,000 in Cass County at \$61,922 and Platte County at \$67,134. In 2008, unemployment levels in the region varied from a low of 4.7% in Platte County to a high of 7.1% in Bates County. The metropolitan area unemployment rate among Missouri counties was 6.2% in 2008. (See Table 2).

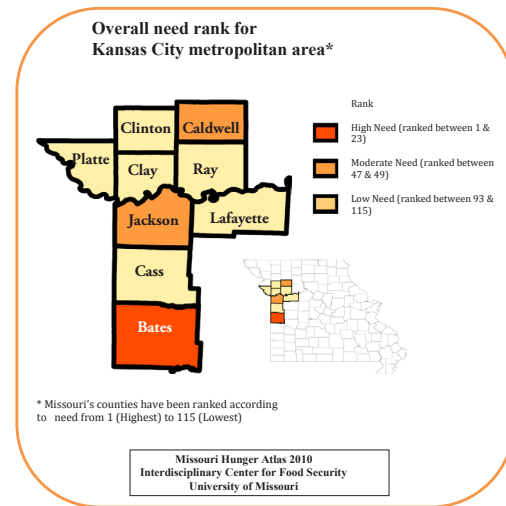
**Table 2: Economic Indicators**

Economic Indicators					
	Population Below Poverty	Population <18 Below Poverty	Median Household Income	Unemployment Rate (2008 Annual Rate)	Female Headed Households
Bates	16.0%	23.9%	\$36,904	7.1%	7.2%
Caldwell	15.0%	19.6%	\$39,417	6.6%	5.9%
Cass	7.0%	10.8%	\$61,922	5.9%	8.2%
Clay	7.0%	9.4%	\$58,803	5.1%	6.7%
Clinton	10.0%	13.9%	\$51,537	5.9%	4.4%
Jackson	14.0%	19.8%	\$47,284	6.9%	9.0%
Lafayette	13.0%	16.8%	\$46,394	6.0%	6.6%
Platte	7.0%	8.2%	\$67,134	4.7%	7.1%
Ray	10.0%	13.3%	\$51,965	6.3%	6.9%
KC Metro	11.6%	NA	NA	6.2%	NA
State of Missouri	13.5%	12.3%	\$46,847	6.1%	6.2%

Government agencies use a combination of economic indicators to determine if applicants are eligible for various types of food aid, including Supplemental Nutrition Assistance Program or SNAP (also known as food stamps), Free and Reduced School Lunch and WIC (Women, Infants and Children). In 2008, approximately 18.2% of the total Missouri population was income eligible for food stamps, 42.9% of school children were eligible for Free and Reduced School Lunch, and 42.8% of children under 5 were eligible to participate in WIC. Taken together with food uncertainty estimates for counties, these figures create a “need index” that demonstrates the level of need for food assistance in a county. (See Figure 3).

The Missouri counties in the Kansas City metropolitan area tend to demonstrate lower levels of eligibility for government food assistance than the state average, with 16.2% of the population income eligible for SNAP and 41.5% of children under 5 eligible to participate in WIC. Eligibility rates for Free and Reduced School Lunch are not available at the regional level. Despite lower average eligibility in the region than the state as a whole, there are pockets of the Kansas City metropolitan area that demonstrate higher need for food assistance in terms of the percentage of people eligible for food assistance programs. Again, there is a mix of rural and urban counties: Bates and Caldwell Counties have 22.3% and 19.9% of their population income eligible for SNAP,

**Figure 3: Overall Need Map**



44.5% and 46.4% students eligible for free and reduced school lunch, and 56.3% and 51.4% of their children under 5 eligible for WIC, respectively. Jackson County also demonstrates high need, with 20.1% of their population income eligible for SNAP, 49.6% of students eligible for Free and Reduced School Lunch. (See Table 3 for additional information).

**Table 3: Need Indicators**

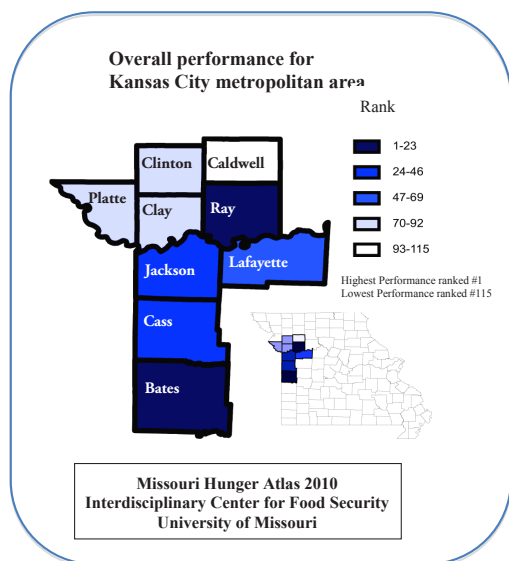
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Participation rates in public and private programs intended to help residents cope with food insecurity are one measure of how well counties, states and regions are meeting the needs of their most vulnerable populations. The Missouri Hunger Atlas creates a “performance index” for each county based on participation rates in public food assistance programs (SNAP/Food Stamps, Free and Reduced School Lunch and WIC), as well as pounds of food distributed through the private food pantry system. Participation rates for public programs are based on the percent of eligible people who are participating in the program. Participation in private food pantry programs is measured by the number of pounds

distributed through the food bank system per capita under the poverty line. (See Figure 4).

Figure 4: Overall Performance Map



In 2008, the Missouri counties in the Kansas City metropolitan area included 138,102 of the state’s 758,421 SNAP/Food Stamp participants, with 72.8% of the income eligible population in the region participating in the program. The regional participation rate is higher than the state participation rate of 70.5%, which indicates that counties in the region are doing relatively well at meeting the demand for food stamps in the area. However, due to the large population in the metropolitan area the participation rate means that around 51,599 people who were income eligible for food stamps in the region were not participating in 2008. County level participation rates in food stamps varied widely throughout the region, with just 55.8% of the income eligible population in Platte County participating and 93.8% of income eligible population participating in Cass County.

Participation rates in Free and Reduced School Lunch are much closer throughout the region, with a low of 70.2% of eligible children in Cass County and a high of 86.1% in Bates County participating. The regional rate of participation in Free and Reduced School Lunch was 76.5% in 2008. Over one-fifth (31,255 or 21.9%) of the state’s WIC recipients live in the region. The food pantries in the region that are tied to one of the Missouri Food Banks distributed more pounds of food per capita under the poverty line (124 pounds) than the state average of 78 pounds per capita under the poverty line. Pounds of food per capita under the poverty line varied greatly from just 37 pounds in Caldwell County to 401 pounds in Bates County (See Table 4).

Table 4: Performance Indicators

	Food Stamps/SNAP			Performance Indicators			Child & Adult Care Food Program	Food Bank
	# Monthly Participants	% Total Population Participating	% Income Eligible Population Participating	Free & Reduced School Lunch % Students Eligible Participating	Summer Food Service Program # Sites	WIC # Monthly Participants		
Bates	2,140	12.5%	56.2%	86.1%	3	607	\$100,883	401
Caldwell	1,050	11.4%	57.2%	79.1%	2	217	\$6,115	37
Cass	8,368	8.5%	93.8%	70.2%	1	1,609	\$360,792	161
Clay	16,071	7.5%	71.6%	77.8%	0	2,460	\$421,145	92
Clinton	1,502	7.1%	59.7%	79.3%	0	522	\$57,957	72
Jackson	98,597	14.8%	73.3%	76.6%	29	22,957	\$5,456,565	122
Lafayette	3,969	12.1%	71.4%	79.1%	1	575	\$82,646	170
Platte	4,036	4.7%	55.8%	73.3%	1	1,721	\$235,701	68
Ray	2,369	10.1%	83.7%	76.8%	0	591	\$0	94
KC Metro	138,102	11.8%	72.8%	76.5%	37	31,255	\$2,075,169	124
State of Missouri	758,421	12.8%	70.5%	NA	335	142,935	\$52,190,110	78

Two additional federal food assistance programs bear mentioning, though they are not included in the performance index mentioned above. The Missouri counties in the Kansas City metropolitan area included 37 sites participating in the Summer Food Service Program and \$1,906,461 in reimbursements for this program which offers meals to low-income children through the summer (when Free and Reduced School Lunch is unavailable). The Child and Adult Care Food Program (CACFP) is a program that provides snacks and meals to children and the elderly participating in day care programs. While the Kansas City region receives \$2,075,169 in meal and snack reimbursements through this program, it is just a small percentage (3.98%) of the funds received within the state of Missouri (\$52,190,110). Those interested in providing greater food assistance to children and/or the elderly may wish to better utilize these programs in the Kansas City area.

In sum, the Missouri Counties of the Kansas City metropolitan area tend to fare better than the state of Missouri averages on most measures of food security. However, since the Kansas City metropolitan area is home to a relatively large portion of Missouri’s population, it should be noted that large numbers of people in the metropolitan region are food insecure and even hungry. It is also worth noting that there is wide variation among counties in the metropolitan area in terms of food security and participation in public and private programs that alleviate hunger. The variation does not follow an urban versus rural pattern. Rather, there are rural counties with higher rates of food uncertainty than the core urban county, and there are rural counties that have very low rates of food uncertainty.

Across the nation households find themselves accessing informal and formal sources of emergency assistance for the first time as they cope with job loss and lower incomes. One of the key drivers of food insecurity and hunger in the Kansas City metropolitan area, the state of Missouri, and throughout the United States, is poverty. Further, income level is typically the primary eligibility criteria for participation in all public food assistance programs. Thus, economic, labor and income trends are most significant in the spatial distribution of need and program entitlement. The deterioration of the state

(and national) economic picture over the past three years parallels our findings and suggests that the situation in 2010 was most likely worse than the levels documented in this brief. Reports for food banks and pantries reveal continued increases in numbers of clients (at a time when USDA contributions through commodity and other programs are flat or decreasing). Participation in WIC, Food Stamps and other programs also continues to grow. For example, trends in Food Stamp Program numbers almost always rise and fall following changes in unemployment rates, and US and Missouri levels of participation are both the highest in the history of the program. It follows from this that the most direct route to alleviating hunger is to develop successful strategies for raising the income of the poor.

## References

- Andrews, M. & Nord, M. (2009). Food insecurity up in recessionary times. *Amber Waves*, 7(4), pp. 32-36.
- Nord, M., Coleman-Jensen, A., Andrews, M., and Carlson, S. (2010) Household food security in the United States, 2009. *Economic Research*, Report No. (ERR-108), pp. 68.

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