

Median Household Income

Average household income in county in 2008.
Source: U.S. Census Bureau Small Area Income and Poverty Estimates

Unemployment Rate

Average unemployment rate over 2008. Source:
U.S. Bureau of Labor Statistics

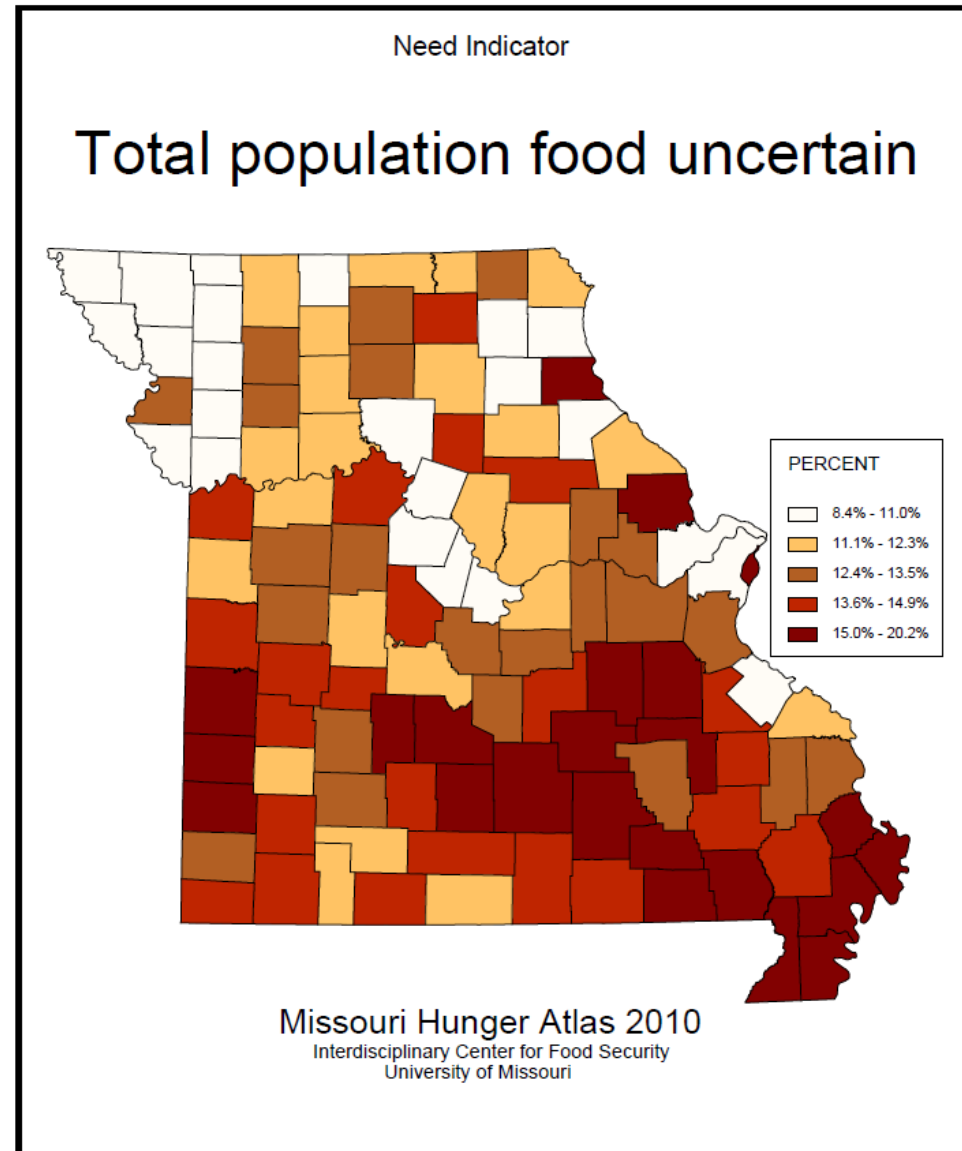
Female Headed Households

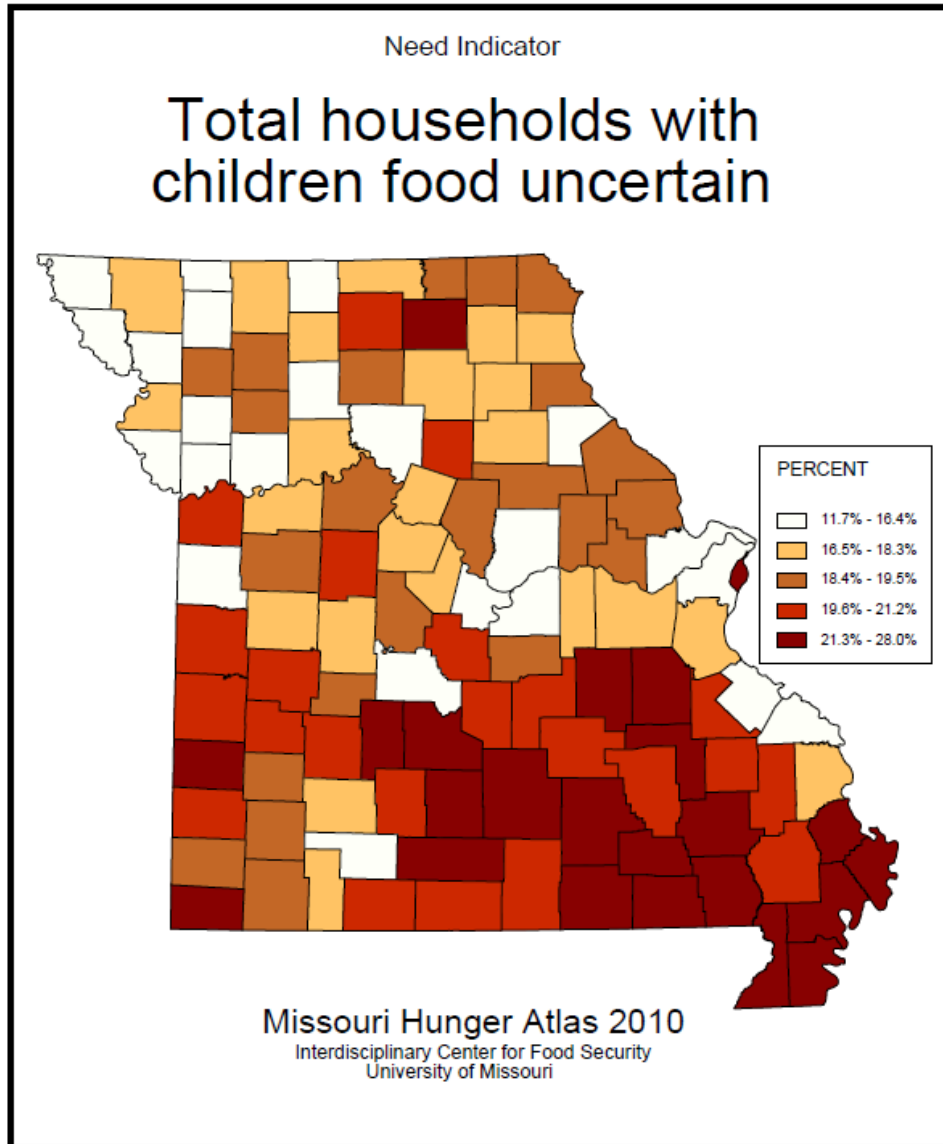
Percent of households in county in 2008 headed by a female who is not currently married or living with her spouse. Source: American Community Survey data modeled by Office of Social and Economic Data Analysis (MU)

Need Indicators

Food Uncertainty

Households food uncertain (MAP) Estimated percent of the total households food uncertain in 2008 in county, based on modeling of variables related to citizenship, age, race, female headed households, poverty, median household income, and unemployment. Variables and modeling coefficients derive from American Community Survey, US Census Bureau, Bureau of Labor Statistics, USDA, and Small Area Income and Poverty Estimates. For more information on the modeling, please see the





note at the bottom of this page or contact atlas authors. No trend data is given due to a change in methodology between the first hunger atlas and the present volume. Readers may, however, compare the two publications to note general trend directions.

% households with children food uncertain (MAP)

Estimated percent of the total households with children under the age of 18 food uncertain in 2008 in county, based on methods, variables and sources described above for “Households food uncertain.”

% food uncertain w/hunger

Estimated percent of the total households food uncertain with hunger in 2008 in county, based on methods, variables and sources described above for “Households food uncertain.”

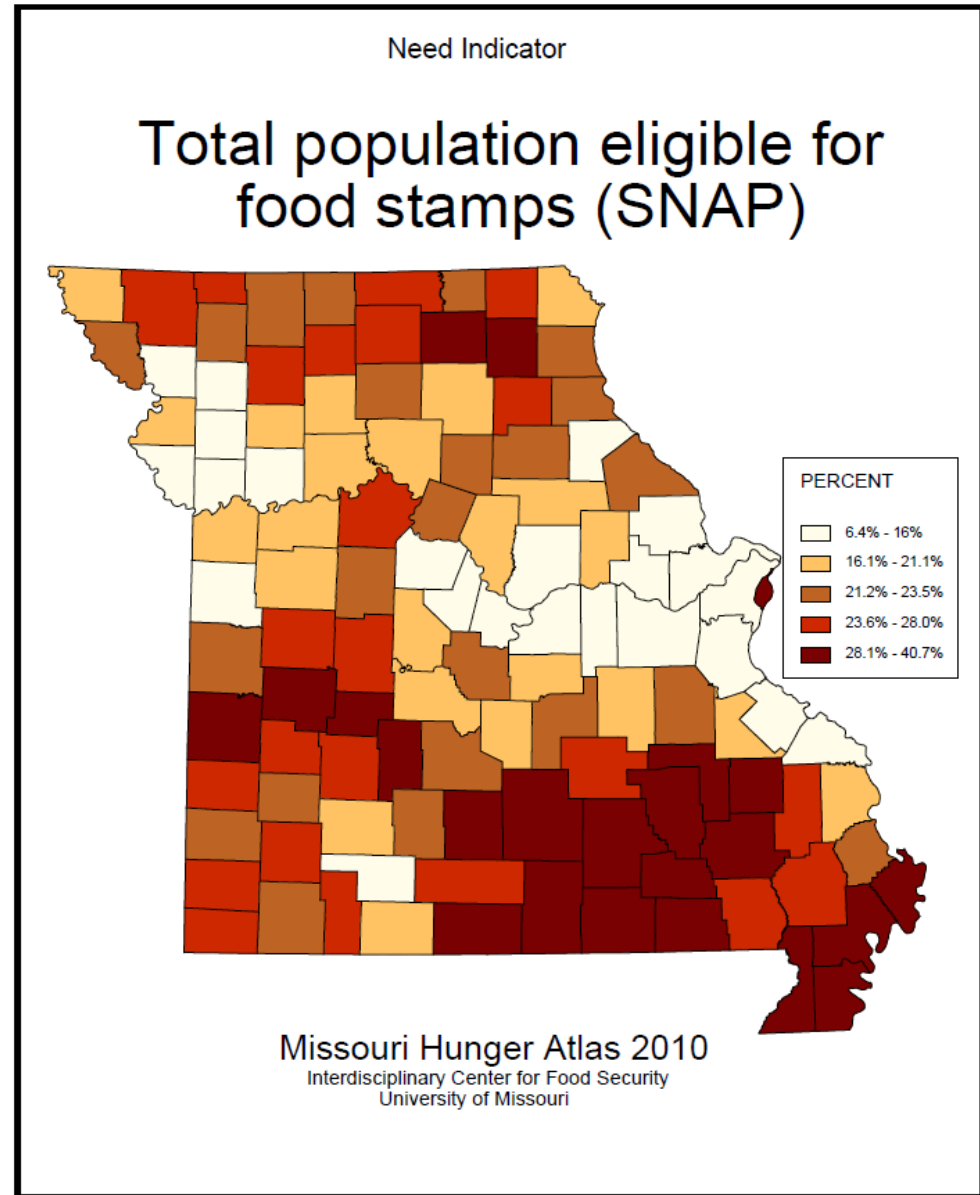
Note on “food uncertainty” indicators: The USDA publishes survey-based food insecurity numbers only at national and state levels. To develop county-level numbers, we use known predictors of food insecurity to develop a model of food uncertainty using USDA state-level data. We then use this model to estimate county-level patterns based on county-level socio-demographic information. Because our estimates are model-based and not survey-based we employ the phrases “food uncertainty” and “food uncertainty with hunger” rather than the USDA terms of food insecurity to suggest that our county-level measures reflect, but are not identical to, Federal variables.

SNAP/Food Stamp Program

% total population income eligible (MAP)

Estimated percent of total population income eligible for participation in the Supplemental Nutrition Assistance Program (Food Stamps Program in Missouri) in 2008. Income is a primary eligibility requirement; the formula begins by considering all households earning 130% or less than the poverty threshold². Trend is based on comparison of figures for 2005 and 2008. Source: American Community Survey, for some counties modeled by Office of Social and Economic Data Analysis (MU).

Food Stamp Program	
Mission	To improve the diets of low-income households by increasing food access and food purchasing ability
Constituencies	All ages
Eligibility	Primarily household-level income \leq 130 percent of poverty levels plus restrictions based on immigrant status in U.S. and household asset levels
Resources provided	Direct food payments using an Electronic Benefit Transfer card
State lead	Missouri Department of Social Services, Family Support Division



² The program has other eligibility requirements that modify the number of households eligible. Although there are various ways to estimate these additional restrictions, the data needed to approximate these adjustments are not currently available at the county level.

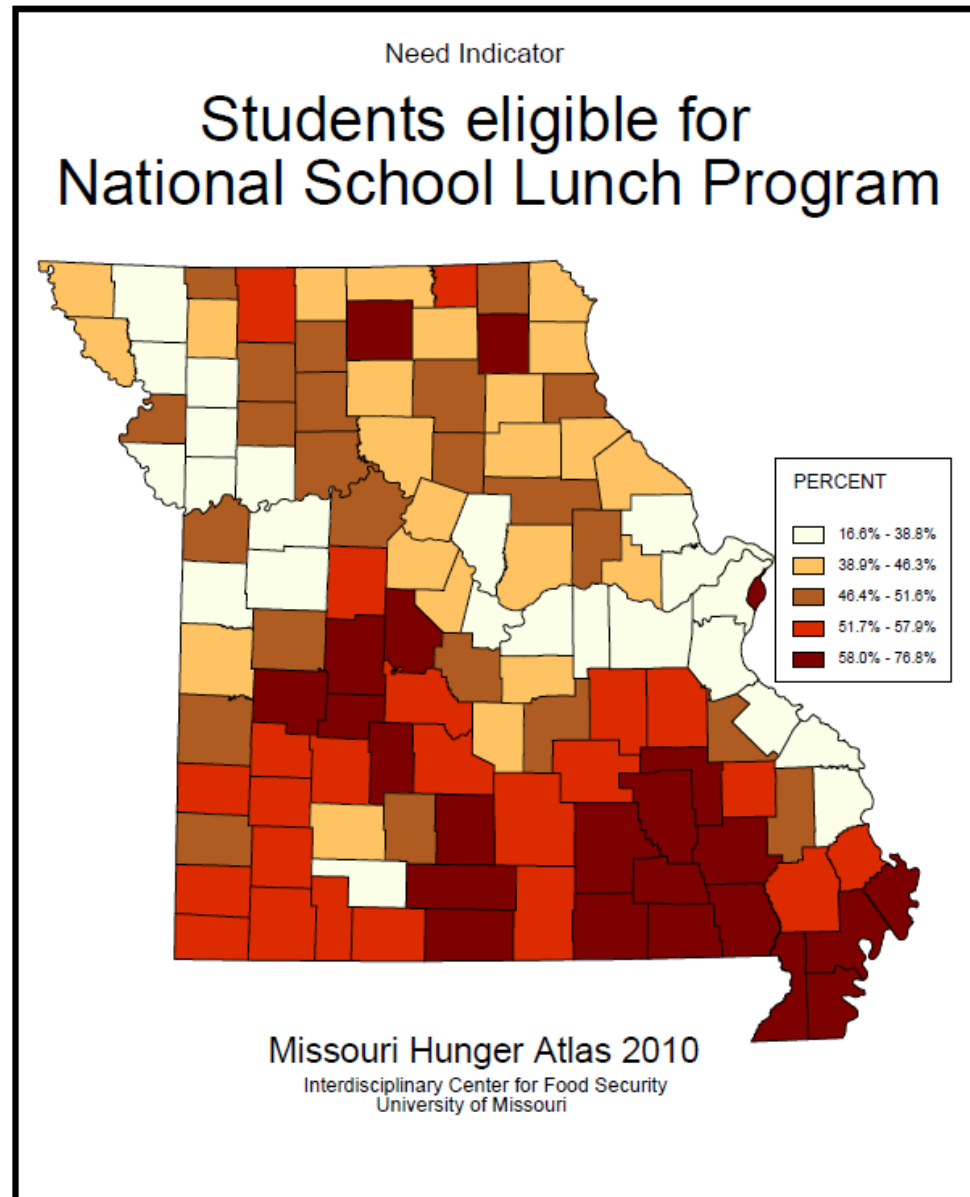
% <18 yrs income eligible

Estimated percent of total population less than 18 years of age income eligible for participation in the Food Stamps Program in 2008. Income eligibility is the primary eligibility requirement of the Food Stamp Program, a formula which starts by considering all households earning 130% or less than the poverty threshold. Trend is based on comparison of figures for 2005 and 2008. Source: American Community Survey, for some counties modeled by Office of Social and Economic Data Analysis (MU).

National School Lunch Program

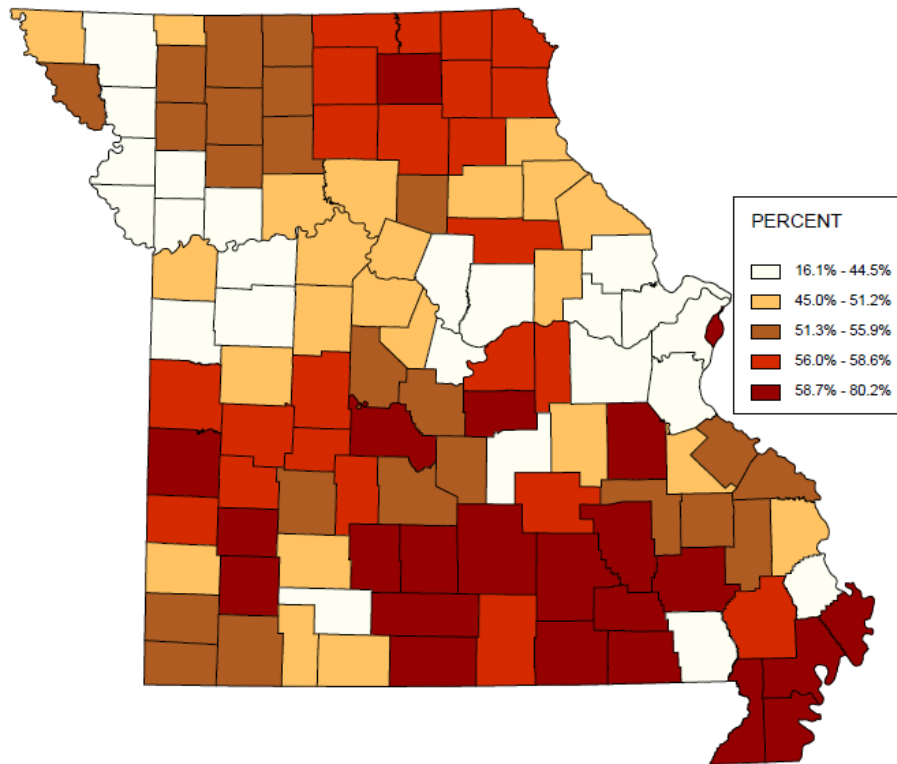
% students eligible (MAP)

Percent of students enrolled in the county's public and private schools eligible for free or reduced price lunches in the National School Lunch Program in October of the 2008-2009 school year. Trend is based on comparison of eligibility in the 2005-2006 and 2008-2009 school years. Only schools participating in the program are included in the data. Source: Department of Elementary and Secondary Education



Need Indicator

Under 5 eligible for WIC program



Missouri Hunger Atlas 2010

Interdisciplinary Center for Food Security
University of Missouri

Women, Infants and Children Program

% of < 5 income eligible for WIC Program

Percent of total infants and children under 5 years of age in the county eligible to receive WIC benefits in 2008. Trend is based on comparison of percents eligible in 2005 and 2008. Source: American Community Survey, for some counties modeled by Office of Social and Economic Data Analysis (MU).

Women, Infants and Children Program

Mission

To safeguard the health of low-income women, and infants and children younger than 5 years who are at nutritional risk

Constituencies

Pregnant women, nonbreastfeeding women up to 6 months postpartum, breastfeeding women up to one year postpartum, infants, and children up to fifth birthday

Eligibility

Categorical, residential, income and nutrition risk eligibility requirements. ≤ 185 percent of federal poverty level

Resources provided

Food, nutrition education, and referrals to health care and social service providers

State lead

Missouri Department of Health and Senior Services

Overall Need Rank

The overall need rank is a single composite measure of food insecurity needs for each county. While seven need indicators are listed in each county table, we chose four of these to establish a composite measure of need. The four variables, which include overall measures of food uncertainty as well as county-level eligibility for participation in the primary public food assistance programs, are:

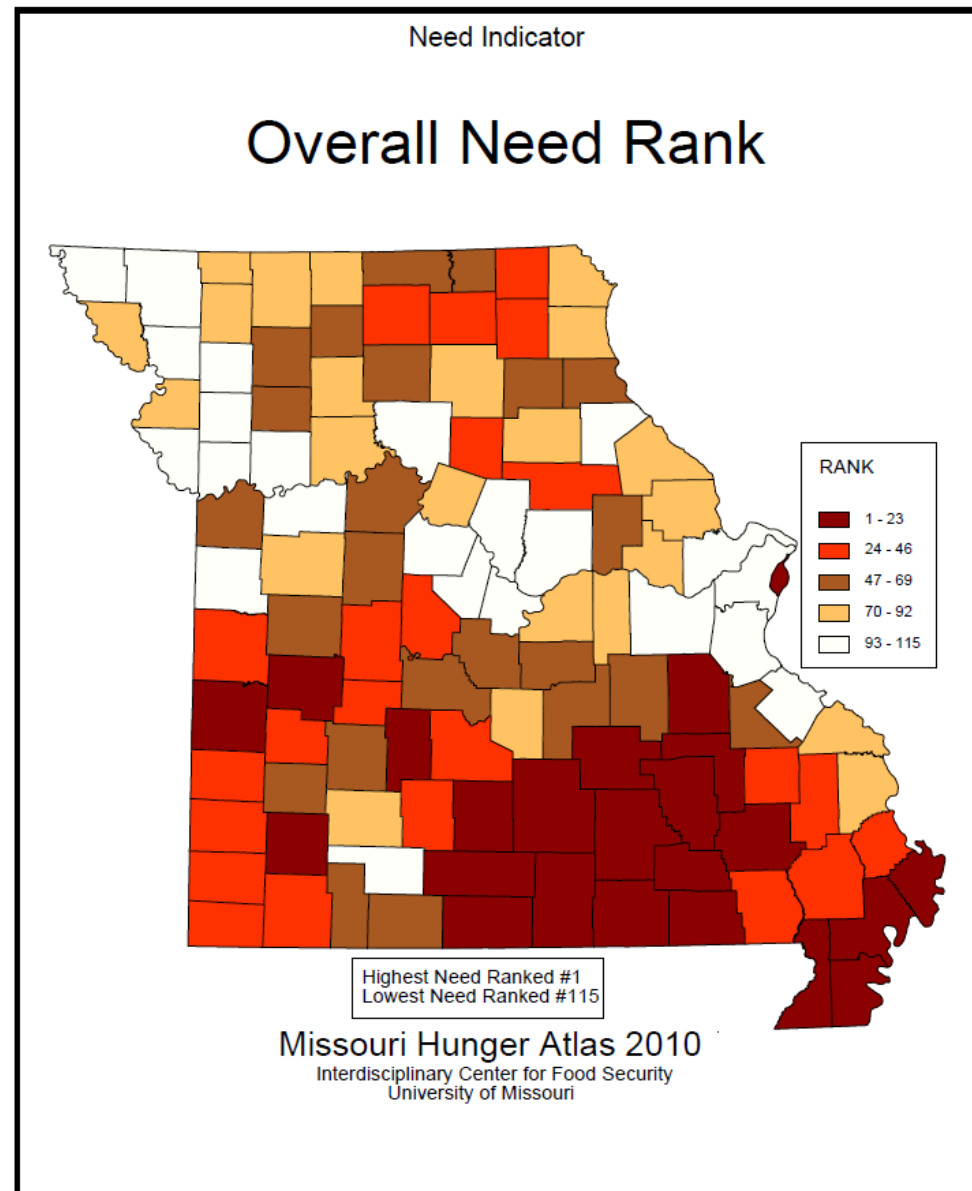
Percent of population food uncertain – percent of total population that is food uncertain in 2008

Percent of total population eligible for SNAP/food stamps – percent of county residents eligible for SNAP/food stamps in 2008

Percent of K-12 school enrollment eligible for free or reduced lunches – percent of K-12 students enrolled in schools (public and private) eligible for free and reduced lunches in the National School Lunch Program during the 2008-2009 school year

Percent of < 5 population WIC eligible – percent of infants and children under 5 years of age in the county eligible to receive WIC benefits in 2008

Beginning with the individual county rankings for each of these four variables, we use two steps to establish a county's overall need rank. First, we combined the four variable ranks to establish a composite score. Rather than use a simple average of



the four variable ranks, we assigned a weight to each rank in the construction of the composite score. In brief, the weighting model we use assigns 30 percent of the composite score to each of the measures of (1) Percent of population food uncertain and (2) Percent of total population eligible for Food Stamps; and 20 percent of the composite score to both (3) Percent of K-12 school enrollment eligible for FRLP and (4) Under 5 years eligible for WIC. We place more weight on the food uncertainty and Food Stamps program variables as these measures address all ages of the population. For example, Adair County had ranks of 41, 12, 75 and 2 for these four variables. The county's composite score, based on the weighted model and rounded off to the nearest whole number, is 31. The second step of the process is an overall

state ranking of the composite scores in which the composite scores of the 115 locations are compared to each other. In keeping with our ranking scale, in which 1=highest need and 115=lowest need, the county with the lowest numerical composite score is assigned 1 in the overall need ranking, which suggest the highest overall need in that county. Similarly, the county with the highest composite score is assigned number 115, which signifies the lowest average need. In the case of Adair County, the composite score of 31 ranks as the 25th highest in the state, which places the county in the second highest quintile (labeled "high") for Missouri. The individual ranks for the four indicators, composite score and overall need ranks for each county are in Appendix 1 of this atlas.