Food Insecurity Rates (Children 0-18)

The USDA defines food insecurity as a lack of consistent access to enough food to live an active and healthy life. It can also be defined in this way: the state of being without reliable access to a sufficient quantity of affordable, nutritious food. This measure is calculated on an annual basis by county and data is released every May. Here you’ll find that rate for children in Cass and Clay counties.

![Graph showing food insecurity rates for Cass and Clay counties from 2011 to 2016.]

<table>
<thead>
<tr>
<th>Year</th>
<th>Cass</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>8.9%</td>
<td>14.8%</td>
</tr>
<tr>
<td>2012</td>
<td>9.7%</td>
<td>14.8%</td>
</tr>
<tr>
<td>2013</td>
<td>10.3%</td>
<td>15.3%</td>
</tr>
<tr>
<td>2014</td>
<td>10.3%</td>
<td>14.8%</td>
</tr>
<tr>
<td>2015</td>
<td>8.9%</td>
<td>13.3%</td>
</tr>
<tr>
<td>2016</td>
<td>9.1%</td>
<td>12.7%</td>
</tr>
</tbody>
</table>

Food insecurity Rates (Whole Population)

The USDA defines food insecurity as a lack of consistent access to enough food to live an active and healthy life. It can also be defined in this way: the state of being without reliable access to a sufficient quantity of affordable, nutritious food. This measure is calculated on an annual basis by county and data is released every May. Here you’ll find that rate for the total population in Cass and Clay counties.

Limited Access to Healthy Food

Limited Access to Healthy Foods measures the percentage of the population that is low income and does not live close to a grocery store. From the United States Department of Agriculture (USDA): The Atlas assembles statistics on three broad categories of food environment factors:

- **Food Choices**—Indicators of the community's access to and acquisition of healthy, affordable food, such as: access and proximity to a grocery store; number of food-stores and restaurants; expenditures on fast foods; food and nutrition assistance program participation; food prices; food taxes; and availability of local foods.
- **Health and Well-Being**—Indicators of the community's success in maintaining healthy diets, such as: food insecurity; diabetes and obesity rates; and physical activity levels.
- **Community Characteristics**—Indicators of community characteristics that might influence the food environment, such as: demographic composition; income and poverty; population loss; metro-nonmetro status; natural amenities; and recreation and fitness centers.

This measure can be used to measure progress with some caveats. The data for this measure are not usually updated annually, so you’ll need to pay close attention to the years of data as you try to measure progress. [2018 - used data from 2015 for this measure. 2017-2014 - used data from 2010 for this measure]

Source: USDA Food Environment Atlas via County Health Rankings and US Census.
**Food Deserts**

Food deserts are defined as parts of the country with reduced or limited access to fresh fruit, vegetables, and other healthful whole foods, usually found in impoverished areas. This is largely due to a lack of grocery stores, farmers’ markets, and healthy food providers.

This has become a big problem because while food deserts are often short on whole food providers, especially fresh fruits and vegetables, instead, they are heavy on local quickie marts that provide a wealth of processed, sugar, and fat laden foods that are known contributors to our nation’s obesity epidemic. The food desert problem has in fact become such an issue that the USDA has outlined a map of our nation’s food deserts.

This is a zoomed in view of Cass/Clay. You can see WF, Fargo and Moorhead labels kind of buried in there. The green color signifies: Low-income census tracts where a significant number or share of residents is more than 1 mile (urban) or 10 miles (rural) from the nearest supermarket.

The orange color signifies: Low-income census tracts where a significant number or share of residents is more than 1/2 mile (urban) or 10 miles (rural) from the nearest supermarket.

Food Deserts (Continued)

Here, each map is depicted without the overlay.

SNAP, Eligible Recipient Rate and Number of Recipients

The Supplemental Nutrition Assistance Program (SNAP), formerly known as food stamps, is a federal nutrition program that provides food-purchasing assistance to low- and no-income individuals and families living in the United States. Below, we’ve included the *Estimated* Eligible Recipient Rate and the Average Number of Monthly Recipients by county.

The Estimated Eligible Recipient Rate is an estimation of the number of eligible people who are actively participating in this program. Its an estimate because – I’ve taken the total number of people who are below 125% of poverty and calculated the ratio of those individuals who are receiving SNAP in comparison to this. It is an estimate because SNAP eligibility includes those who are below 130% of poverty, but the Census doesn’t calculate that information. These numbers will be slightly high, by about 1-2% points.

The Average Number of Monthly Recipients chart is a reflection of the average number of people in a given month who are actively receiving SNAP benefits.

![Graph of Estimated Eligible Recipient Rate](image1)

<table>
<thead>
<tr>
<th>Year</th>
<th>Cass</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>52.30%</td>
<td>72.34%</td>
</tr>
<tr>
<td>2013</td>
<td>49.58%</td>
<td>77.70%</td>
</tr>
<tr>
<td>2014</td>
<td>47.66%</td>
<td>69.25%</td>
</tr>
<tr>
<td>2015</td>
<td>47.90%</td>
<td>67.51%</td>
</tr>
<tr>
<td>2016</td>
<td>49.35%</td>
<td>72.32%</td>
</tr>
<tr>
<td>2017</td>
<td>50.61%</td>
<td>71.36%</td>
</tr>
</tbody>
</table>

![Graph of Average Monthly Count of Recipients](image2)

<table>
<thead>
<tr>
<th>Year</th>
<th>Cass</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>12,437</td>
<td>6,556</td>
</tr>
<tr>
<td>2013</td>
<td>12,361</td>
<td>6,985</td>
</tr>
<tr>
<td>2014</td>
<td>12,238</td>
<td>6,665</td>
</tr>
<tr>
<td>2015</td>
<td>12,044</td>
<td>6,426</td>
</tr>
<tr>
<td>2016</td>
<td>12,322</td>
<td>6,709</td>
</tr>
<tr>
<td>2017</td>
<td>12,548</td>
<td>6,861</td>
</tr>
</tbody>
</table>

CSFP Program Participants

The Commodity Supplemental Food Program (CSFP) works to improve the health of low-income elderly persons at least 60 years of age by supplementing their diets with nutritious USDA foods. It is one of 15 federally funded nutrition programs of the Food and Nutrition Service, an agency of the USDA. Each service area is given a number of slots available to allow seniors to apply for this program. Currently, there are a number of seniors on the waitlist for this program in both ND and MN. Slots are determined based on how many seniors apply (which is extrapolated to assume the level of need). Note the missing data point for Cass county in 2015.

<table>
<thead>
<tr>
<th>CSFP Program Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
</tr>
<tr>
<td>2015</td>
</tr>
<tr>
<td>2016</td>
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<tr>
<td>2017</td>
</tr>
<tr>
<td>2018</td>
</tr>
</tbody>
</table>

WIC Program Participants

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides Federal grants to States for supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to age five who are found to be at nutritional risk.

WIC is a short-term program. Therefore, a participant will "graduate" at the end of one or more certification periods. A certification period is the length of time a WIC participant is eligible to receive benefits. Depending on whether the individual is pregnant, postpartum, breastfeeding, an infant, or a child, an eligible individual usually receives WIC benefits from 6 months to a year, at which time she/he must reapply.

To qualify for WIC, individuals must meet residency, categorical, income requirements, and be determined to be at nutritional risk. The income guidelines for WIC determine that a household’s income must fall at or below 185% of the federal poverty threshold or be eligible for another state administered program like SNAP, TANF, or Medicaid.

This is the unduplicated number of WIC participants by county by Fiscal year (Oct-Sept).

<table>
<thead>
<tr>
<th>WIC Program Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cass</td>
</tr>
<tr>
<td>2014</td>
</tr>
<tr>
<td>2015</td>
</tr>
<tr>
<td>2016</td>
</tr>
<tr>
<td>2017</td>
</tr>
<tr>
<td>2018</td>
</tr>
</tbody>
</table>

Source: Data Source: Kids Count Data Center 2018, Clay County Public Health, USDA FNS.
Eligible Recipient Rates for Free and/or Reduced School Lunch

The National School Lunch Program is a federally assisted meal program operating in public and nonprofit private schools and residential child care institutions. It provides nutritionally balanced, low-cost or free lunches to children each school day. Adjustments to income eligibility are made on an annual basis as determined by the National School Lunch Act. These guidelines are used by schools, institutions, and facilities participating in the National School Lunch Program (and Commodity School Program), School Breakfast Program, Special Milk Program for Children, Child and Adult Care Food Program and Summer Food Service Program.

Food Environment Index

The Food Environment Index ranges from 0 (worst) to 10 (best) and equally weights two indicators of the food environment:

1) Limited access to healthy foods estimates the percentage of the population that is low income and does not live close to a grocery store. "Low income" is defined as having an annual family income of less than or equal to 200 percent of the federal poverty threshold for the family size. Living close to a grocery store is defined differently in rural and nonrural areas; in rural areas, it means living less than 10 miles from a grocery store whereas in nonrural areas, it means less than 1 mile.

2) Food insecurity estimates the percentage of the population that did not have access to a reliable source of food during the past year. A two-stage fixed effects model was created using information from the Community Population Survey, Bureau of Labor Statistics, and American Community Survey.

Using the annual USDA Food Security Survey, Feeding America (Map the Meal Gap) models 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.

This measure is not appropriate for tracking progress. Individual county improvement is impossible to track due to the scaled nature of the measure. However, the two individual composite measures that make up the index could be used individually to progress with some caveats. Please see page 3 for data on Limited Access to Healthy Foods and pages 1-2 for data on Food Insecurity.

<table>
<thead>
<tr>
<th>Year</th>
<th>Cass</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>9</td>
<td>8.7</td>
</tr>
<tr>
<td>2015</td>
<td>8.8</td>
<td>8.4</td>
</tr>
<tr>
<td>2016</td>
<td>8.7</td>
<td>8.3</td>
</tr>
<tr>
<td>2017</td>
<td>8.6</td>
<td>8.3</td>
</tr>
<tr>
<td>2018</td>
<td>8.9</td>
<td>8.8</td>
</tr>
<tr>
<td>2019</td>
<td>8.9</td>
<td>8.8</td>
</tr>
</tbody>
</table>

Source: USDA Food Environment Atlas, Map the Meal Gap from Feeding America.
Poor General Health

Poor General Health measures the percentage of adults in a county who consider themselves to be in poor or fair health.

Self-reported health status is a general measure of health-related quality of life (HRQoL) in a population. Measuring HRQoL helps characterize the burden of disabilities and chronic diseases in a population. Self-reported health status is a widely used measure of people’s health-related quality of life. In addition to measuring how long people live, it is important to also include measures that consider how healthy people are while alive.

Age is a non-modifiable risk factor, and as age increases, poor health outcomes are more likely. We report an age-adjusted rate in order to fairly compare counties with differing age structures.

This measure could be used to measure progress, but only after considering its substantial limitations. Methodological changes in the Behavioral Risk Factor Surveillance System were implemented in the 2016 Rankings, make comparisons with estimates prior to that release year difficult. In addition, current estimates are produced using sophisticated modeling techniques which make them difficult to use for tracking progress in small geographic areas.

Modeled estimates have specific drawbacks with regard to their usefulness in tracking progress in communities. Modeled data are not particularly good at incorporating the effects of local conditions, such as health promotion policies or unique population characteristics, into their estimates. Counties trying to measure the effects of programs and policies on the data should use great caution when using modeled estimates. In order to better understand and validate modeled estimates, confirming this data with additional sources of data at the local level is particularly valuable.

**Adult Obesity**

This data outlines the percentage of the adult population (age 20 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m². Participants are asked to self-report their height and weight. From these reported values, BMIs for the participants are calculated.

Data for Adult Obesity are provided by the CDC Interactive Diabetes Atlas which uses Behavioral Risk Factor Surveillance System data to provide county-level estimates. Beginning with the 2015 County Health Rankings, Adult Obesity estimates include both landline and cell phone users. Previously, only landline users were included in the data. This change was implemented in order to provide users with the most accurate estimates of health in their community as possible.

The County Health Rankings measure of obesity serves as a proxy metric for poor diet and limited physical activity and has been shown to have very high reliability. Proxy measures are strongly correlated with, but indirectly measure, the outcome of interest. Obesity is used as a proxy measure for diet and exercise because a reliable measure of diet is unavailable at the county level. Obesity increases the risk for health conditions such as coronary heart disease, type 2 diabetes, cancer, hypertension, dyslipidemia, stroke, liver and gallbladder disease, sleep apnea and respiratory problems, osteoarthritis, and poor health status.

**Data Source:** Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health. BRFSS Prevalence & Trends Data 2015, 2012, and 2010.