



# SECOND HARVEST HEARTLAND

“Missing Meals” Report

Minnesota / Wisconsin Unmet Needs and Gap Analysis by County

Prepared June / July 2008 by staff at  
Second Harvest Heartland

On behalf of the MN Food Bank Cluster members of Feeding America

## INTRODUCTION

This project, completed by staff at Second Harvest Heartland, compiles data from many sources to create a baseline of information on the adequacy of food (meals) for low-income people in the service areas of the Feeding America member food banks.

It is not original research. It is the first time that comprehensive information about all food sources have been compiled in one place and will be used to drive planning efforts, create advocacy positions, and measure progress in our efforts to achieve our collective mission – *to end hunger through community partnerships*.

The data includes conversion formulas and the assumptions used for them. Most of the data is "as good as what is available", and primarily includes information as recent as 2007. In those places where the data is from a different time source, that has been indicated.

We thank Kelsey Beck, Public Policy Manager and the staff at Food Lifeline in Seattle, WA for their willingness to share their "Missing Meals Report" and process that they used. We modeled our work after the groundwork that they established.

### **Documentation, Assumptions and References**

As much as possible, data is calculated at the county level. All 87 counties in MN are covered and the materials include 23 counties in western Wisconsin. These MN and WI counties comprise the service area of the MN Food Bank Cluster members of Feeding America.

The unit of measure for the Unmet Needs Chart is MEALS. Data received as dollars or pounds was converted to meals.

### **Total Number of Individuals in Need**

According to "The Almanac of Hunger and Poverty in America 2007", the percentage of households with income less than 185% of poverty was 18.4% in MN and 24.7% in WI. Since food shelves and the State of MN, Department of Human Services, Office of Economic Opportunity recommend that service be delivered to people with household income less than 200% of poverty, and because federal nutrition programs have eligibility limits at 185%, this household income level has been used. We believe that it closely accounts for the majority of people served through public and charitable feeding programs.

**Note:** *Food Stamp Program eligibility, free school meals and CSFP/NAPS require household income less than 130% of the poverty threshold for eligibility. WIC, reduced-price school meals and CSFP/MAC participation requires 185% of poverty eligibility threshold. It is appropriate that household income <185% of poverty be the population targeted by this unmet needs / gap analysis.*

**FORMULA:** To find the number of Individuals per county in need:

- Identify individuals at <185% of poverty from US Census (2000).
- Using county-level data, calculate the percentage of people per county at income level compared to the statewide total. (County-level population divided by state total).
- Use the US Census FactFinder to identify state level population estimates (total number of individuals) for 2006.
- Using the 2006 eligibility percentage, determine state total of people in eligible category.
- Apply the same percentage of eligible people at county level to the new population total.

**Annual Meals Needed**

We agree that people should eat the equivalent of three meals a day.

**FORMULA:** Multiply the number of individuals by 3 (meals per day), by 365 (days per year) = 1,095 per person.

**Relevant Calculations**

**I. Meals Provided by Individuals from cash resources**

*Bureau of Labor Statistics (BLS) Survey Data*

A report on consumer expenditures is done by the US Bureau of Labor Statistics<sup>1</sup>, with updated data from the Consumer Expenditures Survey, 2006 (used in this report). Since 1980, the BLS has performed a survey of expenditures and found that, in general, people spend about 13% of annual income on food, based on an average household income of \$46,409 (reported for 2005).

The survey goes a step further, breaking down expenditures by income quintiles. Using the range of interest the breakdown and calculations are:

Income and Food Expenditures – Consumer Expenditure Survey, 2006

<b>Lowest 20 percent population by income</b>	
Household* Income after Taxes	\$9,969
Average Annual Expenditures	\$20,410
<b>Food Expenditures</b>	<b>\$3,193</b>
% of <u>income</u> spent on food	32.03%

\*Household size is 1.7 people per household

Food expenditure per person is \$1,878, or \$36.12 per person per week. (**\$38.81 adjusted for inflation to 2008**).

The USDA, through its Economic Research Services, coordinates data collection on Household Food Insecurity in the United States, most recently in 2006<sup>2</sup>. One section of the food security survey provides information on how much cash households spend on food, providing insight into how adequately households meet their food needs.

Food spending is only an indirect indicator of food consumption. It understates food consumption in households that receive food from in-kind programs, such as the National School Lunch and School Breakfast Programs, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), meal programs for children in child care and for the elderly, and private charitable organizations.

Purchases with food stamps, however, are counted as food spending in the food security survey. For purposes of this project and to include them as part of the county public sources of food category, these dollars are not included in the "Total Meals Provided by Individuals" sources.

According to data collected by USDA, the median weekly food spending by low income households was reported as follows:

- \$30.00 per person per week for households at 100% poverty, adjusted for inflation for 2008 - \$32.24
- \$30.00 per person per week for households at 130% of poverty, adjusted for inflation for 2008 - \$32.24
- \$32.00 per person per week for households at 185% of poverty, adjusted for inflation for 2008 - \$34.39

<sup>1</sup> "Consumer Expenditures in 2005" published in February 2007, Table 1, found at [www.bls.gov/cex/2006/standard/quintile.pdf](http://www.bls.gov/cex/2006/standard/quintile.pdf)

<sup>2</sup> Household Food Security in the United States, 2006 / ERR-49 found at [www.ers.usda.gov/Publications/ERR49/ERR49c.pdf](http://www.ers.usda.gov/Publications/ERR49/ERR49c.pdf)

Average for all households with inflation to 2008 dollars - **\$32.96 per person per week.**

For purposes of this report, it would seem reasonable to take an average of these two amounts, since they come from two similar sources at USDA. Both have been adjusted for inflation increases from 2006 to 2008.

**FORMULA:** Multiply the number of county-level individuals in need by \$35.89 per week x 52 weeks per year (**\$1,866 per year**) to attain \$'s spent by individuals to provide meals for themselves and their families.

## II. Cost of Meals

In order to convert dollars to meals, a standard meal cost has been determined.

The Thrifty Food Plan (TFP) is updated monthly by the USDA according to the Consumer Price Index (CPI).<sup>3</sup> While the TFP is used as a basis for food stamp need, the USDA also suggests weekly expenditures for multiple plans (low, moderate, and liberal). Each plan category estimates expenditures for individuals of multiple age and gender groups, and also includes two family models: each using a family of two parents and two children, with the children being of different age groups. Assuming a three-meal a day and seven day week (21 meals), with all meals eaten at home, the four plan costs are shown in this table:

April 2008	Weekly food costs in dollars (per meal cost) [divided by 21 meals a week and four people]			
<u>USDA Food Plans</u>	<u>Thrifty Food Plan</u> Used to calculate Food Stamp allocation	<u>Low-cost Food Plan</u>	<u>Moderate Cost Food Plan</u>	<u>Liberal Cost Food Plan</u>
<b>Family of Two</b>				
Ages 19-50	\$79.60 \$1.83 per meal	\$101.10 \$2.41 per meal	\$124.50 \$2.96 per meal	\$155.60 \$3.70 per meal
Ages 51-70	\$75.50 \$1.80 per meal	\$97.20 \$2.31 per meal	\$119.40 \$2.84 per meal	\$143.80 \$3.42 per meal
<b>Family of Four</b>				
Couple, 20-50 Children 2-3 and 4-5 years	\$115.80 \$1.38 per meal	\$146.70 \$1.75 per meal	\$179.90 \$2.14 per meal	\$222.70 \$2.65 per meal
Couple, 20-50 Children 6-8 and 9-11 years	\$133.00 \$1.58 per meal	\$172.00 \$2.05 per meal	\$213.70 \$2.54 per meal	\$259.90 \$3.09 per meal
<b>Household Average Family of Three</b>	<b>\$100.98</b> <b>\$1.60 per meal</b>	<b>\$129.25</b> <b>\$2.05 per meal</b>	<b>\$159.38</b> <b>\$2.53 per meal</b>	<b>\$199.50</b> <b>\$3.10 per meal</b>
The average cost per meal across all four food plans for a household of three: \$2.32				

We should remember that the Thrifty Food Plan was developed as an emergency plan and was not intended to provide sustainable nutrition for a complete diet.

Because the purpose of this Unmet Need Chart is to identify food sources for all meals for a full year, the Unmet Need Chart will use the average Food Plan food price of \$2.32 to convert financial information to meal cost, including those for meals provided by individuals, Food Support / Food Share (MN and WI Food Stamp Programs), WIC, and school meals.

<sup>3</sup> Center for Nutrition Policy and Promotion "Official USDA Food Plans: Cost of Food at Home at Four Levels, U.S. Average, June 2007 report. Accessed at <http://www.cnpp.usda.gov> on May 28, 2008

**FORMULA:** In those places where data is received as dollars provided to a county-level program, divide the dollar amount by 2.32, the cost per meal.

**Sensitivity Analysis:** *The complete "Missing Meals" report is highly sensitive to food price variability. A +10% variability in the cost per meal (from \$2.32 to \$2.55) would translate into a significant change in percentage of data by category and to the "missing meal" gap. A -10% variability of cost per meal leaves less of a gap to close.*

### **III. Pounds Per Meal**

There are 1.28 pounds per meal.

The 1.28 (1.3) pounds per meal factor is based on tabulations from U.S. Department of Agriculture: "Food Consumption and Dietary Levels of Households in the United States, 1987-88." Washington, DC: U.S. Government Printing Office, 1994.

**FORMULA:** In those places where data is received as pounds distributed within a county, divide the pound amount by 1.28, the weight of food per meal.

**Sensitivity Analysis:** *Applying a +10% or -10% variability rates to the conversion of pounds into meals does not result in a significant change to the report. Even with this variability, the charitable sector's contribution of meals hovers close to 5% for Minnesota overall.*

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## **Data Sources and Information**

### **PUBLIC SOURCES OF MEALS**

#### **Food Stamp Program Participation**

The federal Food Stamp Program (Food Support in MN and Wisconsin FoodShare) is generally available to eligible families and individuals with household income less than 130% of the poverty threshold adjusted for family size.

County level data on the MN Food Support Program participation was obtained from Jill Hiatt ([Jill.Hiatt@state.mn.us](mailto:Jill.Hiatt@state.mn.us)) at MN Department of Human Services and includes federal Food Stamp dollars and those appropriated by the State of Minnesota for MN Family Investment Program participants.

The FoodShare Wisconsin Program participation information was found electronically on the Wisconsin Department of Health and Family Services website<sup>4</sup>.

The data was received as dollars spent in each county for calendar year 2007, and converted to meals using \$2.32 as the cost of one meal.

#### **Free and Reduced Price School Meals and Summer Meal Program Data**

The school meal and summer meal data for Minnesota was obtained from the MN Department of Education – Food and Nutrition, Becky Leschner, Director of Federal Support Services, [becky.leschner@state.mn.us](mailto:becky.leschner@state.mn.us).

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<sup>4</sup> FoodShare Wisconsin data found at <http://dhfs.wisconsin.gov/em/rsdata/benefitsbycy.htm>

The school meal data for Wisconsin was obtained from the University of Wisconsin – Extension and the Wisconsin Department of Health and Family Services, <http://www.uwex.edu/ces/flp/cfs/index.cfm>

Summer Meal data for Wisconsin was obtained from the Wisconsin Department of Public Instruction, Amy Kolano, [amy.kolano@dpi.wi.gov](mailto:amy.kolano@dpi.wi.gov).

### **Women, Infants and Children (WIC)**

Participants in the Women, Infants and Children Program must have household income less than 185% of poverty adjusted for household size.

Data for MN WIC participation was obtained through e-mail contact with Carol Rowe, WIC Operations Unit Supervisor, Division of Community and Family Health, Minnesota Department of Health who shared county-based expenditure data for FFY 2007. (Contact: [carol.rowe@health.state.mn.us](mailto:carol.rowe@health.state.mn.us)).

Data for WI WIC participation was obtained from Chris Madsen, Vendor Relations Manager, Wisconsin WIC Program, WI Department of Health and Family Services, [chris.madsen@dhfs.wisconsin.gov](mailto:chris.madsen@dhfs.wisconsin.gov)

### **USDA Commodities**

Dollars are appropriated by the federal government as part of the USDA Farm Bill for the two commodity programs (CSFP and TEFAP). Their distribution takes place through member agency partners of the Feeding America food bank network in Minnesota and through the WISCAP agency in Wisconsin.

### **Commodity Supplemental Food Program (CSFP)**

This USDA commodity program provides food and funds and caseload through MN Department of Health to four MN Food Banks for distribution to income-eligible individuals. Distribution data was obtained from Channel One Food Bank & Food Shelf, Second Harvest Heartland, Second Harvest Northern Lakes Food Bank and Second Harvest North Central Food Bank.

There is no CSFP commodity distribution in the Wisconsin areas included in this report. The program in Wisconsin is not available to residents in all counties.

### **The Emergency Food Assistance Program (TEFAP)**

This USDA commodity program provides food and funds through the MN Department of Human Services, Office of Economic Opportunity for product distribution through the America's Second Harvest food banks. Distribution data was obtained from Channel One Food Bank & Food Shelf, Second Harvest Heartland, Second Harvest Northern Lakes Food Bank and Second Harvest North Central Food Bank, North Country Food Bank and Great Plains Food Bank.

TEFAP distribution in WI is through agencies that are part of the WISCAP network. Data was obtained from Jonathan Bader, WISCAP Programs Manager, [jbader@wiscap.org](mailto:jbader@wiscap.org).

### **State of Minnesota Food Shelf appropriation**

Dollars appropriated by the State of Minnesota, are distributed to eligible food shelves by a formula that takes service data into account. These total dollars for Minnesota are subtracted from the food shelf distribution data

within the Nonprofit Sector Meals section of the report, to more accurately account for public support of hunger programs and those provided by charitable / philanthropic support.

**TOTAL Public Sources of Meals**

**FORMULA:** Add meal conversion totals for Food Stamp participation, School Meals (free and reduced), Summer Lunch, WIC, CSFP, TEFAP and MN State Allocation to Food Shelves.

**NONPROFIT SOURCES OF MEALS**

**Food Shelves**

Distribution data was obtained from the six Feeding America members of the MN Food Bank Cluster, as reported by those food shelves that are regional food bank members. Data was obtained for calendar year 2007.

**Community Meal Programs**

Distribution data was obtained from the six Feeding America members of the MN Food Bank Cluster, as reported by those community meal programs that are regional food bank members. Data was obtained for calendar year 2007.

**Snack Programs**

Distribution data was obtained from the six Feeding America members of the MN Food Bank Cluster, as reported by those community snack programs that are regional food bank members. Data was obtained for calendar year 2007.

**Food Bank Direct Distribution Programs**

Data was collected from the Feeding America members of the MN Food Bank Cluster, Feed My People in Eau Claire, WI, the Emergency Food Shelf Network (EFN), Hope for the City, and Greater Lake County Food Bank, for any pounds directly distributed to individuals in need that were not reported by any other program distribution.

**Total Nonprofit Sources of Meals**

**FORMULA:** Add meal conversion totals for food shelf distribution, community meal programs, community-based snack programs, and food bank direct distribution programs.

**Information for the Reader:**

Our estimates of the "missing meals" rely on statistical estimates of the average cost per meal and the average weight content of each meal. It is common knowledge that all statistical estimates may vary slightly from actual quantities. We therefore also provide what we would call "best and worst case" scenarios by estimating the sensitivity of our results to a 10% over and under-estimation of the cost of a meal and the weight of a meal. Both of these estimates are found on page 5.

The analysis suggests that our estimates are not sensitive to variations in the average weight of a meal. Given this insensitivity and the fact that the content of meals is likely rather stable over time we find that reasonable variations in the weight of a meal do not affect our results in a meaningful way.

The estimated missing meals are slightly more sensitive to the cost of a meal. For example, a 10% higher per meal cost leads to missing meals comprising 19% of the total estimated need (a 7 percentage point increase from the original 12 percent). This result has, in our opinion, two implications. First, in light of recent increases in food costs, we inform the reader that our estimate of the missing meals may be slightly optimistic. Second, considering the fact that food prices may change over time, periodic updating of this analysis is necessary in order to efficiently monitor the food needs of low income Minnesotans.

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