

Brown County 2009 Household Food Security Survey Report

September 30, 2010

University of Wisconsin - Cooperative Extension
Nutrition Education Program
and
University of Wisconsin-Green Bay,
Social Work Professional Program

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Extension
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Acknowledgements

FOOD SECURITY SURVEY IN BROWN COUNTY, WISCONSIN SPRING 2010

Brown County food security studies are possible only through extensive partnerships with UW Green Bay, Brown County Food Pantries, individuals willing to serve on an advisory committee and financial support. The partnership with the University of Wisconsin Green Bay Professional Social Work Program involved two semesters of service learning with senior level Social Work students. During the first semester, students conducted literature reviews on nine selected topics. Survey methodology was developed and interviews were conducted at pantries. The second semester involved entering the raw data. Data Analyst Danelle Buyarski entered, compiled and interpreted results

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www.browncountyextension.org

INTRODUCTION

The mission of the University of Wisconsin-Extension (UWEX) is to provide, jointly with other University of Wisconsin institutions and the counties within the state, an extension program designed to apply University research, knowledge, and resources to meet the educational needs of Wisconsin residents, wherever they live and work. This mission includes focus on developing partnerships and conducting applied research to address locally identified issues relevant to specific needs of communities. Cooperative Extension faculty and staff work both individually and as members of multidisciplinary teams to design and deliver educational programs that focus university resources on local needs.

Brown County UWEX Nutrition Education Program began a Food Security Initiative in 1995 in response to changes in the political climate regarding welfare and family support programs. A partnership was developed with the Brown County Hunger Task Force (BCHTF), created to alleviate and eliminate hunger in Brown County. Through the efforts of this task force, the Brown County Food and Hunger Network, formerly BCHTF, expanded its mission: “to provide a forum for members and community partners to take action toward improved food security and relieve hunger.”

The Food Security Initiative in Brown County first involved a shift from a focus on short-term anti-hunger emergency relief efforts to community food security, which also embraces long term planning and multidisciplinary systems approach in addressing the problem of food insecurity. The anti-hunger approach focuses on supplying immediate food needs. Food security also utilizes strategies of building partnerships, developing a process and implementing projects that affect public policy to offer solutions to local hunger issues. The first step was to conduct the 1999 Household Food Security Survey. An action plan to address these findings was developed and patterned utilizing the USDA Food Security Initiative goals.

The United States Department of Agriculture (USDA) Community Food Security Initiative was launched in 1995, a holistic approach to addressing hunger needs as a national trend. It also focused on recognizing USDA’s partnerships with communities to help reduce hunger for more than 10 million, (in 2008,17 million) American households who are food insecure. The goal of this initiative was to cut domestic hunger in half by the year 2015 by focusing on seven different areas:

- Creating and expanding existing local infrastructures that boost food security;
- Increasing job and economic security;
- Improving food and nutrition assistance;
- Improving community food production and marketing;
- Increasing education and awareness of food insecurity;
- Improving research, monitoring and evaluation;
- Increasing federal nutrition assistance safety net.

Between 1999 and 2004, several initiatives addressed the 1999 findings to improve food security among food pantry users. The UW Extension Nutrition Education Program and UW Green Bay Social Work Professional Program repeated the research in 2004 to monitor changes and gather data for future initiatives. A community forum was convened to identify ways of addressing the findings. The focus was to engage and encourage new partners to take on food security initiatives within their organizations.

In 2008, the Wisconsin Food Security Consortium launched a plan to end hunger in Wisconsin (www.EndHungerWI.org) that includes four components of food security represented by a table full of food supported by four sturdy legs. Each leg represents an important component of food security:

1. Family economic security
2. Access to affordable and healthy food
3. Federal nutrition programs
4. Emergency food assistance

By strengthening each one of these legs, the result can be to end hunger in Wisconsin. The Brown County Food and Hunger Network as a whole and its individual members have embraced this approach since the first Brown County Food Security survey results were released in 2000.

In 2009, UW Extension Nutrition Education Program and UW Green Bay Social Work Professional Program launched follow-up research to its 2004 and 1999 studies using the USDA Household Food Security Survey. Additional questions were added on demographics, housing, transportation and health to address local concerns. By conducting these studies over time, longitudinal data is available to observe trends in food security and related issues in the Green Bay area.

USDA conducts food security surveys of the entire population in December every year. In contrast to the USDA studies which survey the entire US population, the three Brown County surveys have studied only the population already at-risk for food insecurity. Interviews have been conducted at local food pantries in order to talk with those already in need and to glean information on what will help most to improve their food security.

A community advisory committee was also convened by UW Extension to determine what additional data would help to understand the needs of people who use food pantries in order to have enough food. The committee reviewed previous surveys, discussed which questions could be deleted, and also what new information we would like to gather. This information was used in developing the actual questions we wanted to answer in our study. The committee reconvened to discuss how the data would be cross tabulated to gain a greater understanding of the relationships between variables affecting food security.

Evaluation Questions

The advisory committee determined that the primary questions directing this study would be as follows:

- Prevalence and level of food security among at-risk households in Green Bay, Wisconsin in 2009 and how it compares to 2004 and 1999 findings
- Contributors to food insecurity
- Strategies used to improve food security
- Demographics, housing status and nutrition knowledge of pantry users
- Types of initiatives that would increase the availability and accessibility of food

Procedure

UW Extension developed partnerships with the University of Wisconsin Green Bay Social Work Program and individual food pantries. Pantries provided information on the language barriers with their clientele. UW Extension arranged for Hmong, Spanish and Russian interpreters to be available at sites where non-English speaking people were typically present. Thirty-nine upper level undergraduate students in the

Social Work Professional Program at the University of Wisconsin-Green Bay conducted interviews at 17 food pantry sites during a four-week period in the fall of 2009. Students and interpreters were trained to conduct the interviews prior to data collection. Students interviewed participants throughout each site's hours of operation to help ensure that a broad range of individuals were interviewed. Each interview lasted approximately 10-15 minutes with an incentive of a colored calendar with recipes in an attempt to increase response rates. We asked respondents who may visit more than one site location not to complete the survey more than once. Every attempt was made to interview every food pantry user who arrived during the time period in which the survey was scheduled to be conducted.

A minimum number of surveys were required to be collected at each site. This number was determined by the average number of pantry users per month at each pantry. This was obtained from the monthly food pantry utilization data base on food pantry usage that is maintained by UW Extension. A greater number of surveys were collected at Paul's Pantry because they have Saturday hours when other pantries are closed and students were available on weekends to administer the surveys.

Sample Size Determination

Seventeen different sites were included in this evaluation. The sites were chosen if they met two criteria: (1) Pantry had regularly scheduled hours. (2) Pantry had a large enough monthly average usage so that enough interviews would be collected at the sites during the time period in which the survey was scheduled to be conducted.

The total number of participants for this survey was 713. Table 1 indicates the participant distribution by Pantry location by total frequency number and percentage of the total sample.

Table 1
Food Pantry

Average Number per Month Served	Planned Surveys	Actual (frequency)	Valid Percent
AIDS Resource Center		1	.1
Paul's Pantry		415	58.2
Pulaski Community Pantry		14	2.0
Resurrection Lutheran		16	2.2
St. Bernard's Church		1	.1
St. Patrick Catholic		38	5.3
St. Willebrord Parish		7	1.0
The Salvation Army		7	1.0
Trinity Lutheran Church		10	1.4
Calvary Lutheran		4	.6
DePere Christian		8	1.1
Denmark Food Pantry		8	1.1
First Presbyterian		16	2.2
First United Methodist		26	3.6
The Giving Tree		9	1.3
Grace Lutheran		6	.8
Manna for Life		122	17.1
Total		713	100.0

Analyses

All survey items were calculated with frequency number and percentage data so that an overall distribution throughout the sample could be seen and noticed by item. Food security status levels were calculated by recoding item responses in the Household Stage modules of the survey to reflect responses of “yes,” “often,” “sometimes,” “almost every month,” and “some months but not every month” were coded as affirmative “1”. The sum of affirmative responses to each specified set of items comprises the household’s raw score. After the recoding of household module items, new variables were created corresponding to the designated items included in each measurable category of food security. Frequencies and respondent count totals were captured and reported for each level of food security within each designated category explicit in the USDA 2008 Food Security Guidelines. Additionally, cross tabulations and correlations were also computed to show the relationship between food security and separate factors that may influence food security more strongly.

WHAT IS FOOD SECURITY?

What is Food Security?

Food security is defined as access to enough food for an active, healthy life by all people. This minimally includes the ready availability of nutritionally adequate foods and the assured ability to acquire personally acceptable foods in a socially acceptable way. Therefore, food insecurity has been defined as limited or uncertain availability of nutritionally adequate foods or inability or uncertainty to acquire these foods in a socially acceptable way (American Institute of Nutrition, 1990). Food security involves four components related to food: availability, accessibility, adequacy and dependability of supply. Six characteristics of food secure communities include:

- Availability of a variety of foods at reasonable cost;
- Ready access to a grocery store or other sources that supply food;
- Sufficient personal income to purchase adequate food that meets nutritional needs for each household member;
- Freedom to choose personally adequate foods;
- Confidence in the quality and safety of food available;
- Easy access to understandable and accurate information about food and nutrition (Wagner, Butkus & Wilken, 1990).

In addition to improving food security for individuals, there has been a movement to create food secure communities which is “a situation in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes self-reliance and social justice”, without resorting to emergency food sources. (American Dietetics Association Position Paper on Food Insecurity, 2010)

Description of the Food Security Scale

The food security status of each household lies somewhere along a continuum extending from high food security to very low food security. This continuum is divided into four ranges, characterized as follows:

1. **High food security**—Households had no problems, or anxiety about, consistently accessing adequate food.
2. **Marginal food security**—Households had problems at times, or anxiety about, accessing adequate food, but the quality, variety, and quantity of their food intake were not substantially reduced.
3. **Low food security**—Households reduced the quality, variety, and desirability of their diets, but the quantity of food intake and normal eating patterns were not substantially disrupted.
4. **Very low food security**—At times during the year, eating patterns of one or more household members were disrupted and food intake reduced because the household lacked money and other resources for food.

USDA's Revised Labels Describe Ranges of Food Security

General categories (old and new labels are the same)	Detailed categories		
	Old label	New label	Description of conditions in the household
Food security	Food security	High food security	No reported indications of food-access problems or limitations
		Marginal food security	One or two reported indications—typically of anxiety over food sufficiency or shortage of food in the house. Little or no indication of changes in diets or food intake
Food insecurity	Food insecurity without hunger	Low food security	Reports of reduced quality, variety, or desirability of diet. Little or no indication of reduced food intake
	Food insecurity with hunger	Very low food security	Reports of multiple indications of disrupted eating patterns and reduced food intake

New Labels Describe Ranges of Food Security

In 2006, USDA introduced new language to describe ranges of severity of food insecurity. USDA made these changes in response to recommendations by an expert panel convened at USDA's request by the Committee on National Statistics (CNSTAT) of the National Academies. Even though new labels have been introduced, the methods used to assess households' food security have remained unchanged, so statistics for 2005 and later years are directly comparable with those for earlier years for the corresponding categories.

For most reporting purposes, USDA describes households with high or marginal food security as food secure and those with low or very low food security as food insecure.

Placement on this continuum is determined by the household's responses to a series of questions about behaviors and experiences associated with difficulty in meeting food needs. The questions cover a wide range of severity of food insecurity.

Least severe:

Was this statement often, sometimes, or never true for you in the last 12 months? “We worried whether our food would run out before we got money to buy more”.

Somewhat more severe:

Was this statement often, sometimes, or never true for you in the last 12 months? “We couldn't afford to eat balanced meals”.

Midrange severity:

In the last 12 months, did you ever cut the size of your meals or skip meals because there wasn't enough money for food?

Most severe:

In the last 12 months, did you ever not eat for a whole day because there wasn't enough money for food?

In the last 12 months, did any of the children ever not eat for a whole day because there wasn't enough money for food?

Food Insecure

Households that report three or more conditions that indicate food insecurity are classified as “food insecure.” The three least severe conditions that would result in a household being classified as food insecure are:

- They worried whether their food would run out before they got money to buy more.
- The food they bought didn't last, and they didn't have money to get more.
- They couldn't afford to eat balanced meals.

Households are also classified as food insecure if they report any combination of three or more conditions, including any more severe conditions.

Very Low Food Security

To be classified as having “very low food security,” households with no children present must report at least the three conditions listed above and also that:

- Adults ate less than they felt they should.
- Adults cut the size of meals or skipped meals and did so in 3 or more months.

Many report additional, more severe experiences and behaviors as well. If there are children in the household, their experiences and behaviors are also assessed, and an additional two affirmative responses are required for a classification of very low food security.

How Food Security Status is Calculated

The food security status of each interviewed household is determined by the number of food-insecure conditions and behaviors the household reports. Households are classified as *food secure* if they report no food-insecure conditions or if they report only one or two food-insecure conditions. (Food-insecure conditions are indicated by responses of “often” or “sometimes” to questions 1-3 and 11-13; “almost every month” or “some months but not every month” to questions 5, 10, and 17; and “yes” to the other questions.) They are classified as *food insecure* if they report three or more food-insecure conditions.

Prevalence of Food Insecurity—National Conditions and Trends

About 85 percent of U.S. households were food secure throughout the entire year 2008. In concept, “food secure” means that all household members had access at all times to enough food for an active,

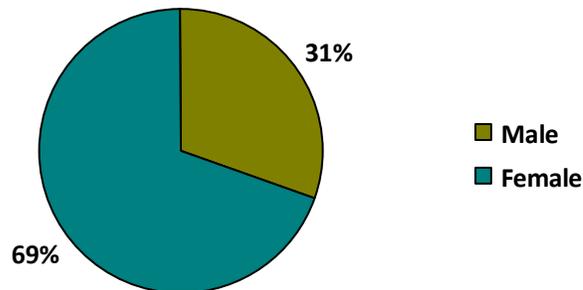
healthy life. The remaining 17 million U.S. households (14.6 percent of all households) were food insecure at some time during the year. That is, they were, at times, uncertain of having, or unable to acquire, enough food for all household members because they had insufficient money and other resources for food. The prevalence of food insecurity was up from 11.1 percent (13 million) households in 2007 and was the highest observed since nationally representative food security surveys were initiated. About two-thirds of food-insecure households avoided substantial reductions or disruptions in food intake, in many cases by relying on a few basic foods and reducing variety in their diets. But 6.7 million households (5.7 percent of all U.S. households) had very low food security, up from 4.7 million households (4.1%) in 2007 and the highest level observed since nationally representative food security surveys were initiated—that means they were food insecure to the extent that eating patterns of one or more household members were disrupted and their food intake reduced, at least some time during the year, because they couldn't afford enough food. Children in most food-insecure households—even in most households with very low food security—were protected from reductions in food intake. However in about 506,000 households (1.3 percent of households with children), one or more children were also subject to reduced food intake and disrupted eating patterns at some time during the year.

RESULTS

1. Demographics of the Sample

Gender

Figure 1: Gender of Food Pantry Users Surveyed

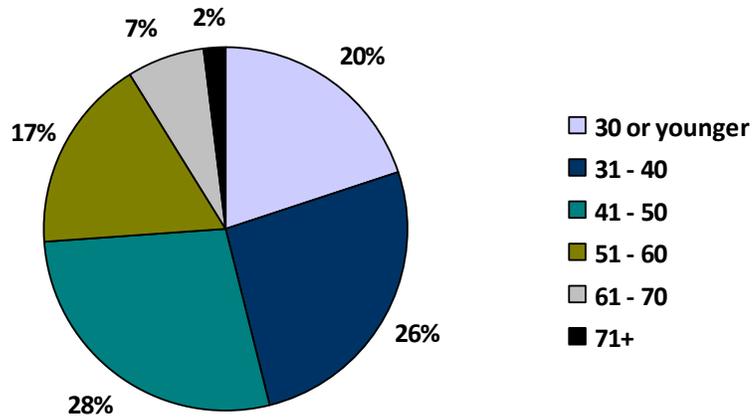


(See Table 3) In this survey, 66.2% (n = 472) of respondents were female and 29.3% (n = 209) were male. As shown, there were more females in households responding to this survey than males. The respective food security levels by gender are shown in Figure 7.

Age

Figure 2:

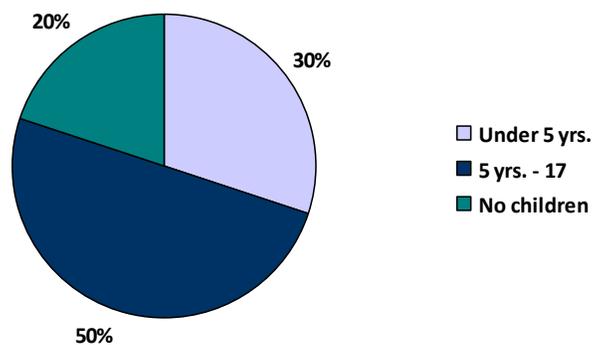
Pie Chart Representing Age Demographics of Respondents



(See Table 5) Individuals ages 30 and under accounted for 19.4% of the sample (n=128). Those between 31 and 40 years old accounted for 25.8% (n=171), 41 to 50 year old respondents were 27.9% (n=184), those between 51 and 60 years were 16.8% (n=111), respondents between 61 and 70 years were 7.1% (n=47) and those 71 and older accounted for 2.4% (n=20) of those surveyed.

Figure 3:

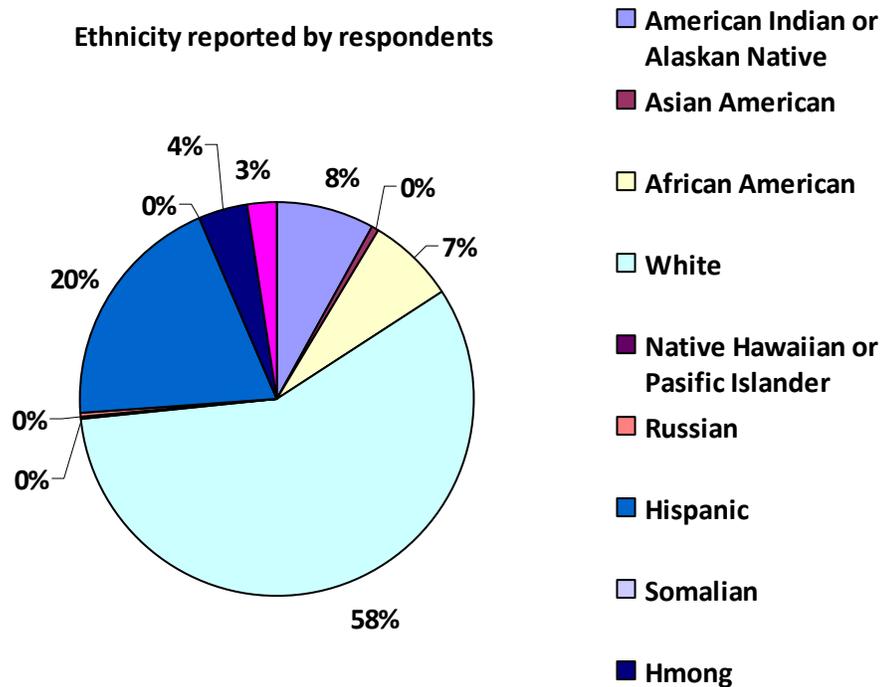
Age of Children in the Household



(See Tables 6 & 7) Households with children under 5 comprised 29.5% (n= 206) of the sample while 50.4% (n=347) reported having children between age 5 and 17. A total of 79.9% of households reported having children between 17 years and under one year old. There were 146 households or 20.1% of the respondents without children.

Ethnicity

Figure 4:



(See Table 8)

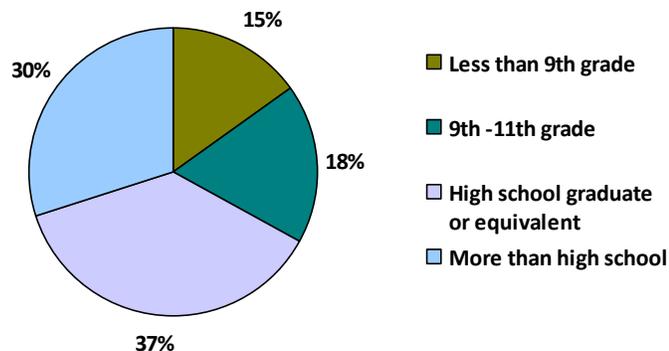
Figure 4 shows

the ethnicity data of households surveyed. The majority of participants were White 60.3% (n=405); Hispanic or Latino 20.5% (n=138); American Indian or Alaska Native 8.6% (n=58) and Black or African American 7.7% (n=52); Hmong 3.9% (n=26). Asian or Asian American, Native American or Other Pacific Islander, Russian, Somalian and Other categories combined equaled 3.4% (n=24) of the responding population. Note that participants had the option to include more than one ethnicity, which may seem to skew the total sample size. This sample size by ethnicity is similar to the 2004 households surveyed with two exceptions. There is a 5.5% increase among Hispanic households interviewed and a 3.7% drop in Native American households interviewed. The 3% (pink) signified in the pie chart represents “other” ethnic group not listed here reported by the respondent. Note - The 0% in Figure 4 represents < .5%, but not zero for those ethnicities listed in the legend.

Education

Education Level Reported by Respondents

Figure 5:



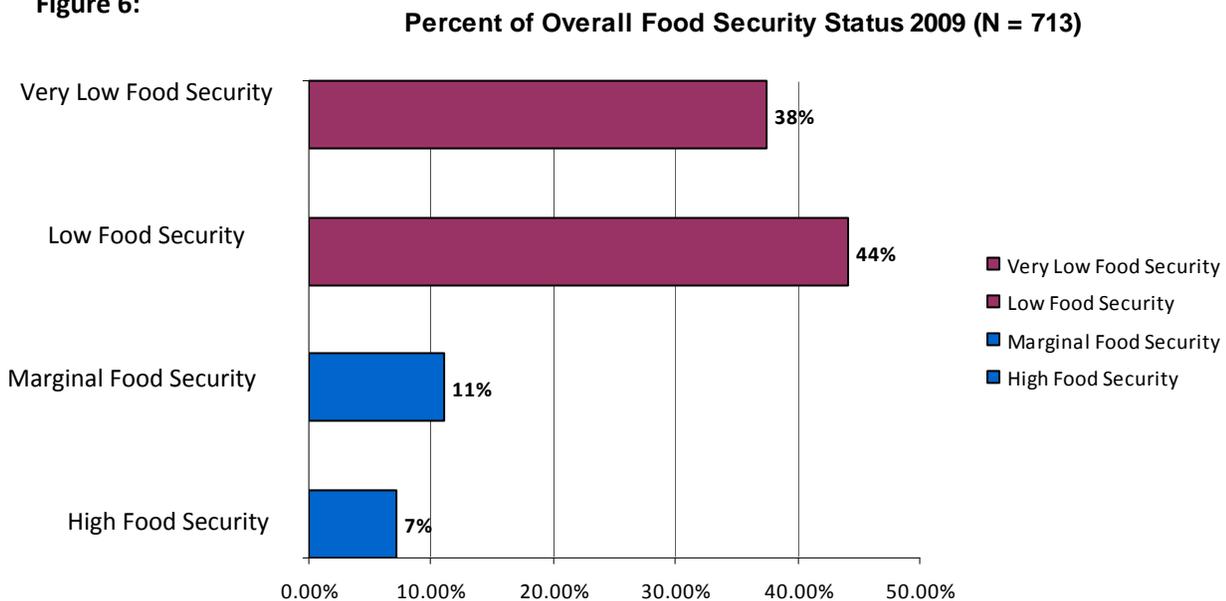
(See Table 10) Figure 5 shows that 36.9% (n=246) of respondents have a high school diploma or equivalent while 33% (n=219) have achieved an 11th grade education or less, similar to 2004 (33%). It is important to note that 29.7% (n=198) reported some education beyond high school. This differs greatly from 2004 when only 13% of those surveyed reported more than a high school education. There are 17% more individuals with education beyond high school now using pantries. Fewer jobs even for those with higher education have affected their need to utilize emergency food resources.

Military Status

A new item for the 2009 Brown County food security survey requested by the advisory committee asked if anyone in the household is a military veteran. In 2009, 12.4% (n=83) of food pantry respondents reported that they are or someone in their household is a military veteran.

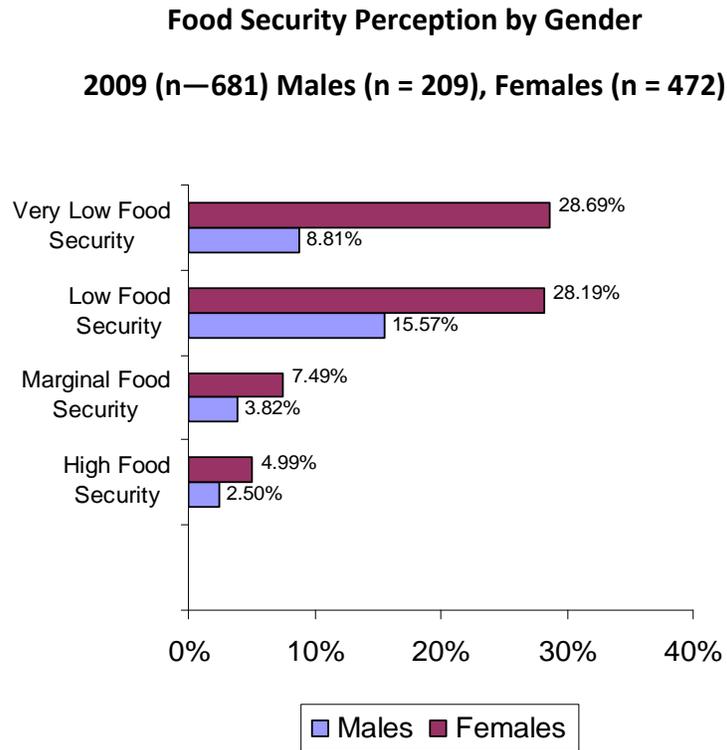
2. Food Security Status

Figure 6:



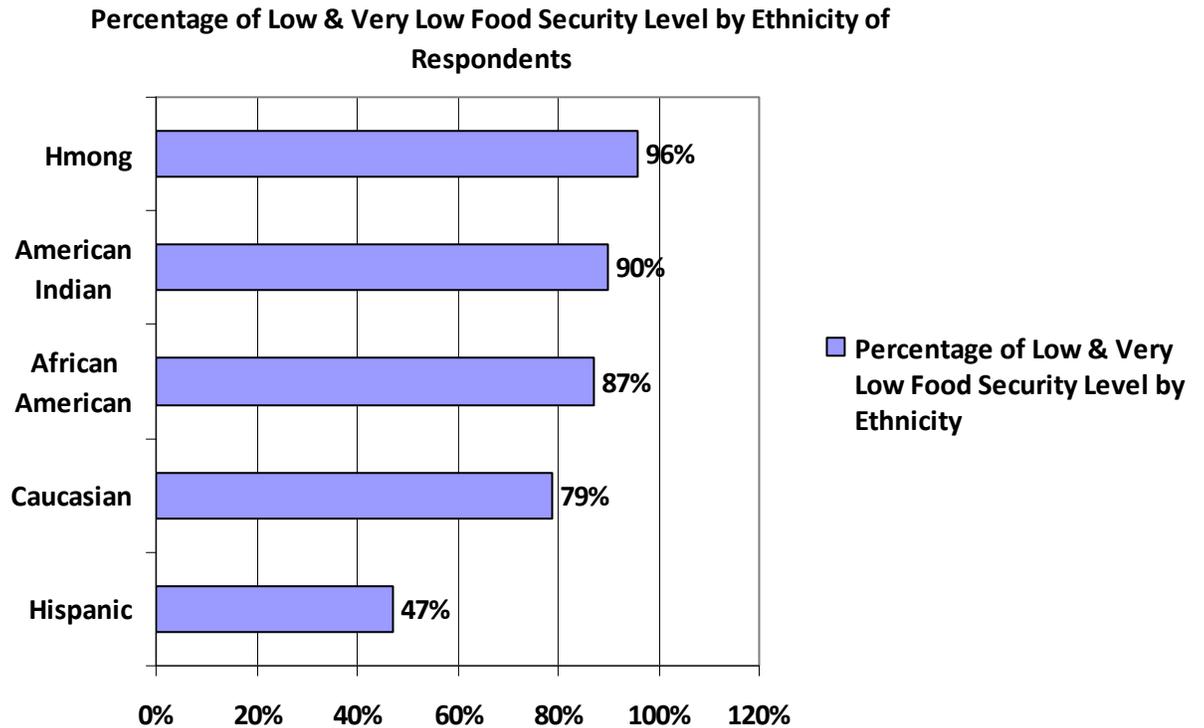
As shown above, 7.2% of (n=51) respondents have high food security, 11.1% (n=79) have marginal food security, 44.2% (n = 315) have low food security and 37.5% (n = 268) have very low food security, overall. This means that for 7.2% of those surveyed, there is enough food as long as they use the emergency food pantry system and do not worry about having enough. For 11% even though there is worry, there are little or no changes in the diet. For the remaining 81.5 % there is a change in the quality, variety or desirability of the diet and for 37.5% of these, there is reduced intake and disrupted food intake because there isn't enough money for food.

Figure 7:



(See Table 4) Figure 7 demonstrates that women using food pantries are reporting more food insecurity than males with women reporting 39% (n=268) very low food security and men at 8.8% (n=60). **Men are less likely to report food insecurity than women and women are three times more likely to report very low food security than men**, meaning that they have multiple interruptions of disrupted eating patterns and reduced food intake because there isn't enough money for food. This may be related to the perception of women regarding food scarcity or that women are more likely to have single headed households with children than men. Women may also not be eating so that their children can eat.

Figure 8:

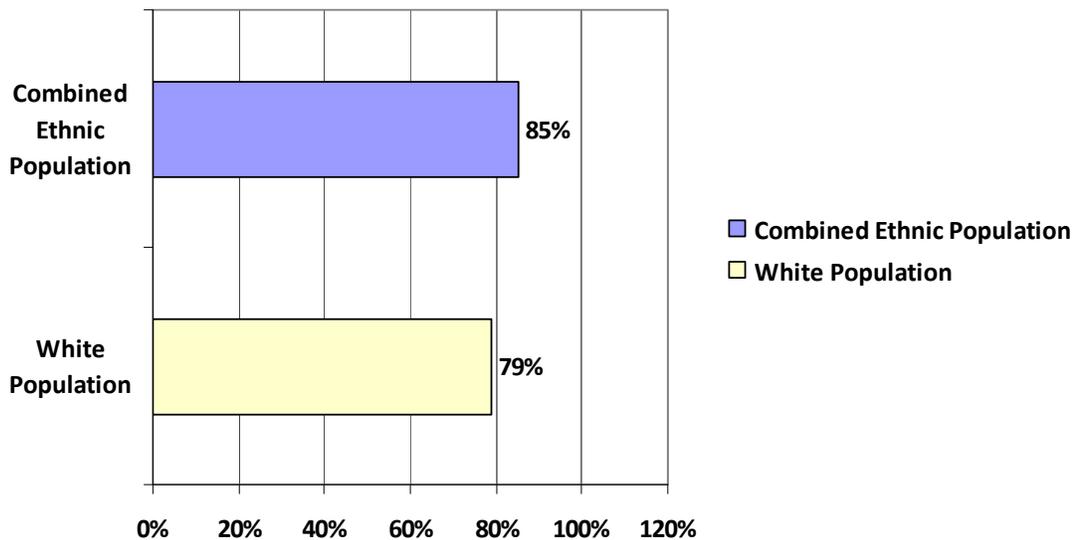


(See Table 9) Food security levels for 2009 were also reviewed by ethnicity. This does not statistically indicate the percentage of people by ethnicity using pantries, because it is snapshot of users on the particular day that interviews were conducted. It does, however, give a representation of food security within each ethnic population.

The table above combines very low and low food security status within each ethnic group. The Hmong population experienced the lowest degree of food security at 96% (n=26) low or very low food security, of these, 84.6% were very low food secure. Native Americans experienced 89.6% (n=58) very low or low food security, of these 43% were very low food secure. African Americans experienced 86.5% (n=52) low and very low food security, of these 38.4 were very low food secure. Whites experienced 79% (n=405) low and very low food security and 34.8% were very low food secure. Hispanics experienced 47% (n=138) low and very low food security, of these 34% were very low food secure.

Figure 9:

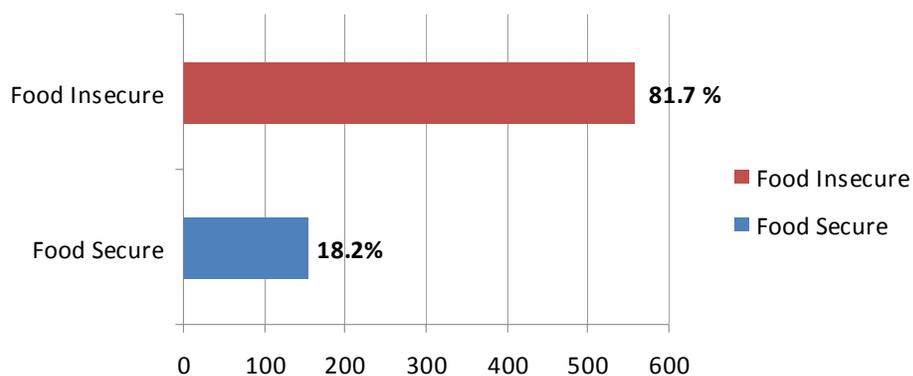
Comparison between White and Combined Ethnic Populations Experiencing Low to Very Low Food Security



A common assumption exists that ethnic populations are less food secure than the white population. This graph demonstrates that within the food pantry population, there is only a 6% difference in the combined low and very low food security status between Caucasian and the combined ethnic populations of Hispanic, Hmong, African American and American Indian. The Caucasian population of food pantry users experienced a 79% (n=405) rate of very low and low food security while the combined ethnic groups reported 85% (n=274). It is also noteworthy that there are more Caucasian pantry users than the combined total of all ethnic groups.

Figure 10:

Food Security Status of Households With Children, 2009 (N = 713)



The survey tool used in 2009 asked if there were children in the household under 18 and if so, how many were under 5 years old and how many were between 2 and 17 years old. It did not ask how many children were under 18. Respondents may have had children in both categories and for this reason we do not have an accurate count of the total households with children and those without children. We

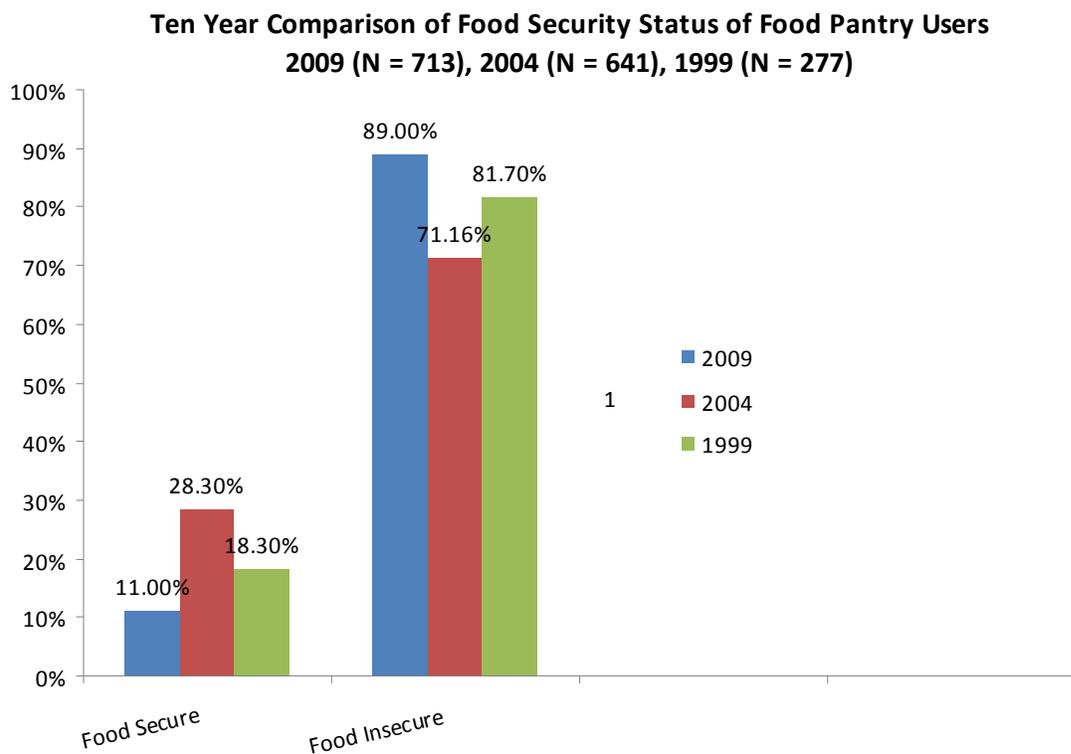
therefore were not able to use the same methodology as used in 2004, to determine food security status by households with and without children. In spite of this, the method we did use, produced results that were within 1.3% of the 2004 results, giving us some confidence that the food security status by children in the household has not changed significantly.

In 2009, 18.2% of households with children experienced high or marginal food secure. That leaves 81.7% low or very low food secure, meaning that households report reduced quality, variety or desirability of the diet and some report multiple indications of disrupted eating patterns and reduced food intake. Any food insecurity for children means they are receiving inadequate nutrition, which consequently can interfere with healthy growth and development.

*It is noted by the US Household Food Security Survey Module guidelines by the USDA in July of 2008 that high or marginal food security among children may be considered marginal food security, but it is not certain that all households with raw score zero have high food security among children because the scale does not include an assessment of the anxiety component of food insecurity.

Food Security Status Comparison of 1999, 2004 & 2009

Figure 11:

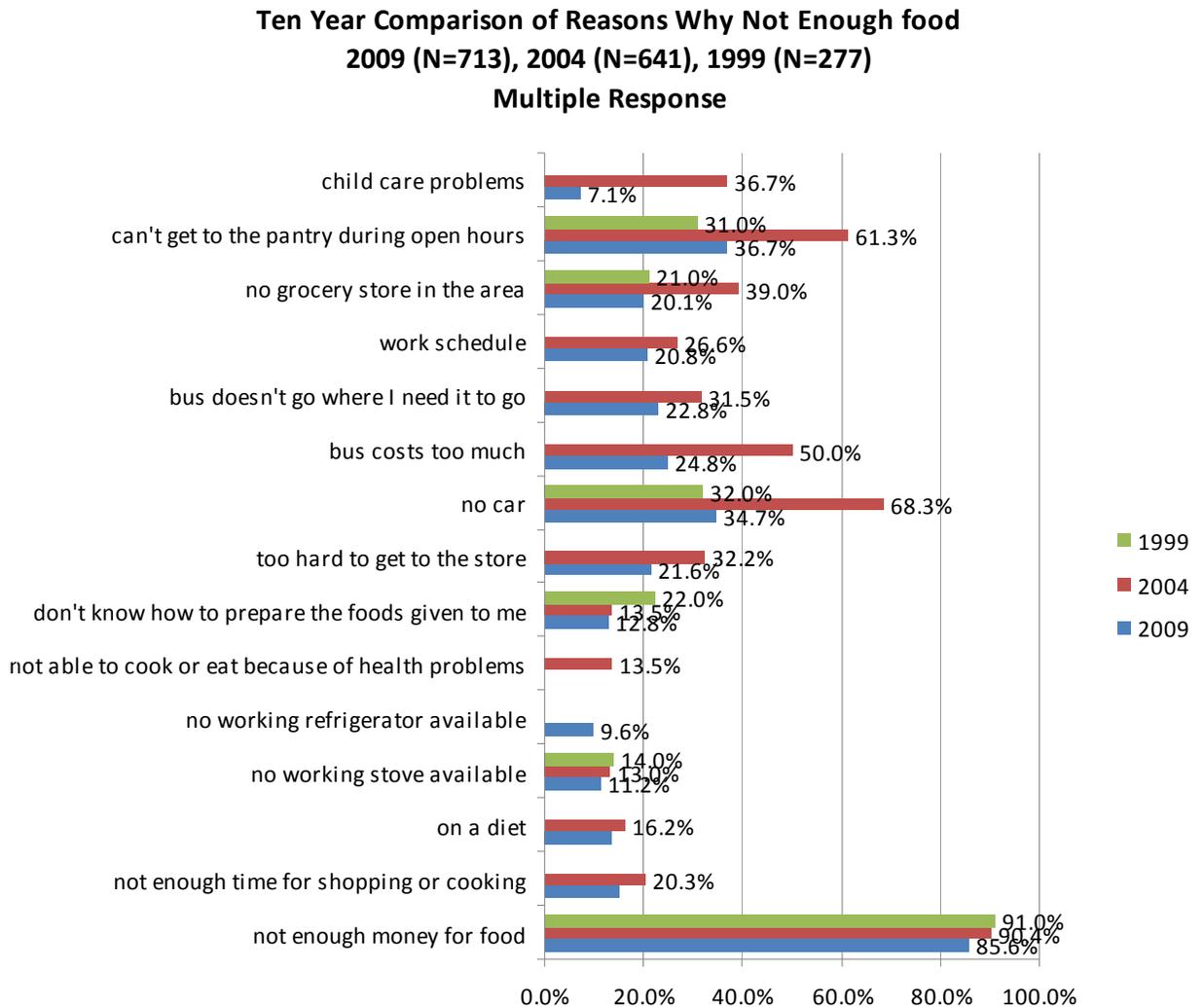


As shown above, based on how the USDA has changed and compared the food security labeling categories between the 2009 and 2004/1999 study years, the new labels “high food security” and “marginal food security” are comparable to “food secure” of the old label. Therefore, if those two category totals are combined, 11% of respondents in 2009 are food secure according to the old labels. By comparison, 89% of respondents in 2009 were food insecure and 71.16% in 2004 were food insecure, which means that in five years food insecurity increased by 18%.

*A question-level comparison analysis was done comparing how respondents rated 2009 food security to 2004 levels and was shown to have little to no significant differences between the two groups at the question-level. However, due to the changing categories (see Introduction) of food security between the 2009 version of the USDA guidelines and the 2004/1999 study guidelines, the categories were combined to “Food Secure” and “Food Insecure” so that the study data is able to be compared.

3. Contributors to Food Insecurity: Perceived and Real

Figure 12:



Many reasons that people experience food insecurity is tied to poverty. Other causes not shown are having a disability, being a child of an immigrant, being elderly, being a single female head of household, and substance abuse or addiction.

In 2009, 85.6% of pantry visitors surveyed responded that the most common reason they do not get enough food is due to not having enough money. The next most common reasons respondents don't have enough food all relate to transportation. Even though all of these transportation related issues are lower in 2009 than in 2004: 36.7% still report not being able to get to the pantry during open hours,

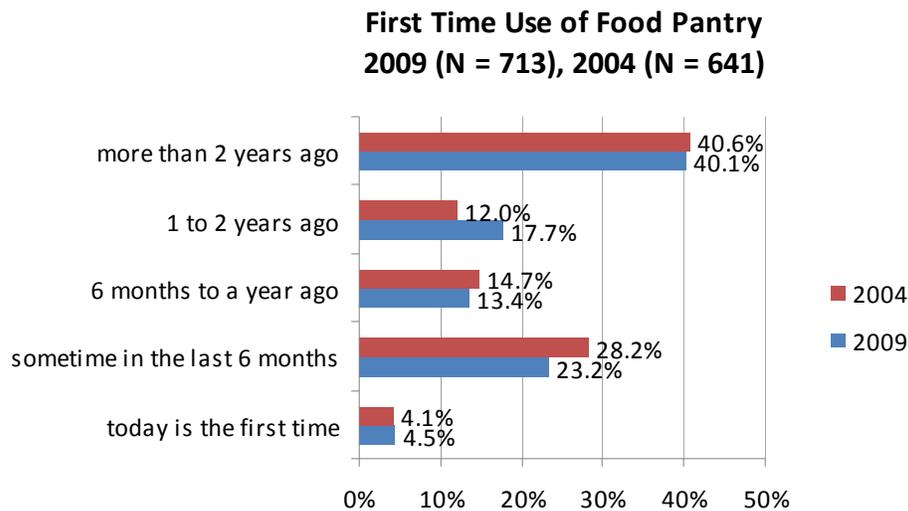
34.7% have no car, 24.8% report that the bus costs too much, 22.8% report the bus doesn't go where they need it to, 21.6% report it is too hard to get to the store and 20.1% report there is no grocery store in the area.

*Note that not all questions were asked every year. Questions asked are designated by the corresponding color with each year shown in the graph above.

4. History and Utilization of Food Assistance

4a. Food Pantries

Figure 13:

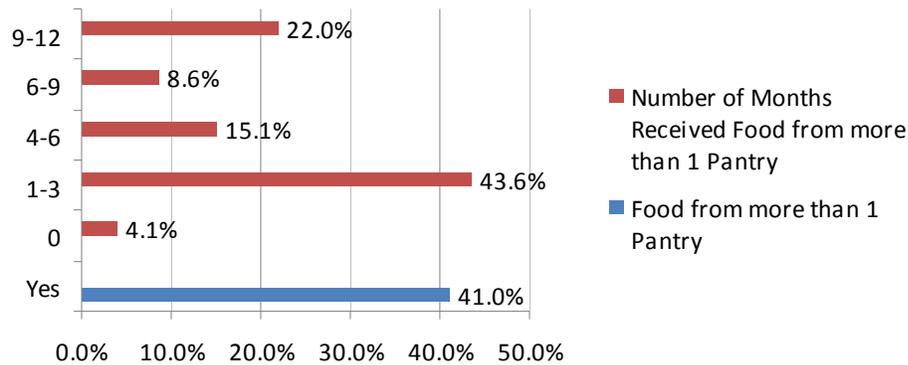


In both 2004 and 2009, 40% of pantry users first visited more than two years ago. In 2009, 23% have used pantries sometime in the past 6 months and for 4.5%, this was the first time, very consistent with results from 2004. Frequency of useage is valuable data for pantries as they strive to understand more about the increased use of pantries for emergency food and to meet the growing demand for their resources.

The responses for first time pantry users between 2009 and 2004 were very similar. This may indicate that those respondents who use food pantries use them for long periods of time, considering 40+% of users first visited more than two years ago.

Figure: 14

**Food Pantry Usage in the Past 12 Months
2009 (N = 713)**



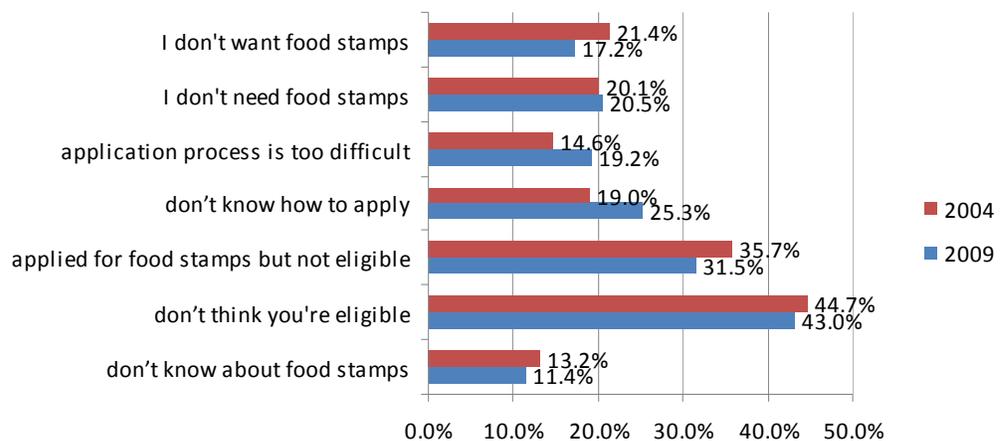
Food pantries have experienced an increase in utilization (appendix: Food Pantry Utilization Trends). Therefore, there was an interest in understanding how many different pantries' users are accessing in a given month and for how many months they have done so. When asked if they had received food from more than one pantry in a given month, 41% reported yes. Of those, 43.36% have visited more than one pantry for one to three months during the year and 22% received food from more than one pantry nearly every month.

Increased pantry usage has put a strain on our primary emergency food pantry resources. USDA reports between 30 and 35 thousand pantries in operation nationwide. We have 25 in Brown County. Only about 10% receive USDA commodities through TEFAP (The Emergency Food Assistance Program). Although it provides free food, the cost of administration has been a barrier to local pantries. However, 50% of pantries nationally use TEFAP and have found a way to handle these costs.

4b. Food Share

Figure 15:

**Reasons People do not Receive Food Share
(food stamps) Multiple Response
2009 (N = 627), 2004 (N = 641)**



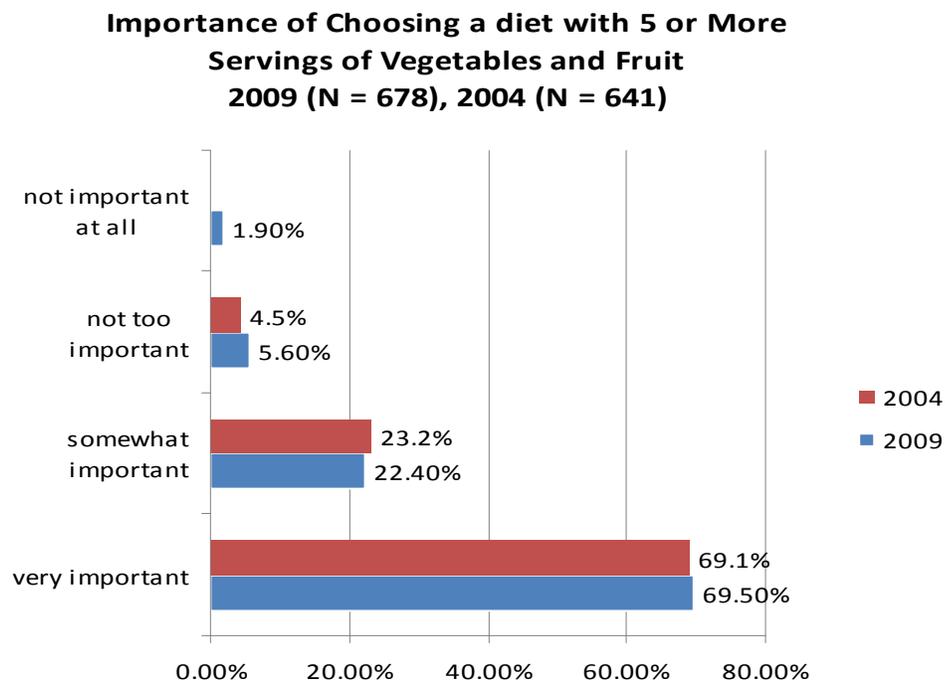
(See Table 12) During interviews, the terms “Food Stamp”, which is now Food Share was clarified for participants. The most common response, given by 43% (n=713) of respondents in 2009 regarding why they do not receive food stamps is because they do not believe they are eligible. This is consistent with 2004, when 44.7% gave the same response. The second most common reason given by 31.5% of respondents was that they applied but were not eligible, which is 4% fewer than in 2004.

Interestingly enough, Food Share benefits have increased and the application process has been simplified since 2004. Applicants no longer need to go to the Economic Support office to apply due to online and telephone application access. Still, more people in 2009 than in 2004 don’t know how to apply or think the application process is too difficult. This may be because people that have never used a social service system are now frequenting emergency food outlets and are unfamiliar with the other resources available to them. This tells us that there is more outreach needed to let people know about the online application process through the “Access” program (www.access.wisconsin.gov).

5. Nutrition and Health

Fruit and vegetable consumption is an indicator of overall diet quality and is a protective factor for many health risks including obesity, heart disease, high blood pressure and diabetes. These questions were asked to determine the knowledge and attitudes toward healthy food choices.

Figure 16:

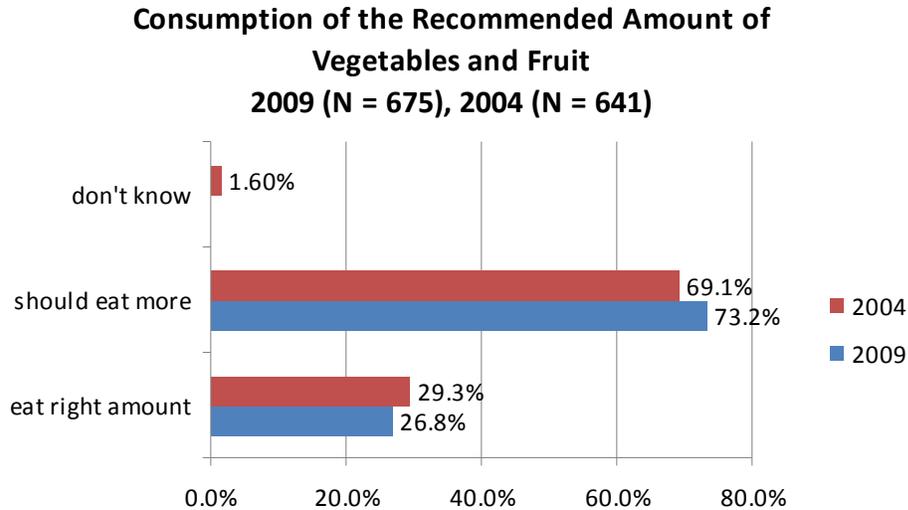


(See Table 14)

Figure 15 shows that 69.5% of respondents in 2009 know that a daily diet with 5 or more servings of vegetables and fruits is very important and another 22.4% know that it is somewhat important. As shown in figure 16, this knowledge base has not changed much since the 2004 study.

A 2005 USDA survey of the general population found that only 34% of parents knew the recommended amount of vegetable intake recommended per day. When we asked our pantry users about the importance of choosing a diet with 5 or more servings of vegetables and fruit per day, only 5% said it was not too important, extrapolating that the remaining 95% know that 5 or more servings is the amount recommended to eat every day.

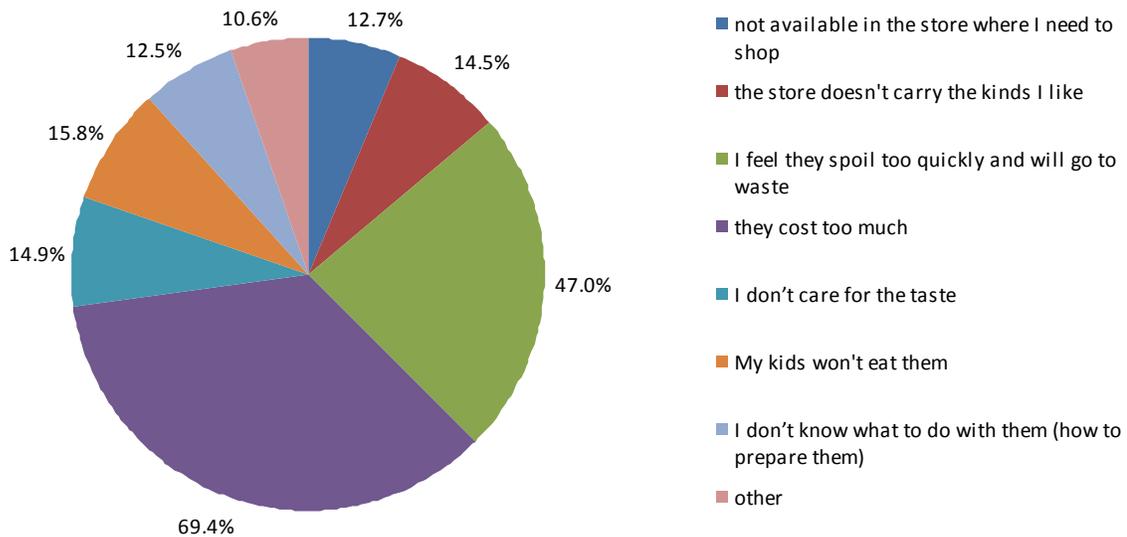
Figure 17:



(See Table 15) Consistent with the findings (Figure 16) about knowing the right amount of vegetables and fruits to consume (69.5%), a similar percent of respondents, 72.2% (n= 494) know they should eat more. This confirms that what people know is best for them and what they often do or are able to do with the resources they have are not always the same. In 2009, 26.5% (n=181) reported they eat the right amount of fruits and vegetables.

Figure 18:

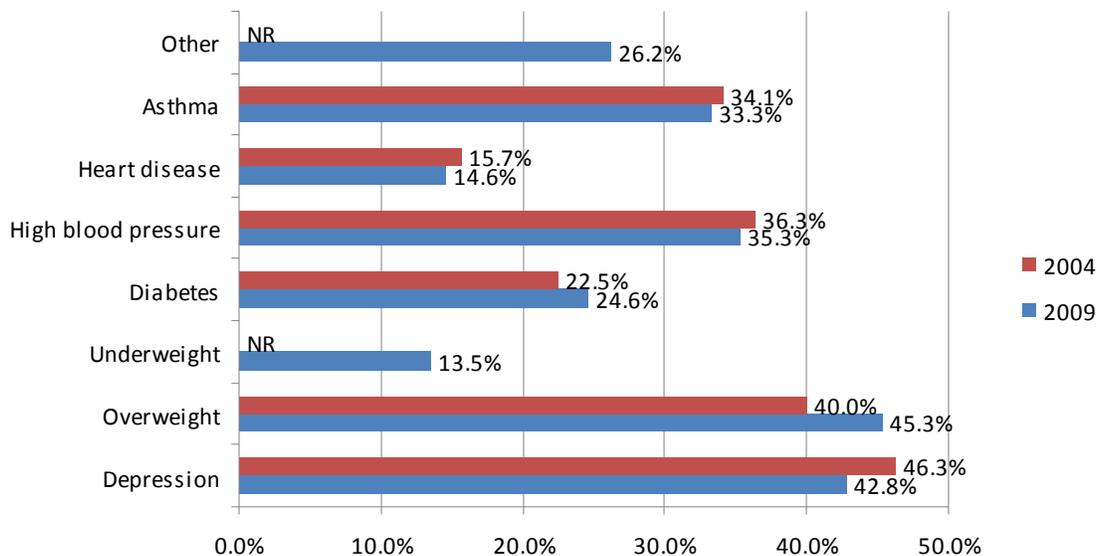
**Reasons People do not eat the Recommended Amount of Vegetables and Fruits
N = 713: multiple responses, 2009**



(See Table 16) After people were asked whether they thought they should eat more or whether they eat the recommended amount of fruits and vegetables, they were given a list of reasons why they might not eat enough vegetables and fruits. The most common reasons reported were that 69.4% (n=464) stated they cost too much and 47% (n=313) believe they spoil too quickly and will go to waste. Additional responses are shown above in Figure 18.

Figure 19:

**Reported Health Problems of Household Members of Pantry Users
Multiple Responses
2009 (N = 713), 2004 (N = 641)**

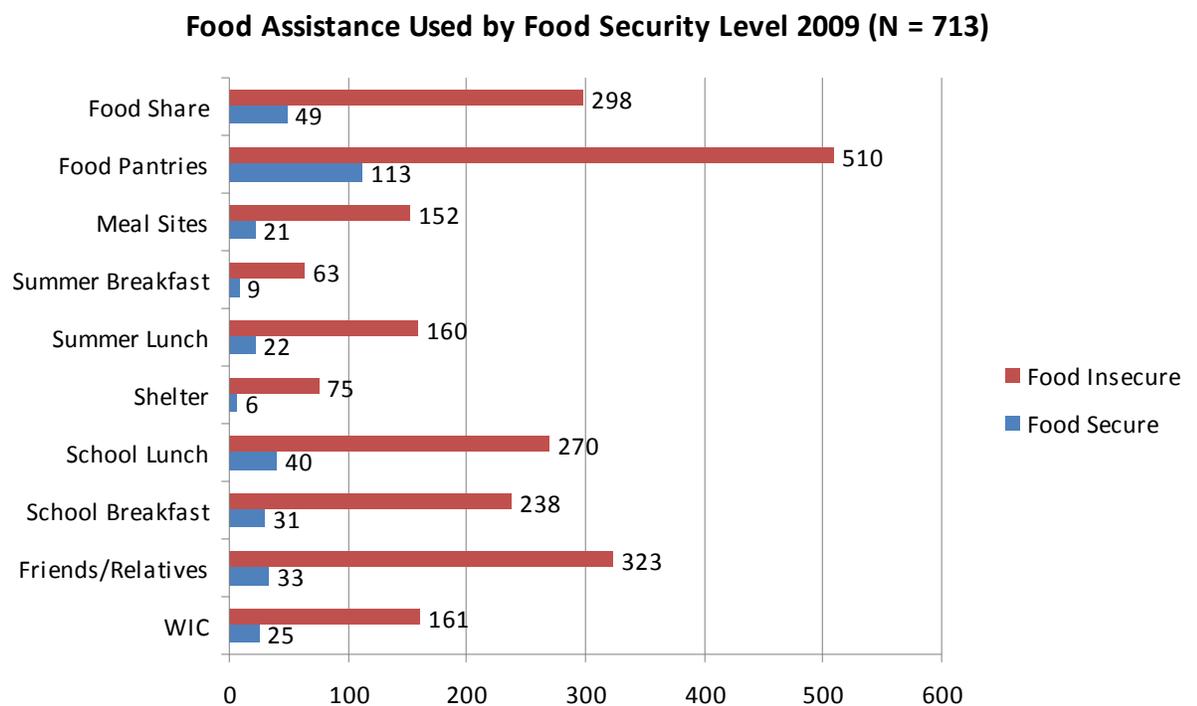


(See Table 17) In 2009, 45.3% (n=305) of pantry users responded the number one health problem they experienced was being overweight. The second most frequent response was depression at 42.8% (n=289). After this high blood pressure, asthma and diabetes were the next most common health problems reported respectively. The incidence of being overweight or having diabetes increased between 2 – 5% and the incidence of depression decreased approximately 3% since 2004.

There are many trends on the relationship between health and food insecurity. Food insecure women are found to experience a great deal of emotional eating in response to sadness, stress, anxiety, boredom or loneliness. Toddlers living in households with temporary or persistent food insecurity had lower cognitive scores and worse health status (2009 study) – linked to iron deficiency and mothers maternal depression. Being overweight and experiencing depression is not only related to food security, but has secondary effects on health outcomes for parents and their children. The costs of these outcomes on society are significant and are important factors to consider when examining possible public health interventions. Food Insecurity is a high priority for public health action, especially in view of its potentially negative affect on the nation from a public health and economic perspectives. (American Dietetics Association Position Paper on Food Insecurity, 2010)

6. Strategies Used to Improve Food Security

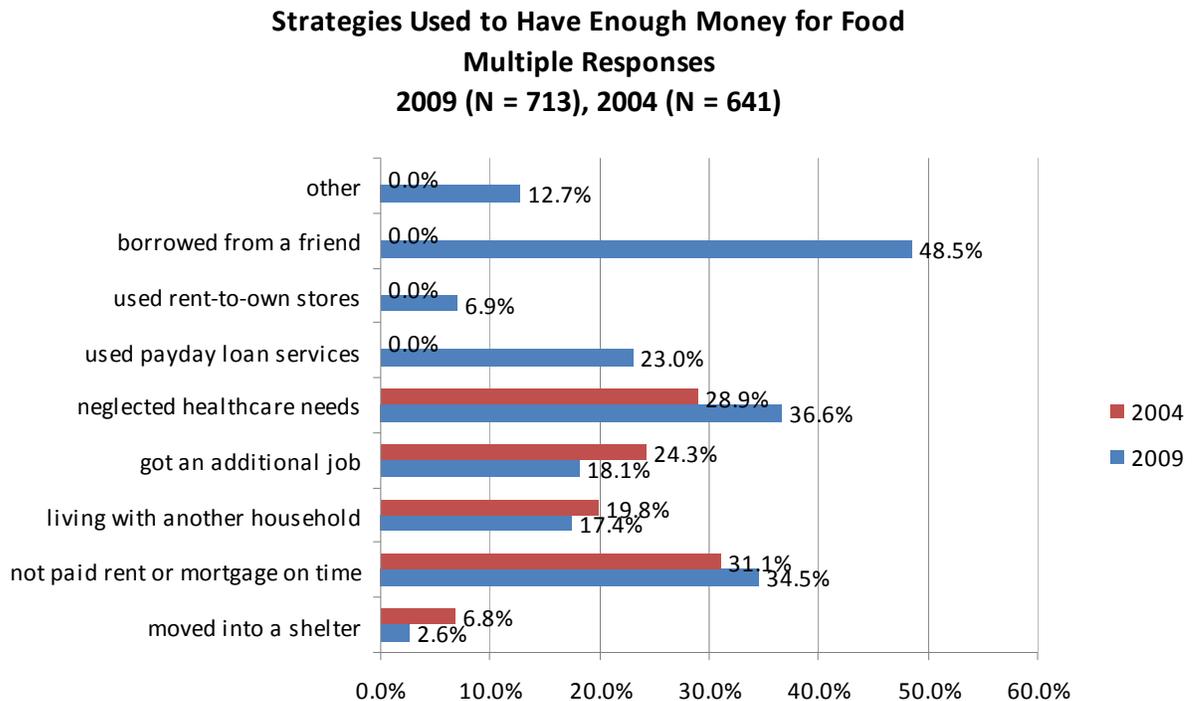
Figure 20:



(See Table 11) Each respondent was asked which form of food assistance they have used in the past 12 months. This data was separated by food security level. Respective values of usage by food security

level are shown above. The data shows that people with low and very low food security most often rely on food pantries, followed by friends and family, food share and school meals, to obtain the food they need. Most people rely on a combination of these resources. Although Brown County ranks high compared to the state average in percent of people eligible and utilizing federal nutrition programs, outreach to increase usage of these programs would relieve the pressure on local food pantries to meet increasing food needs.

Figure 21:

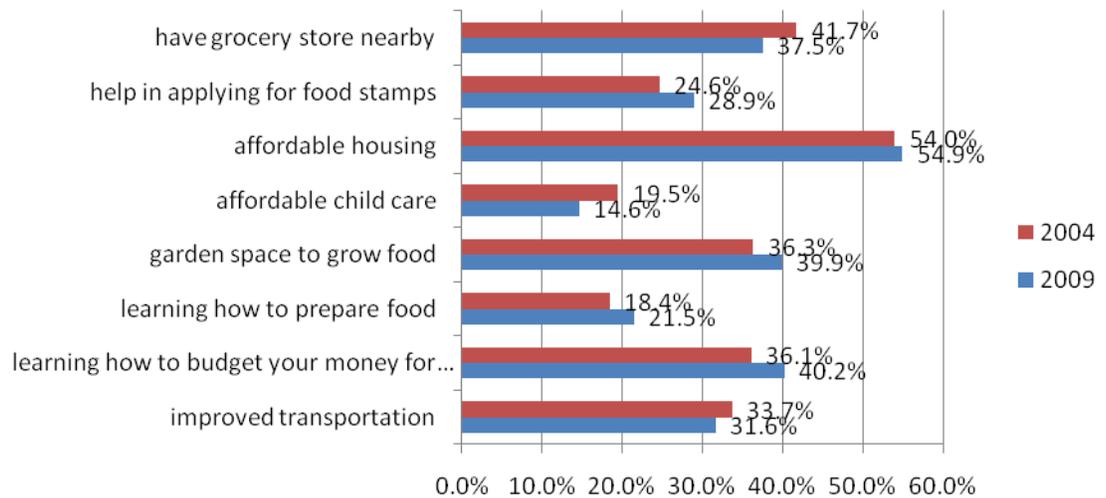


(See Table 19) The top three strategies used to have enough money for food were reported as 48% (=317) borrowing from a friend (not asked in 2004), followed by neglecting health care needs 36.6% (n=240) and not paying rent or mortgage on time 34.5% (n=227). The opposite was true in 2004 when not paying mortgage on time was the strategy used most often to have enough money for food, followed by neglecting health care needs and getting an additional job.

Four additional strategies were asked in 2009 that were not asked in 2004. Borrowing from a friend was the top strategy with 48.5% utilization. This confirms what the research on poverty says about low income people being willing to help each other out in times of need. Payday loans were used by almost one quarter of respondents. In 2004, we did not ask about the use of pay day loans because at that time they were still an emerging local industry. Observational data on the growth of local pay day loans and check cashing stores, car title loan sites and no credit auto sale dealers confirm a substantial increase of these emergency cash establishments that target low income consumers. Getting an additional job declined as a strategy since 2004 probably because there are fewer jobs available.

Figure 22:

**Resources that Would Help Pantry Users Get Enough Food
Multiple Responses
2009 (N = 713), 2004 (N = 641)**

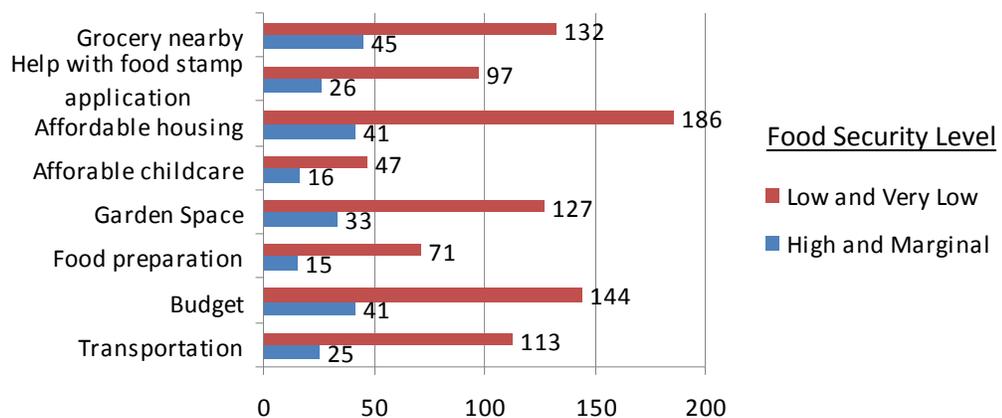


(See Table 13) Respondents were also asked which factors would assist them and their families in getting enough food. This table identifies how many people responded to those specific factors. The top four helpful factors to get enough food were access to affordable housing (54.9% n=356), learning how to budget money for food (40.2% n=262), obtaining garden space to grow food (39.9% n=259) and having a grocery store nearby (41.7% n=243). These values are comparable to 2004. However at that time, having a grocery store was more important than garden space, and learning how to budget money for food moved up from the fourth category in 2004 to the second in 2009.

Although transportation has declined as a helpful resource, 31.6% still report that improved transportation would help them get food.

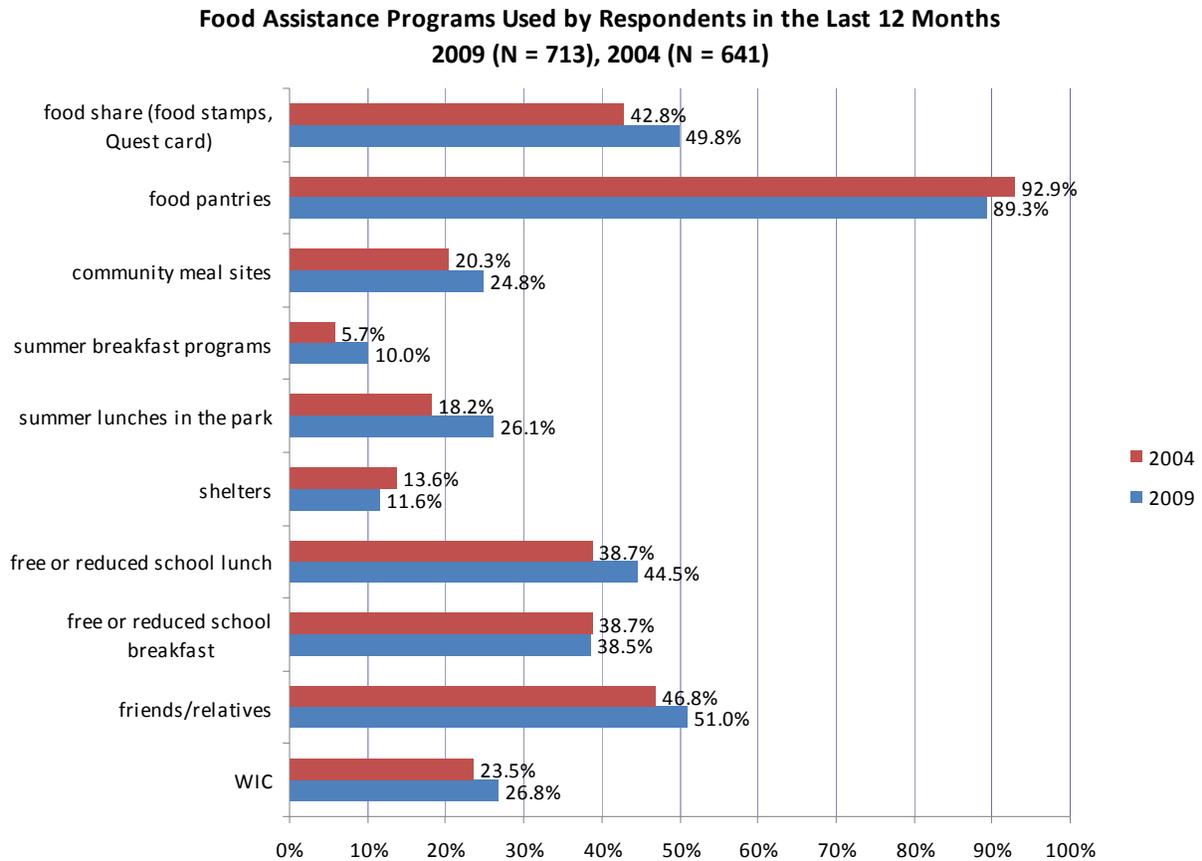
Figure 23:

**Food Security Status by Factors to Help
Get Enough Food 2009**



(See Table 20) The survey results on resources that would help people get enough money for food was also evaluated by food security status. Those who reported low and very low food security were aggregated as were the respondents who reported high and marginal food security. For all categories, those who were low and very low food secure more often reported that these resources would be of help. The order of their usefulness for all degrees of food secure status is statistically the same.

Figure 24:



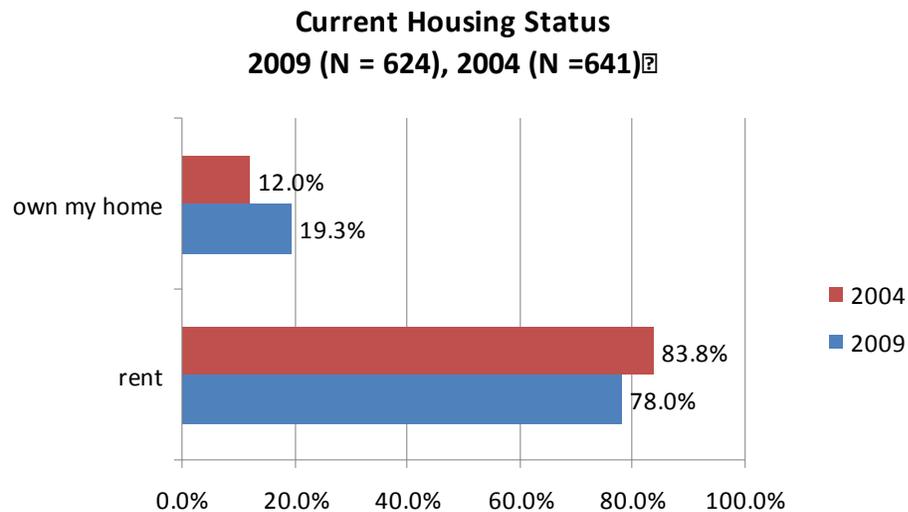
(See Table 18) Food assistance programs utilized in 2009 by food pantry users is similar to the utilization pattern in 2004. However, there has been an increase in utilization of federal nutrition programs across the board and a small decrease (3.6%) in reported pantry utilization. However, food pantry usage remains high and local pantry utilization data collected from pantries shows a 10.96% increase in household usage over the past 3 years. (See Figure 41 for 3 year food pantry usage trends in Brown County).

This is a desirable trend and one that is recommended by food security specialists across the country because the increase in Food Share usage brings an economic benefit to the community and relieves the strain on local food donations. The USDA estimates that every \$5.00 spent with Food share generates \$9.20 in local economic activity.

The usage of summer and school lunch programs has also increased. Green Bay has also experienced a consistent annual increase in the percent of students eligible for free and reduced price meals. (See Figure 36 for a ten year span of free and reduced price meals usage).

7. Housing and Employment

Figure 25:



(See Table 21) Out of a total n = 669 people responding to the housing status question, those who rent a home were 78% (n = 522). Those who own their own home were 19.3% (n=129). There was a 7.3% increase in home ownership among pantry users since 2004 and a corresponding 5.8% decrease in renters. One may conclude that more people who own their own home are now using food pantries, since that is where the survey was administered. For those 2009 respondents who replied to the questions about housing, 18.3% n = 63 responded that they were at immediate risk of losing their housing.

Subsidized mortgages may be a possible factor in the reported increase in home ownership as well as with those at immediate risk in losing housing. Home owners without a safety net, are more vulnerable to foreclosure with every home repair or unexpected household expense that reduces resources left to pay their mortgage. Not paying a mortgage or rent on time was the most common strategy in 2004 and second most common strategy in 2009 to have enough money for food.

Figure 26:

Respondents Who Rent & Cost/Month

Note. N = 517

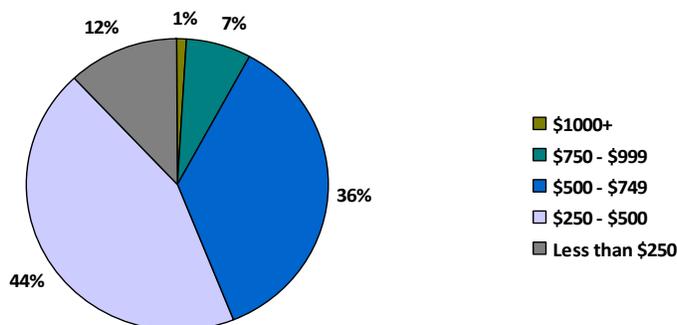
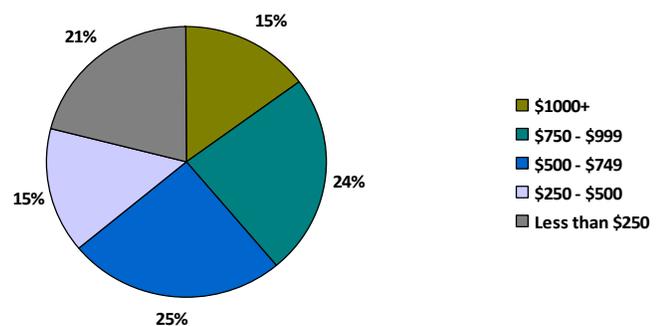


Figure 27:

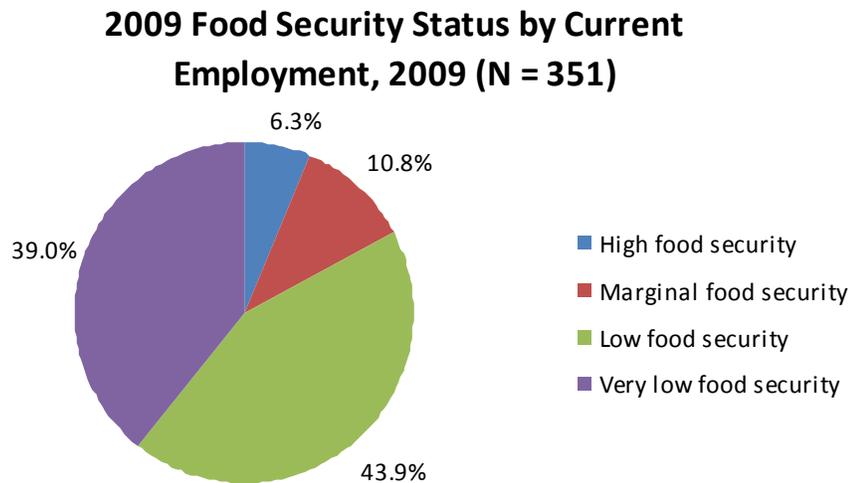
Respondents Who Own Home & Cost/Month

Note. N = 107



Of those groups N = 624 responding to how much they pay in rent and mortgage, the values are listed below. The greatest number of respondents that rent their home and utilize food pantries (44%) pay between \$250.00 and \$550.00 per month. Another 36% pay between \$500.00 and \$750.00 per month. The amount of money paid by respondents who own their own home and use food pantries is more evenly dispersed. Half of homeowners using food pantries pay \$500.00 to \$1000.00 per month.

Figure 28:



(See Table 22)

When food security status of those employed are compared to the overall population surveyed, employment has very little impact on improving food security for food pantry users. Percentages are nearly the same in all categories. Of those employed 39% are very low food insecure compared to 38% in the overall sample. Of those employed, 6.3% were high food security compared to 7% overall, 10.8% were marginally food secure compared to 11% and there was no difference in low food security at 44%. Pantry users also report that the main reason they do not have enough money for food is that there isn't enough money. Food security is fundamentally linked to family economic security. As recommended in the Ending Hunger in Wisconsin call to action:

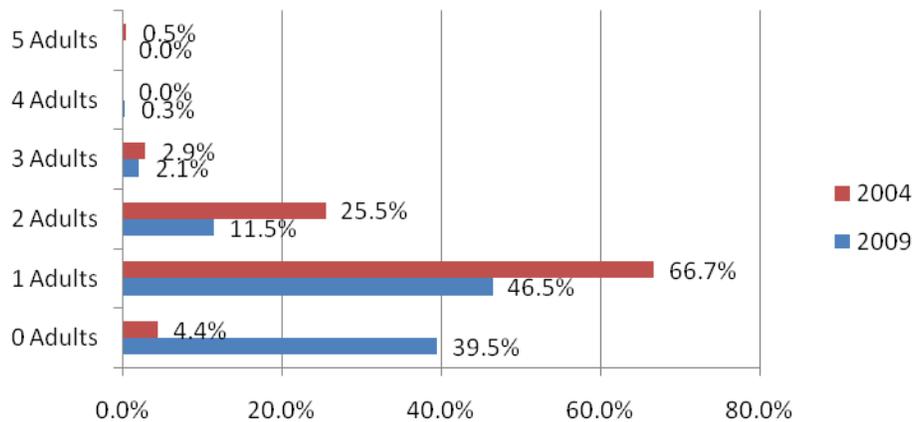
The goals to increase family economic security include:

- Increasing access to education and training
- Improving job opportunities
- Improving access to affordable and appropriate childcare for working parents
- Making housing and energy more affordable for families
- Ensuring that people utilize available forms of economic assistance to help meet basic needs.

www.endhunger.org

Figure 29:

**Percentage of Employed Adults in the Household 2009
(N = 608), 2004 (n = 641)**

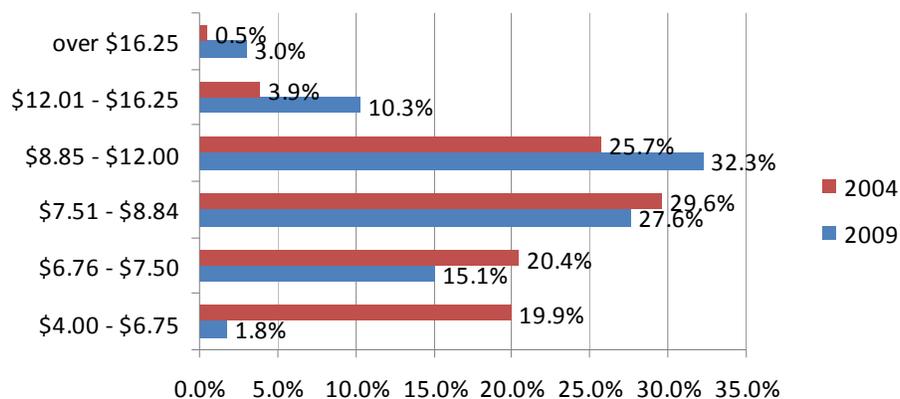


(See Table 23) In 2009, 46.5% of pantry respondents reported one adult currently working. This is a 20% decrease since 2004. Another 11.5% of households report two adults working, a 14% decrease from 2004. In addition, 39.5% of households using pantries have no adult working in 2009, compared to only 4.4% in 2004, a 35% increase in non working adults since 2004. In summary there are fewer households with both one or two adult working and more households with no adult working in 2009.

The economic downturn and job loss many have encountered during the period between 2004 and 2009 is the most likely explanation for this dramatic change.

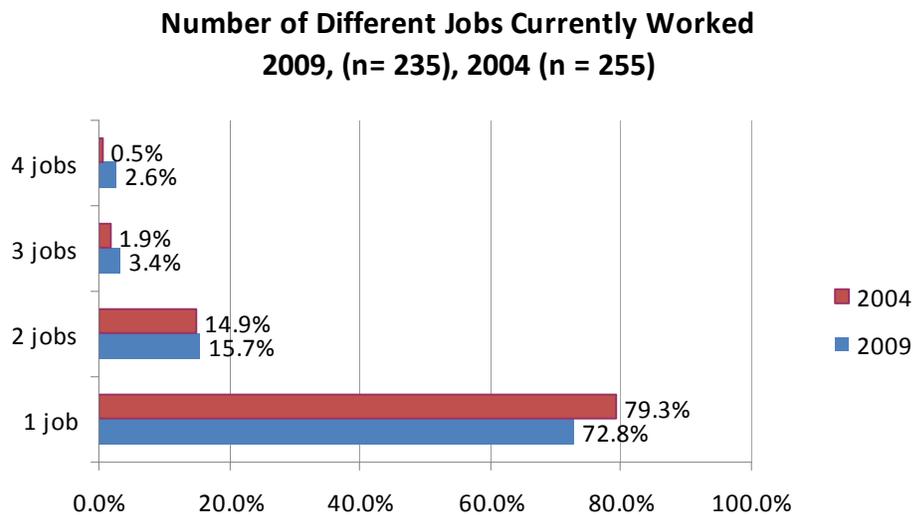
Figure 30:

**Hourly Wages of Primary Job
2009 (n =232), 2004 (n =255)**



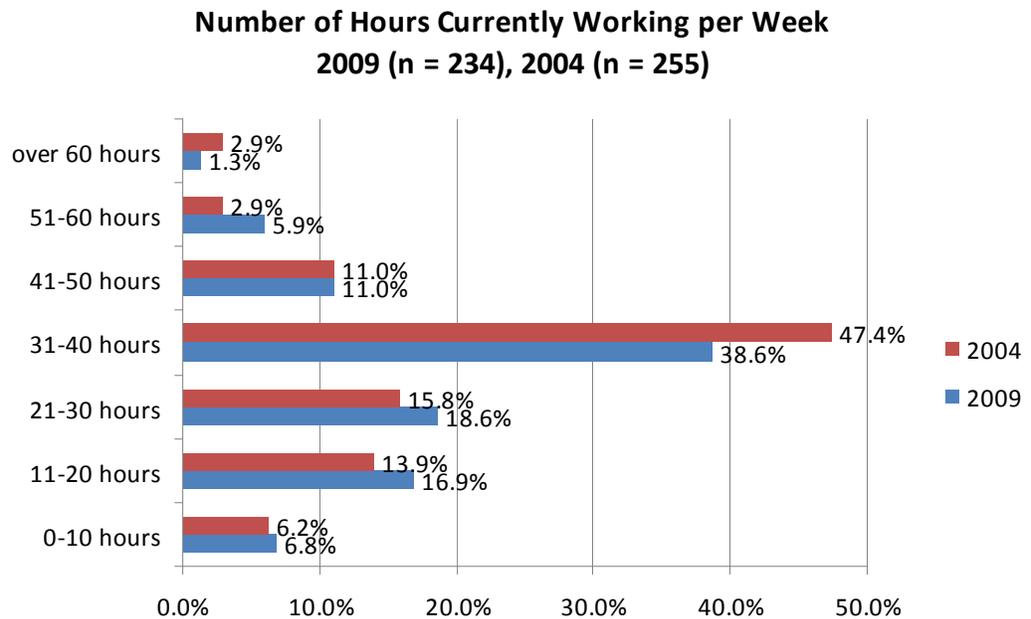
(See Table 26) Significantly, this chart demonstrates that more people who were making an hourly wage above \$8.85/hour in 2004 are now making even more per hour. This is true for 45.6% of pantry users surveyed. In addition, more people who were making less than \$8.84/hour in 2004 now make less in 2009 than they did before. This is true for 44.5% of food pantry users surveyed. So roughly half of pantry users are making more per hour and half are making less per hour than in 2004. In addition, fewer people are working for wages below \$8.84/hour because the minimum wage increased to \$7.75/hour.

Figure 31:



(See Table 24) As shown in Figure 31, more people are working 2 to 4 jobs in 2009 than in 2004. The most significant change in number of hours worked per week shown in Figure 32 is that 8.8% fewer people are working 31 – 40 hours per week in 2009 than in 2004. More people are currently working fewer than 30 hours per week or more than 50 hours per week.

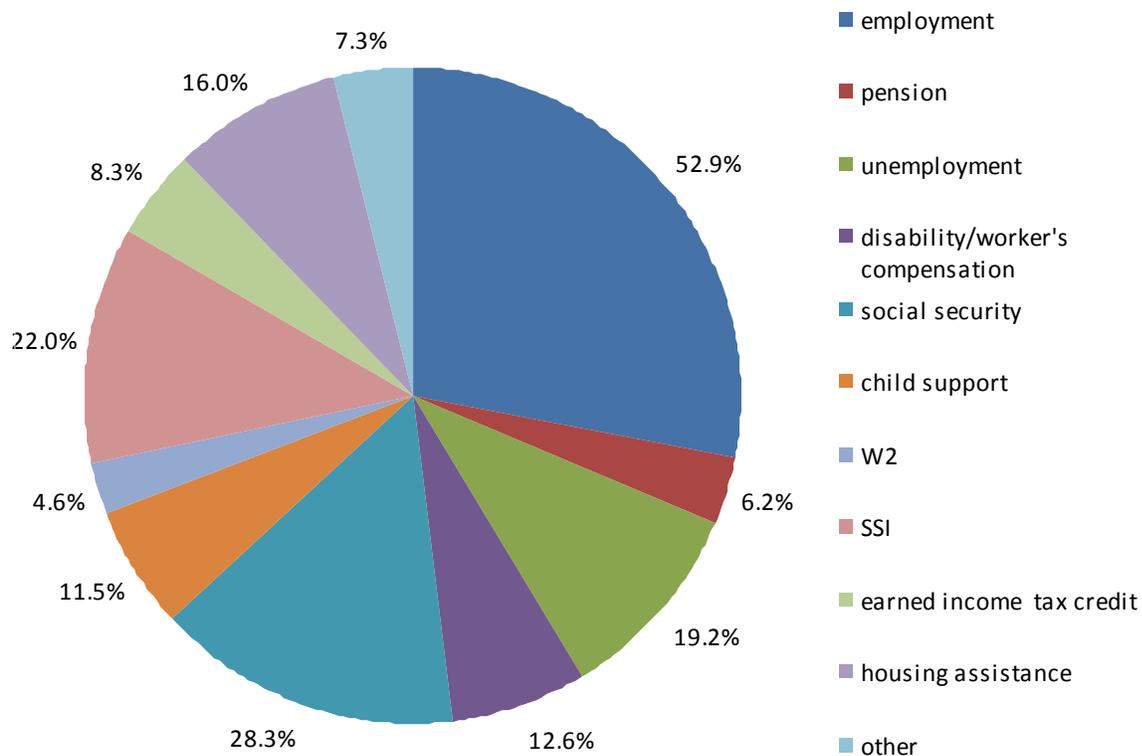
Figure 32:



(See Table 25)

Figure 33:

**Sources of Household Income Last Month (multiple response)
2009 (N = 713)**



(See Table 28) Pantry users report multiple sources of income. At the time of this survey 52.9% (n= 351) of pantry users reported income from employment. The next highest income source was 28.3% (n= 187) receiving social security followed by 22% (n=144) receiving SSI. SSI stands for Supplemental Security Income and is a program for low income, disabled people. This tells us that a significant number of pantry users are disabled in some way. In comparison to those receiving a paycheck, 19.2% (n=127) receive unemployment compensation.

Nationally, having a disability is a significant risk factor for food insecurity – due to limited work abilities and job availability. In a national food security survey, 37% of households that are food insecure with low income have at least one adult who is not working due to a disability (Nord).

Affordable housing is cited as the most useful strategy for helping pantry users have enough money for food. In this survey, housing assistance is received by 16% of respondents.

Brown County 2009 Household Food Security Report

Executive Summary

The mission of the University of Wisconsin Extension (UWEX) is to provide, jointly with other University of Wisconsin institutions and the counties in the state, an extension program designed to apply University research, knowledge, and resources to meet the educational needs of Wisconsin residents, where ever they live and work.

In Brown County, this collaboration has taken the form of conducting research on the Household Food Security status of Green Bay area pantry users to provide local agencies, and local units of government information that will help them to participate in creating solutions to the growing problem of food insecurity.

Brown County UWEX began a Food Security Initiative in 1995 in response to changes in the political climate regarding welfare and family support programs. The United States Department of Agriculture (USDA) Community Food Security Initiative, also launched in 1995, used a holistic approach in addressing hunger needs nationally. It also focused on recognizing USDA's partnerships with communities to help reduce hunger for more than 10 million American families that are food insecure.

In 2009, UWEX conducted follow-up research to its 2004 and 1999 household food security studies that monitored the extent and degree of hunger and food insecurity in Brown County households using food pantries. Karen Early, Brown County UWEX Nutrition Education Program Coordinator, has initiated and conducted these studies since 1998. The studies have only been possible through the extensive partnerships with the University of Wisconsin-Green Bay Professional Social Work Program, Brown County's Food Pantries, individuals willing to serve on community advisory committees and various funders.

What is Food Security?

Food security is defined as access to enough food for an active, healthy life for all people. This minimally includes the ready availability of nutritionally adequate foods, and the assured ability to acquire personally acceptable foods in a socially acceptable way. Therefore, food insecurity has been defined as limited or uncertain availability of nutritionally adequate foods or the inability or uncertainty to acquire these foods in a socially acceptable way. (American Institute of Nutrition, 1990) Food security involves four components related to food: availability, accessibility, quantity and nutritional adequacy and dependability of supply.

The USDA previously used specific terms to define food security and insecurity. In the 1999 and 2004 surveys the terms used were food secure, food insecure without hunger and food insecure with hunger as their designations. Since then the food secure category has been broken down into high food security and marginal food security, food insecure without hunger is now described as low food security and food insecure with hunger is defined as very low food security. These new terms will be used throughout this report and in comparisons among the three years surveyed.

In 2009, the Advisory Committee determined that the primary questions directing the 2009 study would be as follows:

- 1) Prevalence and level of food security among at-risk households in Green Bay, Wisconsin in 2009 and how it compares to 2004 and 1999 findings
- 2) Contributors to food insecurity
- 3) Strategies used to improve food security
- 4) Demographics, housing status and nutrition knowledge of pantry users
- 5) Types of initiatives that would increase the availability and accessibility of food

Summary of Research Findings

- 713 pantry users were surveyed at 17 different pantries in the Green Bay area
- Twice as many women as men visited pantries
- In households with children, 50% had children between 17 and 5 years of age and 30% had children under 5
- Of pantry users surveyed 58% were White, 20% were Hispanic and 22% represented the total of other ethnic groups
- Of pantry users surveyed, 33% have less than an 11th grade education, 37% had an educational level of a high school diploma or equivalent, and 30% had more than a high school education which is 17% more than in 2004
- Between 1999 and 2004 there was a drop in food insecure households, 82% in 1999 versus 71% in 2004. In 2009 there was an increase of food insecure individuals compared to 2004, 89% versus 71%, which is an 18% increase in food insecurity since 2004
- Households with children experienced an 82% rate of low or very low food security. That means households reported reduced quality, variety and some reported multiple indications of disrupted eating patterns and reduced food intake
- The white population of pantry users showed a 79% rate of low or very low food security compared to the combined ethnic population of 85% experiencing low or very low food security, a 6% difference
- In 2009 pantry users, 86%, reported the most common reason they did not get enough food was due to not having enough money, this compared to 90% in 2004 and 91% in 1999, a fairly consistent response over the 10 year period
- After not having enough money for food the most common reasons in 2009 for not having enough food were 37% reported not being able to get to the pantry during open hours, 35% have no car, 25% reported the bus costs too much, 23% reported the bus doesn't go where they need it, 22% reported it's too hard to get to the store and 20% reported there is no grocery store in the area. In some ways the above reasons all relate to transportation

- Receiving Food Share is an important strategy in improving food security. In 2009, 43% of pantry users did not think they were eligible compared to 45% in 2004. In both years it was the most common response given for not receiving them. In addition, 6% more people feel the application process was too difficult and 4% don't know how to apply than in 2004
- There are documented trends on the relationship between health problems and food insecurity. In 2009, 45% reported someone in their household being overweight and 43% reported someone experiencing depression. After these two the most commonly reported health problems for pantry users surveyed were high blood pressure (35.3%), asthma (33.3%) and diabetes (24.6%)
- Fruit and vegetable consumption is an indicator of overall diet quality and a protective factor for health risks. Seventy percent know the importance of eating fruits and vegetables and about the same amount know they should eat more citing cost as the most common reason for not eating more fruits and vegetables followed by feeling that they will spoil too quickly and go to waste
- The three most often cited strategies in 2009 to have enough money for food were 49% borrowing from friends (a question not asked in 2004), 37% neglecting health care needs and 35% not paying rent on time. There was a difference in 2004 with 31% not paying rent on time, 29% neglecting health care needs and 24% getting another job
- Food assistance programs play an important role in improving food security status. Out of the total 713 surveyed and determined food insecure, pantries were cited as the most often used resource (510) followed by using friends and relatives for assistance (323), using Food Share (298), using school lunch programs (270) and using school breakfast programs (238). Those who are food insecure rely on a combination of these resources and are more likely to use all of these resources than those who report their households being food secure
- Pantry users were asked which resources would help them get enough money for food. In 2009, 55% cited affordable housing as the strategy that would help the most similar to the 54% in 2004. Other resources that would help include: learning how to budget money (40%), having garden space to grow food (40% in 2009 up from 36% in 2004), having a grocery store nearby (37.5% in 2009 down from 41.7% in 2004), improved transportation (31.6%), help applying for food share (28.9%), learning how to prepare food (21.5%) and affordable childcare (14.6%). This is particularly true to those who are most affected by food insecurity
- Affordable housing is a factor in determining food security status. Since 2004, there has been a 7.3% increase in home ownership (2004, 14% own vs. 19.3% in 2009). The cost of housing showed that for renters, 44% paid \$250 - \$500 per month and 36% paid \$500 - \$750 per month. For home owners, 39% pay \$750 to over \$1000
- In 2009, of those respondents who rent or own their own home, and replied to the housing questions, 18% were at risk for losing their housing
- In 2009, 60% of households surveyed had adults that were working compared to 95% in 2004. Food security status among those currently employed shows that 44% experienced low food security and 39% experienced very low food security, no significant different than for those not having a job
- Hourly wages for the primary job shows that more people making over \$8.85 per hour in 2004 are now making more in 2009 (45.6% in 2009 vs. 30% in 2004). More people who were making below

\$8.85 per hour in 2004 are now making even less (44.5% in 2009 vs. 69.9% in 2004) and 30% of pantry users are now making less than \$8.84 per hour, even though there has been an increase in minimum wage.

- More people are working 2-4 jobs in 2009 than in 2004. Most significant is that there are 10% fewer people working 31-40 hours in 2009 than in 2004 and 5.5% more people are currently working fewer than 30 hours per week and 3% more also work over 51 to 60 hours per week
- Pantry users reported multiple sources of household income. At the time of this survey 53% reported income from employment, 28% reported receiving social security benefits, 22% reported receiving SSI benefits, and 19% received unemployment compensation

“To eliminate food insecurity, interventions are needed including, adequate funding for and increase in utilization of food and nutrition assistance programs, inclusion of food and nutrition education in such programs, and innovative programs to promote and support individual and household economic self-sufficiency.”

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STUDENT LITERATURE REVIEW SUMMARY

1. Causes of Food Insecurity: Perceived and Real

According to the US Department of Agriculture (USDA), households who are food insecure means they are “without the resources to feed themselves or are unable for economic reasons to purchase healthful foods” (Hampton, 2007, p. 1851). In 2005, close to 12.6 million households were considered food insecure (Hampton, 2007). Adequate nutrition is essential to daily living. However, there are many people and families in the United States who fail to obtain adequate nutrition, primarily those with incomes near or below the poverty line.

When people are experiencing food insecurity, it can lead to many rippling effects. Primarily a person’s health, due to inadequate nutrition, might be extremely affected. This is because people do not place a high priority on healthcare when their income limits them to focus solely on obtaining an adequate food supply (Hampton, 2007). Children who are experiencing food insecurity might also have impaired health. This results in them being less resistant to illness and increases their chance of hospitalization (Hampton, 2007).

When adults experience food insecurity, they also experience health effects such as type 2 diabetes (Hampton, 2007). In addition, food insecure adults are known to be overweight and develop obesity. This is due to those with low-incomes only being able to buy the less-expensive processed foods rather than fresh fruits and vegetables, which are typically more expensive. David H. Holben PhD, RD, of the School of Human and Consumer Sciences at Ohio University stated, “One of the first food groups that’s cut out of an impoverished person’s diet is produce” (Hampton, 2007, p. 1851).

The trend of food insecurity has led to the development of many programs such as federal food assistance programs, school lunch programs, Women-Infant-and Children (WIC) Supplemental program, and many more. However, these programs are not able to reach all individuals in need (Hampton, 2007, p. 1852). Therefore, many strides are being taken to measure household food insecurity in new ways.

Poverty is an issue not simply understood. Although some households may be food insecure, not all are experiencing immediate hunger while some are in urgent need (Webb, Coates, Frongillo, Rogers, Swindale, & Bilinsky, 2006, p. 1404S). Components of food insecurity and its complexity have led to a search for ways to more accurately measure and reflect the outcomes of households with food insecurity (Webb, et al, 2006, p. 1405S).

Evolving measures of food insecurity are based upon three main conceptual developments: “1) a shift from using measure of food availability and utilization to measuring ‘inadequate access’; 2) a shift from a focus on objective to subjective measures; and 3) a growing emphasis on fundamental measurement as opposed to reliance on distal, proxy measures” (Webb, et al, 2006, p. 1405S). Moreover, researchers are adding a fourth concept that includes risks that disturb any of the first three factors such as job loss (Webb, et al, 2006, p. 1405S). This is viewed as important because a risk such as job loss greatly affects every sphere of the food insecurity framework (Webb, et al, 2006, p. 1405S). However, the desire to develop a better measurement framework for food insecurity is still a work in progress with many elements to explore and challenges to encounter (Webb, et al, 2006, p. 1408S). These shifts in the way

to measure food insecurity are critical and will greatly influence the way we react and strive to prevent food insecurity.

Poverty is tied to many of the reasons individuals experience food insecurity. Other causes include but are not limited to having a disability, being a child of immigrant, being elderly, and being an addict. These populations are a micro aspect of food insecurity, however, if we look at the macro aspect of food insecurity we would focus on the issue of programs and policies.

Having a disability is a significant risk factor for food insecurity. Nord (2008) suggests that work limiting disabilities can increase the risk for food insecurity among low-income families. Also, thirty-seven percent of households that are considered food insecure with low income have at least one adult who is not working due to a disability. In 2005, twenty nine percent of households who were low-income and food insecure had no family member in the work force because of a disability.

Children who have disabilities are more likely to live in poverty than are children who do not have a disability (Parish & Cloud, 2006). When compared to only sixteen percent of children without disabilities that live in poverty, twenty-eight percent of children with disabilities live in poverty. Children with disabilities require needs that a child without disabilities would not normally require. Some of these needs are special therapies, adaptive equipment, medication, and educational services. As income increases so does the out of pocket expenses. This means that low income families who have children with disabilities may not be meeting the child's needs because they cannot afford it (Parish & Cloud, 2006).

Household members with a disability and who are unable to work may limit the work opportunities for other adult caregivers (Nord, 2008). Mothers of children with disabilities say that the demand of caring for their children has limited their employment opportunities (Parish & Cloud, 2006). Mothers of children with disabilities in particular have a hard time maintaining a career, which can put a financial strain on the family. The increased likelihood of living in poverty may have negative consequences like children with disabilities. A negative consequence of a low income household for children with disabilities is food insecurity.

2. History and Utilization of Food Pantries

Although there are limits to resources on the history and utilization of food pantries before the 1980's, there is now a fairly accurate picture of what has taken place within the public and private sectors in regards to food pantries in general since then. To get a better understanding of the difference between public and private food assistance programs, The Emergency Food Assistance Program (TEFAP) will be used to describe the public sector and the Emergency Food Assistance System (EFAS) will be used to describe the private sector. TEFAP is an extension of the Temporary Emergency Food Assistance Program which was developed in the 1930's during the depression by the federal government to aid in supplementing food for the needy. In 1981 the word *Temporary* was changed to *The* when it was realized the program would no longer be temporary (United States Department of Agriculture). The (EFAS) was created by the private sector around the same time as the TEFAP to aid in hunger relief and is made up of mainly faith based food banks, soup kitchens, food rescue organizations, shelters and of course food pantries (Feeding America).

According to research done by the United States Department of Agriculture (USDA), there are currently between 30 and 35 thousand food pantries in operation in the United States today. Approximately 67 percent are run by nonprofit religious organizations, 25 percent are run by private, nonprofit: not religious organizations, three percent are government operated and the last five percent are run by

informal groups or other (USDA). Just about half of these pantries receive USDA commodities through TEFAP. Less than ten percent of the funds appropriated to TEFAP are used to help pantries. For example, a survey done by the USDA explains how this works in terms of pounds of food distributed. The USDA research states that in 2000 there was approximately 3,117 million pounds of food distributed to food pantries and kitchens by the EFAS and roughly 422 million pounds of that were commodities distributed by TEFAP (Economic Research Service/USDA).

Information obtained through research studies conducted by federal government agencies and a variety of hunger-relief organizations state the main reasons for the fluctuation in food pantry use over the years is mainly caused by the state of the economy and the support or lack thereof of government programs. "During the early 1980s there was renewed interest in commodity distribution as large inventories of Government-held commodities, substantial reductions in Federal spending for food assistance programs, and poor economic conditions combined to exert pressure for expanded commodity donations by the USDA" (Feeding America). It makes sense that when people are going through times of crisis such as job loss, high prevalence of low paying jobs with little to no benefits and federal budget cuts food pantry usage goes up and when economic times get better food pantry usage goes back down.

Food Assistance Programs

A common trend seen among literature on food pantries is the prevalence of food insecurity among clientele and also their use of other food assistance programs. Food insecurity was defined throughout many articles as a families' inability to purchase adequate food amounts due to insufficient monetary funds or other resources. Several articles, such as one written by Greder, Garasky and Klein (2007) used surveys when conducting their research and used the terms "food secure," "food insecure without hunger," and "food insecure with hunger." By using these terms, researchers from several different studies were able to determine the food security of clientele accessing food pantries and other food assistance programs.

Throughout several articles, a common theme arose; households receiving food assistance were below the poverty line and needed aid from more than just one program. Clientele utilizing such programs as Food Share or Women, Infants and Children (WIC) were not receiving enough of a food supply to support their families and therefore also had to rely on food pantries. Berner, Ozer, and Paynter (2008) discussed this in their article, "A Portrait of Hunger, The Social Safety Net, and The Working Poor", stating that government funded programs are not fixing food insecurity among individuals and people are forced to fill the gaps with nonprofit organizations, such as food pantries and soup kitchens. This research shows the rising demand for more programs to assist with food distribution because individual's needs are not being met by pantries or other food assistance programs alone.

Although current research speaks frequently about the different types of food assistance programs that exist, food pantries were rarely discussed without incorporating discussions of other programs as well. The broad discussion of food assistance programs as a whole leads to gaps in the research because there is little literature that has been found on food pantries as a single entity. More research should be done on the utilization of food pantries, clientele using the pantries, why they are using them, how beneficial pantries are to individual's and families' well-being, and what needs to be improved.

Types of Food Pantries

Of the literature and research on food assistance programs, the one type of pantry that remains to be the greatest focus is the "traditional food pantry model". Although the traditional food pantry is a focus of recent research, there is still a lot of variance within this type of pantry. For example, some of these pantries may be found inside other buildings, such as churches, and others stand-alone. Some of these pantries offer their users the opportunity to have an input in the type of groceries they receive while

others do not. There is also great variance in the type of foods these pantries offer. Pantries that have refrigerators and freezers have a broader selection of food than those that do not. The operating schedules also vary. Some are open one day a week, while others are open five days a week. In all of this research, however, there has been little focus on whether or not a food pantry's structure and organization increases or hinders its effectiveness.

When comparing the research on food pantries, the type of pantry that most researchers are looking at is the traditional model. Research done by the Ohio State Extension found that often these food pantries do not offer its users any choice in what they receive. For example, at these pantries, it would be common to receive a bag or box containing pre-selected foods. Researchers also found that traditional pantries do not usually offer education on nutrition. Increasingly, research has suggested that people are often wasting food because they do not need it, they do not want it, or they do not know how to prepare it (Remley, Gallagher, & McDowell, 2006). Not offering education on food preparation, as well as not allowing pantry users to choose their own food is a likely reason for food waste. Another major downfall to most traditional food pantries is the atmosphere can create a degrading feeling for its users, especially for those who are not accustomed to or feel uncomfortable accepting "hand-outs".

The research and literature on traditional food pantries has obvious gaps. The research seems to ignore the pantry's effectiveness to its users, although ineffectiveness may be implied when looking at some of this model's downfalls. There has been little research done on other types of food pantries. However, research that exists on other types of pantries has shown their attempts to eliminate some of the downfalls of the traditional pantries.

The Ohio State Extension focused their research on one type of pantry, known as a choice food pantry. These pantries allow its users a predetermined number of choices from the United States Department of Agriculture (USDA) MyPyramid Food Guidance System. For example, a family of two may be allowed two choices from the milk group, whereas a larger family may be allowed more choices. The goal here is to eliminate waste. By allowing pantry users to choose what foods they like, a more "dignified atmosphere" is created, as this type of pantry is often set up more like a grocery store. Allowing users to choose between different foods using the USDA MyPyramid Food Guidance System also promotes a more balanced and nutritional meal selection. By following this method, nutrition education is integrated into the choice pantry food model (Remley et al., 2006). Unfortunately, research has not yet focused on this type of food pantry; therefore evaluations on its effectiveness do not yet exist.

Another type of food pantry, which also has been a focus of little research, is known as a mobile food pantry. There were three articles, neither cited nor researched, which informed readers of this new food pantry model. One of these new models is located in West Ohio, one in the Catholic Diocese of Madison, and another in South Dakota (Salvation Army, West Ohio Food Bank, Catholic Diocese, 2009). A common trend found in current research on food pantries states many neighborhoods and communities throughout the country do not have the services they need. Identified through the U.S. Census Bureau, mobile food pantries plan to deliver food to the poorest areas where no emergency food providers exist (Begin, 2008). These pantries load their trucks with food directly from a food bank and then deliver it to rural areas for those who do not have transportation or live far away from any food pantry. This model, stemming from the concept of disaster response planning, is said to be very cost-effective (Begin, 2008). Money should be saved as this model does not require a building or electricity for its operation. If research on pantries and food security is only done at food pantries, then those that cannot get there are being missed in the statistics.

Future Needs of the Food Pantry

There are several things that need to be addressed in order to fully comprehend the threat of food insecurity. There are hundreds of researched and cited articles on basic food insecurity and ways to make the United States more food secure. Those articles focus on those that live in metropolitan areas, those who eat “American” food, and those who are generally in good health.

This review touched earlier on the mobile food pantries that are able to help get food to food pantry clientele that live in extremely rural areas. There is a gap in literature where these pantries are concerned because studies are not being conducted on the effectiveness of them.

Another topic that is missed in many research articles is the lack of culturally diverse food offered at food pantries. Our society is striving to be accepting of all cultures, yet food pantries do not offer foods for every culture. Food pantries are lacking the resources needed for families to live out their cultural practices of food consumption. Many families are caught up in American culture and forced to leave their own cultural practices behind because the food they prefer is unavailable.

Rarely researched or practiced in food security studies is nutrition and how it refers to those with special diets. The pantry may offer information, but research tells us that the traditional pantry does not offer the appropriate food for special diets. A person with diabetes may not be able to have the sodium in the canned vegetables or the sugar in the Jell-O the pantry is giving. There are also food pantry clients with Celiac disease. These clients need gluten free food. If they depend on the food pantries to be food secure and yet receive the same food as everyone else, the pantry is not the benefit that it could or should be.

One pantry in Wisconsin, the Oneida Nation food pantry, has closed their doors. They have implemented a new idea that just might work, although it is new and not yet researched. They are giving their food pantry consumers grocery store food cards. With these cards, clients are able to purchase whatever groceries they can, including gluten free, sugar free and culturally specific foods. This idea may lead to a change in the structure and operation of food pantries today. Only future research will tell.

3. History and Utilization of Food Stamps/Food Share

The Food Stamp Program (FSP) is the largest nutrition program in the United States. It serves approximately 27 million people in 2006, and costs over \$30 billion annually (Landers, 2007). The program has grown from a program to distribute excess farm commodities during the Great Depression to a permanent, federally funded food assistance and nutrition education program (Landers, 2007). The United States Department of Agriculture (USDA) works through the FSP to promote well-balanced, healthy diets in program participants (Guthrie, Stommes, & Voichick, 2006). Currently, any recipient of public assistance benefits is eligible for food stamps, and any household with an income below the poverty level is eligible for food stamps (Popple & Leighninger, p. 55, 2005). The United States’ monthly food stamp allotment for a family of four is \$426 (Popple & Leighninger, 2005, p55).

During the Great Depression, the poor state of the economy resulted in families being unable to afford agricultural produce. Farmers, in turn, suffered financial losses and huge crop surpluses (Slater, 1981). President Franklin Delano Roosevelt and the USDA, as part of the New Deal, passed The Agricultural Adjustment Act (AAA) of 1933 (Landers, 2007). Sometimes referred to as the first Food Stamp Program, the purpose of the AAA was to distribute excess farm commodities directly to individuals and families suffering from poverty and hunger (Landers, 2007). Farmers also benefited from this program because the government paid them directly for the crops they purchased.

In 1939, Secretary of Agriculture, Henry Wallace, devised the first Food Stamp Program as we may recognize it today (Landers, 2007). People that were eligible for the program used cash to purchase orange stamps, and would additionally receive \$.50 worth of blue stamps (not taxable) for each dollar they spent on the orange stamps (Landers, 2007). However, the blue stamps could only be used on foods considered to be surplus by the USDA (Landers, 2007). Some of these foods included dry beans, flour, potatoes, apples, butter, eggs, rice, and fresh vegetables (Landers, 2007).

Between May 1939 and March 1943 food stamps were distributed in nearly half the counties in the United States and cost the federal government \$262 million (Landers, 2007). Peak participation reached 4 million people at one time, although it is estimated that over those four years close to 20 million citizens received benefits (Landers, 2007). West Virginia was the only state not to participate in the program because that state did not exclude blue food stamps from being taxed, which would have resulted in an additional cost to purchasers (Landers, 2007). Grocers were then able to exchange the food stamps that individuals used to buy their food, for a cash return from banks and food wholesalers (Landers, 2007).

The economic upturn associated with increasing production during World War II helped to eradicate the agricultural surpluses of the Great Depression era, thus ending the first commodity distributing Food Stamp Program in 1943 (Slater, 1981). During the following 20 years, many studies looked to examine the effectiveness of the first Food Stamp Program (Landers, 2007). Additionally, studies recommended changes and advancements that could be used to create new Food Stamp Programs. Two important modifications noted for future programs involved having only one type of stamp, and ending the surplus food purchase provision (Landers, 2007). One specific rule that was added limited participant eligibility to between 3 and 6 months per year (Landers, 2007).

In 1959 a legislative proposal authorized the Secretary of Agriculture to operate a Food Stamp Program, but this (Public Law 86-341) was not enacted by President Eisenhower (Landers, 2007). It was first in 1961 that President Kennedy announced that the USDA would be piloting an FSP in the United States (Landers, 2007). This program required the purchase of stamps, however, there was only one type of stamp, and there were no requirements to purchase surplus agricultural products (Landers, 2007). By 1964 the pilot Food Stamp Program was being used in 22 states throughout the nation and was eventually passed as the Food Stamp Act of 1964 by President Johnson in an attempt to address hunger in the United States (Landers, 2007).

As part of President Johnson's War on Poverty, FSP participants were eligible to receive extra stamps, in addition to initial purchases, to assist them in nutritionally balancing their diets (Landers, 2007). These foods, any "items intended for human consumption" (Landers, 2007), must have been grown or produced in the United States, and excluded alcoholic beverages. At this time, the federal government was responsible for funding the program and authorizing retailers and wholesalers to redeem stamps (Landers, 2007). Employees at individual state levels were responsible for certifying applicants and issuing the food stamps to recipients (Landers, 2007). Over the next ten years, the program expanded across the nation and grew to 15 million participants by 1974 (Landers, 2007).

President Carter soon passed the Food Stamp Act of 1977, eliminating the participant's responsibility of having to purchase the initial food stamps (Landers, 2007). The purchase requirement had been seen as a barrier to participation by experts; as did the requirement from the 1939 Food Stamp Program that a household had to have access to cooking facilities in order to receive food stamps (Landers, 2007). This kitchen and equipment mandate was also repealed as part of the 1977 Act (Landers, 2007). Eligibility

was determined by household income based on poverty limit levels of the time, and excluded students and illegal immigrants from participating in the program (Landers, 2007).

As a new portion of the 1977 Act, there was a requirement to “provide outreach, bilingual personnel and materials, and nutrition education materials” to assist in enrolling more members of diverse populations in the FSP (Landers, 2007). As a result of these FSP reforms, participation grew by 1.5 million individuals in the first month, and by January of 1979, there were more than 20 million participants in the program (Landers, 2007).

In the 1980’s, the United States experienced a major recession, and the FSP suffered cutbacks as a result of lacking federal funds (Landers, 2007). By the end of the 1980’s the country had seen a large jump in the number of malnourished individuals and families, again turning public attention to the issue of hunger. Congress decided that they needed to address the issue, and did so by ridding the program of the previously required sales tax on food stamp purchases, and increased limits for financial resources to \$2,000 per household for eligible participants (Landers, 2007).

The decade of the 1990’s brought along with it many changes to the FSP. In 1990, the Food Agriculture Conservation Act (FACA) gave states money to allocate for nutrition education programs to assist food stamp recipients in making more health-conscious food choices (Landers, 2007). President Clinton’s Personal Responsibility and Work Opportunities Reconciliation Act (PRWORA) of 1996, also known as Welfare to Work, limited eligibility for food stamp beneficiaries. “Able-bodied adults without dependents” were only eligible to receive food stamps for “3 out of 36 months unless they are working at least 20 hours per week or [are] participating in a work-training program” (Landers, 2007). This greatly reduced the amount of time that a single adult could receive benefits.

By 2004, more than 23 million individuals were participating in the FSP (Wilde, 2007). Some non-citizens in the U.S. became eligible to receive food stamps, and their rates of participation increased by 7% (Landers, 2007). Specifically, children of both legal and undocumented immigrants became eligible to receive food stamps if they were born in the United States (Landers, 2007).

The benefits as of 2007 were, on average, \$96 per person and \$215 per household (Ver Ploeg & Ralston, 2008). This calculates to be approximately \$3.20 per person, per day, and an average of about \$7.16 per household per day for food expenditures (Ver Ploeg & Ralston, 2008). “Because of language in the 1996 Legislation, benefits have not kept pace with inflation, so food stamp dollars buy less food than they did 10 years ago...” (Hayes, 2007). The rate of about \$3.00 per person per day to spend on food is what FSP participants received, on average, until the program changed in 2009.

Administered by the USDA’s Food and Nutrition Services, changes earlier this year have been made in the FSP, renaming it to the Supplemental Nutrition Assistance Program (SNAP). This is part of the American Recovery and Reinvestment Act, which intends to focus more on nutrition education for limited-income families (Springer, 2009). Currently about 32.2 million people receive SNAP benefits, which is approximately one in ten Americans (Springer, 2009). Increases in FSP participation are likely well into the future, due to the poor state of the economy (Springer, 2009). Since the program change in 2009, there has been an increase in benefits of about \$80 per month for family of four (Springer, 2009).

Current Utilization/Underutilization Rates

Food Stamp Program utilization rates vary among groups. One thing that all populations receiving food stamp benefits have in common is that they are living in poverty. Groups having the highest utilization

rates in the FSP are females, and Hispanic and African American individuals (Fuller-Thomson & Redmond, 2008). Subgroups included within these populations include: children under age 18, those over age 60, and individuals with disabilities. Individuals with disabilities that receive Supplemental Security Income (SSI) have higher rates of utilization in the FSP than those who do not receive SSI benefits (Fuller-Thomson & Redmond, 2008).

There are low participation rates for other populations with regard to the Food Stamp Program. Only approximately one third of people over age 60 who qualify for the program actually access the benefit (Landers, 2007). Americans age 60 and older have the lowest participation rates in the FSP (Dagata & Wilde, 2002). In fact, only 30% of eligible older Americans participate in food assistance programs (Dagata & Wilde, 2002).

Thirty-five percent of eligible individuals in 2005 did not utilize food stamps for the following reasons: not being aware of eligibility, choosing not to use food stamps, thinking that the application process is too difficult, or believing that the amount of money allotted for food stamps is too minimal (Landers, 2007). For some, there is a belief that they will be stigmatized for using food stamps. Others may experience language barriers in understanding eligibility, the application process, or the usage of the benefits.

Another barrier in participation for many is ineligibility. There are individuals who may benefit from the FSP, but because of certain circumstances are ineligible to receive assistance. Ineligible groups include: college students, workers on strike, certain classes of legal immigrants, undocumented immigrants, and able-bodied adults with no dependents who have exhausted a 6 month benefit limit, those with felony drug convictions, and those living with limited incomes above the poverty threshold (Wilde, 2007).

4. Food Insecurity and Food Choices: A Focus on Nutrition

The importance of consuming fruits and vegetables has been acknowledged and supported by numerous studies. According to Lydia A. Bazzano (2006), there are many health benefits regarding the consumption of the recommended amount of fruits and vegetables. The United States Department of Agriculture (USDA) recommends that Americans eat five servings of fruits and vegetables each day. Bazzano explains that consumption is correlated with “decreased incidence of and mortality from a variety of chronic diseases: cardiovascular diseases, stroke, hypertension, diabetes, obesity, and certain types of cancer...” (2006, p. 1364). Therefore, adequate intake of fruits and vegetables is beneficial to overall health.

Commonly, children are affected by insufficient intake of fruits and vegetables. Research has shown that adequate child development is important, and not consuming a nutritious diet can result in health consequences such as iron-deficiency anemia, which is closely associated with child food insecurity and poor food choices (Skalicky, Meyers, Adams, Yang, Cook, & Frank, 2006). In spite of the research available, many American families struggle to incorporate fruits and vegetables into their diets.

Hudson, Stotts, Pruett, & Cowan (2005) suggested parents’ taste preference has an influence on children’s fruit and vegetable consumption. The research concluded that families who make use of fast food restaurants tend to eat less vegetables and fruits. These findings can be related to parent food preference. In addition to Hudson et al., a study conducted by Bhargava & Amialchuck (2007), concluded that families who introduce “sugary choices” instead of the fruits and vegetables create nutritional issues for children. “The increases in recent years in intakes of added sugars via soft drinks and sweeteners in U.S. diets have raised concerns about displacement of vital nutrients such as vitamins and

minerals...” (p. 453). This article also discussed how food intake is affected by a parent’s knowledge of fruit and vegetable consumption.

Parents’ nutritional knowledge influences children’s fruit and vegetable consumption. The Diet Health Knowledge Survey (DHKS) explored parents’ knowledge of fruit and vegetable intake. It asked questions about appropriate nutrient and food intake, diet and health awareness, ability to read and understand food labels, and knowledge about USDA food servings. The Continuous Survey Food Intake by Interview (CSFII) studied aspects about food and nutrient intake, location of food consumption, source of food, and fast food intake. These surveys, conducted by the United States Department of Agriculture, found that only 34% percent of parents knew the correct amount of vegetable intake recommended per day (Hudson et al., 2005).

Accessibility

Individual dietary choices, such as fruit and vegetable consumption, can be influenced by the prevalence of food stores and food service places in a person’s neighborhood. Studies show that there is difference among the availability of supermarkets, corner markets, gas stations with convenience stores, and other food services within different socioeconomic neighborhoods (Morland, Wing, Diez Roux, Poole, 2001). According to Morland et al. (2001), wealthy neighborhoods overall have more access to healthy food choices because there is greater availability of food places, specifically supermarkets. For instance, “there are over 3 times as many supermarkets in the wealthier neighborhoods compared to the lowest-wealth areas” (Morland et al., 2001, p.26). Overall, low income individuals may be more disadvantaged in terms of food availability within their local food environment, based on the wealth of their neighborhood.

Cost

In addition to accessibility, parental knowledge, and attitudes, one might suspect that cost would be a significant factor in determining consumption of fruits and vegetables. A study, conducted by Dong and Lin (2009), found that providing a discount on fruits and vegetables would increase the demand for consumption. However, the results were not significant. Dong and Lin hypothesized that if the prices of fruits and vegetables were lowered by 10% for low-income Americans, the consumption of fruit would increase 2.1 to 5.2 percent, and the consumption of vegetables would increase 2.1 to 4.9 percent (2009). As a result of the study, however, the research found that fruit consumption increased by only 3.1 percent, and vegetable consumption increased by only 2.8 percent. Yet, these percentages are nominal compared to the significance of reducing the price by 10%. Therefore, the reduced price of fruits and vegetables does not significantly increase the demand.

5. The Relationship between Food Security and Health: Discussion of Trends

By reviewing the literature gathered on health and food insecurity, many trends were discovered. Each piece of literature had its own internal trends; however, several trends were found throughout the literature as a whole. One trend, for instance, relates to buying healthy foods. Food insecurity may lead some families to cut back on healthy choices because these choices are often more expensive. Families then buy inexpensive and often unhealthy foods (Wildome, Neumark-Sztainer, Hannan & Haines, 2009 & Bove & Olson, 2006). Families may have to choose between eating unhealthy foods or simply not eating any food at all.

Several studies discovered that households with children under the age of 18 were more likely to report food insecurity than homes with no children. Researchers found that caregivers will often feed the children within the household before feeding themselves. When food supplies dwindle, caregivers restrict their own food intakes by skipping meals, etc. This trend may lead to healthier children but

unhealthy caregivers (Bove, & Olson, 2006 & Stuff et al., 2004 & Wildome, Neumark-Sztainer, Hannan & Haines, 2009).

A trend regarding food insecurity and mental health was also discovered. Households with higher levels of food insecurity were found to have primary caregivers with higher levels of depression (Huddleston-Casas, Charnigo, & Simmons, 2008 & Stuff et al., 2004 & Zaslow et al., 2008). Food insecure women were found to experience a great deal of emotional eating in response to stress, sadness, boredom, or loneliness. When asked, these women reported feeling mentally and physically unhealthy (Stuff et al., 2004). Depression among food insecure primary caregivers also was found to have a negative impact on the social, emotional, and cognitive development of the children (Zaslow et al., 2008).

Research also discovered that food insecurity had negative consequences on childhood development. Cognitive, emotional, and social development may be negatively affected in children raised in food insecure households (Skalicky et al., 2006 & Hernandez & Jacknowitz, 2009 & Zaslow et al., 2008). Toddlers living in households in which mothers experienced temporary or persistent food insecurity had lower cognitive scores and worse health statuses (Hernandez & Jacknowitz, 2009). Skalicky et al. found that these lower cognitive scores could be caused by iron deficiency anemia, which is more common in children from food insecure homes (2006). Zaslow et al., however, linked children's lower mental proficiency with maternal depression, which is more common in mothers from food insecure households (2008). Therefore, iron deficiency anemia, depression, and lower mental proficiency have been linked to food insecurity.

Discussion of Gaps

One major gap within the research pertains to the participants of the studies. Families were often focused upon; however, no information concerning the adult men of these families was collected. Women and mothers were sought out purposefully in several studies (Chilton et al., 2009 & Bove, & Olson, 2006 & Huddleston-Casas, Charnigo, & Simmons, 2008 & Zaslow et al., 2008 & Stuff et al., 2008). Other studies collected data from the primary caregivers within a household; however, these primary caregivers also tended to be females (Skalicky et al., 2006 & Hernandez & Jacknowitz, 2009). Information linking food and health within the male population would be beneficial, for at this point it is unclear whether men are affected by food insecurity.

Existing research also lacks information regarding certain age groups within society. Much of the literature that was collected focused upon young children and their adult mothers. No literature focused upon food insecurity and the resulting health consequences for the elderly population. Although elders have been found to suffer from increasing health problems, no research was found stating that these health problems could be caused by food insecurity. The adolescent and young adult populations were also lacking research. A great deal of development occurs over this period in young people's lives; therefore, knowing whether food insecurity affects this population would be useful. Food insecurity occurs within all age groups; therefore, research is needed to support this claim.

A gap in ethnic diversity also was found. Much of the research focused on samples of Caucasian and African American individuals. While the information collected regarding these groups proves to be beneficial, it is limited. The United States is comprised of many different ethnic groups; therefore, data regarding these populations would be useful. Some ethnic groups not studied may need attention; however, due to a lack of knowledge these groups may be neglected.

Overall, the gaps within the literature prove that further research must be completed. While a great deal of data has been collected linking food insecurity to various health issues, certain populations have

been neglected. Men, elderly and adolescent individuals, and ethnic minorities have received little consideration. An expansion of the research will provide more accurate and useful results.

6. Strategies to Improve Food Security: A Consumer Perspective

Food insecurity has become a major issue in the United States. According to Biggerstaff et al. (2002), “cutbacks in government welfare and FSPs, low-paying jobs, and rising medical and child care expenses contribute to an increase in food insecurity in the United States” (p. 268). Many families therefore have become consumers of the Food Stamp Program. The Food Stamp Program serves more people in poverty than any other program in the welfare system, besides Medicaid (Biggerstaff et al. 2002 p.270). Food stamps are often a last resort for many clients, because of the many requirements and rigorous paperwork that must be completed to apply. For many, food stamps run out by the end of the month or do not provide enough money to adequately feed their families for the month (p. 271).

Other sources of food for consumers facing food insecurity are food pantries and soup kitchens. The Emergency Food Relief System, sets up funding as a “temporary measure in times of economic hardship” to serve clients who face food insecurity issues (Biggerstaff et al. p. 271). These programs are set up to be used for emergency needs, but are an option to clients who face food insecurity. The majority of the consumers who use these resources are clients who “have incomes at or below the 150 percent of poverty” (p. 271). However, these food pantries and soup kitchens also provide food and meals to individuals who are employed and cannot afford to feed their family or provide meals. Overall, clients are more likely to use a food pantry or a soup kitchen compared to food stamps, due to the low enrollment in the FSP (p. 276).

When a client lives in a larger city, one way to obtain food at a lower cost is to shop at supermarkets, because prices tend to be lower. Another less expensive option is food cooperatives (Kantor 2001, p. 21). Both supermarkets and food cooperatives are able to provide food at lower costs because of the purchasing power gained by buying bulk products. However, clients who live in rural communities do not have access to these large corporations and must, therefore, purchase at local grocery stores or convenience stores at higher costs. This could lead to individuals finding other ways to obtain food.

Another possible source of low cost food comes from community-supported agriculture, where “shareholders purchase shares at the beginning of the growing season to buy a portion of the farm’s crops that year” (p. 25). These programs provide shareholders with crops throughout the season at low costs. Many of these farmers also target low-income families by providing “subsidize shares for households that are unable to afford the full price” (p.25). These programs help low income consumers purchase fresh fruits and vegetables at a low cost.

Community gardens are also an option for low income food consumers. These gardens provide opportunities for larger communities to share a garden to grow crops. The community gardens can help, “public housing residents and other low-income consumers supplement their diets with home-grown produce” (p. 28). Another last option for consumers who face food insecurity is to be involved in the “food recovery programs” that help rescue food that would be thrown away by donating it to food pantries and food groups who are in need (p. 28).

Food Preparation

According to Hoisington, Schultz & Butkus (2002), food pantry users employ many coping strategies in order to increase the quantity of food provided and make food stuffs last longer. In their study about food insecurity and nutrition, Hoisington, Schultz & Butkus (2002) collected data from 90 participants’ ages 16-56 years old. The following information is a reflection of what the researchers discovered.

Respondents indicated that the use of food pantries was one way to cope with food insecurity. In an effort to get the largest quantity of groceries for the least amount of money, consumers used a combination of stores or food pantries and also took full advantage of discount coupons.

In contrast with food pantries more coping strategies took place inside the home. In fact, many food preparation tactics were used to increase food quantity and lessen cost. Coping strategies used in the home included making food in bulk, freezing food for later use and using up leftovers. Mimicking popular convenience foods by using bulk ingredients, substituting foods such as dry milk for fresh, reducing or omitting unaffordable ingredients, such as meat, and increasing the amount of inexpensive and filling ingredients, such as potatoes, were all used to battle food insecurity (Hoisington, Schultz & Butkus, 2002). The remainder of respondents also relied on relatives to feed their children. Respondents also made the most of garden space to grow their own food.

Canning and pickling food obtained from one's garden to fight food insecurity was also a tactic used by older adults according to Quandt, Arcury & Bell (1998). Furthermore, in order to prevent food insecurity, older adults purchase and use frozen single service meals, benefit from specials at local grocery stores, visit congregate meal sites, and often eat less. Interestingly the adults involved in this case study were eligible for government assistance. One adult stated that they were eligible for \$10 worth of food stamps but at this low monetary value did not see the benefit.

Moderation and Leftovers

According to the National Longitudinal Survey of Children and Youth in Atlantic Canada, another consumer strategy to improve food security is mothers giving up their own food for the nutrition of their children (McIntyre, Glanville, Raine, Dayle, Anderson & Battaglia, 2003). The purpose of the survey was to find out if low-income single mothers give up eating some of their food to make sure their children obtain the nutrition they need, by eating less and giving more food to their children (p.686). Results found that "34% of caregivers replied that they skipped meals or ate less when food was scarce compared with only 4.9% of their children" (p.286). This proves that caregivers, particularly low-income single mothers, do compromise their own food intake to make sure that their children are getting adequate nutrition before themselves. The researchers collected data from 141 low-income single mothers whom were recruited and identified by community agencies. Data was collected from the women randomly, one time a week for one month with different groups throughout a one year process. When researchers contacted the women, they asked the women to recall their own and their children's food intake from the last twenty four hours. After all data was gathered and compared to the requirements for essential nutrients, results found that the mothers' food consumption did not meet the requirements while the children's food consumption was "more adequate" (p.688).

Obtaining Food from the Garbage

Another consumer strategy for the food- insecure is dumpster diving. Eikenberry & Smith (2005) discuss the prevalence of dumpster diving for low-income residents of Minneapolis, Minnesota. Although the study was conducted in Minneapolis, it is speculated that dumpster diving is a means of obtaining food in other metropolitan areas as well due to the increase of food insecurity across the nation (p.200). Dumpster diving simply means that an individual or group goes into a dumpster to get food for consumption (p.188). For this research project, focus groups were set up to collect quantitative and qualitative data on low-income persons living in poverty who reported using dumpster diving as a means of obtaining food.

Some reasons that respondents gave as to why they obtain food from dumpsters are: food assistance programs (soup kitchens & food pantries) were not open at convenient hours when they were hungry (late at night & on weekends), food assistance programs were not close enough to access easily, it is perfectly good food to eat, and because of the barriers to accessing food programs (such as obtaining a

state ID and the long process to get registered or apply) (p.195). Divers report using other methods of obtaining food such as food assistance programs, food pantries, soup kitchens, and sharing food among family and friends, but dumpster diving seems to be a tactic for the more severe people who are food insecure when other means were not available. One gap in this study is that the data was only collected from one area in one state. Although the article says that dumpster diving is likely to occur nationwide, there are no statistics to prove that hypothesis at this point.

7. Strategies to Improve Food Security: Successful Community Interventions

The Community Food Security (CFS) systems approach stresses the importance of working together and working cooperatively to create programs that will enhance community food security (Hamm, 2003). This approach focuses on empowering the community, the rights of the members of the community to be economically and socially independent, and ways for the community to provide a self sustaining source of food using its own natural resources.

Long-term Interventions

There are two types of community interventions. Interventions can be either long-term, self sustaining programs or emergency based programs (Hamm, 2003). These long-term community interventions may include farmers markets, community gardens, outreach through nutritional education, and home delivery programs (Moron, 2006). Other long-term community interventions may include advocating for increased wages as well as affordable housing. These community interventions make it possible for families to afford food. Communities can also offer tax breaks to bring in more food businesses to poverty stricken neighborhoods (McCullum, Desjardins, Kraak, Ladipo, & Costello, 2005).

Emergency Interventions

Food pantries, soup kitchens, and emergency shelters would be examples of emergency intervention programs. These programs provide immediate assistance to families and individuals without food. These programs are also in place for emergency situations such as natural disasters (Hamm, 2003). Individuals and families cannot solely rely on these emergency intervention programs for long periods of time because these resources can be drained quickly. Even though these programs may not provide long-term assistance, they are still important to have in each community (Hamm, 2003).

Community Gardens

Community gardens are seen as one long-term potential intervention. Stein (2008) defines community gardens as any place where two or more people build a garden together. Gardens can help provide the necessary fruits and vegetables to families who could not otherwise afford them. Previous studies of those participating in community gardens showed a higher consumption of vegetables and fruits such as broccoli, cauliflower, and cabbage. According to Stein (2008) a plot that is 10ft by 20ft, costing \$200 per year to maintain could produce \$450 of fruits and vegetables in that year.

These community gardens were not created just to provide a food source for those who are struggling to afford food but were created with the goal of providing nutritious and balanced meals according to the standards of the *Healthy People 2010* program created by the U.S. Department of Health and Human Services (Stein, 2008).

In New Mexico, Women, Infants and Children (WIC) community garden project was started in 1999 as a means of getting pregnant women to eat a healthier diet. The program used nutrition educators to spread the word about the importance of gardening. In this study less than 30% of clients from local clinics had been informed of the community garden project and those who had been exposed to the

project were more likely to garden. They were also more likely to eat fruits and vegetables regularly (Flanigan & Varma, 2006). The study, meant to measure the effectiveness of the program, showed a relatively small percentage of respondents actually utilized the community gardens or the seeds they were given to plant (Flanigan & Varma, 2006).

According to Flanigan and Varma (2006) the reasons given for not participating in community gardening included lack of knowledge about the gardens, location of the gardens, and lack of transportation. Although required to promote the community gardens in their nutrition classes, it appears many educators failed to do so. It seems the community gardening intervention is effective when the clients are aware of the gardens, their locations and ability to get to the gardens. These would be factors to think about when implementing this strategy (Flanigan & Varma, 2006).

Home Delivery

Home delivery programs are meant to assist individuals who are homebound. This could include the disabled or individuals who cannot complete activities of daily living such as grocery shopping and cooking. This population generally includes people over the age of 65 years old. This program works to keep these individuals food secure while remaining independent (Duerr, 2006). Among the elderly there are many indicators of food security status and risk. Some of these indicators include “inability to feed oneself, inability to shop for food due to transportation problems or physical impairments, having sensory impairments that would affect cooking or eating activities, and not having anyone to come in and help when sick in bed” (Duerr, 2006, p. 2).

According to Moran (2004), programs such as Meal on Wheels have prevented participants from suffering from malnutrition, poor health, and overall food insecurity. However, one problem associated with these programs is the impractical portion sizes which could lead to an excess amount of food that could go to waste. Another problem noted by Moran (2004) is that Meals on Wheels might not always provide the most nutritious and balanced meals for its participants.

Farms and Farmers Markets

Farms and farmers markets are another long-term community intervention. Farms could include a more specialized range of crops to serve the community. The focus of farming interventions is to be more self-sustaining. Each community could grow their own crops and keep them in the community, rather than receiving from other places. If locally grown, the price can remain low due to lack of transportation costs (Polack, Wood, & Bradley, 2008). In cooperation with farms, communities should hold consistent farmers’ markets to sell the locally grown crops to the public. Farmers’ markets are in growing demand in communities (Polack, Wood, & Bradley, 2008). Through application of locally grown and sold fruits and vegetables the community can work towards being more nutritionally stable.

8. The Relationship between Food Security and Housing Security

According to Ursery & Edney, the leading cause of homelessness was lack of affordable housing and additional causes were mental illness and low paying jobs (Ursery, 2004; Edney, 2004). In the cities surveyed, on average, requests for emergency shelter grew 13 percent; 30 percent of the requests for shelter went unmet; and 84 percent of the cities had to refuse family requests for emergency shelter, making it the highest since 1997. Shelters were forced to turn away families because of lack of resources and space. According to the authors, the cities were not very positive when they predicted an 88 percent increase in requests for shelter in 2004 (Ursery, 2004; Edney, 2004).

According to Urserly & Edney, while homelessness was on the rise, so were the nation's food security issues. The survey results showed the leading cause of hunger problems were unemployment and employment related problems. Additional causes of hunger were lack of affordable housing, mental illness, substance abuse, and high medical expenses. In the cities surveyed, on average, requests for food assistance grew 17 percent; 14 percent of food requests went unmet; and 56 percent of the cities had to refuse families food assistance, making it the highest since 1997. Pantries were forced to turn away families' requests for food assistance because of lack of resources needed to handle the demand. According to the authors, the cities were not very hopeful when they predicted an 87 percent increase in requests for food in 2004 (Urserly, 2004; Edney, 2004).

According to Wehler et al. (2004), the results of this study supported findings of hunger's tie to limited resources for food and housing. While it was recognized that limited resources increased the odds of hunger, it was also suggested that in order to improve effectiveness of services and programs, professionals should consider the physical and mental health needs of mothers in addition to other factors assessed.

Food Security and Homelessness

The current trend in homelessness and food security increases annually due to the fact that there are more home foreclosures and jobs lost all over the United States. The incidence of vulnerable population increased due to jobs lost to third world countries for cheaper labor costs, and inexpensive raw materials. Concerns and problems happening in America today involve families facing insufficient access to nutritional food, as well as insufficient housing for families in need.

The article *Ending Hunger in Wisconsin* reports half a million households struggle to meet basic food needs. Additionally, hunger accounts for behavior concerns in children (Wisconsin Food Security Consortium [WFSC], 2008). The article also explains that rapid increases in expenses, such as fuels, housing, and food continue to place a struggle with low income families (WFSC, 2008). *Ending Hunger in Wisconsin* calls for "Actions by the people of Wisconsin to help reduce hunger, emergency food assistance and access to affordable healthy food" (WFSC, 2008). One of Wisconsin's great contributions has been the development of the Salvation Army, as well as many other food pantries that help low-income families throughout the year. Organizations such as the Deanna Favre organization and businesses such as Fox 11 News are working hard to collect food for pantries, as well.

The United States Conference of Mayors is a nonpartisan organization of cities, each represented by a mayor who helped create a survey to examine homelessness and food security (United States Conference of Mayors [USCM], 2008). The Hunger and Homelessness Information Questionnaire explores several reasons why people struggle with having inadequate food, causes of homelessness, characteristics of persons experiencing homelessness and foreclosures of homes (USCM, 2008). The 2008 U.S. Conference of Mayors Hunger and Homelessness Survey was prepared by Abt Associates Inc. and distributed to 27 major big cities such as Boston, Chicago, Kansas City, Miami and other large cities, which helped provide an analysis of the scale of hunger and homelessness problems. The report results helped the Mayors address these problems (USCM, 2008).

The data collected by the U.S. Conference of Mayors Hunger and Homelessness Survey reported causes for homelessness to include home foreclosures, unemployment, and lack of affordable housing, domestic violence, substance abuse and mental illness (USCM, 2008). The survey also used city profiles from 2007 U.S. Census Bureau to collect data sources for total population, median household income, median monthly housing costs and percent below the poverty level to help write a Ten Year Plan to reduce hunger and homelessness in each city (USCM, 2008). Causes for homelessness reported by the survey concluded with poverty (52 percent), unemployment (44 percent), lack of affordable housing (60 percent) and mental illness (48 percent) cited by 72 percent of the 27 cities (USCM, 2008).

9. The Relationship between Food Security and Employment

Unemployment has become an increasing challenge in the United States. According to the Department of Labor, unemployed persons are those who convey a desire to work or those who have been laid-off from their most recent job (United States Department of Labor, 2009). The amount of individuals suffering from job loss and the lack of sufficient labor positions are increasing and several reasons account for this national issue. Companies continue to run their businesses out of the country and decreased industrial production in our nation have created a surplus of workers and several people have found themselves front and center in the unemployment crisis (Brand, 2009). The growing aging population is also finding themselves back in the job market due to decreased pension plans, which adds to the growing numbers of people seeking work in a nation where jobs are more difficult to come by than those positions were years ago (Ghilarducci, 2009). It is because of these growing challenges that the United States citizens are finding themselves in a rut when it comes to job searching. The plausibility of locating a job seems hopeless, while finding a position with adequate compensations is even harder to come by. It is no wonder how serious this problem has become and it appears be getting worse.

As of September 2009, the United States Department of Labor reports the current unemployment rate at a staggering 9.8% (United States Department of Labor, 2009). It is expected the unemployment number will only get worse. "Economists are projecting that U.S. unemployment may top out at 10.5% or over 11% by the middle of 2010" (Challenger, 2009). While the unemployment rate increases, the amount of individuals concerned with how they will make their daily expenditures will increase, as well.

Bentolila and Ichino (2004), suggest that in order to absorb some of the consequences unemployment creates, such as the ability to purchase essential living provisions, the welfare system will be utilized more than ever. Various unemployment benefits will need to be exploited while severance packages will be made use of at the expenses of the companies. Unemployment benefits can be utilized for up to twenty-six weeks in most states and others are extending the benefits an additional thirteen weeks if the state is suffering from particularly high unemployment (United States Department of Labor, 2009).

Links

From gathering knowledge about both issues, there are few links between food security and employment. As stated previously by Hampton (2007), those with income below the poverty line often lack adequate nutrition and with unemployment at a staggering rate of 9.8 percent, United States Department of Labor (2009); there is a definite possibility that the two categories may link.

Multiple studies surveyed the possibility of associating a link between employment and food security. Tapogna, Suter, Nord, and Leachman (2004) concluded income loss or unemployment created a higher likelihood for food loss in the home. Along with this finding, the study also found unemployment adds pressure to food security; however, this result proved mathematically insignificant. Unlike the results of the study above, Rose, Gunderson, and Oliveria (1998), mention a correlation between households with less income being more likely to encounter periods of food insufficiency.

Tiehen (2004) stated about half of food pantry users are those with families and not many of those families lacked housing. However, about thirty percent lived with member of the family who had a job. This implies that even those with an employed member of the family may feel food insecure. Robbins and Barcus (2004) concluded that the obstacle of holding and maintaining employment is an important step to accomplishing the ability to be realistically ample, and support a family.

As stated by Gunderson and Gruber (2004) those living in food insufficient homes also had to deal with unemployment issues and other money crises (as cited by Tapogna, Suter, Nord, and Leachman, 2004, p. 14). Tapogna, Suter, Nord, and Leachman (2004), suggest that future policies should target populations that experience these money debacles. With the economic crises that face the United States, many food pantries and emergency food supply systems face a dilemma as well. Tiehen (2004) mentions that three fourths of the pantries and emergency food suppliers are also experiencing food insecurity at their facilities, thus when a family is in need of food, the pantries may not have enough supply.

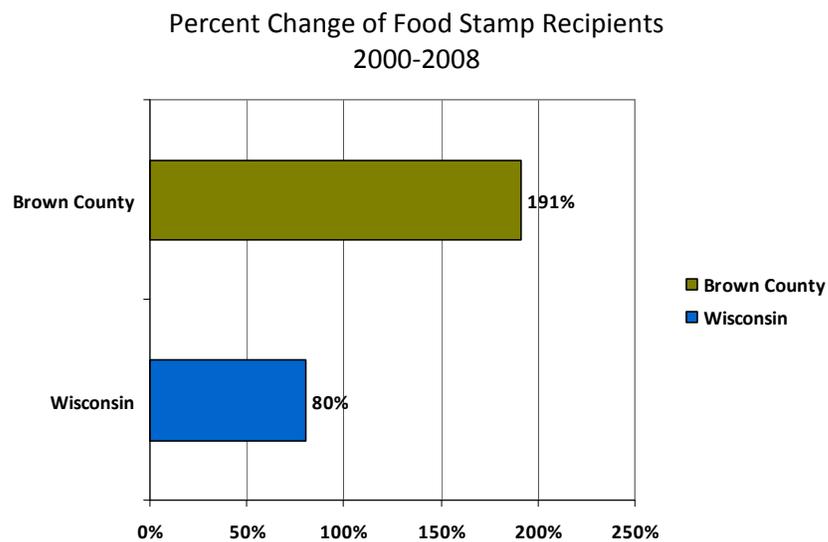
Federal Nutrition Assistance Programs Utilization

Federal nutrition assistance programs are designed to alleviate food insecurity. Three such programs are Food Share, WIC and school meal and summer meal programs. The following programs show the comparison between Brown County and Wisconsin residents' utilization.

Food Stamps/Food Share Program

The population in Brown County that receives Food Share is 11.21% (2008). This is less than the state percentage for that year, which was at 12.07%, and is relatively consistent with data from the 2006 Brown County Food Security Report. Although, Food Share utilization is less than statewide utilization, the graph below indicates that Brown County participation in the Food Share program is increasing more rapidly than the statewide average.

Figure 34:



Source: Wisconsin Food Security Project – <http://www.uwex.edu/ces/flp/cfs/>

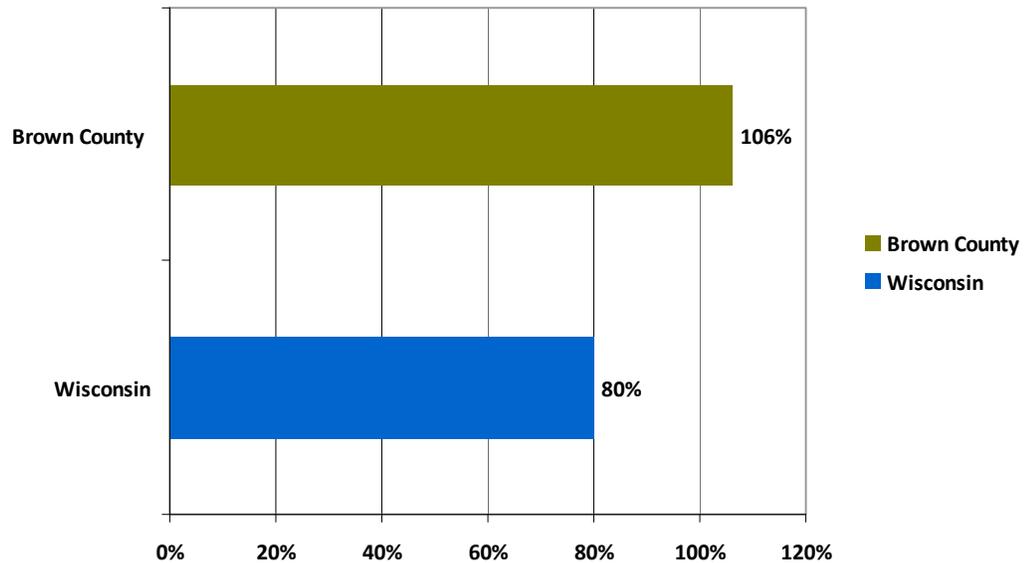
Brown County has increased food stamp participation by 111.07% more than Wisconsin from 2000 through 2008. The graph above represents the data collected over this period and reflects 2 trends. One is the changes that occurred in the number of people eligible for food stamps and the other is the changes in the share of eligible people who participate.

Special Supplemental Nutrition Program for Women, Infants and Children (WIC)

WIC provides supplemental nutrition assistance to families with a pregnant woman and families with children under age 5 who are assessed as nutritionally “at-risk”. Those who participate in the WIC program are also eligible to receive Farmers Market vouchers for fresh produce.

Figure 35:

Estimated Percentage of Eligible WIC Recipients Served 2008



Source: Wisconsin Food Security Project – <http://www.uwex.edu/ces/flp/cfs/>

This data is very comparable to the 2006 data, but both Brown County and the State of Wisconsin have seen a slight decrease in the amount of eligible WIC recipients served. Brown County continues to serve 6026 participants as of August 2009. Anecdotal data from WIC participants suggest that income from employment, increased Food Share benefits and increased use of food pantries over the past two years may have offset the value of WIC vouchers, leading to a reduction in WIC participation. In addition, WIC made changes in the selection of foods that participants are allowed to purchase in August 2009. The changes in foods offered by WIC may have contributed to some families dropping out of WIC because the food choices no longer met their needs or family preferences.

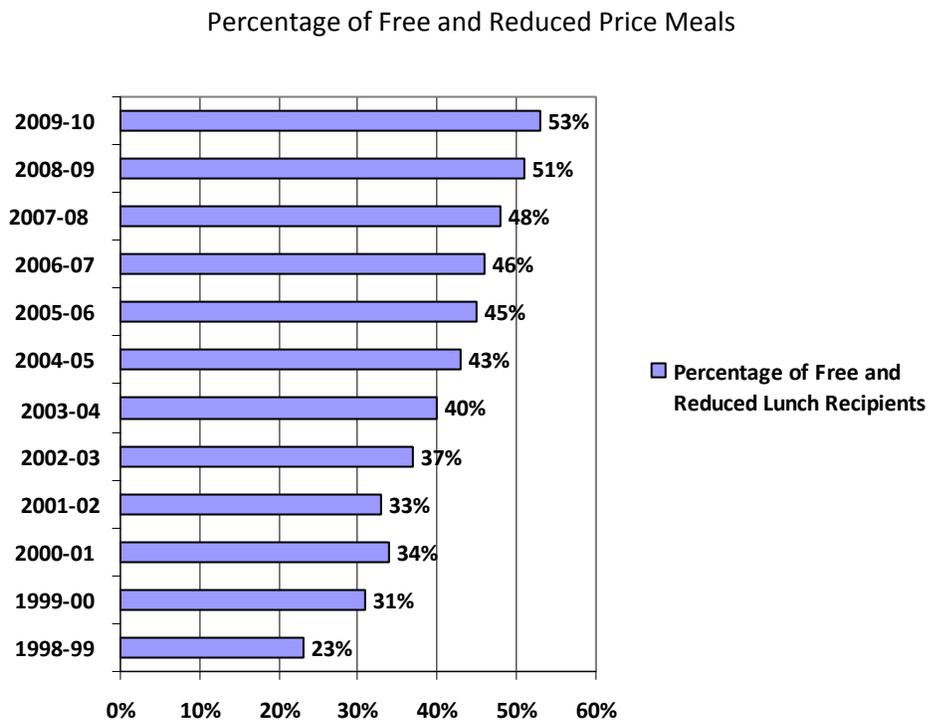
The changes in the foods offered were made to increase the nutritional value of foods purchased. Changes include an increase in whole grain breads, rice and tortillas, fresh fruits and vegetables. Canned beans were added in addition to the dry beans previously allowed. Less juice and eggs are allowed and whole milk, 2% milk and cheese were eliminated for most Moms, unless they are breastfeeding. In addition, canned salmon was added and Moms with infants can now purchase baby food in jars. These new foods offered may have influenced the decision for some families to continue with WIC.

School Meals and Summer Food Programs

The USDA provides funding for free and reduced price breakfast, lunch, snacks and summer food programs. Some school districts take more advantage of these programs than others. The National School Lunch/Breakfast Program is a federally subsidized program that is designed to help income eligible children receive free or reduced-price meals. Families that qualify for free or reduced priced meals can confidentially participate in both the USDA Lunch and Breakfast Programs at their schools. Green Bay has experienced a continual annual increase in students eligible for free and reduced price meals, more than doubling over the past ten years.

Percentage of Green Bay Students Eligible for Free and Reduced Price Meals (10 Year Period)

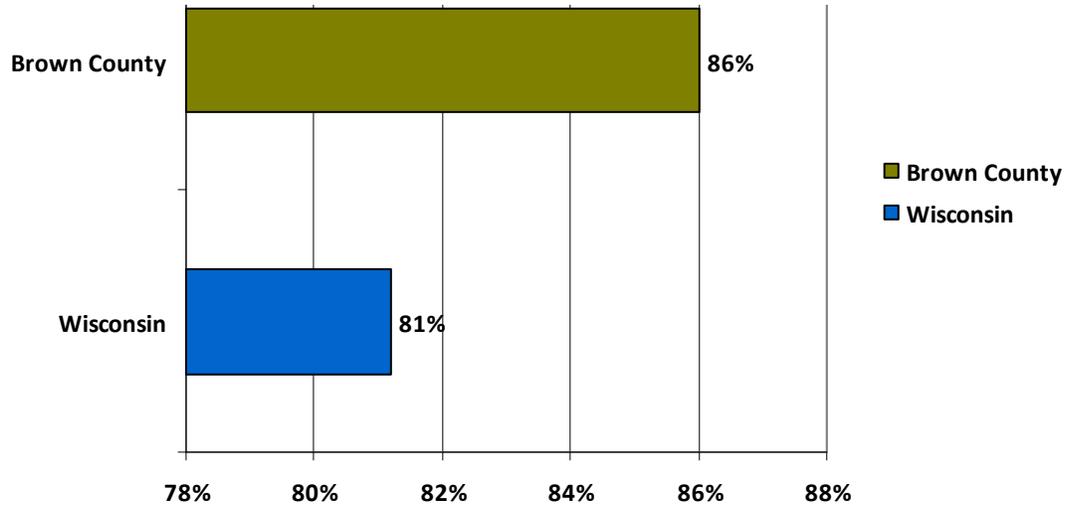
Figure 36:



Source: Green Bay School Food Service

Figure 37:

Percent of Low Income Children who have Access to Breakfast in Their Schools (2006)

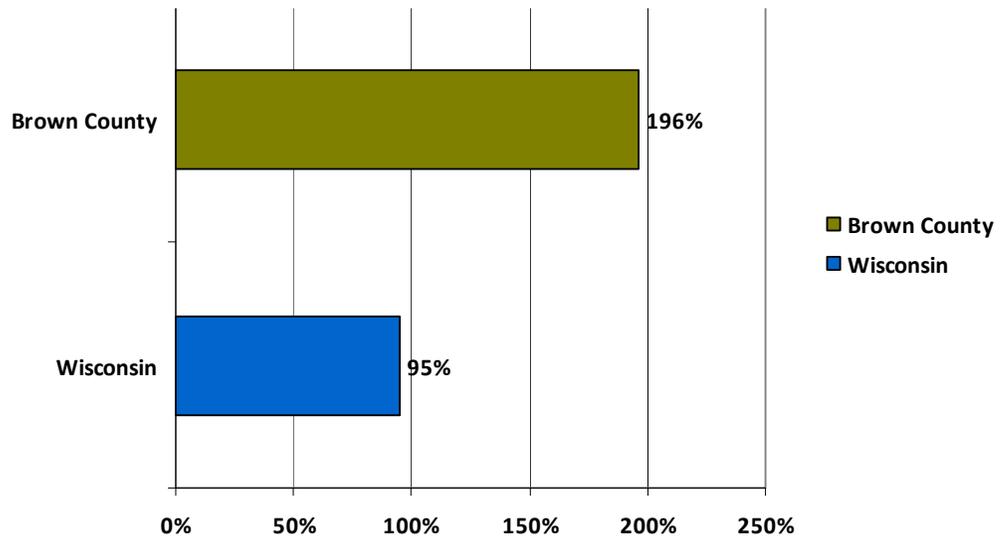


Source: Wisconsin Food Security Project – <http://www.uwex.edu/ces/flp/cfs/>

The data represented in the graph above measures the availability of the School Breakfast Program for low income children. Brown County is less than 15% away from all low income children having access to the program. The state is less than 19% away from making sure all low income children have access. This data is for public and private schools.

Figure 38:

Percent Change in Average Daily Participation in Breakfast Program (1999 – 2006)

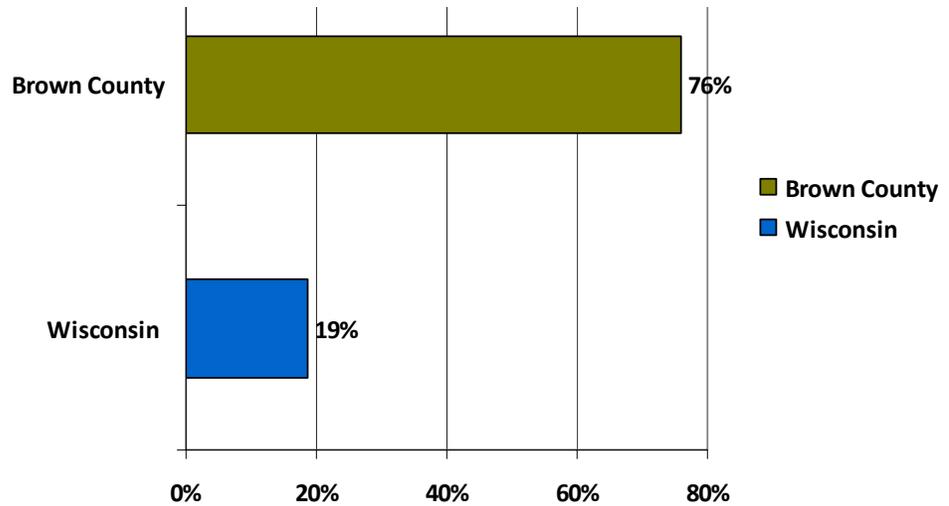


Source: Wisconsin Food Security Project – <http://www.uwex.edu/ces/flp/cfs/>

Figure 38 measures how participation in the school breakfast program has changed between 1999 and 2006. The increase in participation reflects both changes in the number of schools offering the program and how frequently children eat breakfast when it's available.

Figure 39:

Percent Change in Average Daily Attendance for Summer Meal Sites July 2001 – July 2008



Source: Wisconsin Food Security Project – <http://www.uwex.edu/ces/flp/cfs/>

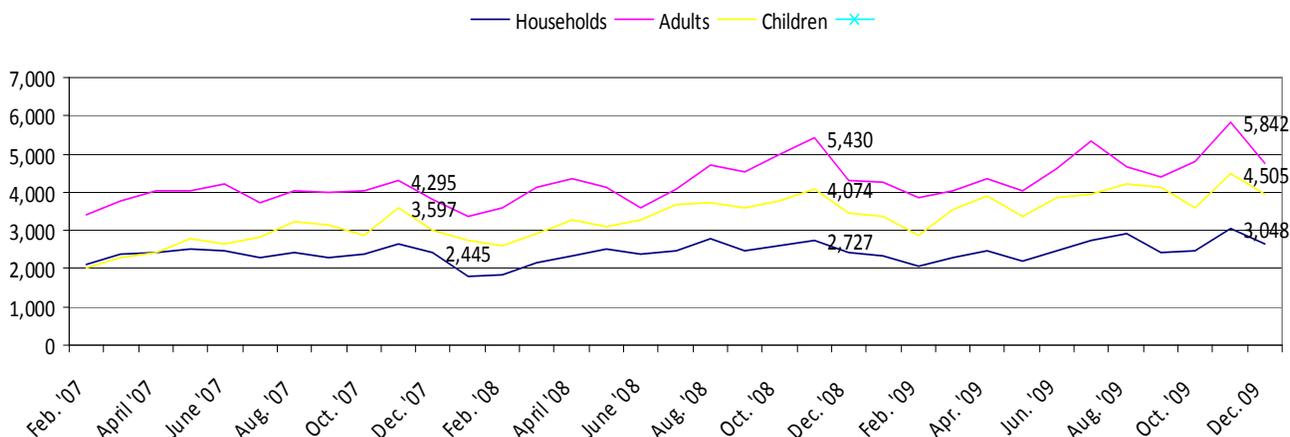
This graph represents the measure of how participation changed from July, 2001 through July, 2008. It is influenced by changes in the availability of programs and changes in the number of children participating in those programs. Because the percentages for both Brown County and the state reflect positive numbers, there has been an increase in both county and the state participation. However, Brown County has experienced an increase that is 57% higher than the state average in the same amount of time.

Brown County Food Pantry Utilization

University of Wisconsin Extension works with the Brown County Food & Hunger Network to document trends in food pantry utilization. The numbers do not reflect total number of people using pantries. Monthly data is not available for several smaller pantries and for the two largest pantries. Below is a graph demonstrating an annual increase in usage from reporting pantries between January, 2007 and December, 2009. The graph illustrates a 10.95% increase in households that access pantry resources, a 21.42% increase in adults and a 59.76% increase in children over this time period.

Figure 40:

Food Pantry Usage Trends 2007-2009



(See Table 29)

Food Pantries included: 7th Day Community Service Center, AIDS Resource Center, Calvary Lutheran, DePere Christian, Denmark Community Cupboard, 1st Presbyterian, 1st United Methodist Oneida Pantry, Pulaski Community Pantry, Resurrection Lutheran, St. Bernard's, St. John Lutheran, St. Patrick, St. Willebrord, The Salvation Army and Trinity Lutheran.

Food Pantries not included: The Giving Tree, Grace Lutheran, St. Mark's, SS. Peter and Paul, Manna for Life and Paul's Pantry.

Analysis: Food pantry usage trends are affected by factors such as transportation issues in cold weather months, obtaining food from other community resources near the holidays and pantries not having enough food donations, which can lead to reduced hours of operation. The above data in the graph contains 3 years of pantry trends. The value data is represented for the month of November for each year. November was chosen because it is typically the busiest month for most pantries. All data can be found in the Appendix in Table 29.

Note: Oneida was closed in October 2009 for 1 month, The Giving Tree was closed in June 2009 due to no access in the school where the pantry is located, and St. John's was affected by a lack of food to distribute and closed for a month in 2009, as well.

APPENDICES

Appendix 1: Survey Instrument

Appendix 2: Tables

Appendix 3: References for Literature Review

Brown County 2009 Household Food Security Survey of Food Pantry Participants

For interviewer: This shaded portion of the module is not asked of the participant.
These are for you to complete.

Time of interview _____

ID# _____

Gender 1 [] Male 2 [] Female

Site

If survey was not finished, why?

Date

1 [] participant left to get food

2 [] participant left to catch a ride

INTRODUCTORY STATEMENT: Hi, my name is _____ and I am a student at the University of Wisconsin-Green Bay. The UW Extension nutrition program and UW-GB are doing a study to help us improve food programs in Brown County and I would like to ask you some questions. Your answers will be completely confidential and we will not identify you in any way.

[1. Would you be willing to answer a few questions?

1 [] Yes **REVIEW INFORMED CONSENT**

0 [] No **STOP SURVEY**

[2. Including yourself, how many adults are in your household?

Male _____

Female _____

[3. Do you have children under 18 in your home?

1 [] Yes

0 [] No **SKIP [4 & [5**

[4. How many children in your household are under 5? _____

[5. How many children in your household are between 5 and 17? _____

5a. [IF YES ABOVE, ASK] How often did this happen---almost every month, some months but not every month, or in only 1 or 2 months?

- 1 Almost every month
- 2 Some months but not every month
- 3 Only 1 or 2 months
- 9 DK

6. In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money for food?

- 1 Yes
- 0 No
- 9 DK

7. In the last 12 months, were you ever hungry but didn't eat because there wasn't enough money for food?

- 1 Yes
- 0 No
- 9 DK

8. In the last 12 months, did you lose weight because you didn't have enough money for food?

- 1 Yes
- 0 No
- 9 DK

If affirmative response to one or more of questions 5-8, then continue to **Adult Stage 3**; otherwise, if children under age 18 are present in the household, skip to **Child Stage 1**; otherwise skip to **End of Food Security Module**.

Adult Stage 3: Questions 9-9a

9. In the last 12 months, did (you/you or other adults in your household) ever not eat for a whole day because there wasn't enough money for food?

- 1 Yes
- 0 No (Skip 12a)
- 9 DK (Skip 12a)

9a. [IF YES ABOVE, ASK] How often did this happen---almost every month, some months but not every month, or in only 1 or 2 months?

- 1 Almost every month
- 2 Some months but not every month
- 3 Only 1 or 2 months
- 9 DK

Questions 10-12 are administered to all households with children under age 18. Households with no child under age 18, skip to **End of Food Security Module**.

Child Stage 1: Questions 10-12

Now I'm going to read you several statements that people have made about the food situation of their children. For these statements, please tell me whether the statement was OFTEN true, SOMETIMES true, or NEVER true in the last 12 months for (your child/children living the household who are under 18 years old.)

10. "(I/we) relied on only a few kinds of low-cost food to feed (my/our) child/children because (I was/we were) running out of money to buy food." Was that often, sometimes, or never true for (you/your household) in the last 12 months?
- 1 Often true
 - 2 Sometimes true
 - 3 Never true
 - 4 DK or Refused
11. "(I/We) couldn't feed (my/our) child/children a balanced meal, because (I/we) couldn't afford that." Was that often, sometimes, or never true for (you/your household) in the last 12 months?
- 1 Often true
 - 2 Sometimes true
 - 3 Never true
 - 4 DK or Refused
12. "(My/Our child was/The children were) not eating enough because (I/we) just couldn't afford enough food." Was that often, sometimes, or never true for (you/your household) in the last 12 months?
- 1 Often true
 - 2 Sometimes true
 - 3 Never true
 - 4 DK or Refused

If affirmative response (i.e., "often true" or "sometimes true") to one or more of questions 10-12, then continue to **Child Stage 2**; otherwise skip to **End of Food Security Module**.

The following questions are about food assistance:

17. Which of the following have you or anyone in your household used for food assistance in the last 12 months? Please tell me YES, NO OR DON'T KNOW to the following. **READ ALL.**

- | 1 | 0 | 9 | |
|--------------------------|--------------------------|--------------------------|---|
| YES | NO | DK | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | a. WIC |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | b. Friends/relatives |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | c. Home delivered meals |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | d. Free or reduced school breakfast |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | e. Free or reduced school lunch |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | f. Shelters |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | g. Summer lunches in the park |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | h. Summer breakfast programs |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | i. Community meal sites |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | j. Food pantries |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | k. Food Share (food stamps, Quest card) |

Ask 17a and 17b **ONLY** if food pantries were used in the last 12 months (That is, if they answered "yes" to "j" in Q17 above):

17a. When was the first time you got food from a food pantry? **READ LIST**

- | | | |
|---|--------------------------|---------------------------------|
| 1 | <input type="checkbox"/> | Today is the first time |
| 2 | <input type="checkbox"/> | Sometime in the last six months |
| 3 | <input type="checkbox"/> | Six months to a year ago |
| 4 | <input type="checkbox"/> | One to two years ago |
| 6 | <input type="checkbox"/> | More than two years ago |
| 9 | <input type="checkbox"/> | DK |

17b. In the past 12 months, since November of last year, have you received food from more than one pantry in a given month? YES NO (If no, move to 17c)

If yes, how many pantries? _____

If yes, in how many months over the past year, did you receive food from more than one pantry?

- | | | |
|---|--------------------------|------|
| 1 | <input type="checkbox"/> | 0 |
| 2 | <input type="checkbox"/> | 1-3 |
| 3 | <input type="checkbox"/> | 4-6 |
| 4 | <input type="checkbox"/> | 6-9 |
| 5 | <input type="checkbox"/> | 9-12 |

Ask 17c **ONLY** if they have not used food stamps in the last 12 months (That is, if they answered "yes" to "k" in Q17 above):

17c. Here are some of the reasons people do not receive food stamps. After I read each statement, please tell me if this statement is TRUE OR NOT TRUE for you. **READ ALL.**

- | 1 | 0 | 9 | |
|--------------------------|--------------------------|--------------------------|---|
| TRUE | NOTTRUE | DK | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | a. Don't know about food stamps |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | b. Don't think you're eligible |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | c. Applied for food stamps but not eligible |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | d. Don't know how to apply |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | e. Application process is too difficult |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | f. I don't need food stamps |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | g. I don't want food stamps |

18. Which of the following would help you in getting enough food for you and your family? Please tell me YES, NO OR DON'T KNOW for each of the following. **READ ALL.**

- | 1 | 0 | 9 | |
|--------------------------|--------------------------|--------------------------|---|
| YES | NO | DK | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | a. Improved transportation |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | b. Learning how to budget your money for food |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | c. Learning how to prepare food |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | d. Garden space to grow food |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | e. Affordable child care |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | f. Affordable housing |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | g. Help in applying for food stamps |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | h. Have grocery store nearby |

Now I am going to read a few questions about nutrition and health.

19. How important is it to choose a daily diet with 5 or more servings of vegetables and fruits?

- | | | |
|---|--------------------------|----------------------|
| 1 | <input type="checkbox"/> | Very important |
| 2 | <input type="checkbox"/> | Somewhat important |
| 3 | <input type="checkbox"/> | Not too important |
| 4 | <input type="checkbox"/> | Not important at all |
| 9 | <input type="checkbox"/> | DK or refused |

20. Do you think you eat the right amount of vegetables and fruit now; or do you think you should eat more?

- | | | |
|---|--------------------------|------------------|
| 1 | <input type="checkbox"/> | Eat right amount |
| 2 | <input type="checkbox"/> | Should eat more |
| 9 | <input type="checkbox"/> | DK or refused |

21. Here are some of the reasons people do not eat the right amount of fruits and vegetables. After I read each statement, please tell me if this statement is TRUE or NOT TRUE for you.

READ ALL.

1	0	9	
TRUE	NOT TRUE	DK	
[]	[]	[]	a. Not available in the store where I need to shop
[]	[]	[]	b. The store doesn't carry the kinds I like
[]	[]	[]	c. I feel they spoil too quickly and will go to waste
[]	[]	[]	d. They cost too much
[]	[]	[]	e. I don't care for the taste
[]	[]	[]	f. My kids won't eat them
[]	[]	[]	g. I don't know what to do with them (how to prepare them)
[]	[]	[]	h. Other _____

22. Does anyone in your household have the following health problems? **READ ALL.**

1	0	9	
YES	NO	DK	
[]	[]	[]	a. Depression
[]	[]	[]	b. Overweight
[]	[]	[]	c. Underweight
[]	[]	[]	d. Diabetes
[]	[]	[]	e. High blood pressure
[]	[]	[]	f. Heart disease
[]	[]	[]	g. Asthma
[]	[]	[]	h. Other _____

The last questions are about housing and employment. For these questions, please consider the last 12 months, since November of last year.

23. What is your current household status?

- [] a. Rent **ASK Q23a SKIP 23b**
- [] b. Own my home **SKIP 23a ASK 23b**
- [] c. Other **SKIP Q23a and 23b**

23a. How much is your monthly rent payment? _____

How many bedrooms in your unit?

[] 1

[] 2

[] 3

[] 4 or more

Are you at immediate risk of losing your current housing? 1 [] YES 0 [] NO

23b. How much is your monthly mortgage payment? _____

Are you at immediate risk of losing your current housing? 1 YES 0 NO

24. In the last 12 months, since November of last year, have you done any of the following in order to have enough money for food? **READ ALL.**

- | 1 | 0 | 9 | |
|--------------------------|--------------------------|--------------------------|--------------------------------------|
| YES | NO | DK | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | a. Moved into a shelter |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | b. Not paid rent or mortgage on time |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | c. Living with another household |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | d. Got an additional job |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | e. Neglected healthcare needs |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | f. Used payday loan services |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | g. Used rent-to-own stores |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | h. Borrowed from a friend |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | i. Other _____ |

25. Have you been employed (including self-employed) anytime during the last year?

- | | | |
|---|--------------------------|--|
| 1 | <input type="checkbox"/> | Yes IF YES GO TO Q25a, b, c and d |
| 0 | <input type="checkbox"/> | No IF NO, GO TO Q26 |
| 9 | <input type="checkbox"/> | DK |

25a. If YES, are you currently employed?

- | | | |
|---|--------------------------|----------------------------|
| 1 | <input type="checkbox"/> | Yes |
| 0 | <input type="checkbox"/> | No IF NO, GO TO Q26 |

25b. How many different jobs do you work? _____

25c. How many hours a week do you work?

DO NOT READ THE OPTIONS GIVEN BELOW OUT LOUD. WHEN PERSON STATES ANSWER MARK IN APPROPRIATE RANGE BELOW

- | | | |
|---|-----|---------|
| 1 | ___ | 0-10 |
| 2 | ___ | 11-20 |
| 3 | ___ | 21-30 |
| 4 | ___ | 31-40 |
| 5 | ___ | 41-50 |
| 6 | ___ | 51-60 |
| 7 | ___ | Over 60 |

25d. How much are you paid per hour at the job where you work the most (including tips or commission)?

DO NOT READ THE OPTIONS GIVEN BELOW OUT LOUD. WHEN PERSON STATES ANSWER MARK IN APPROPRIATE RANGE BELOW

- 1 ___\$4-\$6.75
- 2 ___\$6.76-\$7.50
- 3 ___\$7.51-\$8.84
- 4 ___\$8.85-\$12.00
- 5 ___\$12.01-\$16.25
- 6 ___Over \$16.25

26. Including yourself, how many adults in your household are employed? _____

27. Did you or anyone else in your household receive income last month from any of the following? READ LIST. MARK ALL THAT APPLY.

1	0	9	
YES	NO	DK	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a. Employment
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b. Pension
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c. Unemployment
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d. Disability/Worker's Compensation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e. Social Security
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	f. Child Support
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	g. W2
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	h. SSI
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	i. Earned Income Tax Credit
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	j. Housing Assistance
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	k. Other_____

28. Are you or is anyone in your household a military veteran?

- 1 Yes
- 0 No

29. How much school have you completed?

DO NOT READ THE OPTIONS GIVEN BELOW OUT LOUD. WHEN PERSON STATES ANSWER MARK IN APPROPRIATE RANGE BELOW

- 1 Less than 9th grade
- 2 9th - 11th grade
- 3 High school graduate or equivalent
- 4 More than high school

30. How do you describe your racial or ethnic background?

DO NOT READ THE OPTIONS GIVEN BELOW OUT LOUD. WHEN PERSON STATES ANSWER(S) MARK IN APPROPRIATE RANGE BELOW. MARK ALL THAT APPLY.

- 1 American Indian or Alaska Native
- 2 Asian or Asian American
- 3 Black or African American
- 4 Native Hawaiian or Other Pacific Islander
- 5 White
- 6 Hispanic or Latino
- 7 Hmong
- 8 Russian
- 9 Somalian
- 10 Other _____
- 11 No answer

31. What is your age? _____

THANK YOU FOR TAKING THE TIME TO TALK TO ME TODAY.

Appendix 2: Tables

Table 1
Number of respondents by pantry location

	Frequency	Valid Percent
AIDS Resource Center	1	.1
Paul's Pantry	415	58.2
Pulaski Community Pantry	14	2.0
Resurrection Lutheran	16	2.2
St. Bernard's Church	1	.1
St. Patrick Catholic	38	5.3
St. Willebrod Church	7	1.0
The Salvation Army	7	1.0
Trinity Lutheran Church	10	1.4
Calvary Lutheran	4	.6
DePere Christian	8	1.1
Denmark Food Pantry	8	1.1
First Presbyterian	16	2.2
First United Methodist	26	3.6
The Giving Tree	9	1.3
Grace Lutheran	6	.8
Manna for Life	122	17.1
Total	713	100.0

Table 2: Pantry by Ethnicity

Frequency	White	Asian	Pacific Islander	Amer Indian	African American	Hispanic Latino	Hmong	Russian	Somalian	Other
AIDS Resource Center	1									
Paul's Pantry	215	2	2	17	29	93	25	3	1	13
Pulaski Community Pantry	9			2		2				2
Resurrection Lutheran	12			3	2	3				
St. Bernard's Church	1									
St. Patrick Catholic	22			11	3	2				1
St. Willebrod Church	3			1		3				
The Salvation Army	5			1	1	1				
Trinity Lutheran Church	7			1	2					
Calvary Lutheran	2				1	1				
DePere Christian	8			1						
Denmark Food Pantry	8									
First Presbyterian	9			2		3				
First United Methodist	12			2	3	9				1
The Giving Tree	8									
Grace Lutheran	4			1	1					
Manna for Life	75		1	16	10	20	1			1
Total	405	2	3	58	52	138	26	3	1	18

**Table 3:
Gender**

	Frequency	Valid Percent
Male	209	30.7
Female	472	69.3
Total	681	100

**Table 4:
Food Security level by Gender**

	Male	Female
High food security	17	34
Marginal food security	26	51
Low food security	106	192
Very low food security	60	268
Total	209	472

Note: N = 681.

Table 5:
Age of respondents

	Frequency	Valid Percent
=>30	128	19.4
31-40	171	25.8
41-50	184	27.8
51-60	111	16.8
61-70	47	7.1
71+	20	3.0
Total	661	100.0

Table 6:
Number of children in the household under 5 years

	Frequency	Valid Percent
1	136	19.5
2	49	7.0
3	14	2.0
4	2	0.3
5	3	0.4
6	2	0.3
0	493	70.5
Total	699	100.0

Table 7:
Number of children in the household between 5 and 17 years

	Frequency	Valid Percent
1	139	20.1
2	116	16.8
3	50	7.3
4	22	3.2
5	13	2.0
6	2	0.3
7	5	0.7
0	342	49.6
Total	689	100.0

Table 8:
Number of respondents by ethnicity group

	Frequency	Valid Percent
American Indian or Alaska Native	58	8.6
Asian or Asian American	2	.3
Black or African American	52	7.7
Native Hawaiian or Other Pacific Islander	3	.4
White	405	60.3
Hispanic or Latino	138	20.5
Hmong	26	3.9
Russian	3	.4
Somalian	1	.1
Other	18	2.7
Total	713	100.0

Table 9:
Food security level by ethnicity group

	American Indian/Alaska	Asian	Black	Pacific Islander	Caucasian	Hispanic	Hmong	Russian	Somalian	Other
High food security	1	0	1	1	34	9	1	0	0	1
Marginal food security	5	0	6	0	50	17	0	0	0	3
Low food security	27	0	25	1	180	65	3	1	1	10
Very low food security	25	2	20	1	141	47	22	2	0	4
Total	58	2	52	3	405	138	26	3	1	18

Note: N = 713.

Table 10:
Number of respondents by level of education

	Frequency	Valid Percent
Less than 9th grade	98	14.7
9th-11th grade	121	18.1
High school graduate or equivalent	246	36.9
More than high school	198	29.7
Total	667	100.0

Table 11:
Food Security Level by Food Assistance Type

	WIC	Friends /Rel	School Breakfast	School Lunch	Shelter	Summer Lunch	Summer Breakfast	Meal Sites	Food Pantries	Food Share
High food security	6	18	7	10	2	4	2	8	40	19
Marginal food security	19	15	24	30	4	18	7	13	73	30
Low food security	74	163	103	114	37	78	27	81	270	145
Very low food security	87	160	135	156	38	82	36	71	240	153
Total	186	356	269	310	81	182	70	173	623	347

Note: N = 713.

Table 12:
Reasons people do not receive food share (food stamps) multiple responses

	Frequency	Valid Percent
Don't know about food stamps	43	11.4
Don't think you're eligible	162	43
Applied for food stamps but not eligible	117	31.5
Don't know how to apply	94	25.3
Application process is too difficult	71	19.2
I don't need food stamps	76	20.5
I don't want food stamps	64	17.5
Total multiple responses	627	100.0%

Note. N = 627

Table 13:
Services that will help get enough food (multiple responses)

	Frequency	Valid Percent
Improved transportation	206	31.6
Learning how to budget your money	262	40.2
Learning how to prepare food	140	21.5
Garden space to grow food	259	39.9
Affordable child care	93	14.6
Affordable housing	356	54.9
Help in applying for food stamps	186	28.9
Have grocery store nearby	243	37.5
Total multiple responses	627	Equal > 100%

Note. N = 713

Table 14:
Importance of choosing a diet with 5 or more servings of vegetables and fruit

	Frequency	Valid Percent
Very Important	474	69.9
Somewhat important	153	22.6
Not too important	38	5.6
Not important at all	13	1.9
Total	678	100.0%

Note. N = 665

Table 15:
Consumption of the right amount of vegetables and fruit

	Frequency	Valid Percent
Eat the right amount	181	26.8
Should eat more	494	73.2
Total	675	100.0%

Note. N = 675

Table 16:
Reason people do not eat the right amount of vegetables and fruit (multiple responses)

	Frequency	Valid Percent
Not available in the store where I need to shop	85	12.7
The store doesn't carry the kinds I like	97	14.5
I feel they spoil too quickly and will go to waste	313	47.0
They cost too much	464	69.4
I don't care for the taste	99	14.9
My kids won't eat them	102	15.8
I don't know what to do with them (how to prepare them)	83	12.5
Other	45	10.6
Total multiple responses	1288	Equal > 100%

Note. N = 713

Table 17:
Reported health problems of household members of pantry users (multiple responses)

	Frequency	Valid Percent
Depression	289	42.8
Overweight	305	45.3
Underweight	91	13.5
Diabetes	165	24.6
High blood pressure	237	35.3
Heart disease	98	14.6
Asthma	224	33.3
Other	130	26.2
Total multiple responses	1539	Equal > 100%

Note. N = 713

Table 18:**Food assistance used by respondents in the last 12 months by food security level (multiple responses)**

	WIC	Friends /Family	School Breakfast	School Lunch	Shelter	Summer Lunch	Summer Breakfast	Meal Sites	Food Pantries	Food Share
High food security	6	18	7	10	2	4	2	8	40	19
Marginal food security	19	15	24	30	4	18	7	13	73	30
Low food security	74	163	103	114	37	78	27	81	270	145
Very low food security	87	160	135	156	38	82	36	71	240	153
Total	186	356	269	310	81	182	70	173	623	347

Note: N = 713

Table 19:**Strategies used to have enough money for food (multiple responses)**

	Frequency	Valid Percent
Moved into a shelter	17	2.6
Not paid rent or mortgage on time	227	34.5
Living with another household	114	17.4
Got an additional job	119	18.1
Neglected healthcare needs	240	36.6
Used payday loan services	151	23.0
Used rent-to-own stores	45	6.9
borrowed from a friend	317	48.5
Other	56	12.7
Total multiple responses	1286	Equal > 100%

Note. N = 713

Table 20:**Food Security Status by resources that would help pantry users get enough food (multiple responses)**

	Transportation	Budget	Food prep	Garden space	Afford Childcare	Afford Housing	Help with Food Stamp app	Grocery nearby
High food security	7	13	8	9	5	12	8	13
Marginal food security	18	28	7	24	11	29	18	32
Low food security	95	116	64	103	36	157	79	100
Very low food security	86	105	61	123	41	158	81	98
Total	206	262	140	259	93	356	186	243

Note: N = 651.

**Table 21:
Respondent Housing Status and Cost per Month**

Dollars	1000+	750-1000	500-750	250-500	Less than 250
Rent home	6	34	185	230	62
Own home	16	26	27	16	22
Total	22	60	212	246	84

Note. N = 624

**Table 22:
Food Security Status by Current Employment**

	Frequency	Valid Percent
High food security	22	6.3%
Marginal food security	38	10.8%
Low food security	154	43.9%
Very low food security	137	39.0%
Total	351	100.0%

Note. N = 351.

**Table 23:
Employed adults in the household**

	Frequency	Valid Percent
0	240	39.5
1	283	46.5
2	70	11.5
3	13	2.2
4	2	0.3
Total	608	100%

Note. N = 608

**Table 24:
Number of different jobs currently worked**

	Frequency	Valid Percent
0 jobs	13	5.5
1 jobs	171	72.8
2 jobs	37	15.7
3 jobs	8	3.4
4 jobs	6	2.6
Total	397	100%

Note. N = 235

Table 25:
Number of hours currently working per week

	Frequency	Valid Percent
0-10 hours	16	6.8
11-20 hours	40	16.9
21-30 hours	44	18.6
31-40 hours	91	38.6
41-50 hours	26	11.0
51-60 hours	14	5.9
Over 60 hours	3	1.3
Total	234	100%

Note. N = 234

Table 26:
Hourly wages of primary job

	Frequency	Valid Percent
\$4.00 - \$6.75	18	7.8
\$6.76 - \$7.50	35	15.1
\$7.51 - \$8.84	64	27.6
\$8.85 - \$12.00	75	32.3
\$12.01 - \$16.25	24	10.3
over \$16.25	7	3.0
0	9	3.9
Total	232	100%

Note. N = 232

Table 27:
Hourly wages of primary job by level of food security

	Food Secure	Food Insecure
\$4.00 - \$6.75	4	14
\$6.76 - \$7.50	6	29
\$7.51 - \$8.84	11	53
\$8.85 - \$12.00	13	62
\$12.01 - \$16.25	3	21
over \$16.25	2	5
0	1	8
Total	40	192

Note. N = 232

Table 28:
Sources of household income last month (multiple responses)

	Frequency	Valid Percent
Employment	351	52.9
Pension	41	6.2
Unemployment	127	19.2
Disability/worker's compensation	83	12.6
Social security	187	28.3
Child support	75	11.5
W2	30	4.6
SSI	144	22.0
Earned income tax credit	54	8.3
Housing assistance	104	16.0
Other	34	7.3
Total of multiple responses	1230	Equal >100%

Note. N = 713

Table 29:
Food Pantry Usage Trends in Brown County 3 years

<u>2007</u>	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Households	2373	2092	2360	2436	2515	2462	2270	2439	2308	2398	2635	2445
Adults	3916	3421	3758	4046	4033	4206	3706	4033	4001	4031	4295	3821
Children	2470	2014	2300	2436	2761	2630	2809	3237	3140	2850	3597	3026
<u>2008</u>	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Households	1812	1851	2176	2337	2499	2377	2479	2760	2466	2608	2727	2433
Adults	3353	3604	4147	4373	4127	3579	4103	4719	4539	4975	5430	4330
Children	2731	2603	2926	3272	3107	3283	3696	3709	3600	3784	4074	3475
<u>2009</u>	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Households	2340	2078	2308	2486	2181	2449	2729	2915	2445	2465	3048	2633
Adults	4285	3839	4059	4331	4035	4605	5349	4688	4393	4808	5842	4755
Children	3373	2885	3533	3915	3353	3839	3950	4199	4114	3578	4505	3946

Appendices

Appendix 3

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