

Food Security Survey of At-Risk Households in Green Bay, Wisconsin

Spring 1999

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Executive Summary

This evaluation was an extension of the 1998 Food Security Research Project in Green Bay, conducted by the University of Wisconsin Cooperative-Extension (UWEX), Brown County office. The purpose of the study was threefold: to determine the prevalence of food insecurity in at-risk households (i.e., households using food assistance programs) in Green Bay and to examine how it compared with that of 1998; to better understand the reasons for food insecurity of at-risk households; and to determine what types of initiatives would increase the availability and accessibility of food to those in need.

The USDA Food Security Survey was used to measure respondents' food security status. The survey was modified to include questions pertaining to relevant demographic information, such as, household size, age, and employment status. Respondents were also asked about the reasons for their food insecurity and were asked to identify which initiatives would help them gain better access to food. Ten different sites—all serving households at risk for food insecurity—were included in this evaluation: two of the sites were meal sites, six were food pantries, and two were WIC offices. The total number of individuals asked to participate in the study was 760. The total number who agreed to participate was 566, yielding an overall response rate of 74%.

Overall, levels of food security in 1999 were very similar to those of 1998: less than half the respondents were food secure, about a third were food insecure without hunger, and about 20% were food insecure with hunger. Hispanic respondents were significantly less food secure in 1999 with only 33% reporting food security compared to 57% in 1998. African-American and Native American respondents also tended to be less food secure in 1999. In contrast, Hmong respondents were somewhat more food secure in 1999.

In 1999, 44% of the respondents reported being food secure, 34% were food insecure without hunger, and 22% were food insecure with hunger. Food security status was strongly related to the type of site at which respondents were interviewed and to the number of different types of sites they visited. More than half of the respondents (52%) at WIC reported being food secure compared to 11% of respondents at food pantries and 21% of meal site respondents. Only 14% of WIC respondents were food insecure with hunger compared to 50% of food pantry respondents and 46% of those interviewed at meal sites. Respondents who received assistance at more than one type of site were more food insecure compared to those that visited one site.

Results also indicate that females in the 1999 sample were more food secure than males. Respondents between the ages of 30 and 60 tended to be less food secure compared to younger and older respondents. Caucasian respondents were more food secure than ethnic minorities and individuals in single person households or those with 11 or more people tended to be more food insecure with hunger. The food security of households with children was similar to that of households without children, however, adults living alone reported the highest level of food insecurity followed by single parent households. Respondents with more education were more food secure as well.

Substantial percentages of respondents received food assistance from a number of sources during the last year. Almost all respondents who were food secure received WIC assistance (92%) compared to 66% of food insecure respondents. Higher percentages of food insecure respondents

received almost all other types of food assistance compared to those who were food secure. At least 50% of respondents who were food insecure received assistance from food pantries or friends or relatives during the last year. A number of food assistance programs, however, were used very little by respondents. Only 19% of respondents who were food insecure with hunger used summer lunches in the park, 4% used summer breakfast at the resource center, and 18% used meal sites.

Respondents' food security also varied by employment status and wages earned; those who were employed were more food secure than those who were unemployed. The food security status of those who were employed part-time, however, was almost identical to that of unemployed respondents. Respondents who reported earning the median hourly wage or less for this sample were also similar to unemployed respondents in their food security, with roughly 40% being food secure. In contrast, 57% of those earning more than the median wage were food secure.

Because many of the service providers at the food pantries reported that the number of individuals seeking food from them had been increasing in recent months, respondents who used food pantries during the last year were divided into two groups: those whose first visit was within the last year, and those whose first visit was more than a year ago. Higher percentages of African-Americans and Hispanics began receiving food pantry assistance during the last year compared to the overall 33%. Respondents residing in single parent households or those with multiple adults and no children were more likely to have started receiving assistance at food pantries during the last year as well. Respondents whose first visit was sometime within the last year were more educated and were more likely to be employed and to earn the median wage or less for this sample compared to those who first visited a food pantry more than a year ago.

In an effort to examine whether food assistance programs were reaching those in need, respondents were asked if they knew someone who needed assistance at their site but was unable to receive it. Substantial percentages of respondents reported that they did know someone who needed assistance but wasn't receiving it: 16% overall, 37% of female respondents at meal sites, and 26% of females at food pantries.

Respondents were also asked to identify reasons why they do not have the kinds of food they want or need. Those who said that they had enough food but not the kinds of food they wanted or needed gave a number of reasons for their food insecurity. About 75% said they did not have enough money for food; 40% did not have enough time to prepare food; about a third did not have enough time to purchase food and had children who would not eat what they prepared; more than a fourth said that the kinds of food they wanted or needed were not available to them; and more than one in five said that good quality food was not available to them.

Almost all of the respondents who reported that they sometimes or often did not have enough food said that they did not have enough money for food despite the fact that half the respondents who gave this reason were employed and more than two-thirds resided in households that had income from employment during the previous month. More than half said that it was too hard to get food, with about a third having difficulty because they do not have a car, because of childcare problems, or because they could not get to the food pantry during open hours. Almost a third did not have enough time to prepare food and a quarter of the respondents had difficulty getting food because of their work schedule. More than one in five said they do not know how to prepare the foods that are available to them and that it is too hard to get food because there is no grocery store in their area.

When asked which food assistance initiatives would help them get food, almost a third of respondents said that a traveling grocery store would be helpful to them, more than a fourth reported that improved transportation would be helpful, and almost one in four respondents said that community gardens and a grocery store downtown would help them get the food they need. More than one in five

said a traveling food pantry would be helpful and almost one in five said different pantry hours would be helpful.

Respondents who were food insecure with hunger were more likely to view the food assistance initiatives as helpful compared to other respondents. About half the respondents who were food insecure with hunger said a traveling food pantry and a traveling grocery store would be helpful. More than 40% reported that improved transportation, different pantry hours, and community gardens would be helpful. Almost a third also said that a grocery store downtown would be helpful.

Taken together, the reasons respondents gave for being food insecure and the food assistance initiatives they viewed as beneficial, suggest that access to food is a serious problem for this population. Unavailability of good quality foods also appears to be a problem for many of the respondents, particularly those who are food insecure with hunger.

Recommendations

The 20 recommendations to alleviate food insecurity in Green Bay are grouped according to the seven major areas focused on by the USDA Community Food Security Initiative.

- A. Creating new, and expanding existing, local infrastructures that boost food security;
 1. Provide alternative means of transportation.
- B. Increasing economic and job security;
 2. Expand educational opportunities, especially for minorities.
 3. Assist low income individuals in obtaining higher paying jobs.
 4. Support legislation to increase hourly wages.
 5. Provide budgeting training.
- C. Bolstering food and nutrition assistance provided by nonprofit groups;
 6. Establish a traveling non-profit grocery and/or food pantry.
 7. Coordinate food pantry efforts city-wide.
 8. Consider establishing meal site programs for ethnic groups.
 9. Increase the variety of foods available at food pantries to better serve ethnic minorities.
- D. Improving community food production and marketing;
 10. Target community garden outreach to population in need.
- E. Boosting education and awareness;
 11. Provide resource information and networking to volunteers and staff who work with low income individuals and families.
 12. Provide information/referrals to other services at food assistance sites.
 13. Provide food preparation training.
- F. Improving research, monitoring, and evaluation;
 14. Establish a standardized method of counting recipients at food assistance sites in Green Bay.
 15. Evaluate public forms of transportation.
 16. Evaluate the establishment of a grocery outlet in downtown Green Bay.
 17. Investigate why households at-risk for food insecurity are unable to seek aid at food assistance sites.
 18. Evaluate food pantries' hours of operation and modify as needed.
- G. Bolstering federal nutrition assistance safety net.
 19. Provide food stamp outreach education.
 20. Publicize food assistance programs available in Green Bay.

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Paul's Pantry
WIC
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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. The mission includes a focus on developing partnerships and on 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 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), founded in 1982 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 rally action, preventative and corrective, for the relief of hunger.” It has pursued this mission through four specific means:

- By providing support to local and world hunger agencies;
- By making visible to the community the extent of the hunger issue;
- By increasing the concern and participation in efforts to prevent and alleviate hunger; and
- By supporting, through participation and coordination, community and state efforts to deal with hunger.

The food security initiative in Brown County first involved a shift in the mission of the Hunger Task Force from anti hunger short-term emergency relief efforts to community food security, which in addition, embraces long term planning and multidisciplinary systems approach in addressing the problem of hunger. The anti-hunger approach focuses on supplying immediate food-related needs. In contrast, the food security approach utilizes strategies of building partnerships, developing a process, initiating successful projects, and affecting public policy to offer solutions to local hunger issues.

Food security initiatives are part of a national trend, generated by the United States Department of Agriculture (USDA) Community Food Security Initiative launched in 1995, to embrace a more holistic approach to addressing hunger needs. The USDA Community Food Security Initiative focuses on recognizing and emphasizing USDA’s partnerships with communities to help reduce hunger for the more than 10 million American families who are food insecure. The initiative, whose goal is cutting domestic hunger in half by the year 2015, focuses on seven major areas:

- Creating new, and expanding existing, local infrastructures that boost food security;
- Increasing economic and job security;
- Bolstering food and nutrition assistance;
- Improving community food production and marketing;

- Boosting education and awareness;
- Improving research, monitoring, and evaluation; and
- Bolstering federal nutrition assistance safety net.

A national USDA food security survey in 1998 showed about 10.5 million U.S. households (10.2 percent of all households) were food insecure, meaning that they did not have access to enough food to fully meet basic needs at all times. About 36 million persons lived in these food-insecure households, with children accounting for nearly 40 percent of this group.

Despite the strength of the U.S. economy, the nation's nutrition safety net and local grassroots efforts to reduce hunger, this survey documented that in 1998 many American families and individuals still struggled to meet basic needs. In response to this data, Brown County wanted to examine food security at a local level and determine what steps could be taken to improve it. In 1998, UWEX launched a research effort to determine the extent and degree of hunger in Green Bay, using the USDA Household Food Security Survey developed by Tufts University. The results are being used to effectively plan projects and address policy issues which could result in local solutions to food insecurity.

What is Food Security?

Food security has been defined as “access by all people at all times to enough food for an active, healthy life. At a minimum, this includes: 1) the ready availability of nutritionally adequate and safe foods, and 2) the assured ability to acquire personally acceptable foods in a socially acceptable way.” In contrast, food insecurity has been defined as “limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways” (American Institute of Nutrition, 1990).

The concept of food security, then, involves four basic components of the food system: availability, accessibility, adequacy, and dependability of supply. Food secure communities have six characteristics:

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

At the community level, food insecurity can be analyzed in terms of food supply and food accessibility. Unavailable food can be the result of having no grocery store within a reasonable distance for community residents and/or limited amounts and variety of foods at a relatively high cost. Lack of food accessibility refers to having inadequate personal or household financial resources, transportation barriers or physical limitations that interfere with food shopping or preparation.

Purpose of the Evaluation

The Brown County UWEX recognized the need to accurately determine the severity of food insecurity and hunger in Green Bay in order to assist planning efforts with the Food and Hunger Network and to develop effective programs to alleviate food insecurity. In Spring, 1998, (UWEX), in collaboration with the University of Wisconsin-Green Bay Social Work Professional Program, conducted its first food security survey of government and community-based programs that serve low-income people in Green Bay. The sites included in the sample had low-income eligibility requirements (e.g., Women, Infants, and Children (WIC)), were located in low-income neighborhoods (e.g., family resource centers), and/or attracted individuals in need of food (e.g., food pantries). The primary purpose of the study was to determine the extent of food insecurity in at-risk households (i.e., households using food assistance programs) in Green Bay. At the same time, the study sought to provide information about the demographic characteristics of the population of individuals who are food insecure. Results of this study indicated that approximately 65% of the households of individuals surveyed at low-income assistance programs were food insecure. Nearly 40% were food insecure with hunger meaning either adults and/or children experienced hunger.

The 1999 study was an extension of the 1998 Food Security Research Project in Green Bay and the purpose of this evaluation was threefold: to determine the prevalence of food insecurity in at-risk households in Green Bay and examine how it compared with that of 1998; to better understand the reasons for food insecurity of at-risk households; and to determine what types of initiatives would increase the availability and accessibility of food to those in need. Consistent with the CFS approach to addressing hunger issues, the second and third goals of this evaluation sought to identify food availability and accessibility problems in the community.

Description of the Food Security Scale

The Food Security Survey used in this study was developed by Tufts University Center on Hunger, Poverty, and Nutrition Policy for the United States Department of Agriculture. Its reliability and validity as a measure of food insecurity have been established and each of the 16 questions in the survey is concerned about hunger resulting from limited income. This survey was expanded to address issues of demographics, income, reasons for food insecurity and solutions to this problem.

Research has shown that four specific behaviors exist in households that are food insecure. The behaviors or conditions vary in the level of food insecurity that they indicate and households that are food insecure may exhibit any or all of these four behaviors:

- 1) Anxiety that the household food budget or food supply may be insufficient to meet basic needs
- 2) Perceptions by the respondent that the food eaten by household members was inadequate in quality or quantity
- 3) Instances of reduced food intake by adults in the household, or consequences of reduced intake such as the physical sensation of hunger or loss of weight; and
- 4) Instances of reduced food intake, or consequences of reduced intake, by children in the household.

The questions in the Food Security Scale follow the sequence of these behaviors and conditions thereby identifying the level of food insecurity that any given household is experiencing. First, households experience anxiety as they realize their food supply and financial resources are inadequate. Food budgets and food quality are altered. The next stage

occurs as adults in the household reduce the amount of food they eat. Available food is for their children first while they go hungry. In the final stage, children eat less and may experience hunger and their caregivers' reduction of food intensifies.

Audiences for the Evaluation

The primary audiences for this evaluation of the food security of at-risk households include:

- University of Wisconsin Cooperative-Extension, Nutrition Education Program
- Brown County Food and Hunger Network
- Service providers at food pantries, meal sites, WIC, and Head Start in Green Bay
- Green Bay community
- Statewide and national groups working on hunger and nutrition

Evaluation Questions

The primary questions guiding this evaluation were:

- 1) What is the prevalence of food insecurity among at-risk households (i.e., households using food assistance programs) in Green Bay, Wisconsin and how does it compare to the 1998 food security results?
- 2) What are the reasons for respondents' food insecurity?
- 3) What types of initiatives would increase the availability and accessibility of food to those in need?

Limitations

First, though the sites include a diverse population of families and single adults, the sample does not include all sub-populations of at-risk households in Green Bay. For example, individuals living in homeless shelters were not formally sampled although they may have been interviewed at the meal sites or food pantries. Similarly, food stamp recipients as a group were not interviewed because of logistical problems. About one fourth of respondents in this sample, however, did receive food stamps during the last year.

Exact population sizes were unavailable for most of the sites and, consequently, estimates were used in determining sample sizes and analyzing the data. Because the results of this study are influenced by the population estimates at each site, the accuracy of the findings depend in part on the accuracy of the estimates.

The survey was translated into Hmong, Spanish and Russian and it is unknown whether the meanings of any of the questions were changed in the translation process. A small number of respondents completed the survey on their own when translators were unavailable and their understanding of the survey questions may have been different had they been directly interviewed. Additionally, several individuals were not sampled because of lack of interpreters or translated surveys. Most of these individuals (approximately 10) were Russian at Paul's Pantry.

While overall response rates were very high, Presbyterian and Resurrection Lutheran Food Pantries had response rates of less than 50%. Interviewers indicated that individuals at these sites declined to participate for a variety of reasons. At Presbyterian Food Pantry many respondents did not have time to complete the survey because they needed to return to work and at Resurrection Lutheran Food Pantry a number of individuals had already completed the survey at other sites. A number of individuals at Paul's Pantry who declined were Hmong

(approximately 8) or Russian (approximately 3) and interpreters indicated that some of these individuals feared losing their benefits or being identified from their responses in some way. As a result, these sub-populations of individuals may be slightly under-sampled.

Further, given the personal nature of some of the questions, response bias is likely in some cases. This is particularly of concern when specific ethnic groups view the interview process as threatening, as was the case with some of the older Russian and Hmong individuals at Paul's Pantry.

Lastly, although researchers made every effort to interview only one person per household, there is no assurance that this was accomplished given that multiple sites were sampled. Of the individuals sampled, 5.7% declined because they had already completed the interview at another site.

Methods

Sample

Eleven different sites were included in this evaluation. The sites, both governmental and private, were chosen because they met two main criteria:

- 1) They serve low-income individuals. They have either low-income eligibility requirements (WIC and Head Start), and/or primarily attract people in need of food (food pantries and meal sites).
- 2) The program participants were at the sites during the time period in which the survey was conducted.

As Table 1 on the following page indicates, two of the sites were meal sites, six were food pantries, and one was a WIC office (the data were gathered at two sites and combined). Because a representative sample from Head Start was unavailable to participate in the study, data gathered from this site was not included in the final analyses. All but one food pantry in Green Bay were included in this sample. Food stamp recipients as a group were not included in the sample because there was no feasible way of interviewing these individuals.

Exact population sizes were unavailable for most of the sites with the exception of Paul's Pantry and WIC. Consequently, estimates were used to determine appropriate sample sizes and to weight the data (see Analyses). For meal sites, the total number of individuals served during any given meal was used as the population estimate. Food pantry population estimates were based on the number of different households served during a one-month period. The population size of WIC was based on the total number of households registered. Sample sizes were based on these estimates although meal sites and food pantries were over-sampled to ensure a minimum sample size of 20 from each site for statistical purposes.

The total number of individuals asked to participate in the study was 760. The total number who agreed to participate was 566, yielding an overall response rate of 74%. The final data set consisted of 541 households (71% of those sampled). Individuals were omitted from the data set if they completed only the first five questions in the survey.

Population demographics were unavailable for several of the sites. However, comparisons between the sample and population characteristics were available for the two largest sites—Paul's Pantry and WIC. For Paul's Pantry, the sample and population were well matched in terms of household size and ethnicity with one exception. Caucasians are somewhat underrepresented in the sample compared to the population at Paul's Pantry (37% vs. 52%). At WIC, the sample was also very similar to the population served in terms of household size and

ethnicity. Finally, as discussed in the Limitations section, the Russian population is underrepresented primarily because of lack of interpreters at Paul's Pantry.

Table 1. Estimated number of households served, number interviewed and percent of households served at each site.

| Site | Estimated Number of Households Served | Number Interviewed (% of households served) |
|------------------------------|--|--|
| Salvation Army Meal Site | 150 | 39 (26%) |
| Room at the Inn Meal Site | 70 | 30 (43%) |
| Total Meal Sites | 220 | 69 (31%) |
| Trinity Lutheran Pantry | 40 | 9 (23%) |
| St. Patrick's Church Pantry | 215 | 42 (20%) |
| Resurrection Lutheran Pantry | 130 | 35 (27%) |
| Presbyterian Food Pantry | 50 | 8 (16%) |
| Salvation Army Pantry | 200 | 42 (21%) |
| Paul's Pantry | 670 | 196 (29%) |
| Total Pantries | 1305 | 332 (25%) |
| WIC | 2700 | 165 (6%) |
| TOTAL | 4225 | 566 (13%) |

A substantial percentage of respondents received food assistance from multiple sources, thereby increasing the probability that they would be interviewed. Overall, 81% of respondents received assistance at one type of site, 18% at two sites, and 2% at all three types of sites. Figure 1 shows the percent of respondents at each type of site who visited one, two or three sites. Seventy-three percent of meal site respondents, 51% of food pantry respondents, and 21% of WIC respondents visited more than one type of site. Because respondents who visited more than one type of site were more likely to be interviewed, the data were weighted or adjusted to reflect these differing probabilities (see Analyses section).

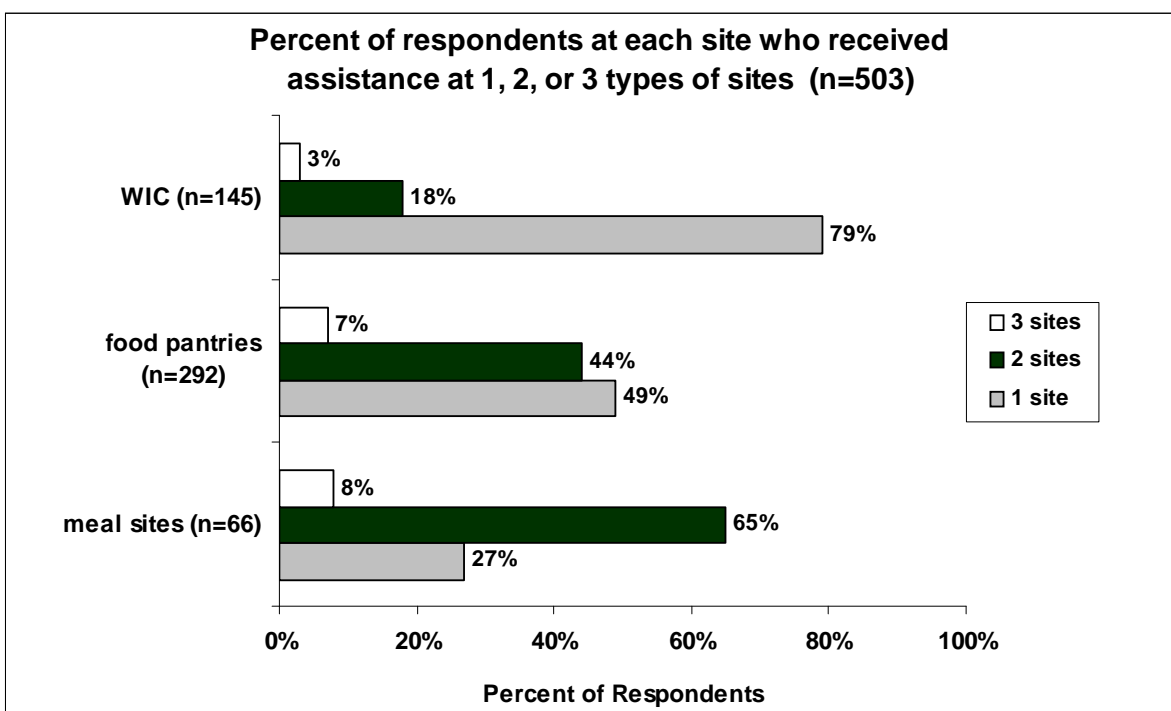


Figure 1.

Table 2 presents the actual number of individuals interviewed at each type of site. The final data set included information from 66 individuals at the meal sites, 315 at food pantries, and 160 at WIC. Female respondents far outnumbered males except at meal sites where they were equally represented. Table A1 in Appendix A shows the number of respondents interviewed at meal sites, food pantries and WIC by age group and Table A2 in Appendix A shows the number of respondents by ethnicity.

Table 2. Number of respondents interviewed at each site by gender.

| Gender | Meal Sites | Food Pantries | WIC | Total |
|----------------|------------|---------------|-----|-------|
| Males | 34 | 73 | 22 | 129 |
| Females | 32 | 237 | 138 | 407 |
| Total | 66 | 315* | 160 | 541 |

*5 interviews conducted at food pantries did not include information about the respondent's gender.

A separate report entitled, *Characteristics of Households At-Risk for Food Insecurity in Green Bay, Wisconsin*, provides a detailed description of this sample in terms of demographic information, such as age, gender, ethnicity, employment status, and sources of income.

Survey Instrument

Respondents were first asked the series of questions which measured their food security status. To gain a more thorough understanding of the population at risk for food insecurity, respondents were then asked a number of questions pertaining to demographic information, such as, size of household, gender, ethnicity, educational background, age, sources of income, and sources of food assistance they have used during the last year. Finally, respondents were asked about the reasons for their food insecurity and whether a number of potential food assistance initiatives would be helpful to them. Questions pertaining to food assistance initiatives, income and, in part, reasons for food insecurity were developed jointly by the researchers and nutrition specialists at the Brown County UWEX office.

Food Security Scale

The food security scale is a 16-item scale that measures food insecurity in terms of specific behaviors and conditions that exist in a given household. The scale ranges from zero (no food insecurity in the past 12 months) to 10 (food insecurity with severe hunger). A household with a scale value of 6, for example, experiences more food insecurity than a household with a scale value of 3. Additionally, a value of 6 presupposes all the food insecurity conditions up to that value. National statistics of the total population of households show that most households have scale values of 0.0 with only a small proportion (4.1%) having high values indicating food insecurity with hunger (USDA, 1995). See Appendix B for a copy of the survey instrument.

Food Security Status Measure

The food security scale values are grouped into four categories for ease of comparison and interpretation. Table 3 on the following page shows the relationship between the food security scale values and the food security status categories. The four categories are:

- **Food Secure:** Households show no or minimal evidence of food insecurity.
- **Food insecure without hunger:** Food insecurity is evident in households' concerns and in adjustments to household food management, including reduced quality of diets. Little or no reduction in household members' food intake is reported.
- **Food insecure with moderate hunger:** Food intake for adults in the household has been reduced to an extent that implies that adults have repeatedly experienced the physical sensation of hunger. Such reductions are not observed at this stage for children in the household.
- **Food insecure with severe hunger:** Households with children have reduced the children's food intake to an extent that implies that the children have experienced the physical sensation of hunger. Adults in households with and without children have repeatedly experienced more extensive reductions in food intake.

Table 3. Food security status category and corresponding food security scale values.

| Food Security Status Category | Scale Value |
|--------------------------------------|--------------------|
| Food Secure | 0.0-2.1 |
| Food Insecure without Hunger | 2.2-4.5 |
| Food Insecure with Moderate Hunger | 4.6-6.6 |
| Food Insecure with Severe Hunger | 6.7-10.0 |

Procedure

Twenty-five upper level undergraduates in the Social Work Professional Program at the University of Wisconsin-Green Bay conducted interviews at 11 sites during a four-week period in Spring, 1999. Hmong, Spanish and Russian interpreters were available at sites where non-English speakers were present. Students and interpreters were trained to conduct the interviews prior to data collection. Students interviewed respondents throughout each site's hours of operation to help ensure that a broad range of individuals was interviewed. Each interview lasted approximately 10-15 minutes and small incentives, such as, boxes of cereal bars, candy, and pen and paper sets were used to increase response rates.

At sites where individuals were able to visit everyday, such as meal sites, interviews were conducted during one meal period to reduce the possibility that individuals would be interviewed more than once. Interviews were conducted at Paul's Pantry everyday during the course of one week because most individuals served there visit the site once a week. At Paul's Pantry and the two meal sites students sampled every other household. At all other sites students asked every available person to participate in the study although only one person from each household was interviewed.

Analyses

First, for statistical purposes the data were weighted according to the procedure described in Lee, Forthofer, and Lorimor (1989)¹. This was done because the probability of any given household being selected varied by site. The probability also varied by individual because some respondents visited more than one type of site. The results reflect the weighted data although the reported "n's" are the total number of respondents interviewed. See Table A3 for the calculation of site weights and response rates for each site.

Where appropriate, statistical tests of significance were conducted. Most of the analyses consisted of two-tailed chi-square tests. A chi-square test assesses the likelihood that two variables are related to one another. We were primarily interested in differences among the four levels of food security and the chi-square test was used to determine the likelihood that respondents' food security status was related to demographic variables, to reasons respondents were food insecure, and to initiatives that would increase the availability and accessibility of food.

Analysis of Variance (ANOVA) was used to examine mean differences. If a relationship is reported as significant, this means the probability of occurrence by chance is less than one in twenty, (symbolized as $p < .05$); less than one in 100, ($p < .01$); or less than one in 1000 ($p < .001$).

Respondents at the two meal sites were not significantly different from one another in their food security and similarly, respondents at the six food pantries did not differ from one another in this regard. Thus, for ease of interpretation data from the 10 individual sites were combined into three types of sites: meal sites, food pantries and WIC.

Results

Demographics

Although respondents in this study represent a diverse group of individuals, most were female (83%) and young (60% were less than 30-years-old and 81% were younger than 40). Those older than 50 accounted for only 8% of the sample. Tables C1 and C2 in Appendix C show the percent of respondents at each type of site by gender and age group, respectively. Most respondents were Caucasian (63%); 14% were Hispanic; and Hmong, Russian, Native American, and African-American groups each represented less than 10% of the total sample. Table C3 in Appendix C shows the percent of respondents at each type of site by ethnicity.

Most respondents (78%) resided in households with children. More than half of respondents (56%) lived in households with two or more adults and one or more children, 22% resided in single parent households, and 8% lived as single adults. Males were three times more likely to live alone than females and females were more than twice as likely to head single parent households compared to males. Table C4 in Appendix C shows the percent of respondents at each site by type of household.

More than a third of respondents (34%) had not finished high school while 30% said they had some type of schooling beyond high school.

Most respondents (76%) received WIC assistance during the last year, 38% received food assistance from food pantries, 45% received assistance from friends or relatives, 26% received free or reduced school meals, and 24% received food stamps.

Most respondents (75%) reported that they had been employed some time during the last year. Well over half of respondents (57%) less than 65-years-old were currently employed and of those employed, 75% worked fulltime. The average wage was \$7.87 per hour (median = \$7.50 per hour).

Most respondents (83%) resided in households that received income from employment during the last month. Smaller percentages of respondents resided in households that received income from SSI (15%), child support (11%), and social security (10%) during the previous month, and less than 10% received income from unemployment, disability, pension, welfare or other sources.

Food Security Status

Food security status was calculated for 498 of the 541 respondents in the final data set. In cases where there were more than three missing values among the food security questions the food security scale score was not calculated. Respondents' food security status in the 1999 sample was first compared to the 1998 food security sample. It was then examined as it related to a number of demographic variables, such as, gender, age, ethnicity, and size of household. It was also related to the sources of food assistance respondents' reporting receiving during the last year. Finally, it was related to respondents' sources of income and their wages.

Comparison to 1998 Food Security Status

Before comparing the food security results from 1998 to those of 1999, the 1998 data were weighted in the same way as the 1999 data. The comparison includes only respondents from meal sites, food pantries and WIC as these were the sites common to both studies.

Demographics

First, the demographics of both samples were compared. Table C5 in Appendix C shows that a higher percentage of males were included in the 1999 sample (19% vs. 11%) but the two samples were closely matched in terms of ethnicity, education and household size.

Overall Food Security Status

Overall, the food security status of respondents in 1999 did not differ significantly from that of 1998 (mean=2.64 vs. 2.62, respectively, on a 0-10 point scale) (see Figure 2).

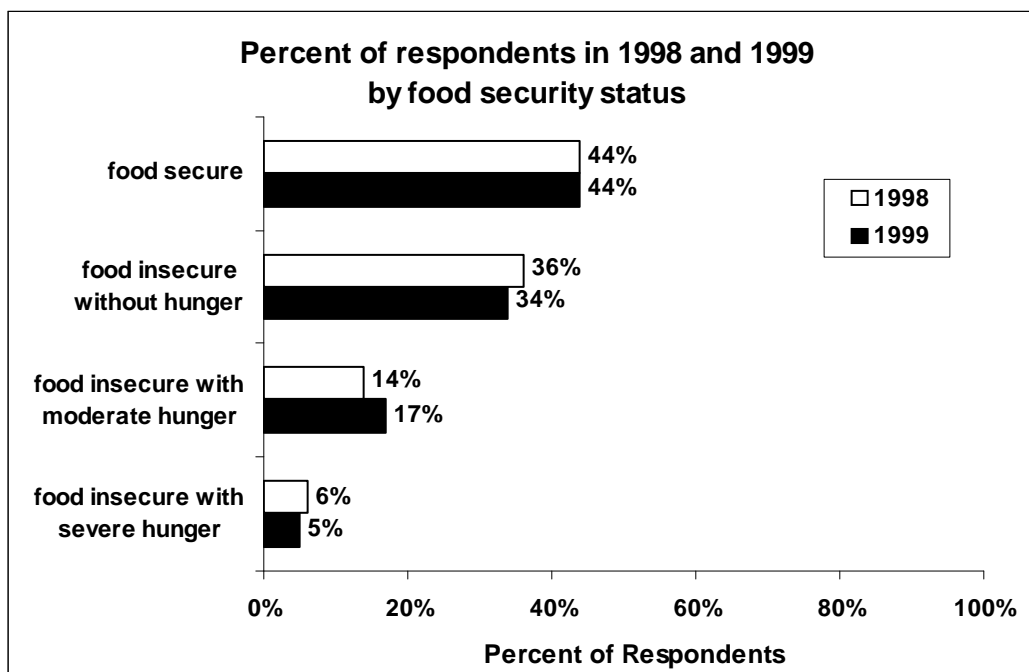


Figure 2.

Food Security Status at Meal Sites

When comparing the two meal site samples it is important to note that the sample in 1998 was very small (n=8) so statistical comparisons are not possible. Interpretations based on this sample should be made cautiously as well. Given this, Figure 3 shows that respondents in 1999 were similar to those of 1998 but were somewhat more food secure (mean=4.02 vs. 5.07, respectively).

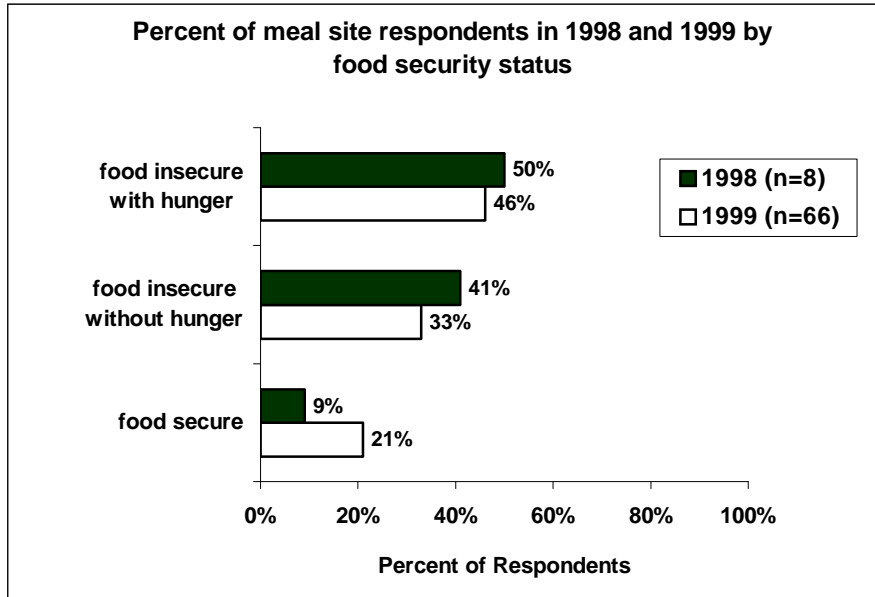


Figure 3.

Food Security Status at Food Pantries

Food pantry respondents were also similar during 1998 and 1999 although those in 1999 tended to be slightly less food secure and more food insecure with hunger (mean=4.21 vs. 4.52, respectively) (see Figure 4).

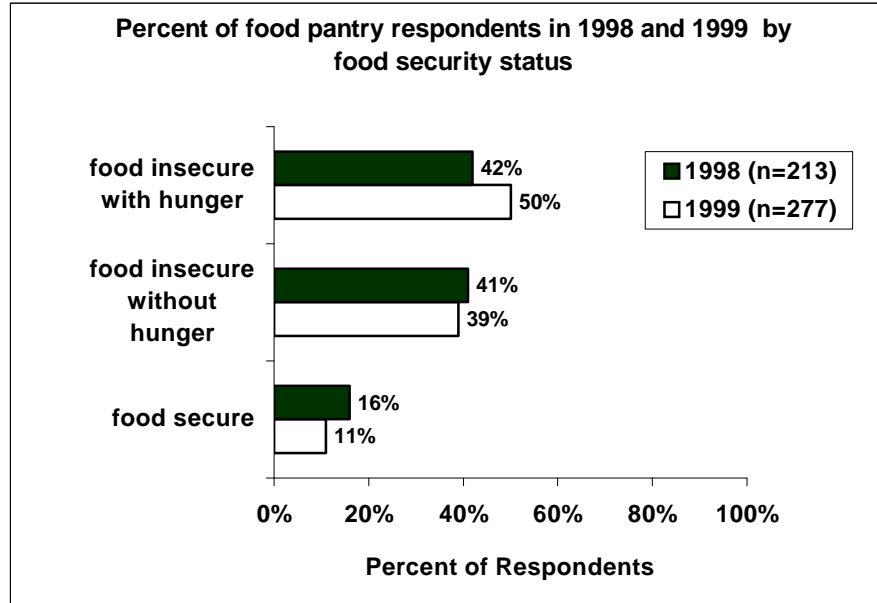


Figure 4.

Food Security Status at WIC

Finally, WIC respondents from 1998 and 1999 were similar as well (mean=2.24 vs. 2.11, respectively). About 50% were food secure, a third were food insecure without hunger and about 15% were food insecure with hunger (see Figure 5). Table C6 in Appendix C shows the percent of respondents at each site by food security status and year sampled.

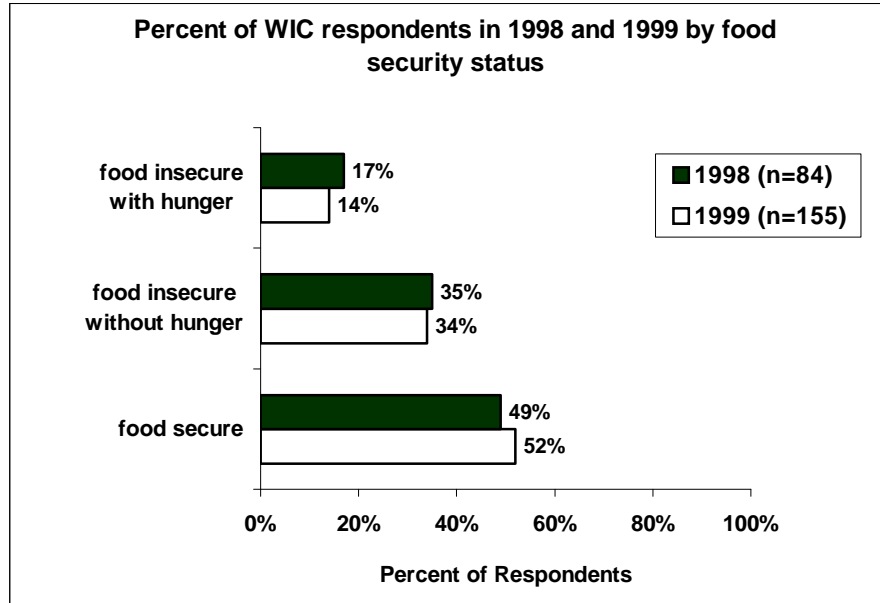


Figure 5.

Comparison of 1998 and 1999 Samples by Gender, Ethnicity and Household Size

Overall, the food security status of males and females did not change significantly between 1998 and 1999. Hispanic respondents were the only ethnic group whose food security changed significantly between these two years. In 1998, 57% of Hispanic respondents reported being food secure compared to 33% in 1999. In contrast, the food security of Hmong respondents improved in 1999 (0% vs. 17% food secure), though the difference only approached statistical significance ($p < .10$). Figure 6 on the next page shows that the percentage of Hispanic and African-American respondents who were food insecure increased between 1998 and 1999. Finally, respondents in households with seven to ten individuals were significantly more food secure in 1999 (22% vs. 48% food secure).

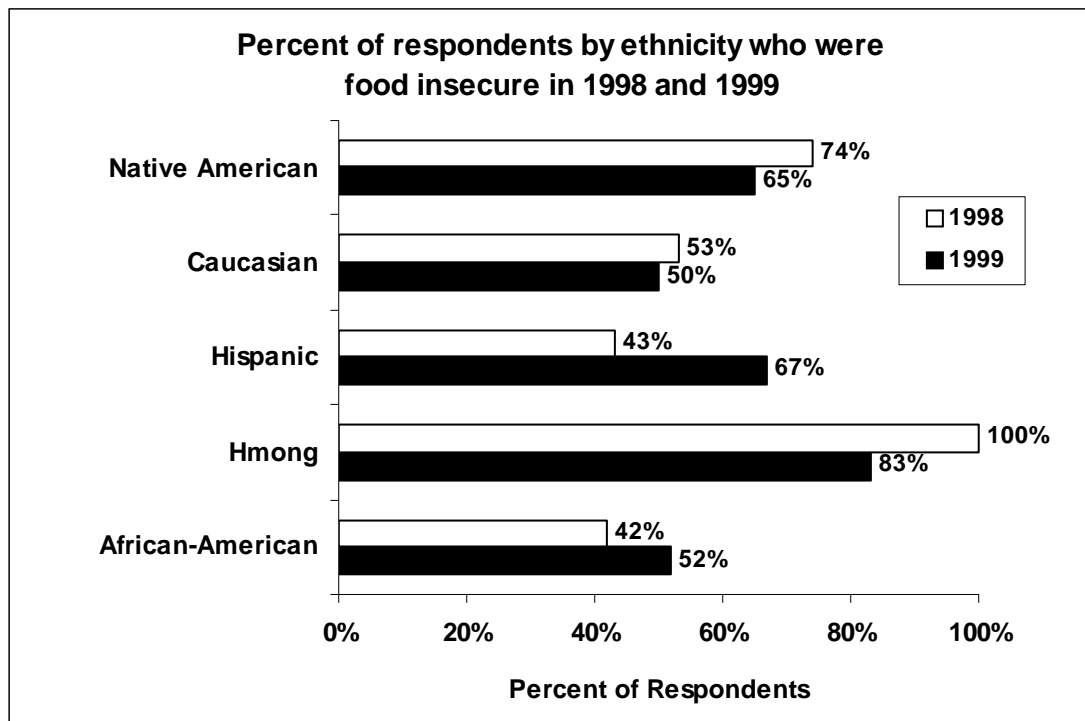


Figure 6.

The food security of the 1998 and 1999 food pantry and WIC samples were also compared by gender and ethnicity. Table C7 in Appendix C shows the changes in the food security status of food pantry respondents from 1998 to 1999 by gender and ethnicity. The percent of food secure respondents decreased for females, as well as Hispanics, Native Americans, and Caucasians. The percentage of African-American and Hmong respondents who were food secure was very low during both years and did not change. Levels of food insecurity with hunger increased considerably for African-Americans and Native Americans whereas it decreased for Hmong respondents.

At WIC, food security improved for African-Americans, Hmong, and Native Americans (see Table C8 in Appendix C). Food security did not change for Caucasians and worsened for Hispanic respondents. Males, African-Americans, Hmong, and Native Americans became less food insecure with hunger while Hispanic respondents became slightly more food insecure with hunger.

Food Security Status and Demographic Characteristics

Overall Food Security Status

In 1999, 44% of the respondents reported being food secure, 34% were food insecure without hunger, and 22% were food insecure with hunger. Overall, 43% of households had children and were food insecure and 14% of households did not have children and were food insecure (see Figure 7).

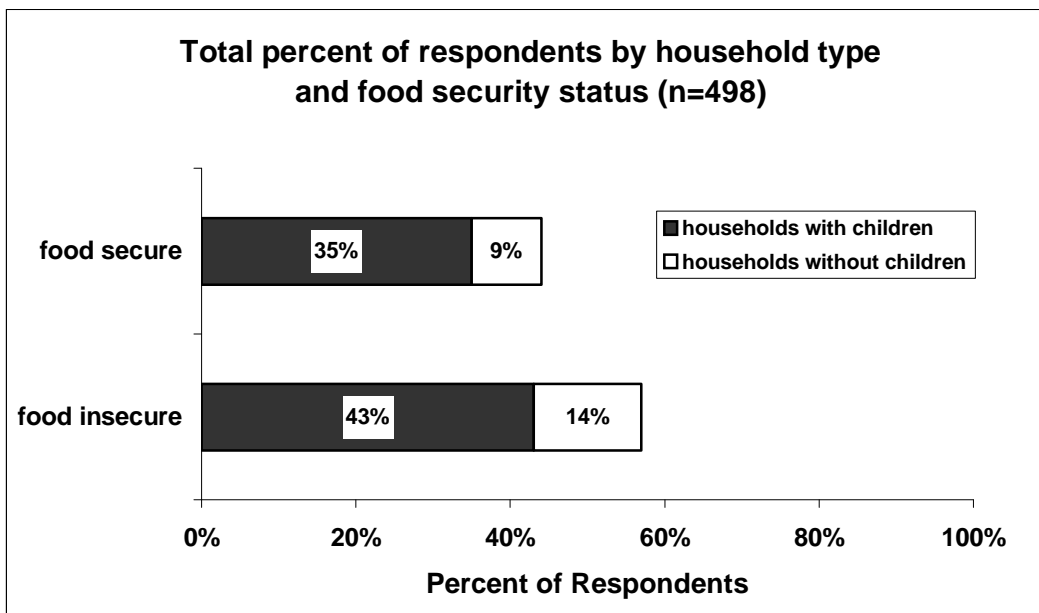


Figure 7.

Some of the questions that comprised the food security scale pertained to specific types of hunger events. Respondents were asked to indicate which of these hunger events occurred in their household during the last year. As Figure 8 shows, 28% of respondents indicated that an adult in their household skipped or reduced the size of a meal at least once during the last year because there wasn't enough money for food. Of those who were food insecure with hunger, almost all reported that an adult had cut the size of a meal or skipped a meal during the last year. One in ten adults also went without food for an entire day during the last year. Overall, about 5% of respondents reported their children skipped a meal or that the size of their children's meals were cut at least once during the last year. Two percent of respondents reported that their children went without food for an entire day during the last year because there wasn't enough money for food.

When asked how frequently an adult skipped a meal, 47% of respondents who were food insecure with hunger said "some months but not every month", and 28% said "almost every month." More than one in five (22%) said an adult did not eat for a whole day during "some months but not every month" and 14% said this occurred almost every month.

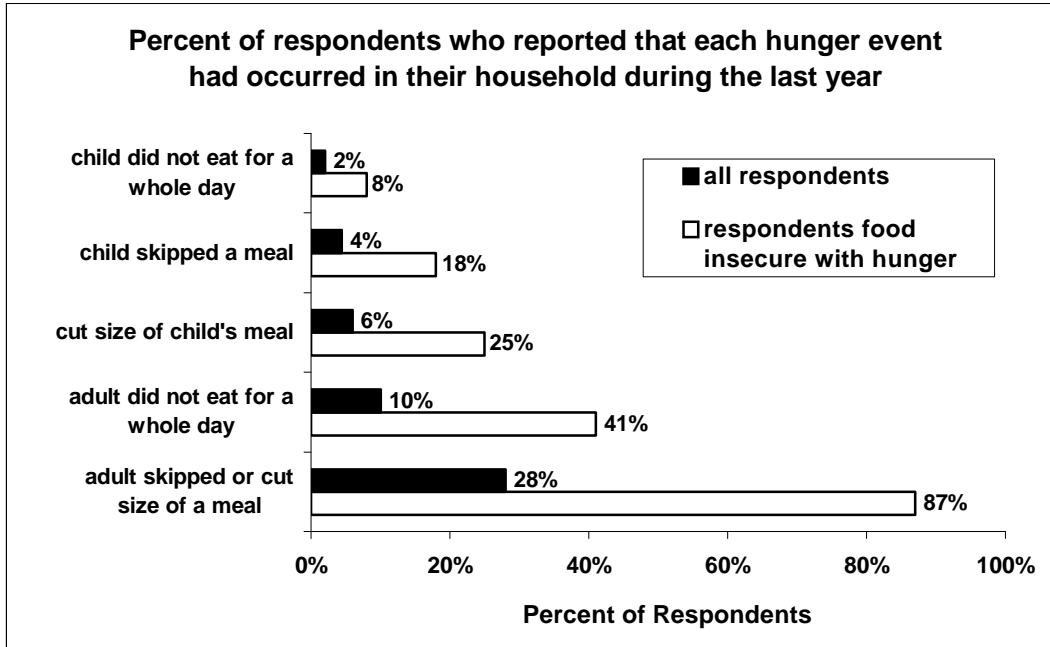


Figure 8.

Type of Site

Respondents' food security status was related to the type of site at which they were interviewed (see Figure 9). More than half of the respondents (52%) at WIC reported being food secure compared to 11% of respondents at food pantries and 21% of meal site respondents. Only 14% of WIC respondents were food insecure with hunger compared to 50% of food pantry respondents and 46% of those interviewed at meal sites. Table C6 in Appendix C shows the percent of respondents at each site by food security status.

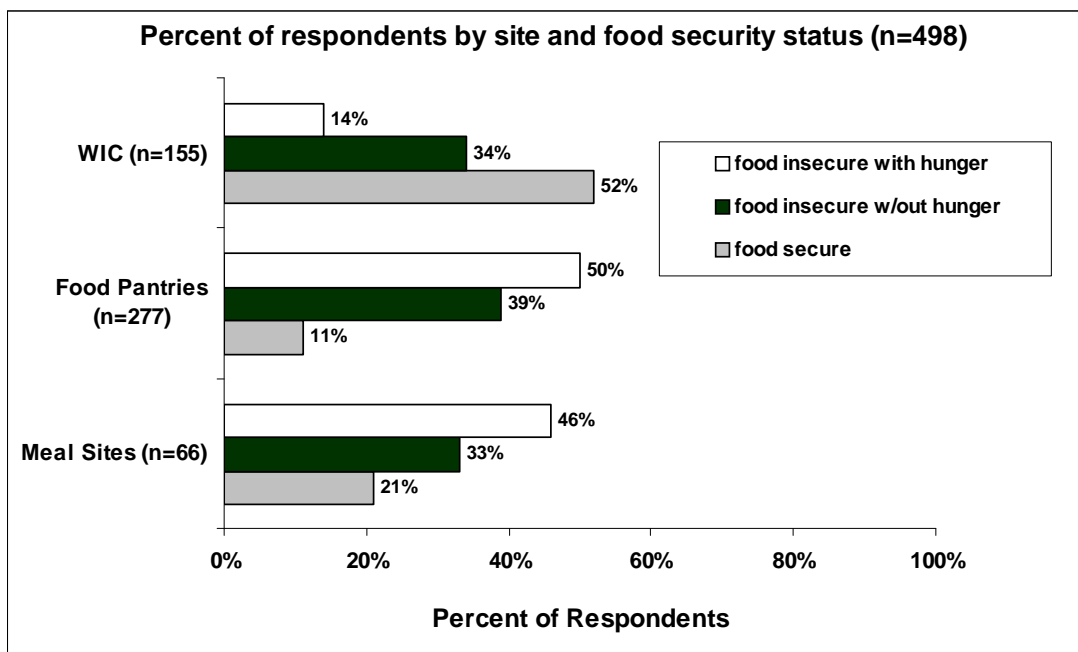


Figure 9.

Respondents varied across the three sites when asked whether specific events in their households during the last year. As Figure 10 shows, more than half the respondents at meal sites and food pantries reported that an adult in their household had skipped or cut the size of a meal during the last year because there was not enough money for food. A fourth of food pantry respondents and 21% of meal site respondents said that an adult in their household did not eat for an entire day during the last year. Small percentages of the meal site respondents reported that the events relating to children's food intake had occurred probably because very few of them resided in households with children. Fifteen percent of food pantry respondents reported that the size of their children's meals had been cut and more than one in ten said a child in their household had skipped a meal during the last year. Seven percent reported that their children did not eat for an entire day during the last year because there was not enough money for food.

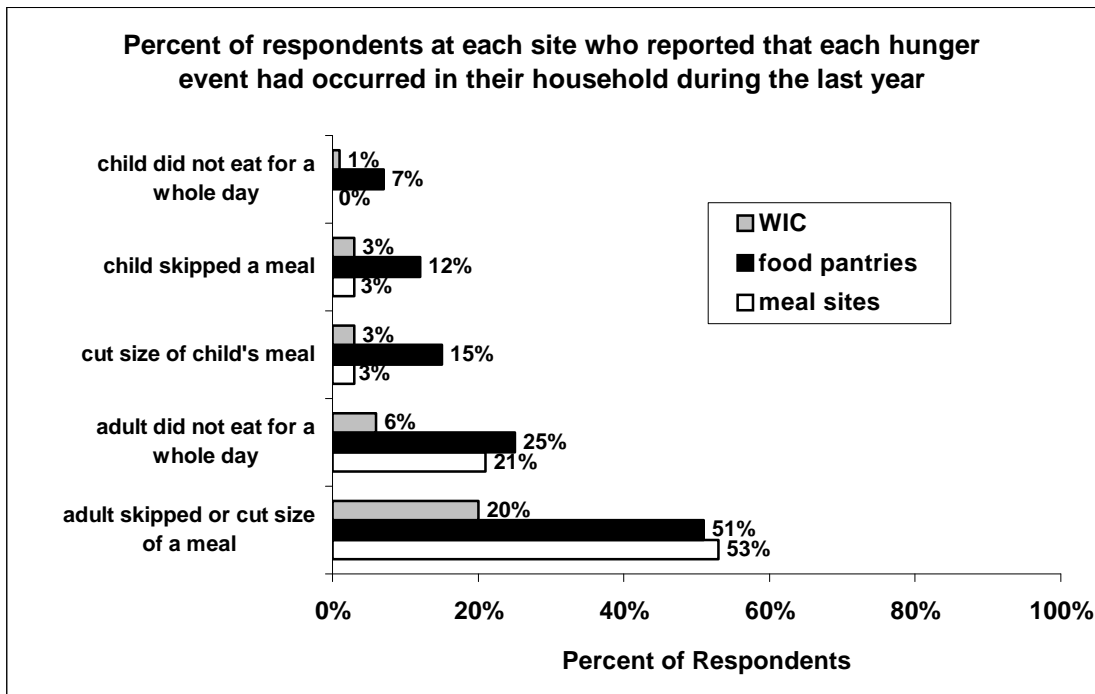


Figure 10.

Number of Sites Used

Respondents' food security status was also related to the number of types of sites at which they received assistance. As Figure 11 shows, 49% of respondents who visited one type of site were food secure. In contrast, 15% of respondents who visited two types of sites and 4% of those who visited three sites were food secure. Respondents who visited two types of sites were more than twice as likely to be food insecure with hunger compared to those who visited one type of site. Similarly, those who visited three types of sites were three times as likely to be food insecure with hunger compared to respondents who visited only one type of site.

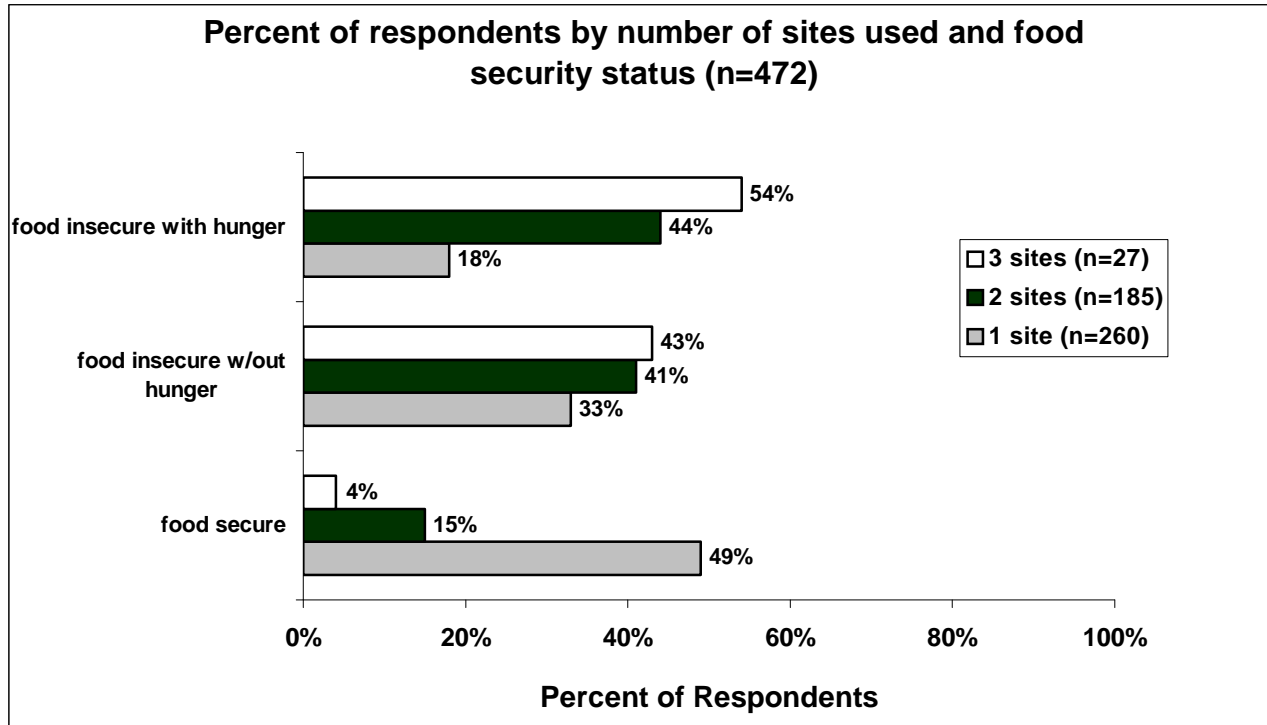


Figure 11.

Gender

Respondents' food security varied significantly by gender ($p < .001$). Overall, females were significantly more food secure than males (47% vs. 29%) and males were more food insecure with hunger compared to females (34% vs. 20%) (see Figure 12).

Differences between males' and females' food security varied by site. At meal sites and WIC, females were more food secure than males (see Figures 13 and 15), but were similar to them at food pantries (see Figure 14). At food pantries, females were more food insecure with hunger than males (53% vs. 41%). Conversely, males were more food insecure with hunger than females at WIC (29% vs. 12%).

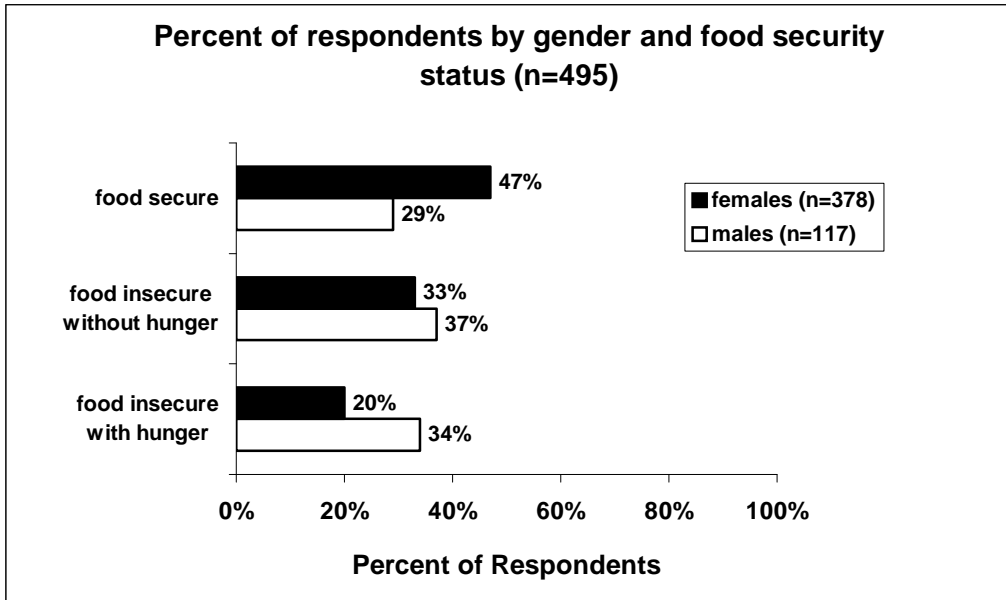


Figure 12.

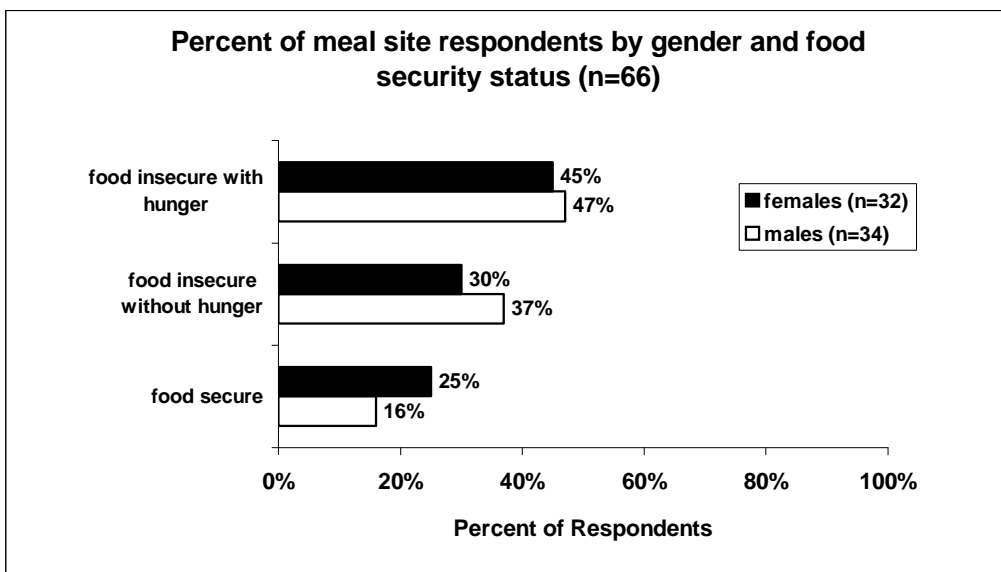


Figure 13.

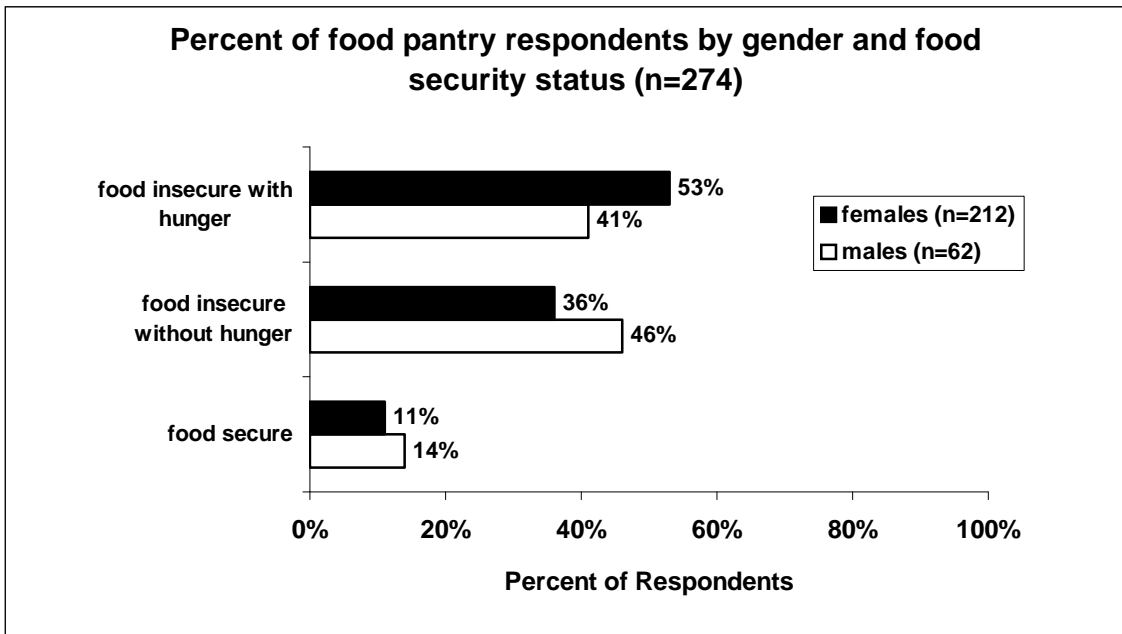


Figure 14.

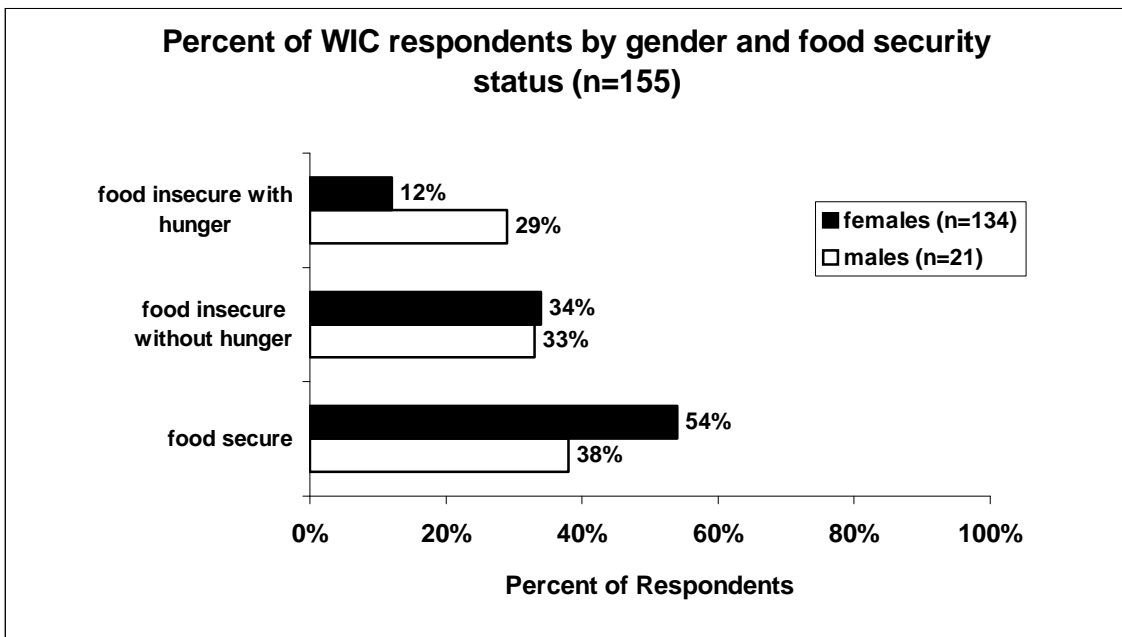


Figure 15.

Age

The percent of respondents who were food secure or insecure varied significantly by age ($p < .001$). Overall, respondents between the ages of 30 and 60 tended to be less food secure compared to younger and older respondents. Individuals in their '40's and '50's were particularly food insecure. Table C9 in Appendix C shows the percent of respondents by food security status in six age groups.

Differences in food security by age varied across the three types of sites. At meal sites, older respondents were more food secure and less food insecure with hunger compared to younger respondents (see Figure 16).

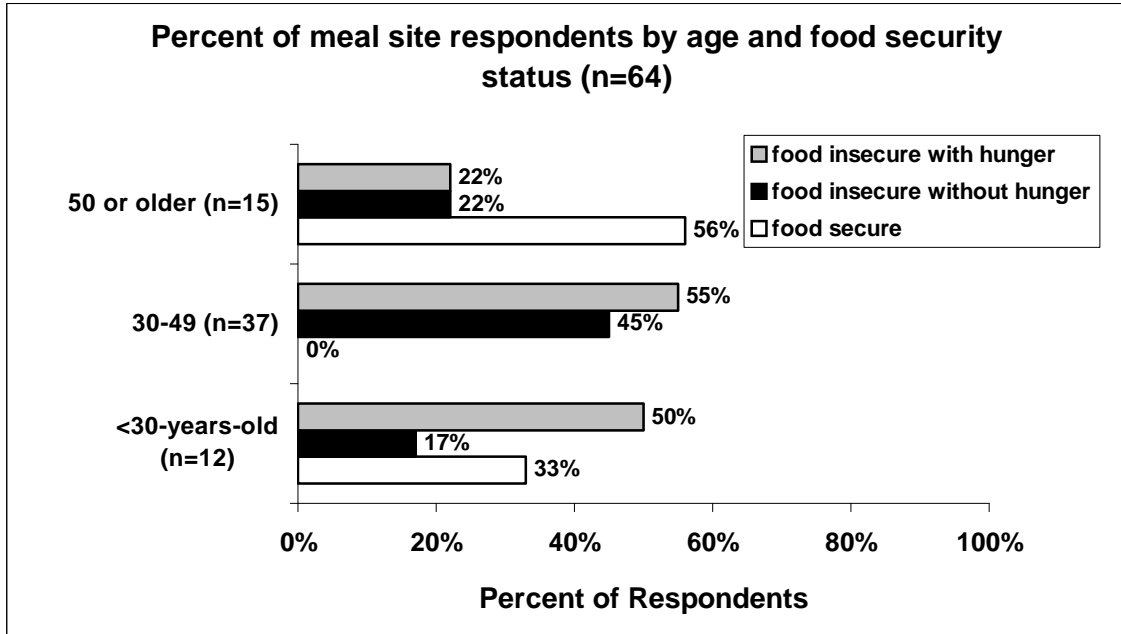


Figure 16.

At food pantries, older respondents were again the most food secure although the differences were less pronounced (see Figure 17). At WIC, younger respondents tended to be more food secure than older ones (see Figure 18).

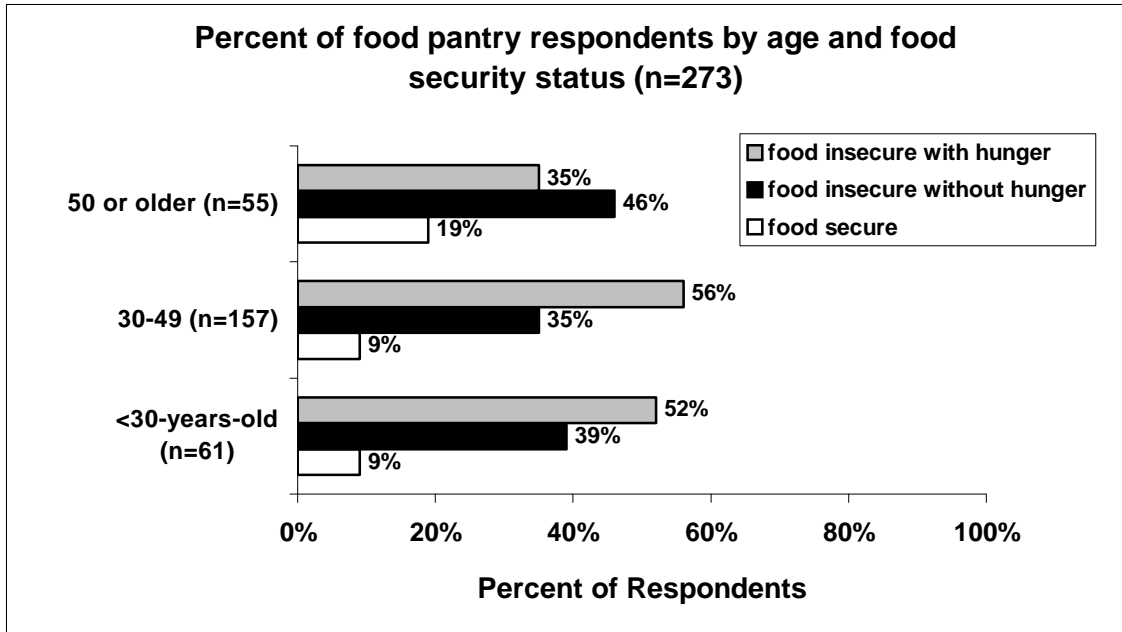


Figure 17.

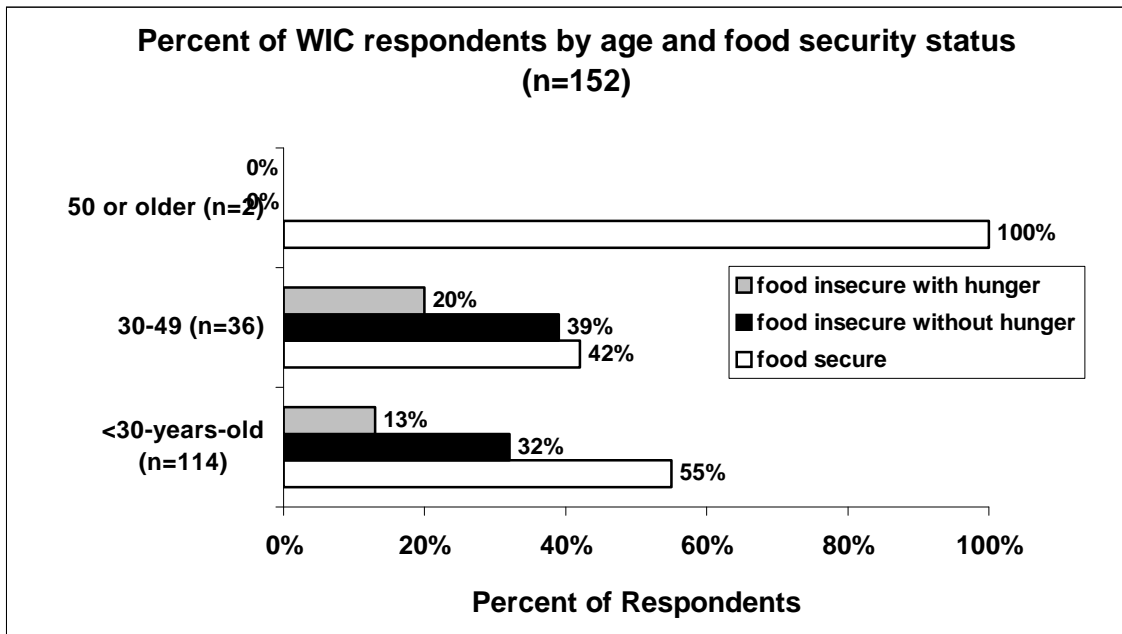


Figure 18.

Ethnicity

Food security status also varied significantly by ethnicity ($p < .001$) (see Figure 19). Hmong respondents were the least food secure (17%) compared to 35% of Native Americans, 33% of Hispanics, 50% of Caucasians, and 48% of African-Americans. Table C10 in Appendix C shows the percent of respondents by ethnicity in each of the four food security status categories. Minority groups were more food insecure with hunger (54% of Hmong, 41% of Native Americans, 34% of African-Americans, and 29% of Hispanic respondents) compared to Caucasians (15%).

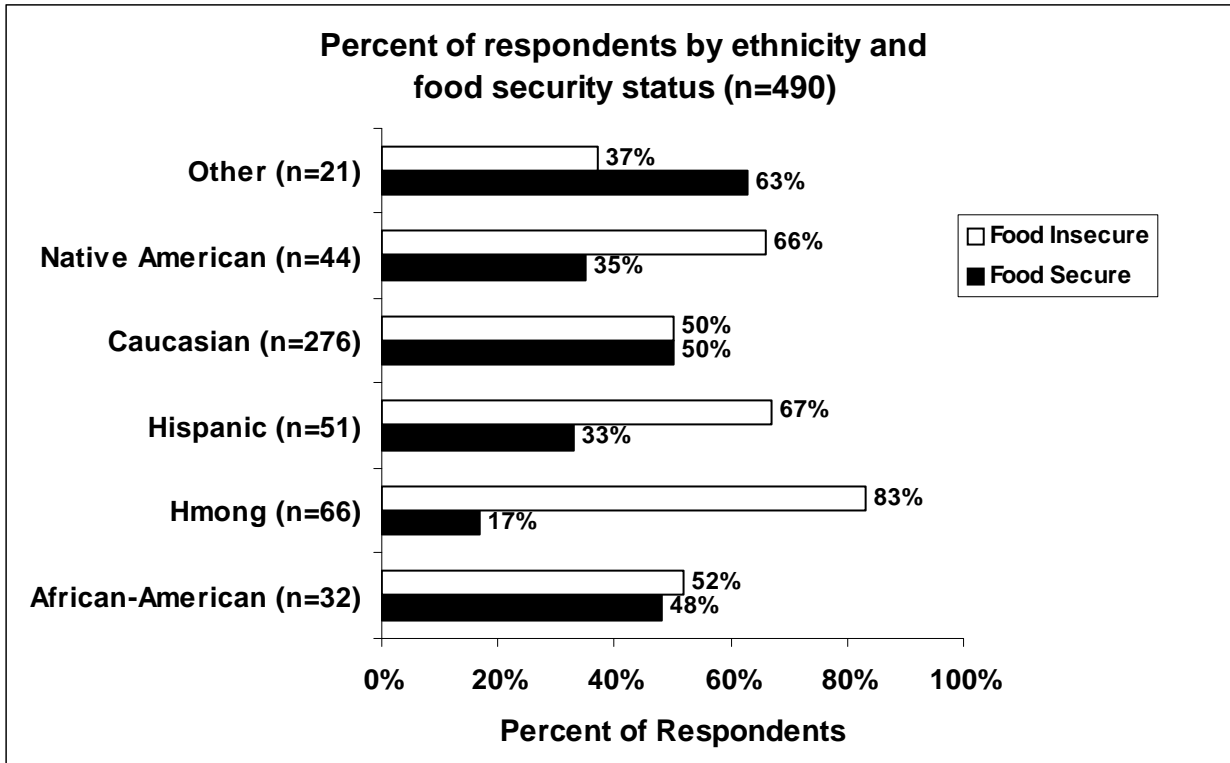


Figure 19.

Household Size

Food security status did not vary significantly by household size. However, as Table 4 on the next page shows, respondents living alone were the least food secure (36%) while those residing in households with two to three people were most food secure (48%). Respondents living alone or in large households were the most food insecure with hunger.

Table 4. Percent of respondents by food security status and size of household.

| Size of Household | Food Secure | Food Insecure without Hunger | Food Insecure with Hunger |
|---------------------------------|-------------|------------------------------|---------------------------|
| 1 person (n=84) | 36% | 30% | 34% |
| 2-3 people (n=193) | 48% | 33% | 19% |
| 4-6 people (n=178) | 42% | 36% | 22% |
| 7-10 people (n=55) | 48% | 25% | 27% |
| 11 or more people (n=14) | 43% | 14% | 43% |

Type of Household

Overall, the food security of households with children did not differ from those without children. Households with children were slightly more food secure than those without children (45% vs. 40%). Equal percentages of both household types were food insecure with hunger (22% with children and 23% without children). Household type was also grouped into four categories by the number of adults and children: one adult with or without children and two or more adults with or without children. Figure 20 shows that the food security status varied significantly across these four types of households ($p < .05$). Respondents living in households with two or more adults and one or more children reported the highest level of food security (48%) while only 34% of adults living alone were food secure. Adults living alone and respondents who headed single parent households were more likely to be food insecure with hunger (37% and 24% of respondents, respectively). Lower percentages of respondents living in households with multiple adults with or without children were food insecure with hunger.

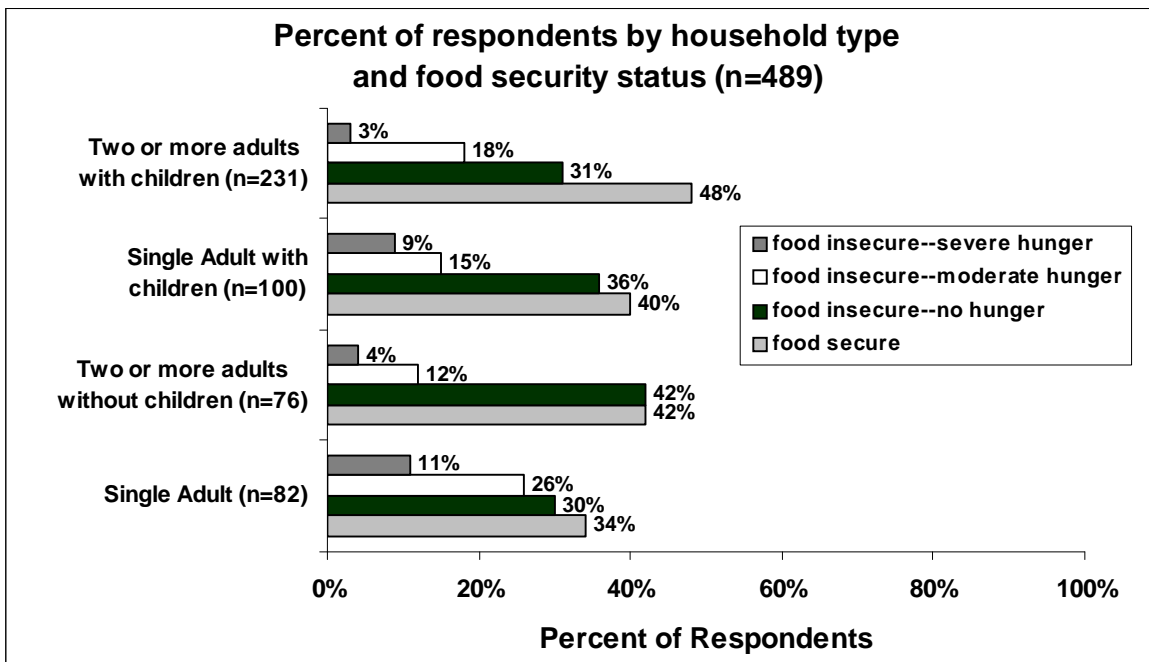


Figure 20.

Number of Children

Food security status did not vary significantly by the number of children in households. Respondents from households with one to two children were slightly more food secure than respondents with no children or more than two children (see Table 5).

Table 5. Percent of respondents by food security status and number of children in household.

| Number of children | Food Secure | Food Insecure without Hunger | Food Insecure with Moderate Hunger | Food Insecure with Severe Hunger | Total |
|-------------------------|-------------|------------------------------|------------------------------------|----------------------------------|-------|
| 0 (n=163) | 40% | 37% | 17% | 6% | 23% |
| 1-2 (n=204) | 48% | 32% | 16% | 4% | 50% |
| 3-4 (n=98) | 41% | 32% | 22% | 6% | 18% |
| 5 or more (n=59) | 44% | 32% | 14% | 10% | 9% |

Education Completed

Figure 21 shows that food insecurity varied significantly by education level completed ($p < .001$). Well over half of respondents (58%) who had completed education beyond high school were food secure compared to 30% of those who completed less than the 9th grade. Table C11 in Appendix C shows the percent of respondents by food security status and education completed.

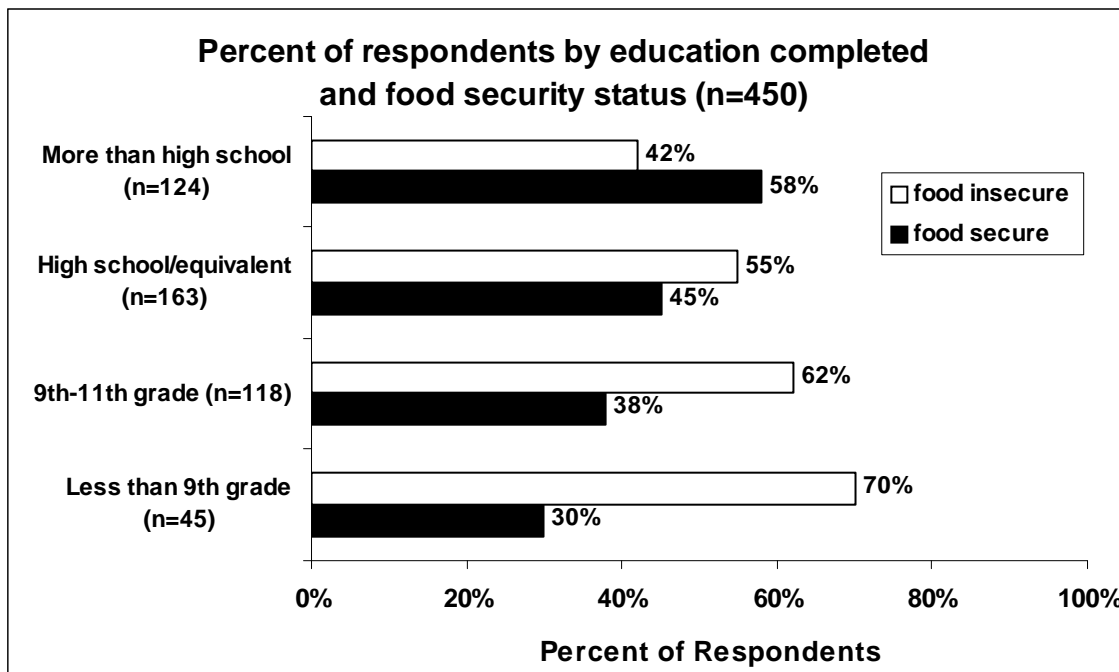


Figure 21.

Type of Transportation Used

Respondents' food security varied significantly by the type of transportation they used ($p < .001$). Respondents who drove their own car to the food assistance site tended to be more food secure compared to individuals using other types of transportation. Table 6 shows that 49% of those who drove their own car were food secure compared to 37% of those who borrowed a car or rode with someone else, 26% of those who took the bus or taxi, and 21% of those who walked or bicycled.

Table 6. Percent of respondents by food security status and type of transportation used to get to food assistance program.

| Type of Transportation*** (total n=494) | Food Secure | Food Insecure without Hunger | Food Insecure with Hunger |
|---|--------------------|---|--------------------------------------|
| Walk/Bicycle (n=62) | 21% | 45% | 34% |
| Bus, Taxi or Other (n=46) | 26% | 39% | 35% |
| Drove own car (n=279) | 49% | 33% | 18% |
| Rode with someone/borrowed car (n=107) | 37% | 27% | 36% |

*** $p < .001$

Food Security Status and Types of Food Assistance Received

Types of Food Assistance Received

Substantial percentages of respondents received food assistance from a number of sources during the last year. Figure 22 on the next page shows the percent of respondents receiving each type of assistance by food security status. Almost all respondents who were food secure received WIC assistance (92%) compared to 66% of food insecure respondents. Higher percentages of food insecure respondents received almost all other types of food assistance compared to those who were food secure. At least 50% of respondents who were food insecure received assistance from food pantries or friends or relatives during the last year. A number of food assistance programs, however, were used very little by respondents. Only 19% of respondents who were food insecure with hunger used summer lunches in the park, 4% used summer breakfast at the resource center, and 18% used meal sites. Table C12 in Appendix C shows the percent of respondents in each food security status category who received each type of assistance during the last year. It also shows the food security status of respondents who received each type of assistance.

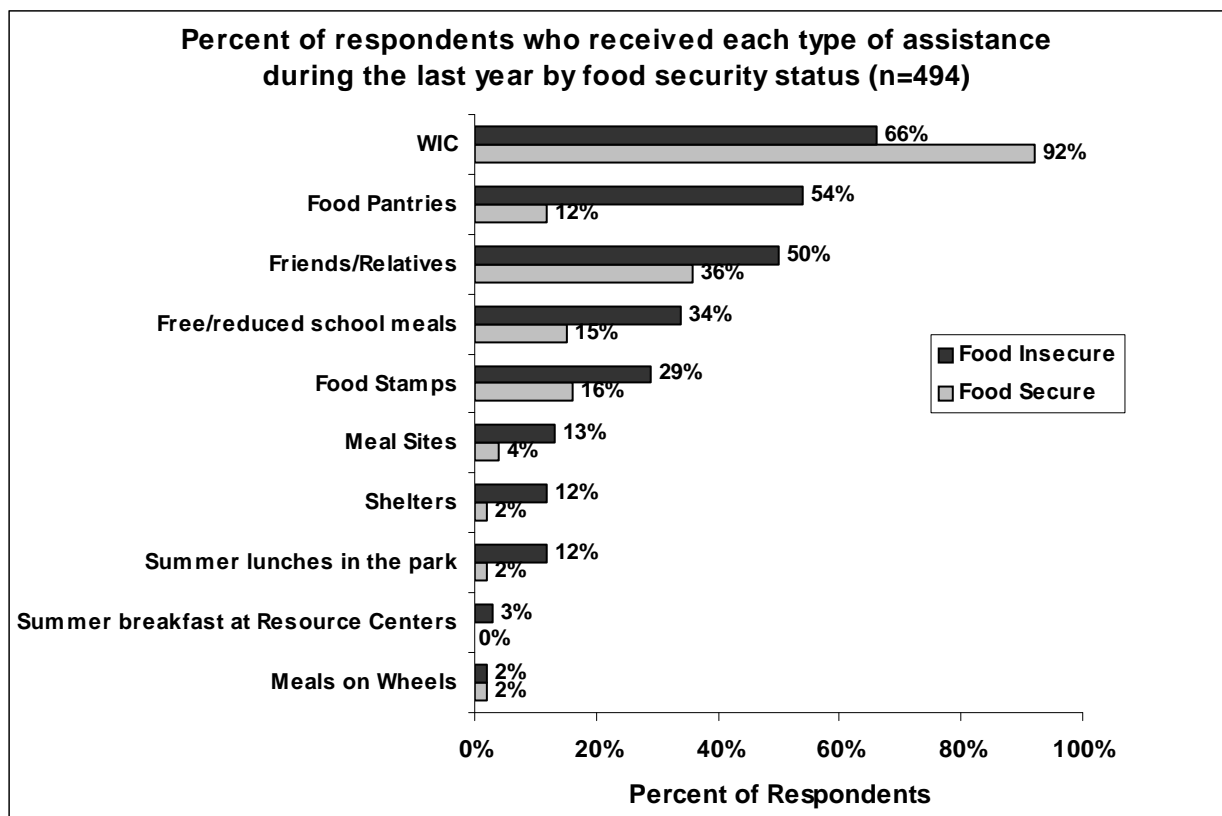


Figure 22.

First Food Pantry Visit

Respondents were also asked when they first received food at a food pantry. Thirty-three percent of respondents who reported going to food pantries during the last year said that the first time they received food at a food pantry was within the last year. Thirty-eight percent said that the first time they went to a food pantry was more than two years ago. Respondents' food security status was not related to the time of their first pantry visit (see Table 7).

Table 7. Percent of respondents who went to food pantries during the last year by food security status and the first time they received food at a food pantry.

| First Food Pantry Visit | Food Secure | Food Insecure without Hunger | Food Insecure with Moderate Hunger | Food Insecure with Severe Hunger | Total (n=355) |
|-------------------------|-------------|------------------------------|------------------------------------|----------------------------------|---------------|
| Within the last year* | 14% | 39% | 32% | 15% | 33% (n=109) |
| 1 to 2 years ago | 9% | 46% | 21% | 24% | 17% (n=52) |
| More than 2 years ago | 15% | 37% | 37% | 12% | 38% (n=145) |
| Don't know | 13% | 42% | 42% | 4% | 12% (n=49) |

*The following three categories were collapsed: Today, Sometime in the last 6 months, and 6 months to a year ago.

First Food Pantry Visit and Demographic Characteristics

Many of the service providers at the food pantries reported that the number of individuals seeking food from them had been increasing in recent months. For this reason, respondents who used food pantries during the last year were divided into two groups: those whose first visit was within the last year, and those whose first visit was more than a year ago. Demographic characteristics of these two groups were then compared to assess whether distinct sub-populations in the sample were increasingly seeking assistance at food pantries, and perhaps, becoming more food insecure.

Table C13 in Appendix C shows the percent of respondents by the time of their first pantry visit and by ethnicity, age, and household. Higher percentages of African-Americans and Hispanics began receiving food pantry assistance during the last year compared to the overall 33%. Further, respondents residing in households with multiple adults and no children or single parent households were more likely to have started receiving assistance at food pantries during the last year.

Respondents' educational attainment was significantly related to the time of their first visit to a food pantry (see Figure 23). Respondents whose first visit was sometime within the last year were more educated than those who had received food from a pantry more than a year ago. Interestingly, respondents who started going to food pantries in the last year were more likely to be employed and to earn the median wage or less for this sample compared to those who first visited a food pantry more than a year ago (see Figure 24). They were also less likely to receive income from almost all sources except employment (see Table 12).

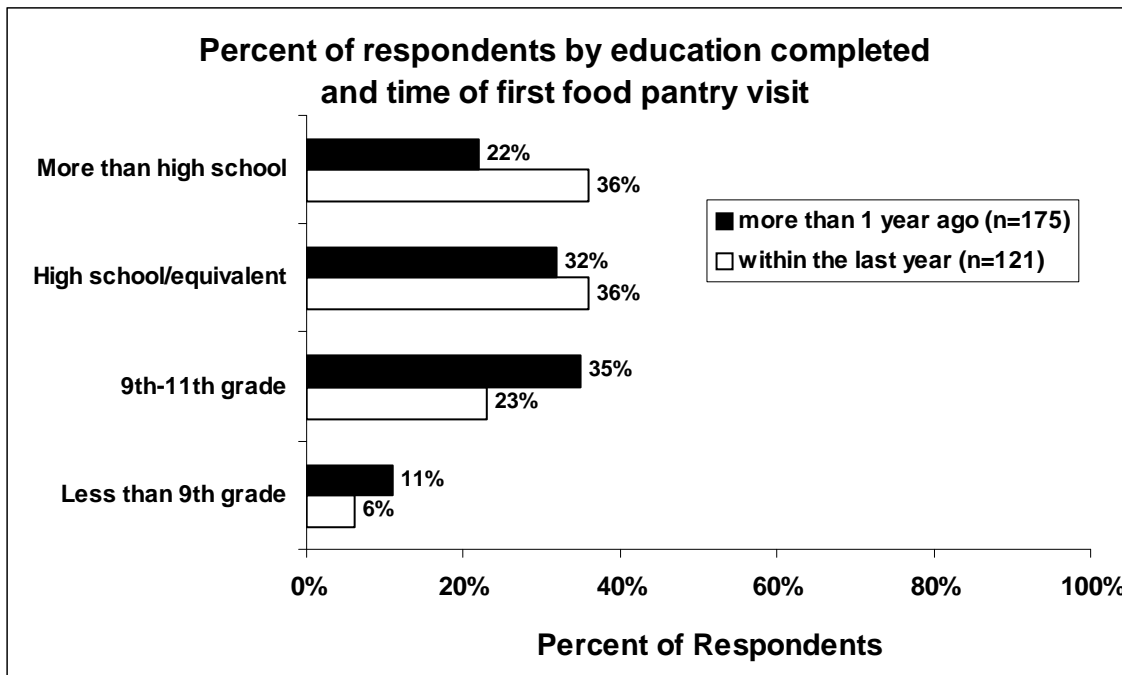


Figure 23.

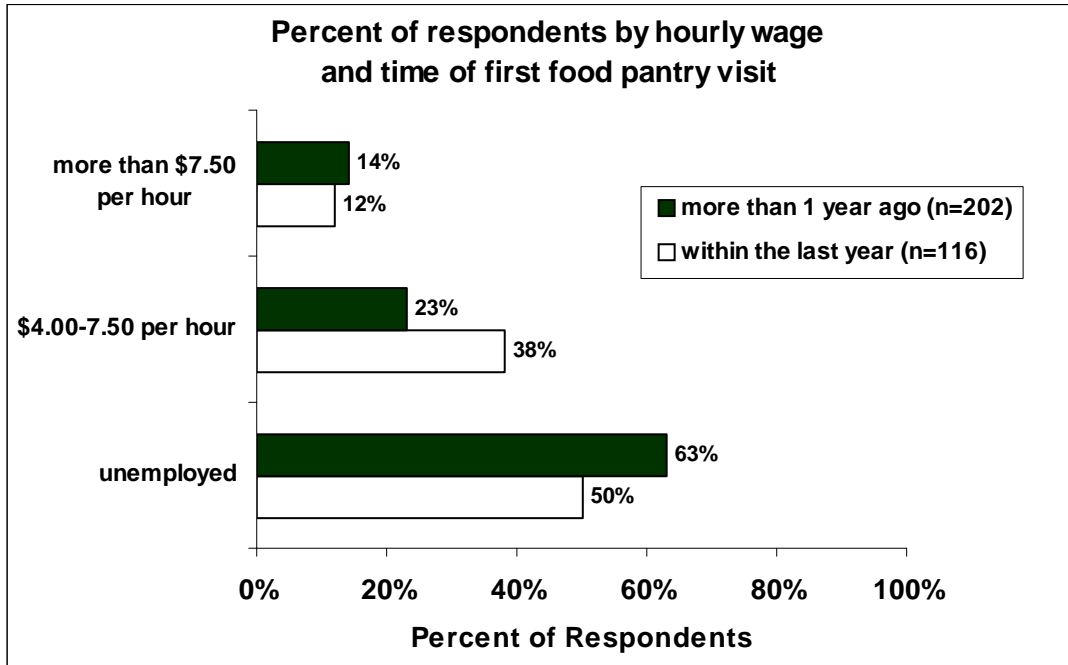


Figure 24.

Amount of Food from Food Pantry

Respondents who received assistance from food pantries during the last year were also asked how much of their food they could get from food pantries. Food security status did not vary according to the amount of food respondents were able to receive at food pantries. Thirty-six percent of respondents reported that they were able to get less than half the food they eat from pantries. Another 34% reported that they get about half of their food from food pantries (see Table 8).

Table 8. Percent of respondents who went to food pantries during the last year by food security status and the amount of food they can get from food pantries.

| Amount of Food | Food Secure | Food Insecure without Hunger | Food Insecure with Moderate Hunger | Food Insecure with Severe Hunger | Total (n=355) |
|----------------|-------------|------------------------------|------------------------------------|----------------------------------|---------------|
| Less than Half | 10% | 40% | 40% | 10% | 36% (n=112) |
| About Half | 16% | 40% | 28% | 15% | 34% (n=130) |
| More than Half | 20% | 40% | 23% | 17% | 18% (n=69) |
| Don't know | 8% | 35% | 39% | 19% | 13% (n=44) |

Amount of Food from Food Stamps

Twenty-five percent of respondents who received food stamps during the last year reported that they were able to purchase less than half their food with food stamps while 41% said they could buy more than half their food with food stamps (see Table 9). Respondents' food security varied significantly with the amount of food they could buy with food stamps. More than half (53%) of respondents who could buy less than half their food with food stamps were food insecure with hunger and only 6% of them were food secure. In contrast, 44% of those who could buy more than half their food with food stamps were food secure and 16% were food insecure with hunger.

Table 9. Percent of respondents who have received food stamps during the last year by food security status and the amount of food they can buy with food stamps.

| Amount of Food*** | Food Secure | Food Insecure without Hunger | Food Insecure with Moderate Hunger | Food Insecure with Severe Hunger | Total (n=146) |
|--------------------------|--------------------|-------------------------------------|---|---|----------------------|
| Less than Half | 6% | 41% | 31% | 22% | 25% (n=44) |
| About Half | 33% | 41% | 15% | 11% | 21% (n=31) |
| More than Half | 44% | 40% | 10% | 6% | 41% (n=49) |
| Don't know | 7% | 73% | 20% | 0% | 12% (n=22) |

***p<.001

Amount of Food Purchased

All respondents were asked how much of their food they were able to buy with their money. Fifty percent of respondents said they could buy more than half their food with their money, 27% said they could buy about half, and 19% reported they could buy less than half. Not surprisingly, respondents' hourly wage was significantly related to how much of their food they could purchase (p<.001). Almost two-thirds of respondents (66%) who earned more than the median wage for this sample were able to buy more than half their food. Lower percentages of respondents who were unemployed or earning the median wage or less were able to buy more than half their food (45% and 39%, respectively). About 20% of unemployed respondents and those earning less were able to buy less than half their food, and about a third of both groups were able to purchase about half their food.

Respondents' ability to buy food with their money was significantly related to their food security status (see Table 10). Almost two-thirds (64%) of respondents who could buy more than half their food were food secure compared to 19% of those who could buy less than half their food. More than a third (38%) of respondents who could buy less than half their food were food insecure with hunger compared to 12% of respondents who could buy more than half their food.

Table 10. Percent of respondents by food security status and the amount of food they can buy with their money.

| Amount of Food*** | Food Secure | Food Insecure without Hunger | Food Insecure with Moderate Hunger | Food Insecure with Severe Hunger | Total (n=498) |
|--------------------------|--------------------|-------------------------------------|---|---|----------------------|
| Less than Half | 19% | 44% | 24% | 14% | 19% (n=149) |
| About Half | 23% | 48% | 23% | 6% | 27% (n=164) |
| More than Half | 64% | 23% | 11% | 1% | 50% (n=162) |
| Don't know | 44% | 30% | 17% | 9% | 4% (n=23) |

***p<.001

Percent Who Knew Someone Needing Assistance by Site

Finally, respondents were asked if they knew anyone who would get assistance from the site where they were being interviewed but was unable to for any reason. Overall, 16% of respondents reported that they knew someone who needed assistance at their site but was unable to receive it. As Figure 25 shows, respondents' answers varied significantly by site (p<.001). More than a third (37%) of female respondents at meal sites said they knew of at least one person and 26% of females at food pantries responded similarly. Males at these two sites were less likely to respond affirmatively. Fewer respondents at WIC (13%) reported knowing someone who needed food assistance.

Minority respondents were also more likely than Caucasian respondents to know someone who needed assistance at their site but was unable to get it (p<.05) (32% of African-American, 26% of Hmong, 22% of Native American, and 19% of Hispanic vs. 13% of Caucasian respondents).

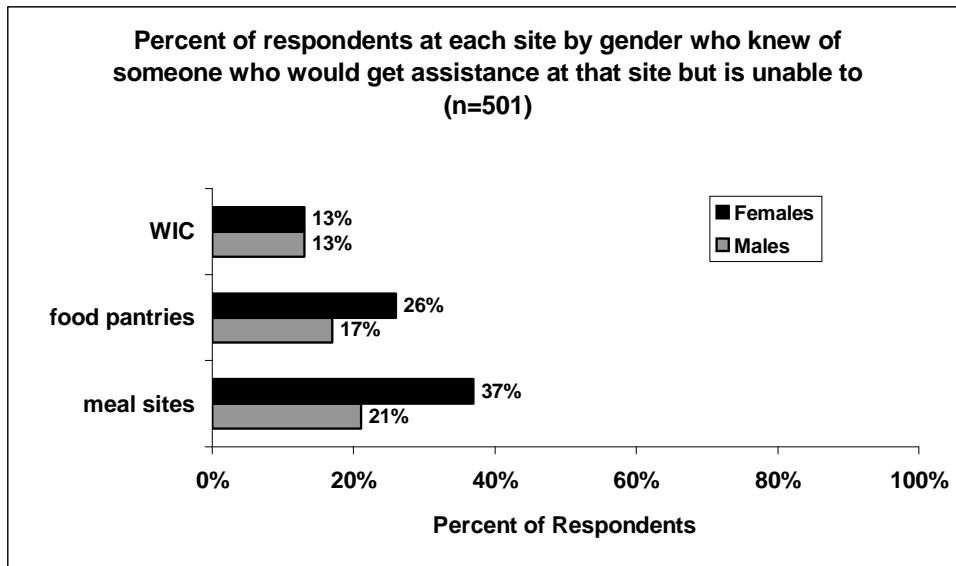


Figure 25.

Percent Who Knew Someone Needing Assistance by Food Security Status

Respondents' food security status was also significantly related to whether they knew someone who would get assistance at their site but was unable to. Table 11 shows that higher percentages of individuals who were food insecure with hunger knew someone who would get assistance at their site, particularly female respondents who were food insecure with severe hunger. Only 14% of respondents who were food secure knew someone who needed assistance at their site compared to 31% of respondents who were food insecure with hunger.

Table 11. Percent of respondents by gender and food security status who know someone who would get assistance at that site but is unable to.

| Gender | Food Secure | Food Insecure without Hunger | Food Insecure with Moderate Hunger | Food Insecure with Severe Hunger |
|-------------------------|-------------|------------------------------|------------------------------------|----------------------------------|
| Males | 5% | 7% | 25% | 17% |
| Females*** | 14% | 9% | 28% | 52% |
| Total (n=495)*** | 14% | 8% | 27% | 46% |

***p<.001

Food Security Status and Wages/Sources of Income

Lastly, food security status was examined as it related to respondents’ wages and sources of income. The relationship between income and food security involves a number of variables, including household size, current employment status and other sources of income and assistance. Nonetheless, results indicate that food security varied significantly with several of these variables.

Current Employment Status

Not surprisingly, food security status for respondents less than 65-years-old varied significantly by employment status ($p < .05$) (see Figure 26). More than half (52%) of respondents who were food insecure with hunger were unemployed compared to 38% of food secure respondents. Almost half (49%) of respondents who were food secure worked full-time compared to 31% of those who were food insecure with hunger. Similar percentages of respondents who were food secure and insecure worked part-time.

Table C14 in Appendix C shows the percent of respondents less than 65-years-old by food security status and employment status. Seventy-seven percent of food secure respondents reported being employed sometime during the last year compared to 48% of those who were food insecure with severe hunger. Twenty percent of respondents who had been employed sometime during the last year reported being food insecure with hunger while 47% were food secure. Interestingly, the food security of respondents who were employed part-time was almost identical to that of respondents who were unemployed.

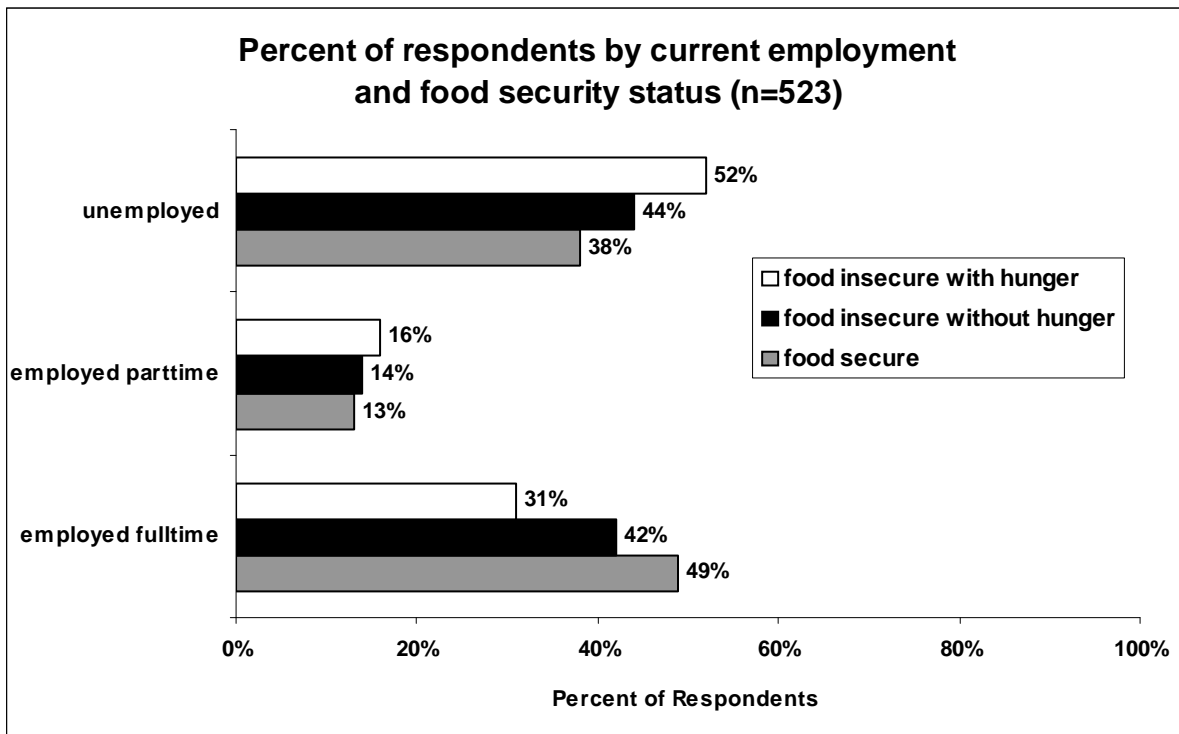


Figure 26.

Hourly Wage

Respondents' food security also varied significantly by their hourly wage ($p < .01$). Figure 27 shows the food security status of respondents who were either unemployed, earning the median hourly wage or less of this sample, or earning at least the median hourly wage. Respondents who reported earning the median hourly wage or less were similar to unemployed respondents in their food security status: about 40% reported being food secure. In contrast, 57% of those earning at least the median wage were food secure.

Table C15 in Appendix C shows the percent of respondents in each of the four food status categories by wage group. More than a third (35%) of respondents who were food secure earned at least the median wage compared to 21% of food insecure respondents.

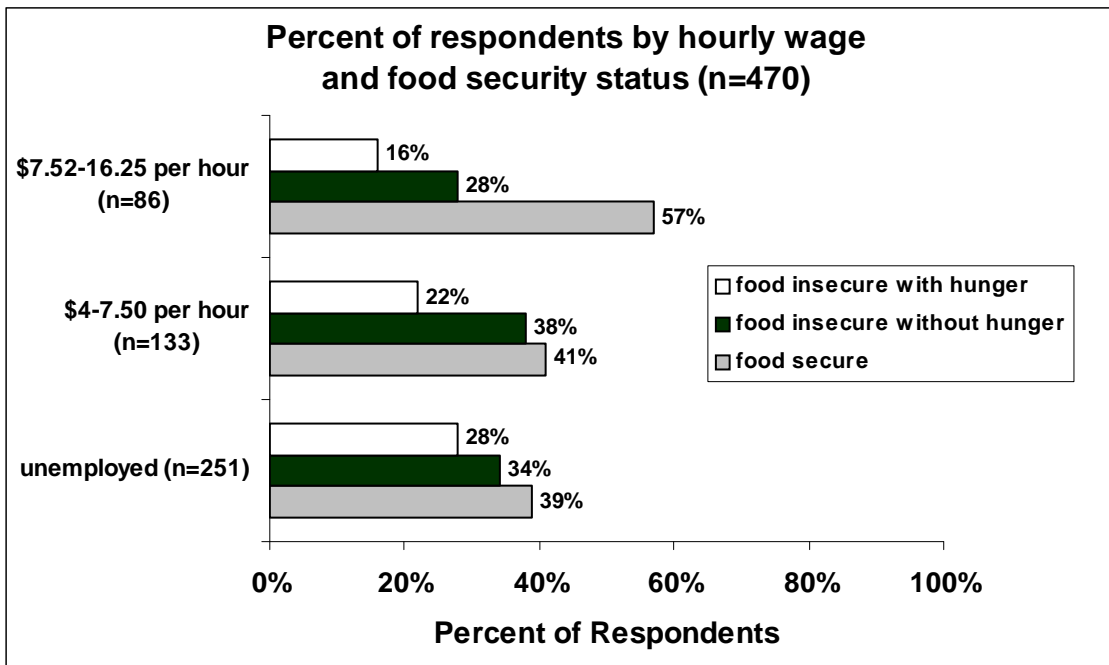


Figure 27.

Sources of Income

Finally, respondents' food security significantly varied with some sources of income. Table 12 shows the percentage of respondents by food security status whose household received each type of income during the last month. Half of the households that received income from employment during the last month were food secure while 19% were food insecure with hunger. Similarly, 93% of food secure respondents resided in households with income from employment during the last month compared to 50% of respondents who were food insecure with severe hunger. Respondents residing in households without income from employment during the last month were twice as likely to be food insecure with hunger (39% vs. 19%) and were less than half as likely to be food secure (50% vs. 20%) compared to households with employment income. Respondents in households with income from pension, unemployment and child support were more food secure compared to households with other types of income. Respondents in households with income from disability/worker's compensation, Supplemental Security Income (SSI), or welfare were more food insecure with hunger (at least 35%) compared to other households. A large percentage of respondents with income from social security also reported being food insecure with hunger (29%).

Table 12. Percent of respondents by food security status whose household received each source of income during the last month.

| Sources of Income | Food Secure | Food Insecure without Hunger | Food Insecure with Moderate Hunger | Food Insecure with Severe Hunger | Total |
|--|--------------|------------------------------|------------------------------------|----------------------------------|------------------------------|
| Employment*** | 50% (93%) | 31% (80%) | 16% (77%) | 3% (50%) | 83% (n=344) |
| Pension | 53% (3%) | 27% (2%) | 13% (2%) | 7% (4%) | 3% (n=20) |
| Unemployment | 61% (10%) | 24% (6%) | 12% (5%) | 2% (3%) | 8% (n=27) |
| Disability/worker's compensation | 33% (4%) | 30% (5%) | 30% (9%) | 7% (7%) | 6% (n=34) |
| Social Security* | 36% (8%) | 35% (11%) | 16% (9%) | 13% (25%) | 10% (n=91) |
| Child Support* | 63% (15%) | 24% (8%) | 10% (6%) | 3% (7%) | 11% (n=42) |
| Welfare | 41% (3%) | 18% (2%) | 24% (4%) | 18% (11%) | 3% (n=22) |
| Supplemental Security Income (SSI)*** | 27% (9%) | 39% (17%) | 18% (15%) | 17% (45%) | 15% (n=114) |
| Other | 12% (1%) | 71% (9%) | 6% (2%) | 12% (14%) | 4% (n=22) |

*p<.05; ***p<.001; ()=percent within food security status

Reasons for Food Insecurity

The first question in the Food Security Survey asked respondents to select one of four statements that best described the food eaten in their household during the last year. The four statements paralleled the four food status categories: having enough to eat, having enough but not always the kinds of food needed or wanted, sometimes not having enough to eat, and often not having enough to eat. In theory, each respondent's answer to this question should correspond to their food security status category. While this was not the case, the correlation between respondents' food status scale score and their answer to this question was significantly positive ($r=.58$, $p<.001$). If respondents reported that they had enough food they were not asked to identify reasons for their food insecurity. If they said they had enough food but not always the kinds they wanted or needed, they were presented with one set of reasons and asked to identify which ones applied to them. Similarly, if they reported that they sometimes or often did not have enough food they were presented with a different set of reasons and asked to identify which ones explained why they were food insecure.

Reasons for Not Having the Kinds of Food Wanted or Needed

One subset of respondents said they had enough to eat but not always the kinds of food they wanted or needed. All of these respondents should have been food insecure without hunger, however, 36% of them were food secure according to their food security status score, 47% were food insecure without hunger, and 17% were food insecure with hunger. These respondents gave reasons why they did not always have the kinds of food they wanted or needed. As Figure 28 on the next page shows, 72% of these respondents indicated that one of the reasons they did not have the kinds of food they wanted or needed is that they do not have enough money for food. Forty percent said they do not have enough time to prepare food; about a third said they do not have enough time to purchase food and that their children will not eat what they prepare; 28% reported that the kinds of food they want or need are not available to them; and 21% said that good quality food was not available to them.

Almost all of the respondents' reasons for not having the kinds of food they want or need were related to their food security status. As Table C16 in Appendix C shows, of those individuals who were food insecure with hunger, 90% reported that they don't have the kinds of food they want or need because they don't have enough money; 56% said that their children won't eat what they prepare; 45% reported that they do not have enough time to prepare food; more than 40% said that the kinds of food they want or need are not available to them, that good quality food is not available, and that it is hard to get food because they do not have a car; finally, about a third of respondents reported that a variety of good food was not available at the site where they were being interviewed, that they don't have enough time to purchase food, that it was difficult to get food because of child care problems, work schedules, and pantry hours. Almost a fourth said they do not know how to prepare the available foods.

Respondents' reasons for not having the kinds of food they wanted or needed were examined by ethnicity as well. Table C17 in Appendix C shows the percent of respondents by ethnicity giving each reason for not having the kinds of food they wanted or needed. Differences included: African-Americans were more likely to be on a special diet; higher percentages of all the minority groups reported that the kinds of food they want or need are not available to them and that a variety of good food is not available to them at the site where they were interviewed; Hmong and Hispanic respondents were much more likely to report that good quality food is not available to them; 75% of Hmong respondents said they do not have enough time to purchase

food; African-American and Hispanic respondents were more likely to report that they do not have enough time to prepare food; 50% of Hispanic respondents do not know how to prepare available foods; transportation is a problem for substantial percentages of all minority groups; 50% of Hmong respondents have problems getting food because of child care; Hmong and Hispanic respondents were more likely to have problems getting food because of their work schedules; and African-American and Hmong respondents have more problems getting to the pantries during open hours.

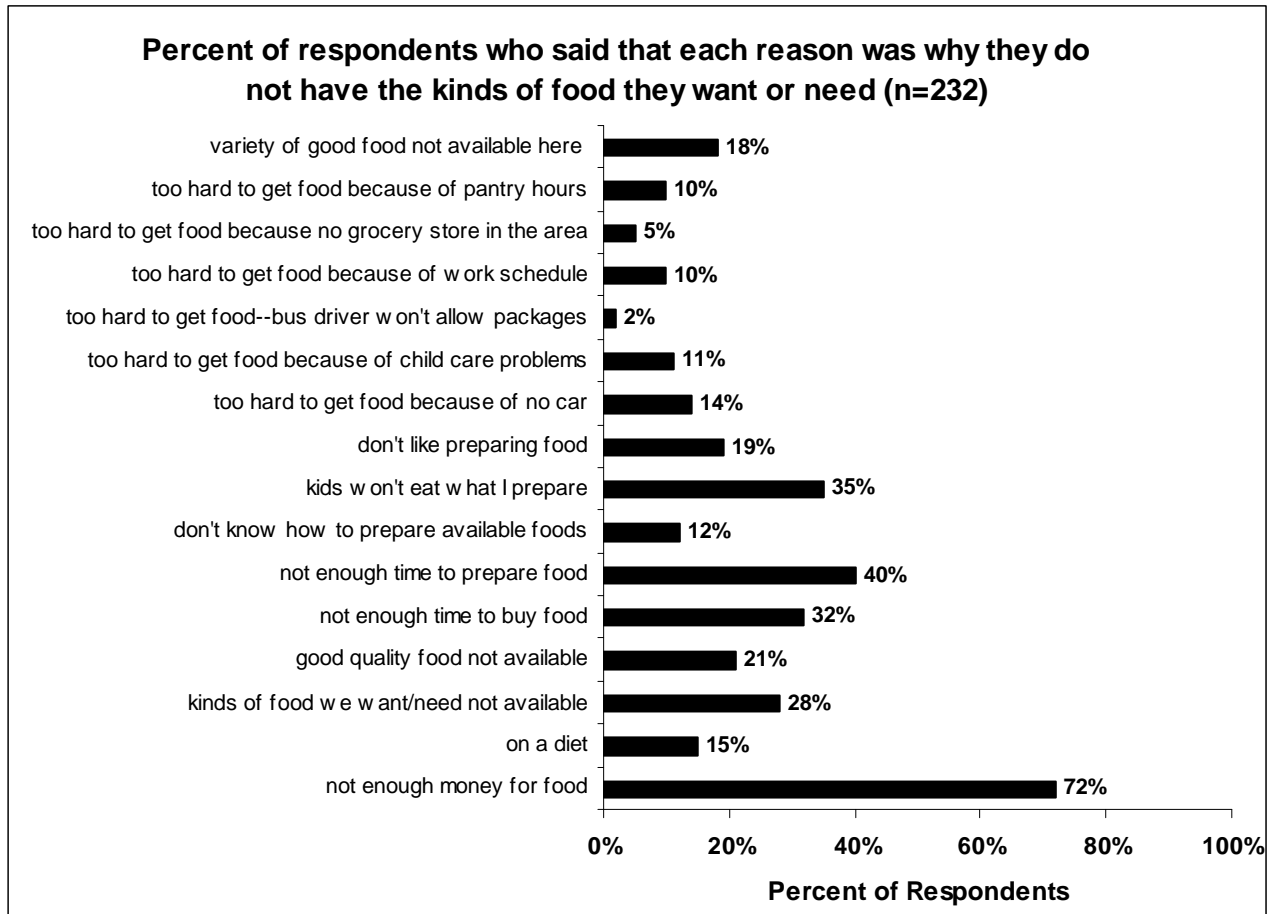


Figure 28.

Reasons for Not Having Enough Food

Another subset of respondents reported that they sometimes or often did not have enough food. All of these respondents should have been food insecure with hunger, however, a very small percentage were food secure, (38%) were food insecure without hunger, and 59% were food insecure with hunger. These respondents gave reasons why they did not have enough food. Almost all respondents (91%) said that one of the reasons they did not have enough food was that they did not have enough money (see Figure 29). More than half (52%) said that it was too hard to get food. At least 30% reported that it was difficult to get food because they did not have a car, because of childcare problems, and because they could not get to the food pantry during open hours. Thirty-one percent also said they did not have enough time to prepare food, 25% said it was difficult to get food because of their work schedule, 21% said that it was hard to get food because there was no grocery store in their area and 22% do not know how to prepare the available foods.

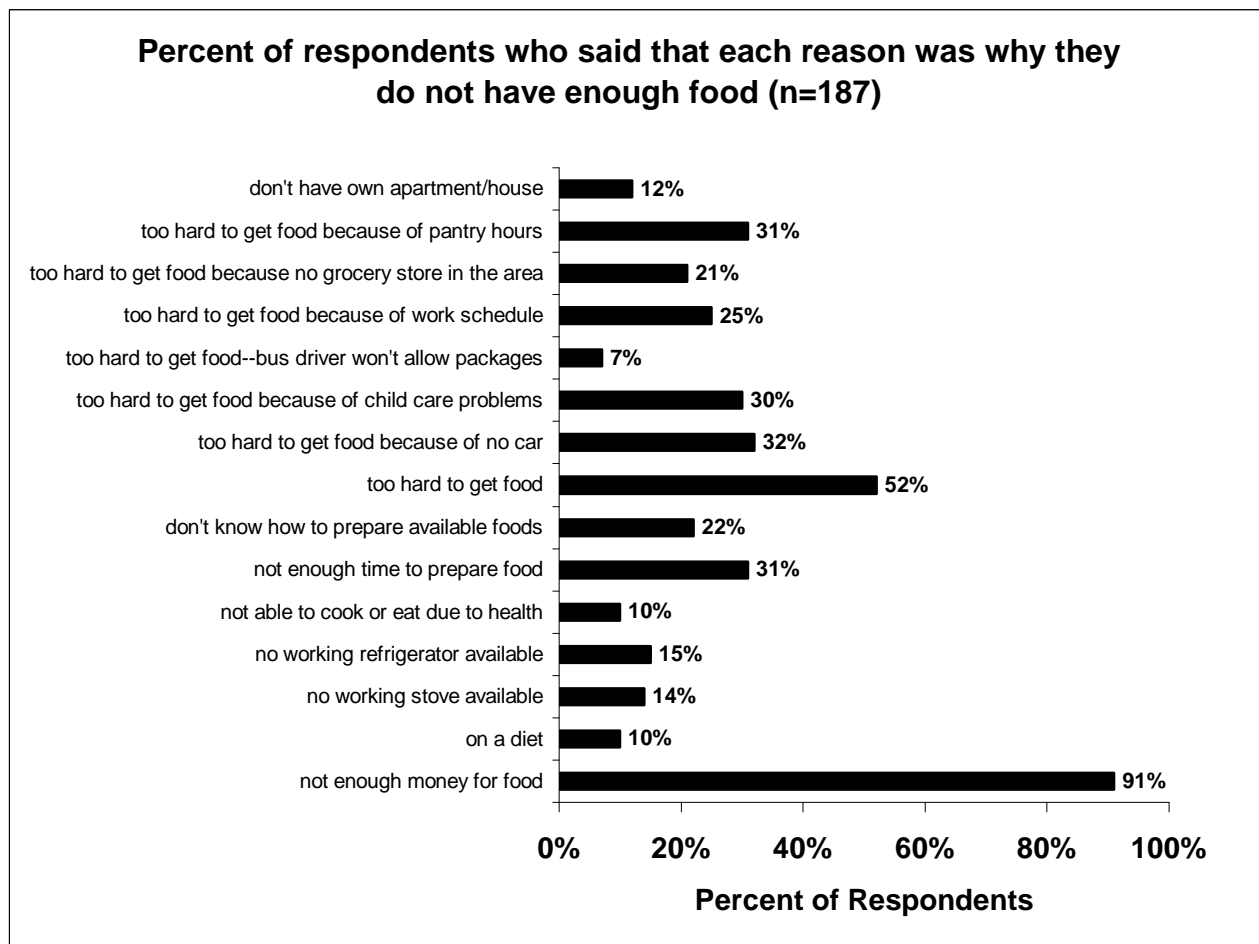


Figure 29.

As Table C18 in Appendix C shows, the percent of respondents who cited reasons why they did not have enough food varied by their food security status. All respondents said they did not have enough money for food and 67% said it was hard to get food for a variety of reasons. About 25% of respondents who were food insecure with severe hunger reported that they were on a special diet, had no working refrigerator, or had difficulty getting food because bus drivers would not allow them on the bus with packages. Thirty-three percent said they could not cook or eat due to health problems and did not have enough time to prepare food, 30% said it was difficult to get food because there was no grocery store in their area, and 38% said that they could not get to the food pantry during open hours. Half had difficulty getting food because they did not have a car and 44% said it was difficult because of child care problems.

Respondents' reasons for not having enough food varied by ethnicity (see Table C19 in Appendix C). Higher percentages of Native Americans, Hmong, and African-Americans said that it was difficult to get food because of transportation; 31% of Hmong said they were not able to cook or eat due to health problems; Hmong and Hispanic respondents were more likely to report that they do not know how to prepare available foods and that it is difficult for them to get food because of child care problems; Hmong respondents were more likely to have problems getting food because there is no grocery store in their area; African-American, Hmong and Hispanic respondents also were more likely to have problems getting food because of their work schedules; and African-American, Hmong and Native American respondents had difficulty getting food because they could not get to the food pantry during open hours.

Initiatives to Alleviate Food Insecurity

The third general question of interest in this evaluation focused on determining which initiatives would most benefit individuals who are food insecure. Respondents were presented with a list of initiatives and asked which ones would help them in getting the food they need. Respondents' perceptions of the potential helpfulness of various initiatives varied by gender, ethnicity, site, level of food security, and mode of transportation used.

Overall, 32% of respondents said that a traveling grocery store would be helpful to them, 28% reported that improved transportation would be helpful, and 24% said that community gardens and a grocery store downtown would help them get the food they need. Twenty-two percent said a traveling food pantry would be helpful and 18% said different pantry hours would be helpful. Table C20 in Appendix C shows that significantly more males reported that improved transportation, a traveling food pantry, and a grocery store downtown would be helpful compared to females. Table C21 in Appendix C shows that compared to Caucasian respondents, higher percentages of most minority respondents reported that improved transportation, different pantry hours, and community gardens would benefit them. Higher percentages of African-American and Native American respondents reported that a grocery store downtown and a traveling pantry would help them. These findings reflect the fact that minority respondents reported being more food insecure than Caucasian respondents.

Initiatives by Type of Site

When respondents' perceptions of the proposed initiatives are examined by site, it is evident that large percentages of meal site and food pantry respondents view the initiatives as helpful while fewer WIC respondents viewed them this way (see Figure 30).

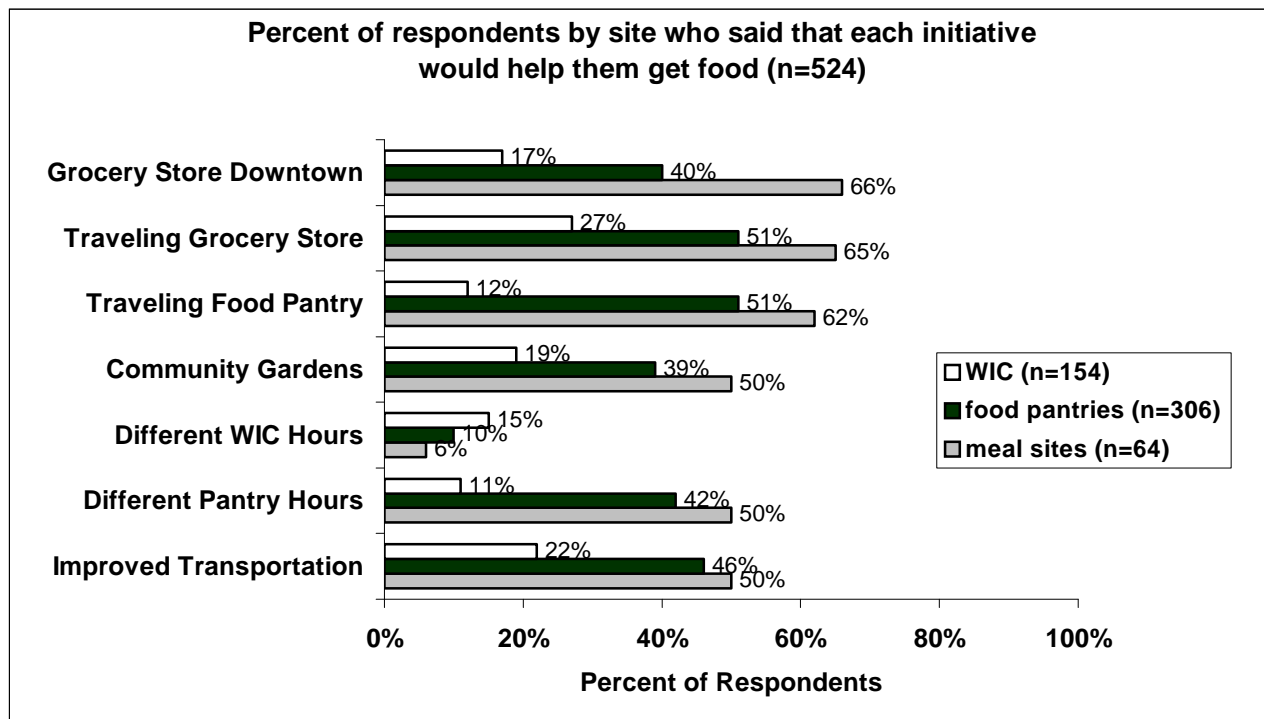


Figure 30.

Almost two-thirds (66%) of meal site respondents and 40% of food pantry respondents said a grocery store downtown would be helpful. More than 50% of the respondents at these two types of sites said that a traveling food pantry and traveling grocery store would be helpful. Similarly, 50% of meal site respondents and large percentages of respondents at food pantries said that improved transportation, different pantry hours, and community gardens would be help them get the food they need. In contrast, about 25% of WIC respondents said that a traveling grocery store and improved transportation would be helpful to them.

Food Pantry Hours

Substantial percentages of respondents at food pantries said that different pantry hours would help them get the food they need. Figure 31 shows the percent of respondents at each food pantry who reported that different pantry hours would be helpful. Respondents' answers varied considerably by site with none of those at Presbyterian Pantry to more than half at Trinity Lutheran Pantry reporting that different hours would be helpful. It's important to note that the sample sizes at these two sites were quite small. Furthermore, the response rate at Presbyterian Pantry was less than 50% with most individuals declining to participate because of lack of time. This suggests that the responses to this question by those who were interviewed at this site may not be representative of the population of individuals served there.

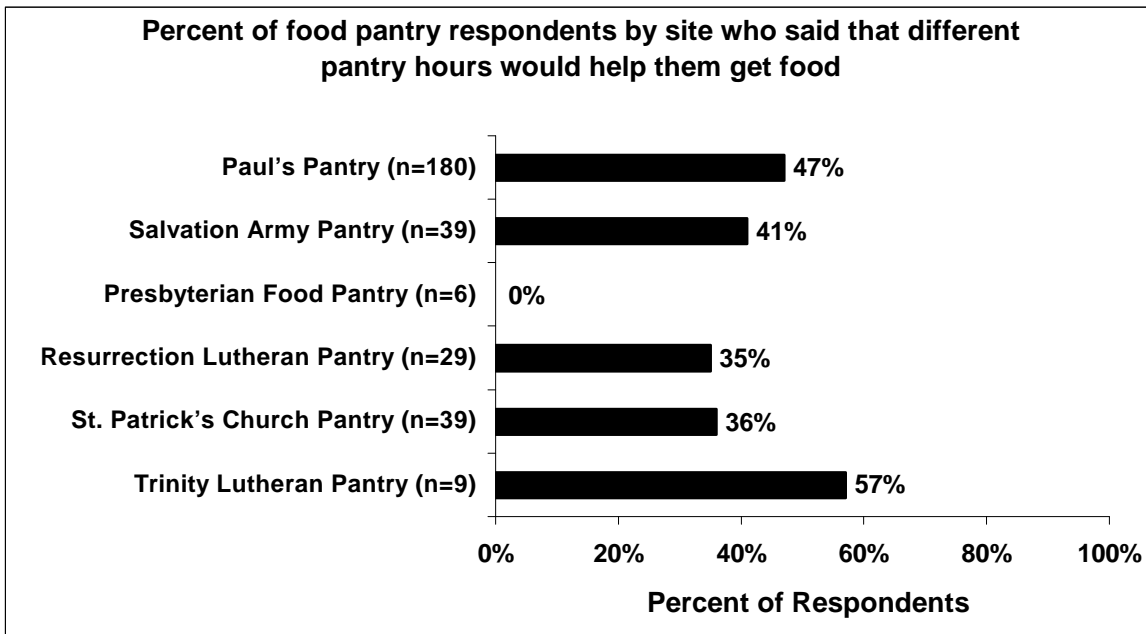


Figure 31.

Initiatives by Food Security Status

Respondents' perceptions of which initiatives would be helpful were also examined in terms of their food security status. Figure 32 shows the percentage of respondents by food security status who said that each initiative would help them in getting the food they need. Respondents' food security status was significantly related to all programs except different WIC hours ($p < .001$). Roughly 50% of respondents who were food insecure with hunger said a traveling food pantry and a traveling grocery store would be helpful. Almost half reported that improved transportation, different pantry hours, and community gardens would be helpful. About a third of these individuals also said that a grocery store downtown would be helpful.

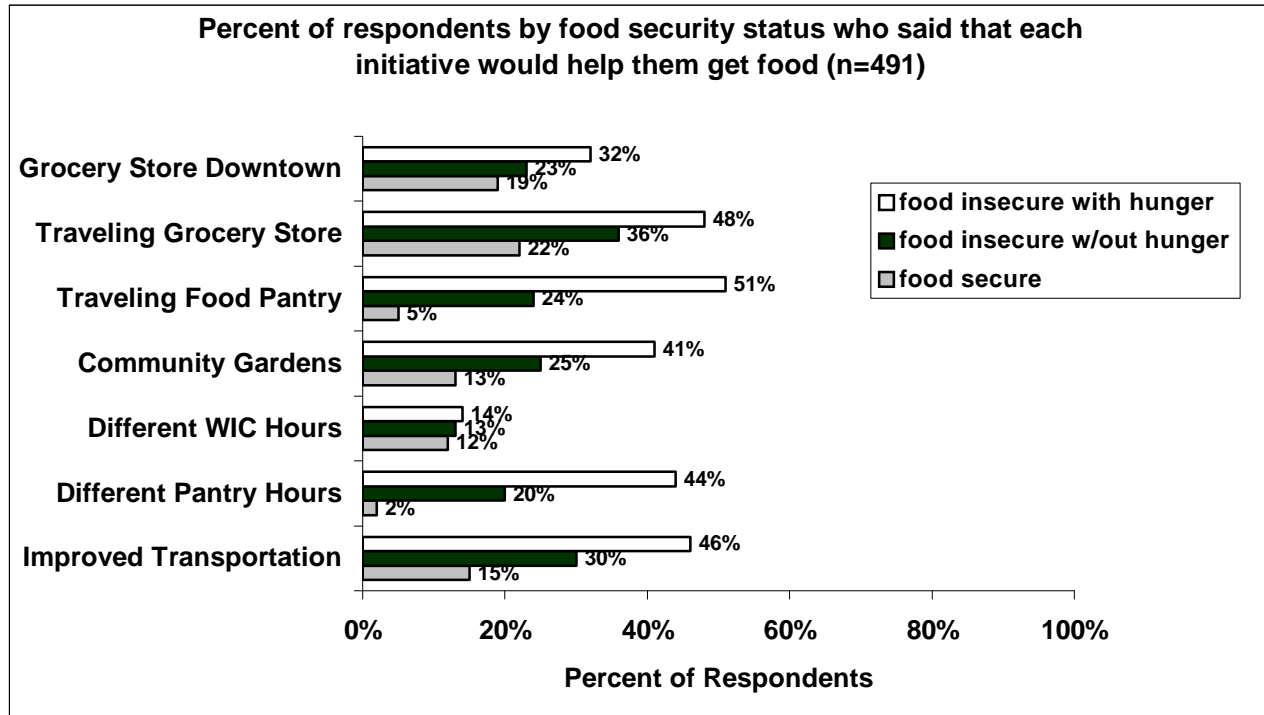


Figure 32.

Initiatives by Type of Transportation Used

Respondents' perceptions of the initiatives were also related to the type of transportation they used. Almost two-thirds (63%) of respondents who did not drive their own car said that improved transportation would help them get the food they need compared to 12% of those who owned a car. Not surprisingly, a traveling food pantry, traveling grocery store, and grocery store downtown were also seen as a more useful initiatives for individuals who did not have their own car compared to those who owned their own car (see Figure 33 and Table C22 in Appendix C).

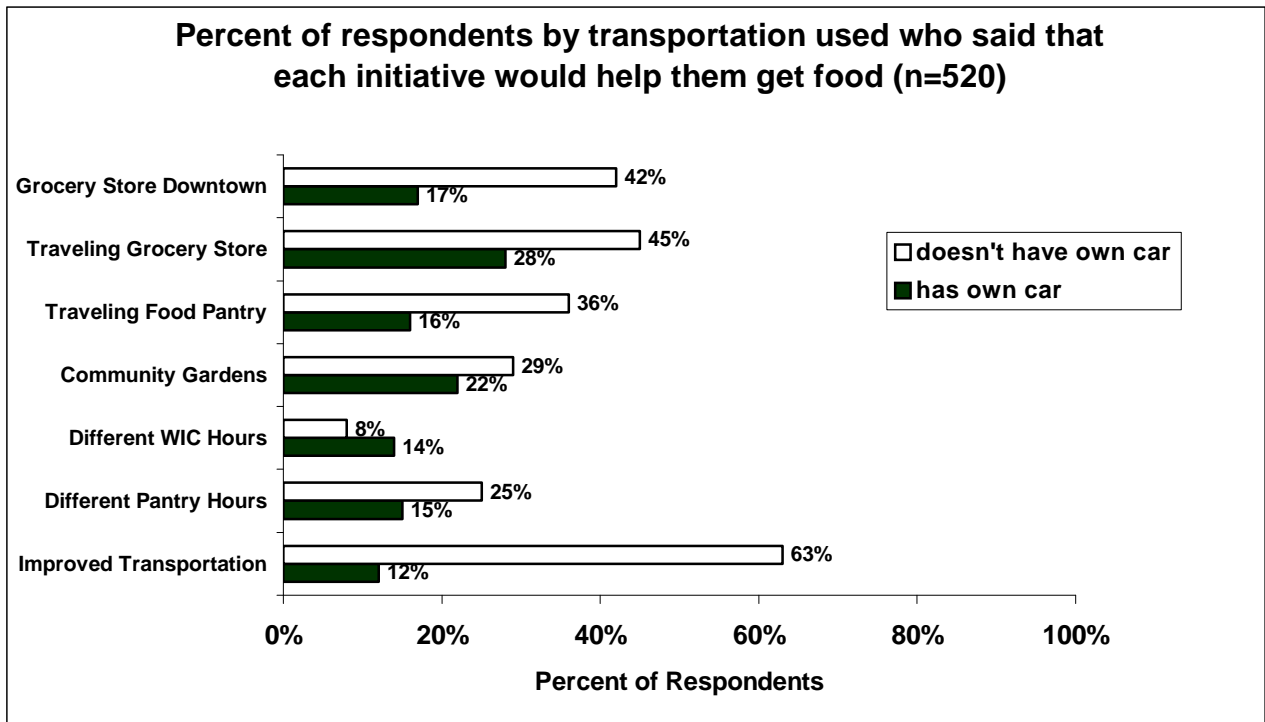


Figure 33.

Summary

1) What is the prevalence of food insecurity among at-risk households in Green Bay, Wisconsin and how does it compare with findings from 1998?

Overall, levels of food security in 1999 were very similar to those of 1998: less than half the respondents were food secure, about a third were food insecure without hunger, and about 20% were food insecure with hunger. A few significant changes, however, did occur. Hispanic respondents were significantly less food secure in 1999 with only 33% reporting food security compared to 57% in 1998. The recent and substantial increase in the Hispanic population of Green Bay may have had some impact on this change. African-American and Native American respondents were also less food secure in 1999. In contrast, Hmong respondents were somewhat more food secure in 1999, and reinstatement of food stamp benefits to them during the last year may account for this change.

In 1999, 44% of the respondents reported being food secure, 34% were food insecure without hunger, and 22% were food insecure with hunger. Food security status was strongly related to the type of site (i.e., meal site, food pantry, or WIC) at which respondents were interviewed and to the number of different types of sites they visited. More than half of the respondents (52%) at WIC reported being food secure compared to 11% of respondents at food pantries and 21% of meal site respondents. Only 14% of WIC respondents were food insecure with hunger compared to 50% of food pantry respondents and 46% of those interviewed at meal sites. Respondents who received assistance at more than one type of site were more food insecure compared to those that visited only one site.

When respondents were asked to indicate if specific hunger events occurred in their household during the last year, 28% overall and more than 50% of food pantry and meal site respondents indicated that an adult in their household went skipped or reduced the size of a meal at least once during the last year because there wasn't enough money for food. Ten percent overall, 25% of food pantry, and 21% of meal site respondents said an adult in their household went without food for an entire day. About 5% of respondents reported their children skipped a meal or that the size of their children's meals were cut at least once during the last year. Two percent of respondents reported that their children went without food for an entire day during the last year because there wasn't enough money for food. Higher percentages of food pantry respondents indicated that their children's food intake had been reduced during the last year compared to respondents at meal sites and WIC.

Results also indicated that females in the 1999 sample were more food secure than males, and respondents between the ages of 30 and 60 tended to be less food secure compared to younger and older respondents. Caucasian respondents were more food secure than ethnic minorities with substantial percentages of respondents reporting food insecurity with hunger (54% Hmong, 34% African-American, 28% Hispanic, and 41% Native American). The food security of households with children was similar to those without children. However, adults living alone reported the highest level of food insecurity followed by single parent households. Respondents with more education were more food secure as well.

Substantial percentages of respondents received food assistance from a number of sources during the last year. Almost all respondents who were food secure received WIC assistance (92%) compared to 66% of food insecure respondents. Higher percentages of food insecure respondents received almost all other types of food assistance compared to those who were food secure. At least 50% of respondents who were food insecure received assistance from

food pantries and friends or relatives during the last year. A number of food assistance programs, however, were used very little by respondents. Only 19% of respondents who were food insecure with hunger used summer lunches in the park, 4% used summer breakfast at the resource center, and 18% used meal sites.

Respondents' food security also varied by employment status and wages earned. Respondents who were employed were more food secure than those who were unemployed, however, the food security status of those who were employed part-time was almost identical to that of unemployed respondents. Respondents who reported earning the median hourly wage or less for this sample were similar to unemployed respondents in their food security: roughly 40% reported being food secure. In contrast, 57% of those earning more than the median wage reported being food secure.

Because many of the service providers at the food pantries reported that the number of individuals seeking food from them had been increasing in recent months, respondents who used food pantries during the last year were divided into two groups: those whose first visit was within the last year, and those whose first visit was more than a year ago. Higher percentages of African-Americans and Hispanics began receiving food pantry assistance during the last year compared to the overall 33%. Respondents residing in single parent households or those with multiple adults and no children were more likely to have started receiving assistance at food pantries during the last year as well. Respondents whose first visit was sometime within the last year were also more educated and were more likely to be employed and to earn the median wage or less for this sample compared to those who first visited a food pantry more than a year ago. They were also less likely to receive income from almost all sources except employment.

In an effort to examine whether food assistance programs were reaching those in need, respondents were asked if they knew someone who needed assistance at their site but was unable to receive it. Substantial percentages of respondents reported that they did know someone who needed assistance but wasn't receiving it: 16% overall, 37% of female respondents at meal sites, and 26% of females at food pantries.

2) What are the reasons for respondents' food insecurity?

Respondents who reported that they had enough food but not the kinds of food they wanted or needed gave several reasons for their food insecurity. About 75% said they did not have enough money for food; 40% did not have enough time to prepare food; about a third did not have enough time to purchase food and had children who would not eat what they prepared; more than a fourth said that the kinds of food they wanted or needed were not available to them; and more than one in five said that good quality food was not available to them.

The largest difference between those who were food insecure with hunger and those who were not was in response to the reason "Too hard to get food". Almost half of these individuals said that it was too hard to get food because they did not have a car and about a third said it was difficult because of childcare problems, their work schedule, and because they can not get to the food pantry during open hours. A large percentage (24%) of these respondents also reported that they did not know how to prepare the foods that were available to them.

Another group of respondents said they sometimes or often did not have enough food. Almost all of these respondents reported that they did not have enough money for food despite the fact that half the respondents who gave this reason were employed and more than two-thirds resided in households that had income from employment during the previous month. More than half said that it was too hard to get food, with about a third having difficulty because they do not have a car, because of childcare problems, or because they can not get to the food pantry during open hours. Almost a third did not have enough time to prepare food and a quarter of the respondents had difficulty getting food because of their work schedule. More than one in five said they did not know how to prepare the foods that are available to them and that it is too hard to get food because there is no grocery store in their area.

Substantial percentages of respondents who were food insecure with severe hunger also reported that they were on a special diet (24%), had no working refrigerator (24%), had difficulty getting food because bus drivers would not allow them on the bus with packages (25%), could not cook or eat due to health problems (33%), and had difficulty getting food because there was no grocery store in their area (30%).

Respondents' reasons for not having the kinds of food they wanted or needed varied by ethnicity, which reflected the fact that minorities were more food insecure than Caucasians. Larger percentages of all minority groups reported that transportation was a problem for them and that they did not have enough time for purchasing and preparing food. These issues of time were also reflected in difficulties with childcare, work schedules, and getting to the food pantries during open hours. Furthermore, larger percentages of minorities reported that the kinds of food they wanted or needed were not available to them and that a variety of good food was not available to them at the site where they were interviewed. Hmong and Hispanic respondents, in particular, were much more likely to report that good quality food was not available to them. Half the Hispanic respondents did not know how to prepare available foods.

Respondents' reasons for not having enough food also varied by ethnicity. Higher percentages of minority groups said they did not have enough time to prepare food and that it was difficult to get food because of transportation, work schedules, and food pantry. Hmong and Hispanic respondents were more likely to report that they did not know how to prepare available foods and that it was difficult for them to get food because of child care problems.

3) What types of food assistance initiatives would benefit individuals who are food insecure?

Substantial percentages of respondents, especially those who were food insecure with hunger and minorities, reported that the proposed initiatives would help them get food. The proposed initiatives and percent of respondents who reported that each would benefit them were:

- **Traveling grocery store**
 - 32% overall; 48% of those food insecure with hunger; 65% of meal site respondents; 51% of food pantry respondents; 41% of African-American and Native American, and 38% of Hmong respondents
- **Improved transportation**
 - 28% overall; 46% of those food insecure with hunger; 50% of meal site respondents; 46% of food pantry respondents; 38% of males; 45% of minority respondents
- **Community gardens**
 - 24% overall; 41% of those food insecure with hunger; 50% of meal site respondents; 39% of food pantry respondents; 41% of Hmong, 37% of Native American, and 30% of African-American respondents
- **Grocery store downtown**
 - 24% overall; 32% of those food insecure with hunger; 66% of meal site respondents; 40% of food pantry respondents; 45% of males; 59% of African-American and 38% of Native American respondents
- **Traveling food pantry**
 - 22% overall; 51% of those food insecure with hunger; 62% of meal site respondents; 51% of food pantry respondents; 33% of males; 44% of African-American, 40% of Native American, and 27% of Hmong respondents
- **Different pantry hours**
 - 18% overall; 44% of those food insecure with hunger; 50% of meal site respondents; 42% of food pantry respondents; 30% of African-American, 42% of Hmong, and 31% of Native American respondents

Discussion

Food Security Status

Results of this study indicate that the food security status of at-risk households in Green Bay changed very little between 1998 and 1999, with roughly 55% of respondents being food insecure.² While this may be good news, given the reductions in welfare benefits, these findings indicate that a substantial percentage of at-risk households in Green Bay continue to report food insecurity. Almost 80% of respondents lived in households with children, and more than one in five of these households were food insecure with hunger. A small percentage of these households even reported that at least one of their children had skipped meals or gone without eating for an entire day during the last year because there was not enough money for food.

Food pantry volunteers reported that more people had been seeking assistance during the previous months, but because there is no uniform method of counting recipients at food assistance sites we do not know for certain. Our findings do indicate, however, that a third of the respondents who reported going to food pantries during the last year said that the first time they received food at a food pantry was within the last year. A study of Minnesota food pantries conducted in 1995 found that 46% of recipients began using food pantries within the previous year (Fang & Rode, 1996) which suggests that our finding is typical for this at-risk population and not indicative of any major changes in food assistance usage. Interestingly though, individuals who began seeking food assistance at pantries during the last year tended to be more educated, were more likely to be employed and earning less than the median wage or less per hour for this sample.

Another significant finding was that high percentages of minorities continued to be food insecure with hunger and that most of these groups tended to become more food insecure during the last year, especially Hispanic and African-American respondents. The one exception was that Hmong respondents became somewhat more food secure in the last year. This finding was not surprising given that since the 1998 study, food stamp benefits were reinstated to Hmong respondents. Nonetheless, Hmong respondents in 1999 were still the least food secure compared to all other ethnic groups with more than half of them reporting food insecurity with hunger.

Related to the finding that minority groups are less food secure, is that they also tend to be less educated. Respondents with less education were more food insecure, less likely to be employed, and earned less per hour compared to more educated respondents. And while a sizable proportion of respondents graduated high school or had schooling beyond high school, the graduation rates were less than Wisconsin averages. Hispanics, in particular, reported lower educational attainment with only about a third graduating high school. This finding may be related to the fact that there are many recent Hispanic immigrants in Green Bay and in this population of at-risk households.

The differences among ethnic groups in educational attainment were also apparent in employment rates and wages earned. A high percentage of households reported having employment income during the last month, however, minority groups were less likely to have this source of income. The unemployment rate was also quite high for this sample compared to the general population in Wisconsin (3.1% in April, 1999 (Bureau of Labor Statistics, 1999)), however, our data does not indicate what percentage of respondents resided in households where one or more unemployed adults were searching for work.

The mean hourly wage of respondents was similar to that of individuals in Wisconsin a few months after leaving welfare in 1998. Minority groups—especially Hispanics and Native

Americans—tended to earn less per hour compared to Caucasians and African-Americans. Females also tended to earn less than males and were more likely to be unemployed.

Surprisingly, only 24% of respondents overall and 26% of respondents with children reported receiving food stamps during the last year while many of these households were eligible for them. In a study of Wisconsin families who left AFDC or W-2 during the first three months of 1998, the State of Wisconsin, Department of Workforce Development, found that 49% of such families were receiving food stamps during the second half of that year. When asked if they knew they might be eligible for food stamps after leaving welfare, 34% said they were not aware of this. Similar results were found in a study of individuals previously on AFDC (St. Norbert College Survey Center, 1999). Thus, confusion regarding eligibility may be one of the reasons why substantial percentages of respondents in this study were eligible for food stamps but not receiving them. Other food assistance programs, such as summer lunches in the park and summer breakfasts at the resource center, were also used by relatively few respondents.

Another finding suggests that the need for food assistance programs may be greater than is currently recognized; substantial percentages of respondents said they knew someone who would get assistance at that site but was unable to and this was especially true of those who were more food insecure. Almost half of the females who were food insecure with severe hunger knew someone who needed food assistance but wasn't getting it.

Reasons for Food Insecurity

The reasons respondents gave for not having the kinds of food they wanted/needed or not having enough food reflected problems with both the availability and the accessibility of food. Virtually all respondents were unable to acquire the food they needed because of a lack of money despite the fact that most respondents resided in households with employment income. Substantial percentages of respondents also gave reasons that are tied to economic issues: not having a car, having childcare problems, and not being able to acquire food due to work schedules. This suggests that at least some respondents are working long hours which prevents them from getting to food pantries during open hours and from preparing food.

Large percentages of respondents also said that the kinds of food they want or need are not available to them, good quality food is not available, and a variety of good food is not available to them. Certain ethnic groups were more likely to cite some of these reasons. For example, many Hmong and Hispanic respondents reported that one of the reasons they do not have the food they need is that they do not know how to prepare available foods.

With few exceptions, higher percentages of respondents who were more food insecure gave each reason compared to those who were more food secure. Respondents who were food insecure with hunger were also more likely to report that they had difficulty getting enough food because of access problems.

Food Initiatives

Large percentages of respondents, especially those who were food insecure with hunger, said that the food assistance initiatives mentioned to them would be beneficial. Transportation seemed to be a concern for many individuals, with almost a third reporting that a traveling grocery store would help them get the food they need. For individuals who were most food insecure, a traveling food pantry, traveling grocery store, and improved transportation were also seen as beneficial.

The reasons respondents gave for being food insecure and the food assistance initiatives they viewed as beneficial suggest that access to food is a serious problem for this population of individuals and should be addressed in future program planning. Unavailability of good quality food also appears to be a problem for many of the respondents, particularly those who are food insecure with hunger.

Recommendations

In 1995, the USDA launched its Community Food Security Initiative, embracing a more holistic approach to addressing hunger needs and focusing on seven major areas. The 20 recommendations to alleviate food insecurity in Green Bay are grouped according to these seven major areas. Findings supporting each recommendation are also included.

A. Creating new, and expanding existing, local infrastructures that boost food security;

1. Provide alternative means of transportation.

- 32% overall and 50% of those food insecure with severe hunger reported that one reason they do not have enough food is that it is too hard to get food because they do not have a car
- 28% overall, 46% of those food insecure with hunger, 50% of meal site respondents; 46% of food pantry respondents, and 45% of minority respondents said improved transportation would help them get the food they need

B. Increasing economic and job security;

2. Expand educational opportunities, especially for minorities.

- respondents with more education were more likely to be employed (64% of respondents who were high school graduates were currently employed vs. 44% of those without high school diplomas)
- respondents with more education earned more than those with less education (median wages=\$8.00 per hour for those with education beyond high school, \$7.27 per hour for those with a high school diploma, and \$7.10 for those without a high school diploma)
- large percentages of respondents had not completed high school (34% overall, 56% of Native-Americans, 52% of African-Americans, and 35% of Hispanics)

3. Assist low income individuals in obtaining higher paying jobs.

- respondents who reported earning the median hourly wage or less for this sample were similar to unemployed respondents in their food security status

4. Support legislation to increase hourly wages.

- 91% overall and 100% of those food insecure with severe hunger said that one reason they did not have enough food was that they did not have enough money for food despite the fact that overall, 83% of respondents resided in households that received income from employment during the last month
- average wage was \$7.87 per hour (median = \$7.50 per hour) compared to the minimum wage of \$5.15 per hour

5. Provide budgeting training.

- research has shown that budgeting training for individuals improves their ability to handle financial situations
- 91% of respondents who sometimes or often did not have enough to eat during the last year reported that one of the reasons was that they did not have enough money to buy food

C. Bolstering food and nutrition assistance provided by nonprofit groups;

6. Establish a traveling non-profit grocery and/or food pantry.

- 22% overall; 51% of those food insecure with hunger; 62% of meal site respondents; 51% of food pantry respondents; 33% of males; 44% of African-American and 40% of Native American respondents said a traveling food pantry would help them get the food they need
- 32% overall; 48% of those food insecure with hunger; 65% of meal site respondents; and 51% of food pantry respondents said a traveling grocery store would help them get the food they need

7. Coordinate food pantry efforts city-wide.

- substantial percentages of respondents reported that a traveling food pantry and different pantry hours would help them get the food they need which suggests that improved food pantry accessibility could alleviate food insecurity for some individuals

8. Consider establishing meal site programs for ethnic groups.

- respondents at meal sites were predominantly Caucasian (73%), with few Native Americans, African-Americans, and Hispanics and no Hmong respondents. Hmong were the most food insecure group while Caucasians were the most food secure suggesting that more minorities would benefit from meal site programs.

9. Increase the variety of foods available at food pantries to better serve ethnic minorities.

- 50% of Hmong, 33% of Hispanic and Native American, and 27% of African-American respondents who do not have the kinds of food they want or need said one reason was that a variety of good food is not available at the site where they were interviewed
- 29% of Hmong, 54% of Hispanic, 36% of Native American, and 46% of African-American respondents who do not have the kinds of food they want or need said one reason was that the kinds of food they want or need are not available at the site where they were interviewed

D. Improving community food production and marketing;

10. Target community garden outreach to population in need.

- 24% overall; 41% of those food insecure with hunger; 50% of meal site respondents; 39% of food pantry respondents; 41% of Hmong and 37% of Native American respondents reported that community gardens would help them get the food they need

E. Boosting education and awareness;

11. Provide resource information and networking to volunteers and staff who work with low income individuals and families.

12. Provide information/referrals to other services at food assistance sites.

- interviewers reported that many respondents inquired about other services that might be available to them

13. Provide food preparation training.

- 22% of respondents who do not have enough food said one reason was that they do not know how to prepare available foods and 17% of those who do not have the kinds of food they want or need cited this reason
- 23% of Hmong and 50% of Hispanic respondents who do not have the kinds of food they want or need said one reason was that they do not know how to prepare available foods
- 30% of Hmong and 39% of Hispanic respondents who do not have enough food said one reason was that they do not know how to prepare available foods

F. Improving research, monitoring, and evaluation;

14. Establish a standardized method of counting recipients at food assistance sites in Green Bay.

- An accurate assessment of the prevalence of food insecurity in Green Bay will help agencies understand the populations they serve and facilitate improving the services they provide. This assessment requires a more comprehensive method of counting recipients at food assistance sites.

15. Evaluate public forms of transportation.

- 32% overall and 50% of those food insecure with severe hunger reported that one reason they do not have enough food is that it is too hard to get food because they do not have a car
- 28% overall, 46% of those food insecure with hunger, 50% of meal site respondents; 46% of food pantry respondents, and 45% of minority respondents said improved transportation would help them get the food they need

16. Evaluate the establishment of a grocery outlet in downtown Green Bay.

- 24% overall, 32% of those food insecure with hunger, 66% of meal site respondents, 40% of food pantry respondents, 45% of males, 59% of African-American and 38% of Native American respondents said a grocery store downtown would help them get the food they need

17. Investigate why households at-risk for food insecurity are unable to seek aid at food assistance sites.

- more than a third of female respondents at meal sites and 26% of females at food pantries said they knew someone who would get assistance at that site but was unable to; almost half of the females who were food insecure with severe hunger knew someone who would get assistance at that site but was unable to

18. Evaluate food pantries' hours of operation and modify as needed.

- 31% overall and 38% of those food insecure with severe hunger said one reason they do not have enough food is that it is too hard to get food because they can not get to the food pantry during open hours
- 18% overall, 44% of those food insecure with hunger, 50% of meal site respondents, 42% of food pantry respondents, and 27% of minority respondents report that different pantry hours would help them get the food they need

G. Bolstering federal nutrition assistance safety net.

19. Provide food stamp outreach education.

- 24% of respondents received food stamps during the last year
- 14% of all households had no employed adult and of these, only 41% received food stamps during the last year
- 57% of households with no employed adult had children and only 56% of these households received food stamps during the last year
- 51% of respondents resided in households with one employed adult and of these, only 30% received food stamps during the last year; 35% of individuals not receiving food stamps were eligible based on household size and income requirements

20. Publicize food assistance programs available in Green Bay.

- only 16% of respondents with school age children received summer lunches in the park during the last year
- only 5% of respondents with school age children received summer breakfasts at the resource center during the last year
- only 67% of respondents with school age children received reduced or free school lunches during the last year

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Notes

¹ For each site, the percent of total households served was calculated, the percent of total respondents sampled was calculated, and an adjustment factor or site weight was calculated. The site weight is the ratio of the population distribution (column 2) to the sample distribution (column 3). A second weight was calculated to adjust for differential response rates at the sites. This weight is the inverse of the response rate for each site. A third weight was calculated that reflected the number of different types of sites each respondent visited. This individual weight is the inverse of the probability of being selected. For respondents who visited one, two or three types of site, the weights were 1, .5, and .33, respectively. These three weights were multiplied together to create a composite weight for each case. When analyses are presented by type of site, the individual level weight is excluded from the analysis.

² The data do not indicate whether the number of people seeking food assistance increased or decreased between 1998 and 1999.

Appendix A

Table A1. Number of respondents interviewed at each site by age group.

| Age | Meal Sites | Food Pantries | WIC | Total |
|------------------------|-------------------|----------------------|------------|--------------|
| 19 or younger | 0 | 13 | 22 | 35 |
| 20-29 years old | 12 | 58 | 92 | 162 |
| 30-39 years old | 12 | 110 | 28 | 150 |
| 40-49 years old | 25 | 69 | 8 | 102 |
| 50-59 years old | 9 | 31 | 2 | 42 |
| 60 or older | 6 | 27 | 0 | 33 |
| Total | 64 | 308 | 152 | 524 |

Table A2. Number of respondents interviewed at each site by ethnicity.

| Ethnicity | Meal Sites | Food Pantries | WIC | Total |
|-------------------------|-------------------|----------------------|------------|--------------|
| African-American | 5 | 25 | 5 | 35 |
| Hmong | 0 | 57 | 12 | 69 |
| Hispanic | 2 | 28 | 25 | 55 |
| Caucasian | 47 | 137 | 100 | 284 |
| Native American | 8 | 43 | 3 | 54 |
| Russian | 0 | 5 | 1 | 6 |
| Other | 1 | 14 | 6 | 21 |
| Total | 63 | 309 | 152 | 524 |

Table A3. Estimated number of households served, number sampled, site weight, and response rate at each site.

| Site | Number of Households Served (% of total # of households served) | Number Sampled (% of total # sampled) | Site Weight | Response Rate |
|------------------------------|--|--|---------------|---------------|
| Salvation Army Meal Site | 150 (0.0355) | 55 (0.0724) | 0.4901 | 71% |
| Room at the Inn Meal Site | 70 (0.0166) | 36 (0.0474) | 0.3498 | 83% |
| Total Meal Sites | 220 (0.0521) | 91 (0.1197) | 0.4349 | 76% |
| Trinity Lutheran Pantry | 40 (0.0095) | 11 (0.0145) | 0.6541 | 82% |
| St. Patrick's Church Pantry | 215 (0.0509) | 49 (0.0645) | 0.7893 | 86% |
| Resurrection Lutheran Pantry | 130 (0.0308) | 72 (0.0947) | 0.3248 | 49% |
| Presbyterian Food Pantry | 50 (0.0118) | 21 (0.0276) | 0.4283 | 38% |
| Salvation Army Pantry | 200 (0.0473) | 49 (0.0645) | 0.7342 | 86% |
| Paul's Pantry | 670 (0.1586) | 249 (0.3276) | 0.4840 | 79% |
| Total Pantries | 1305 (0.3089) | 451 (0.5934) | 0.5205 | 74% |
| WIC | 2700 (0.6391) | 218 (0.2868) | 2.2279 | 76% |
| TOTAL | 4225 | 760 | | 74% |

Appendix B

Food Security Survey

ID# _____

Date _____

Food Security/Hunger Core Module FAMILY

USDA, Food and Consumer Service – 2/26/98

Introductory Statement

Hi, my name is _____ and I'm from UWGB. We're doing a study to help us improve food programs and would like to ask you some questions. Your answers will be completely confidential and we will not identify you in any way. Would you be willing to answer a few questions?

[If **NO**, record site and gender and go to next person]

- 11. If YES, ask "Do you have children in your home?"** 1 () Yes
0 () No

If **YES** to this question, use **FAMILY** Questionnaire

If **NO**, use **ADULT** Questionnaire

12. Site _____

13. Time: _____

14. Gender: (1) Male (2) Female

- 15. If survey was not finished, why?**
- | | |
|-------|--|
| 1 () | <u>participant left to get food</u> |
| 2 () | participant left to catch bus |
| 3 () | participant got bored |
| 4 () | participant distracted by friends/family |
| 5 () | _____ |
| 6 () | Does not apply—survey completed |

These next questions are about the food eaten in your household.

1. Which of these 4 statements best describes the food eaten in your household in the last 12 months, that is, since March of last year:

- (1) We **always** have **enough** to eat and the **kinds** of food we want; *(go to question 2)*
- (2) We have **enough** to eat **but not always the Kinds** of food we want; *(Skip 1b)*
- (3) **Sometimes** we **don't have enough** to eat; or *(Go to 1b)*
- (4) **Often** we don't have enough to eat *(Go to 1b)*
- (5) DK or refused *(go to question 2)*

1a. **(IF OPTION 2 SELECTED ABOVE, ASK)** Here are some reasons why people don't always have the kinds of food they want or need. For each one, please tell me if that is a reason why YOU don't always have the kinds of food you want or need. (READ LIST. MARK ALL THAT APPLY)

| 1 | 0 | 9 | |
|-----|-----|-----|---|
| Yes | No | DK | |
| () | () | () | 1. Not enough money for food |
| () | () | () | 2. On a diet |
| () | () | () | 3. Kinds of food (I/we) want or need are not available |
| () | () | () | 4. Good quality food is not available |
| () | () | () | 5. Not enough time to purchase the food |
| () | () | () | 6. Not enough time to prepare the food |
| () | () | () | 7. Don't know how to prepare the available foods |
| () | () | () | 8. Kids won't eat what I prepare |
| () | () | () | 9. Don't like preparing the food |
| () | () | () | 10. Too hard to get food (if <u>yes</u> , Why?) (Read list. Mark all that apply.) |
| () | () | () | a) no car |
| () | () | () | b) child care problems |
| () | () | () | c) bus driver won't allow you to ride on bus |
| () | () | () | d) work schedule |
| () | () | () | e) no grocery store in the area |
| () | () | () | f) Can't get to the pantry during open hours |
| () | () | () | g) other _____ |
| () | () | () | 11. Variety of good food not available here. |

1b. (IF OPTION 3 OR 4 SELECTED ABOVE, ASK) Here are some reasons why people don't always have enough to eat. For each one, please tell me if that is a reason why YOU don't always have enough to eat. (READ LIST. MARK ALL THAT APPLY)

- | 1 | 0 | 9 | |
|-----|-----|-----|--|
| Yes | No | DK | |
| () | () | () | 1. Not enough money for food |
| () | () | () | 2. On a diet |
| () | () | () | 3. No working stove available |
| () | () | () | 4. No working refrigerator available |
| () | () | () | 5. Not able to cook or eat because of health problems |
| () | () | () | 6. Not enough time to prepare the food |
| () | () | () | 7. Don't know how to prepare the available foods |
| () | () | () | 8. Too hard to get food (if <u>yes</u> , Why?) (Read list. Mark all that apply.) |
| () | () | () | a) no car |
| () | () | () | b) child care problems |
| () | () | () | c) bus driver won't allow you to ride on bus |
| () | () | () | d) work schedule |
| () | () | () | e) no grocery store in the area |
| () | () | () | f) Can't get to the pantry during open hours |
| () | () | () | g) other _____ |
| () | () | () | 9. Don't have my own apartment/house. |

2. Now I'm going to read you several statements. For each statement, please tell me whether it was OFTEN true, SOMETIMES true, or NEVER true for your household in the last 12 months.

The first statement is "We worried whether our food would run out before we got money to buy more." Was that Often true, sometimes true, or never true for your household in the last 12 months?

- 2 () Often true
- 1 () Sometimes true
- 0 () Never true
- 9 () DK or Refused

3. "The food that we bought just didn't last, and we didn't have money to get more." Was that often, sometimes, or never true for your household in the last 12 months?

- 2 () Often true
- 1 () Sometimes true
- 0 () Never true
- 9 () DK or Refused

4. We couldn't afford to eat balanced meals. Was that often, sometimes, or never true for your household in the last 12 months?

- 2 () Often true
- 1 () Sometimes true
- 0 () Never true
- 9 () DK or Refused

5. I relied on only a few kinds of low cost food to feed my children because I was running out of money to buy food. Was that often, sometimes, or never true for your household in the last 12 months?

- 2 () Often true
- 1 () Sometimes true
- 0 () Never true
- 9 () DK or Refused

6. I couldn't feed my children a balanced meal, because I couldn't afford that." Was that often, sometimes, or never true for your household in the last 12 months?

- 2 () Often true
- 1 () Sometimes true
- 0 () Never true
- 9 () DK or Refused

If Question 1 was answered "Often or Sometimes not enough to eat", or answers to any of questions 2 – 6 were "Often or Sometimes true", continue with questionnaire; otherwise skip to demographic questions (Questions 17 to end).

7. The children were not eating enough because I just couldn't afford enough food. Was that often, sometimes, or never true for your household in the last 12 months?

- 2 () Often true
- 1 () Sometimes true
- 0 () Never true
- 9 () DK or Refused

8. In the last 12 months, since last March did you or other adults in your household ever cut the size of your meals or skip meals because there wasn't enough money for food?

- 1 () Yes
- 0 () No (Skip 8a)
- 9 () DK (Skip 8a)

8a. (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?

- 2 () Almost every month
- 1 () Some months but not every month
- 0 () Only 1 or 2 months
- 9 () DK

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

- 1 () Yes
- 0 () No
- 9 () DK

10. In the last 12 months, were you ever hungry but didn't eat because you couldn't afford enough food?

- 1 () Yes
- 0 () No
- 9 () DK

11. 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 YES to any of Questions 7 -- 11, then continue to Q12; otherwise, skip to question 17.

12. In the last 12 months, did 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 (go to question 13)
- 9 () DK (go to question 13)

12a. (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?

- 2 () Almost every month
- 1 () Some months but not every month
- 0 () Only 1 or 2 months
- 9 () DK

13. In the last 12 months, since March of last year, did you ever cut the size of any of the children's meals because there wasn't enough money for food?

- 1 () Yes
- 0 () No
- 9 () DK

14. In the last 12 months, did any of the children ever skip meals because there wasn't enough money for food?

- 1 () Yes
- 0 () No (go to question 15)
- 9 () DK (go to question 15)

14a. (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?

- 2 () Almost every month
- 1 () Some months but not every month
- 0 () Only 1 or 2 months
- 9 () DK

15. In the last 12 months, were the children ever hungry but you just couldn't afford more food?

- 1 () Yes
- 0 () No
- 9 () DK

16. 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?

- 1 () Yes
- 0 () No
- 9 () DK

17. Which of the following have you or anyone in your household used for food assistance in the last year? (READ LIST. MARK ALL THAT APPLY.)

- | 1 | 0 | 9 | |
|-----|-----|-----|---|
| Yes | No | DK | |
| () | () | () | a. WIC |
| () | () | () | b. friends/relatives |
| () | () | () | c. meals on wheels |
| () | () | () | d. free or reduced school meals |
| () | () | () | e. shelters |
| () | () | () | f. summer lunches in the park |
| () | () | () | g. summer breakfast at the Resource Centers |
| () | () | () | h. local meal sites (If YES, ask 17a.) |
| () | () | () | i. food pantries (If YES, ask 17a. & 17b.) |
| () | () | () | j. food stamps (If YES, ask 17c.) |

17a. (Only for Food Pantries/Meal Sites) When was the first time you got food from a food pantry/meal site? (READ LIST.)

- 1 () Today is the first time
- 2 () sometime in the last 6 months
- 3 () 6 months to a year ago
- 4 () 1 to 2 years ago
- 6 () more than 2 years ago
- 9 () D/K

17b. (Only for Food Pantries) How much of your food can you get from food pantries? (READ LIST.)

- 1 () Less than 1/2
- 2 () About 1/2
- 3 () More than 1/2
- 9 () D/K

17c. (Only for Food Stamps) How much of your food are you usually able to buy with your food stamps? (READ LIST.)

- 1 () Less than 1/2
- 2 () About 1/2
- 3 () More than 1/2
- 9 () D/K

18. Of the food you eat, how much of it are you able to buy with your money? (READ LIST.)

- 1 () Less than 1/2
- 2 () About 1/2
- 3 () More than 1/2
- 9 () D/K

19. Which of the following would help you in getting enough food for you and your family? (READ LIST. MARK ALL THAT APPLY.)

- | 1 | 0 | 9 | |
|-----|-----|-----|----------------------------|
| Yes | No | DK | |
| () | () | () | a. Improved transportation |
| () | () | () | b. Different pantry hours |
| () | () | () | c. Different WIC hours |
| () | () | () | d. Community gardens |
| () | () | () | e. Traveling food pantry |
| () | () | () | f. Traveling grocery store |
| () | () | () | g. Grocery store downtown |
| () | () | () | h. Other _____ |

20. Do you know of anyone who would get food assistance here but are not able to?

- 1 () Yes
- 0 () No
- 9 () D/K

The next few questions have to do with the people in your household.

21. How did you get here today?

- 1 () walk
- 2 () bus
- 3 () drive own car
- 4 () rode with someone, borrowed car
- 5 () bicycle
- 6 () taxi
- 7 () other
- 9 () D/K

22. What is your age? _____

23. How much school have you completed?

- 1 () less than 9th grade
- 2 () 9th - 11th grade
- 3 () high school graduate or equivalent
- 4 () more than high school
- 9 () D/K

24. What is your ethnic background?

- 1 () African American
- 2 () Hmong
- 3 () Hispanic
- 4 () Caucasian
- 5 () Native American
- 6 () Russian
- 7 () Other
- 9 () D/K

25. In your household:

- 25a. How many children are under 6 years old? _____
- 25b. How many children are between age 6 and 17? _____
- 25c. Including you, how many adults are 65 or older? _____
- 25d. Including you, how many adults are less than age 65? _____

26. Have you been employed anytime during the last year?

- 1 () Yes
- 0 () No (If **NO**, go to q27)
- 9 () D/K

26a. If YES, are you currently employed?

- 1 () Yes
- 0 () No (If **NO**, go to q27)

26b. Do you work full or part-time?

- 1 () Part-time
- 2 () Full-time

26c. How much are you paid per hour? _____

27. Including you, how many adults in your household are employed? _____

28. 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. Working |
| <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. Other _____ |

Thank you for taking the time to talk with me today. Do you have any questions about the survey?

Appendix C

Table C1. Percent of respondents at each site by gender.

| Gender*** | Meal Sites (n=66) | Food Pantries (n=332) | WIC (n=165) | Total (n=536) |
|------------------|------------------------------|----------------------------------|------------------------|--------------------------|
| Males | 50% | 24% | 14% | 17% |
| Females | 50% | 76% | 86% | 83% |
| Total | 5% | 30% | 65% | 100% |

***p<.001

Table C2. Percent of respondents at each site by age group.

| Age | Meal Sites (n=64) | Food Pantries (n=308) | WIC (n=152) | Total (n=524) |
|------------------------|------------------------------|----------------------------------|------------------------|--------------------------|
| 19 or younger | 0% | 4% | 15% | 11% |
| 20-29 years old | 16% | 21% | 61% | 46% |
| 30-39 years old | 18% | 36% | 18% | 24% |
| 40-49 years old | 40% | 22% | 5% | 12% |
| 50-59 years old | 16% | 10% | 1% | 5% |
| 60 or older | 11% | 8% | 0% | 3% |

Table C3. Percent of respondents at each site by ethnicity.

| Ethnicity | Meal Sites (n=63) | Food Pantries (n=309) | WIC (n=152) | Total (n=524) |
|-------------------------|------------------------------|----------------------------------|------------------------|--------------------------|
| African-American | 8% | 8% | 3% | 4% |
| Hmong | 0% | 16% | 8% | 8% |
| Hispanic | 3% | 9% | 17% | 14% |
| Caucasian | 73% | 45% | 66% | 63% |
| Native American | 14% | 16% | 2% | 6% |
| Russian | 0% | 1% | 1% | 1% |
| Other | 3% | 4% | 4% | 3% |

Table C4. Percent of respondents at each site by type of household.

| Type of Household*** | Meal Sites (n=65) | Food Pantries (n=305) | WIC (n=152) | Total (n=522) |
|--|------------------------------|--------------------------------------|------------------------|--------------------------|
| Single Adult | 42% | 16% | 1% | 8% |
| Two or more adults without children | 29% | 12% | 14% | 14% |
| Single Adult with children | 13% | 24% | 22% | 22% |
| Two or more adults with children | 16% | 48% | 63% | 56% |

***p<.001

Table C5. Comparison of demographic characteristics of 1998 and 1999 samples from meal sites, food pantries, and WIC.

| Demographic Category | | Percent of Meal Site, Food Pantry & WIC Sample | |
|-----------------------------|---|---|-------------|
| | | 1998 | 1999 |
| Gender | Males | 11% | 19% |
| | Females | 89% | 81% |
| Ethnicity | African-American | 6% | 5% |
| | Hmong | 7% | 10% |
| | Hispanic | 12% | 13% |
| | Caucasian | 65% | 60% |
| | Native American | 10% | 7% |
| | Russian | 0% | 1% |
| | Other Ethnicity | 0% | 4% |
| Education | Less than 9 th grade completed | 9% | 10% |
| | 9 th -11 th grade completed | 23% | 25% |
| | High School completed | 40% | 36% |
| | More than high school completed | 28% | 29% |
| Household size | Single Adult household | 5% | 8% |
| | 2-3 people in household | 44% | 41% |
| | 4-6 people in household | 44% | 40% |
| | 7 or more people in household | 8% | 11% |

Table C6. Percent of respondents at each site by food security status and year sampled.

| Site | Food Secure | | Food Insecure without Hunger | | Food Insecure with Moderate Hunger | | Food Insecure with Severe Hunger | |
|----------------------|-------------|------------|------------------------------|------------|------------------------------------|------------|----------------------------------|-----------|
| | 1998 | 1999 | 1998 | 1999 | 1998 | 1999 | 1998 | 1999 |
| Meal Sites | 9% | 21% | 39% | 33% | 26% | 39% | 26% | 8% |
| Food Pantries | 16% | 11% | 41% | 39% | 26% | 32% | 16% | 18% |
| WIC | 49% | 52% | 35% | 34% | 14% | 13% | 2% | 1% |
| Total | 44% | 44% | 36% | 34% | 14% | 17% | 6% | 5% |

Table C7. Percent of respondents at food pantries by gender, ethnicity, food security status and year sampled.

| | Food Secure | | Food Insecure without Hunger | | Food Insecure with Hunger | |
|-------------------------|-------------|------|------------------------------|------|---------------------------|------|
| | 1998 | 1999 | 1998 | 1999 | 1998 | 1999 |
| Males | 14% | 14% | 51% | 46% | 34% | 41% |
| Females | 16% | 11% | 36% | 36% | 48% | 53% |
| African-American | 0% | 6% | 86% | 25% | 14% | 69% |
| Hmong | 0% | 3% | 15% | 32% | 85% | 65% |
| Hispanic | 40% | 13% | 20% | 47% | 40% | 40% |
| Caucasian | 23% | 15% | 42% | 42% | 36% | 43% |
| Native American | 7% | 4% | 50% | 39% | 43% | 58% |

Table C8. Percent of respondents at WIC by gender, ethnicity, food security status and year sampled.

| | Food Secure | | Food Insecure without Hunger | | Food Insecure with Hunger | |
|-------------------------|-------------|------|------------------------------|------|---------------------------|------|
| | 1998 | 1999 | 1998 | 1999 | 1998 | 1999 |
| Males | 35% | 38% | 15% | 33% | 50% | 29% |
| Females | 50% | 54% | 36% | 34% | 14% | 12% |
| African-American | 63% | 80% | 19% | 20% | 19% | 0% |
| Hmong | 0% | 25% | 41% | 33% | 59% | 42% |
| Hispanic | 60% | 36% | 20% | 36% | 20% | 28% |
| Caucasian | 51% | 56% | 40% | 35% | 9% | 9% |
| Native American | 42% | 100% | 29% | 0% | 29% | 0% |

Table C9. Percent of respondents by food security status and age group.

| Age (total n=489) | Food Secure | Food Insecure without Hunger | Food Insecure with Moderate Hunger | Food Insecure with Severe Hunger |
|--------------------------------|--------------------|---|---|---|
| 19 or younger (n=33) | 76% | 18% | 5% | 2% |
| 20-29 years old (n=154) | 49% | 33% | 16% | 2% |
| 30-39 years old (n=137) | 34% | 39% | 23% | 5% |
| 40-49 years old (n=93) | 15% | 37% | 27% | 22% |
| 50-59 years old (n=39) | 28% | 40% | 20% | 12% |
| 60 or older (n=33) | 44% | 39% | 0% | 17% |

Table C10. Percent of respondents by food security status and ethnicity.

| Ethnic Background (total n=490) | Food Secure | Food Insecure without Hunger | Food Insecure with Moderate Hunger | Food Insecure with Severe Hunger |
|--|--------------------|---|---|---|
| African-American (n=32) | 48% | 19% | 24% | 10% |
| Hmong (n=66) | 17% | 28% | 28% | 26% |
| Hispanic (n=51) | 33% | 37% | 28% | 1% |
| Caucasian (n=272) | 50% | 35% | 12% | 3% |
| Native American (n=44) | 35% | 24% | 31% | 10% |
| Russian (n=4) | 100% | 0% | 0% | 0% |
| Other (n=21) | 60% | 20% | 15% | 5% |

Table C11. Percent of respondents by food security status and education completed.

| Education** (total n=450) | Food Secure | Food Insecure without Hunger | Food Insecure with Moderate Hunger | Food Insecure with Severe Hunger |
|---|--------------------|---|---|---|
| Less than 9th grade (n=45) | 30% | 42% | 21% | 8% |
| 9th-11th grade (n=118) | 38% | 36% | 21% | 5% |
| High school/equivalent (n=163) | 45% | 37% | 16% | 2% |
| More than high school (n=124) | 58% | 26% | 12% | 4% |

**p<.01

Table C12. Percent of respondents by food security status who received each type of food assistance during the last year.

| Sources of Food Assistance | Food Secure | Food Insecure without Hunger | Food Insecure with Moderate Hunger | Food Insecure with Severe Hunger |
|--|--------------|------------------------------|------------------------------------|----------------------------------|
| WIC*** (n=261) | 52% (92%) | 34% (76%) | 13% (57%) | 2% (27%) |
| Friends/relatives** (n=212) | 34% (36%) | 37% (47%) | 22% (56%) | 7% (53%) |
| Meals on wheels (n=14) | 44% (2%) | 44% (2%) | 11% (1%) | 0% (0%) |
| Free or reduced school meals*** (n=169) | 24% (15%) | 38% (28%) | 27% (39%) | 12% (55%) |
| Shelters*** (n=97) | 12% (2%) | 31% (7%) | 36% (16%) | 21% (30%) |
| Summer lunches in the park*** (n=63) | 10% (2%) | 33% (7%) | 48% (20%) | 10% (14%) |
| Summer breakfast at the Resource Centers (n=20) | 10% (0%) | 40% (2%) | 30% (3%) | 20% (7%) |
| Local meal sites*** (n=132) | 16% (4%) | 37% (10%) | 33% (17%) | 14% (24%) |
| Food Pantries*** (n=355) | 14% (12%) | 39% (40%) | 33% (67%) | 15% (94%) |
| Food Stamps*** (n=146) | 29% (16%) | 44% (29%) | 18% (23%) | 10% (43%) |

p<.01; *p<.001; ()= percent within each food security category

Table C13. Percent of respondents by time of first food pantry visit and household type, ethnicity, and age.

| Demographic Category | | Time of First Food Pantry Visit* | |
|----------------------------------|--|----------------------------------|--------------------|
| | | Within the last year | A year ago or more |
| Ethnicity (n=387) | African-American (n=33) | 53% | 41% |
| | Hmong (n=64) | 14% | 69% |
| | Hispanic (n=33) | 45% | 35% |
| | Caucasian (n=189) | 37% | 53% |
| | Native American (n=50) | 23% | 62% |
| | Other Ethnicity (n=18) | 46% | 55% |
| Age group (n=385) | 19 or younger (n=14) | 50% | 33% |
| | 20-29 years old (n=87) | 37% | 48% |
| | 30-39 years old (n=126) | 30% | 58% |
| | 40-49 years old (n=91) | 36% | 53% |
| | 50-59 years old (n=38) | 30% | 55% |
| | 60 or older (n=29) | 31% | 63% |
| Household type (n=382) | Single adult (n=66) | 34% | 50% |
| | Two or more adults without children (n=57) | 46% | 36% |
| | Single adult with children (n=83) | 43% | 53% |
| | Two or more adults with children (n=176) | 28% | 59% |

*rows do not sum to 100% because the response category “don’t know” is not included

Table C14. Percent of respondents less than 65-years-old by food security status and employment status.

| Employment Status | Food Secure | Food Insecure without Hunger | Food Insecure with Moderate Hunger | Food Insecure with Severe Hunger | Total |
|---|--------------------|-------------------------------------|---|---|--------------|
| Was employed sometime during the last year** | 47% (77%) | 33% (74%) | 17% (71%) | 3% (48%) | 73% |
| Currently employed full-time* | 50% (49%) | 34% (42%) | 15% (36%) | 2% (14%) | 43% |
| Currently employed part-time | 40% (13%) | 33% (14%) | 18% (14%) | 9% (24%) | 14% |
| Currently unemployed* | 39% (38%) | 34% (44%) | 20% (50%) | 8% (62%) | 43% |

*p<.05; **p<.01; ()=percent within food security status

Table C15. Percent of respondents less than 65-years-old by food security status and hourly wage.

| Hourly Wage** | Food Secure | Food Insecure without Hunger | Food Insecure with Moderate Hunger | Food Insecure with Severe Hunger | Total |
|------------------------------|--------------------|-------------------------------------|---|---|----------------|
| | | | | | (n=470) |
| Unemployed | 39% (39%) | 34% (46%) | 20% (52%) | 8% (64%) | 45% |
| \$4-7.50 per hour | 41% (25%) | 38% (32%) | 16% (25%) | 6% (32%) | 28% |
| \$7.52-16.25 per hour | 57% (35%) | 28% (23%) | 15% (24%) | 1% (4%) | 28% |

**p<.01; ()=percent within food security status

Table C16. Percent of respondents by food security status who responded “yes” to each reason why they do not have the kinds of food they want or need.

| Reasons why respondents don't have the kinds of food they want or need | Food Secure | Food Insecure without Hunger | Food Insecure with Hunger | Total (n=211) |
|---|--------------------|-------------------------------------|----------------------------------|----------------------|
| Not enough money for food*** | 55% | 77% | 90% | 72% |
| On a diet** | 26% | 10% | 10% | 15% |
| Kinds of food we want/need not available* | 19% | 30% | 43% | 28% |
| Good quality food not available*** | 9% | 23% | 41% | 21% |
| Not enough time to purchase food*** | 48% | 22% | 30% | 32% |
| Not enough time to prepare food** | 52% | 31% | 45% | 40% |
| Don't know how to prepare available foods* | 11% | 9% | 24% | 12% |
| Kids won't eat what I prepare* | 22% | 34% | 56% | 35% |
| Don't like preparing food | 23% | 16% | 20% | 19% |
| Too hard to get food (because...)** | 4% | 19% | 33% | 16% |
| No car*** | 4% | 13% | 43% | 14% |
| Childcare problems*** | 2% | 11% | 32% | 11% |
| Bus driver won't allow me to ride on bus | 1% | 1% | 5% | 2% |
| Work schedule*** | 3% | 5% | 35% | 10% |
| No grocery store in the area | 0% | 4% | 15% | 5% |
| Can't get to pantry during open hours*** | 4% | 6% | 32% | 10% |
| Variety of good food not available here** | 7% | 21% | 32% | 18% |
| Total | 32% | 48% | 20% | 100% |

p<.01; *p<.001

Table C17. Percent of respondents by ethnicity who responded “yes” to each reason why they do not have the kinds of food they want or need.

| Reasons why respondents don't have the kinds of food they want or need | African-American (n=17) | Hmong (n=16) | Hispanic (n=23) | Caucasian (n=144) | Native American (n=20) |
|---|--------------------------------|---------------------|------------------------|--------------------------|-------------------------------|
| Not enough money for food | 91% | 83% | 58% | 71% | 92% |
| On a diet | 36% | 8% | 9% | 15% | 9% |
| Kinds of food we want/need not available | 46% | 29% | 54% | 22% | 36% |
| Good quality food not available | 18% | 55% | 50% | 16% | 25% |
| Not enough time to purchase food | 36% | 75% | 8% | 32% | 25% |
| Not enough time to prepare food | 50% | 15% | 58% | 40% | 18% |
| Don't know how to prepare available foods | 0% | 23% | 50% | 7% | 17% |
| Kids won't eat what I prepare | 30% | 40% | 37% | 34% | 33% |
| Don't like preparing food | 36% | 8% | 29% | 17% | 18% |
| Too hard to get food (because...) | 40% | 8% | 22% | 12% | 42% |
| No car | 30% | 29% | 33% | 8% | 42% |
| Childcare problems | 10% | 50% | 22% | 7% | 10% |
| Bus driver won't allow me to ride on bus | 0% | 8% | 0% | 1% | 0% |
| Work schedule | 20% | 31% | 29% | 5% | 17% |
| No grocery store in the area | 18% | 8% | 9% | 2% | 17% |
| Can't get to pantry during open hours | 30% | 31% | 17% | 6% | 17% |
| Variety of good food not available here | 27% | 50% | 33% | 12% | 33% |
| Total | 5% | 4% | 9% | 77% | 4% |

Table C18. Percent of respondents by food security status who responded “yes” to each reason why they do not have enough food.

| Reasons why respondents don't have enough food | Food Insecure without Hunger | Food Insecure with Moderate Hunger | Food Insecure with Severe Hunger | Total^ (n=171) |
|---|-------------------------------------|---|---|-----------------------|
| Not enough money for food | 84% | 95% | 100% | 91% |
| On a diet | 6% | 7% | 24% | 10% |
| No working stove available* | 22% | 4% | 18% | 14% |
| No working refrigerator available* | 20% | 4% | 24% | 15% |
| Not able to cook or eat due to health problems | 4% | 6% | 33% | 10% |
| Not enough time to prepare food*** | 52% | 15% | 33% | 31% |
| Don't know how to prepare available foods | 34% | 18% | 14% | 22% |
| Too hard to get food (because...)* | 38% | 58% | 67% | 52% |
| No car | 26% | 31% | 50% | 31% |
| Childcare problems | 18% | 35% | 44% | 30% |
| Bus driver won't allow me to ride on bus | 0% | 6% | 25% | 7% |
| Work schedule | 24% | 29% | 20% | 25% |
| No grocery store in the area | 18% | 18% | 30% | 21% |
| Can't get to pantry during open hours | 28% | 33% | 38% | 31% |
| Don't have my own apartment/house | 16% | 6% | 14% | 12% |
| Total | 38% | 42% | 17% | 100% |

*p<.05; ***p<.001; ^Total percentages include responses from food secure individuals.

Table C19. Percent of respondents by ethnicity who responded “yes” to each reason why they do not have enough food.

| Reasons why respondents don't have enough food | African-American (n=12) | Hmong (n=44) | Hispanic (n=19) | Caucasian (n=72) | Native American (n=24) |
|--|-------------------------|--------------|-----------------|------------------|------------------------|
| Not enough money for food | 100% | 89% | 90% | 92% | 100% |
| On a diet | 0% | 17% | 0% | 14% | 8% |
| No working stove available | 20% | 12% | 23% | 8% | 0% |
| No working refrigerator available | 20% | 30% | 13% | 6% | 0% |
| Not able to cook or eat due to health problems | 0% | 31% | 0% | 8% | 0% |
| Not enough time to prepare food | 40% | 36% | 23% | 29% | 31% |
| Don't know how to prepare available foods | 0% | 30% | 39% | 8% | 17% |
| Too hard to get food (because...) | 50% | 68% | 55% | 46% | 40% |
| No car | 50% | 36% | 30% | 27% | 39% |
| Childcare problems | 20% | 43% | 53% | 11% | 10% |
| Bus driver won't allow me to ride on bus | 0% | 20% | 0% | 4% | 8% |
| Work schedule | 40% | 39% | 27% | 14% | 17% |
| No grocery store in the area | 17% | 37% | 7% | 18% | 25% |
| Can't get to pantry during open hours | 50% | 44% | 23% | 22% | 42% |
| Don't have my own apartment/house | 0% | 13% | 10% | 13% | 8% |
| Total | 4% | 20% | 23% | 40% | 9% |

Table C20. Percent of respondents by gender who responded “yes” that each initiative would help them in getting the food they need.

| Initiatives | Males (n=122) | Females (n=397) | Total (n=519) |
|---------------------------|---------------|-----------------|---------------|
| Improved Transportation** | 38% | 25% | 28% |
| Different Pantry Hours | 22% | 17% | 18% |
| Different WIC Hours | 13% | 13% | 12% |
| Community Gardens | 30% | 23% | 24% |
| Traveling Food Pantry** | 33% | 20% | 22% |
| Traveling Grocery Store | 39% | 31% | 32% |
| Grocery Store Downtown*** | 45% | 19% | 24% |

p<.01; *p<.001

Table C21. Percent of respondents by ethnicity who responded “yes” that each initiative would help them in getting the food they need.

| Initiatives | African-American (n=35) | Hmong (n=66) | Hispanic (n=55) | Caucasian (n=286) | Native American (n=54) |
|-----------------------------------|------------------------------------|-------------------------|----------------------------|------------------------------|-----------------------------------|
| Improved Transportation*** | 48% | 50% | 36% | 17% | 47% |
| Different Pantry Hours*** | 30% | 42% | 18% | 13% | 31% |
| Different WIC Hours | 5% | 26% | 19% | 10% | 6% |
| Community Gardens* | 30% | 41% | 21% | 21% | 37% |
| Traveling Food Pantry*** | 44% | 27% | 11% | 19% | 40% |
| Traveling Grocery Store | 41% | 38% | 24% | 32% | 41% |
| Grocery Store Downtown*** | 59% | 21% | 22% | 21% | 38% |

*p<.05; ***p<.001

Table C22. Percent of respondents by type of transportation used who responded “yes” that each initiative would help them in getting the food they need.

| Initiatives | Walk/Bicycle (n=62) | Bus, Taxi or Other (n=47) | Drove own car (n=295) | Rode with someone/ borrowed car (n=116) |
|-----------------------------------|--------------------------------|--------------------------------------|----------------------------------|--|
| Improved Transportation*** | 66% | 78% | 12% | 59% |
| Different Pantry Hours* | 22% | 36% | 15% | 25% |
| Different WIC Hours | 6% | 0% | 14% | 10% |
| Community Gardens** | 26% | 55% | 22% | 24% |
| Traveling Food Pantry*** | 40% | 57% | 16% | 30% |
| Traveling Grocery Store*** | 49% | 65% | 28% | 39% |
| Grocery Store Downtown*** | 58% | 58% | 17% | 32% |

*p<.05; **p<.01; ***p<.001