

# Food Security and Hunger Among Middletown Households with Children

A report for the Middlesex Coalition for Children

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Beth Coddington  
Tiffany Lo  
Amelia Long  
Maria Nankova

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**The Wesleyan research team would like to thank:**

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The researchers may be contacted by e-mail:  
Beth Coddington – [bcoddington@wesleyan.edu](mailto:bcoddington@wesleyan.edu)  
Tiffany Lo – [tflo@wesleyan.edu](mailto:tflo@wesleyan.edu)  
Amelia Long – [ablong@wesleyan.edu](mailto:ablong@wesleyan.edu)  
Maria Nankova – [mnankova@wesleyan.edu](mailto:mnankova@wesleyan.edu)

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# Food Insecurity and Hunger Among Middletown Households with Children

A report for the Middlesex Coalition for Children

## Executive summary

### About this project

To assess the rate of food insecurity among Middletown households with children under 18, a research team of four Wesleyan students conducted a telephone and paper survey of 329 households. The survey was designed by the USDA, and is currently used by the federal government to measure food security at the state and national levels.

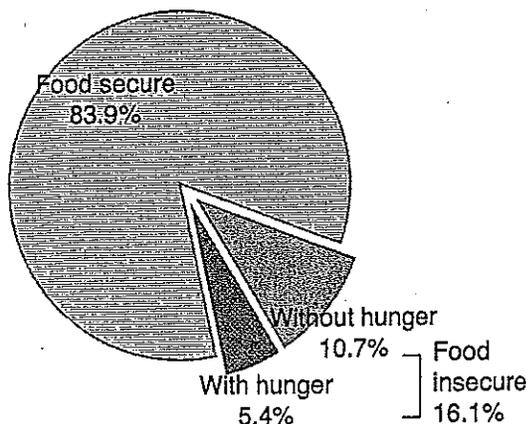
### Definitions

- *Food security*: access by all people at all times to enough food for an active, healthy life.
- *Food insecurity*: limited or uncertain availability of nutritionally adequate and safe foods, or limited or uncertain ability to acquire these foods in socially acceptable ways.
- *Food insecurity with hunger*: a more severe form of food insecurity, where some or all family members experience hunger resulting from not being able to afford enough food.

### Findings

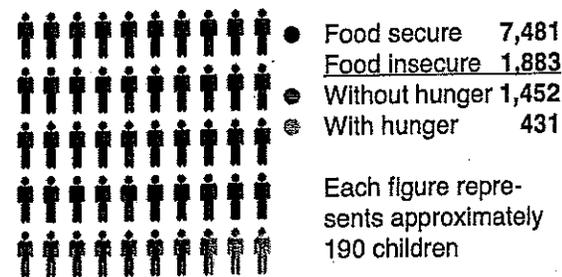
#### 1. Food Security at the Household Level

The chart below shows the percentages of Middletown households with children that fall into each of the three food-security categories.



#### 2. Children in Food-Insecure Households

The following chart depicts our estimates of how many Middletown children live in food-secure and food-insecure households.



#### 3. Characteristics of Food-Insecure Households

Food insecurity tends to accompany low household incomes. Almost half of households whose income was below 185% of the poverty line were food-insecure, compared to 7.6 percent of those with incomes above this level. In addition, food-insecure households tended to have younger children than food-secure ones.

#### 4. Use of Food Assistance Programs

Food-insecure and lower-income households in Middletown tend to use emergency food pantries more often than food stamps; this differs from the national tendency.

#### 5. Comparison with State and National Levels

Although Connecticut as a whole has relatively low levels of food insecurity, our survey found that food insecurity was as prevalent among Middletown households with children as it is in this group nationwide. In addition, hunger was more widespread in Middletown than at the national level.

## Introduction

### About Our Project

This report is the result of a collaborative research project between the Middlesex Coalition for Children and four student researchers at Wesleyan University: Beth Coddington, Tiffany Lo, Amelia Long, and Maria Nankova. The students were contracted by director Betsy Morgan to carry out this project as the core assignment of a semester-long service-learning seminar, taught by sociology Professor Rob Rosenthal.

The Middlesex Coalition for Children was established in 1996 using the Bridgeport Child Advocacy Coalition as a model. For the last year and a half, the Coalition has been focusing on issues that affect children in Middlesex County, with three general goals:

- Research – To collect and digest information that may shape public policy or otherwise aid the community.
- Community Mobilization – To pave the way for policy implementation.
- Coalition Building – To build a network of many agencies to carry out these goals.

The students worked alongside Middlesex Coalition's multi-agency Task Force on Hunger in order to produce a full assessment of the extent to which hunger and food insecurity affect Middletown and its children. Food security is defined as access by all people at all times to enough food for an active, healthy life.<sup>1,2</sup>

We used a version of the U.S. Department of Agriculture's Food Security Survey to measure the food security levels of Middletown households with children. We believe that this research will provide information about and publicize the issue of hunger in the community.

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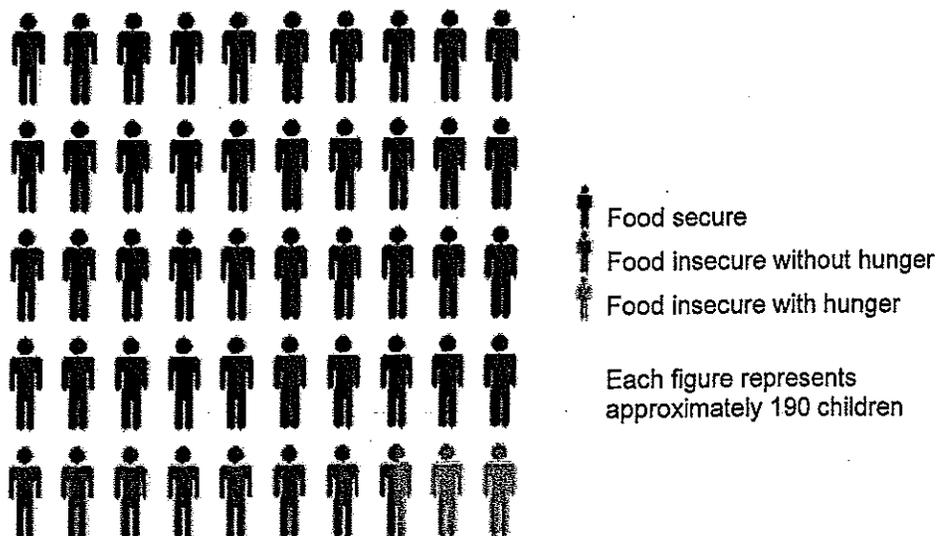
<sup>1</sup> ERS/USDA Briefing Room – *Food Security in the United States: Measuring Household Food Security*. 11 May 2005. Economic Research Service, United States Department of Agriculture. 11 May 2005 <<http://www.ers.usda.gov/Briefing/FoodSecurity/measurement>>.

<sup>2</sup> This standard definition comes from the ERS/USDA Briefing Room on food security in the United States. Their complete definition of food security is as follows: "Food security for a household means access by all members at all times to enough food for an active, healthy life. Food security includes at a minimum (1) the ready availability of nutritionally adequate and safe foods, and (2) an assured ability to acquire acceptable foods in socially acceptable ways (that is, without resorting to emergency food supplies, scavenging, stealing, or other coping strategies)." Please refer to their website for more detailed information about food security in the U.S.

## Summary of Findings

The key findings of our study are summarized below:

- We estimate that 20.1 percent of Middletown children (1,883 children) were living in food-insecure households during the past 12 months. Of those children, 15.5 percent (1,452 children) experienced food insecurity in their household but were shielded from actual hunger.<sup>3</sup> However, the other 4.6 percent (431 children) experienced food insecurity with hunger within the past year. The rest of Middletown's children, an estimated 79.9 percent (7,481 children) lived in houses that were food secure. Figure 1 below provides a visual representation of the food security status of children in Middletown.
- **Figure 1. Middletown children by food security status of household, weighted, 2005**



<sup>3</sup> The ERS/USDA defines food insecurity as "limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways." Food insecurity with hunger is simply a more severe form of food insecurity, where some or all family members experience "hunger that results from not being able to afford enough food."

- When food insecurity is considered in terms of households (instead of individual children) the numbers are slightly different. Our survey indicated that 16.1 percent of Middletown households were food-insecure; of those, 10.7 percent were without hunger while 5.4 percent were with hunger. An estimated 83.9 percent of Middletown households were classified as food-secure. Food insecurity is about as prevalent in Middletown as it is in the U.S. as a whole — nationally, 16.7 percent of households with children were food insecure — but food security with hunger among Middletown households with children exceeds the national average of 3.8 percent.
- We found that higher rates of food insecurity were linked to lower household income, and that demographic groups tending to have lower incomes (single-parent households, non-white households, and households with younger children) experienced more food insecurity.
- We also asked people about their coping strategies for when they were running out of food or money to buy food. We found a trend of higher usage of food pantries than food stamps among Middletown's more food-insecure and lower-income households, something that differs from the national tendency.

The main body of our report is divided into two sections, one about household food security and one about food assistance program utilization. In these sections, we present a detailed discussion of our findings.

## Literature Review

The findings presented in the ERS/USDA's 2003 report on *Household Food Security in the United States*<sup>4</sup> provide the most comprehensive and reliable background for our study. The authors reported on the December 2003 administration of the USDA Food Security Survey as part of the Current Population Survey (CPS). About 47,000 U.S. households participated in this survey, answering questions regarding: a) their level of food security, b) household spending on food, and c) utilization of federal and local food assistance programs.

The authors classified 88.8% of households as *food-secure*. The food secure households "had access, at all times, to enough food for an active, healthy life for all household members." The remaining 11.2% of the surveyed households (12.6 million families if generalized to the total population) were found to be *food-insecure*, meaning that "at some time during the year, these households were uncertain of having, or unable to acquire, enough food for all their members because they had insufficient money or other resources." Of all food-insecure households, about one-third were classified as *food-insecure with hunger*. That is, a total of 3.5% of households (3.9 million) "were food insecure to the extent that one or more household members were hungry, at least some time during the year, because they could not afford enough food." These figures represented no statistically significant changes from numbers obtained in 2002.

The researchers found that 50.6% of all food-insecure households received one or more of the following: food stamps, free or reduced-price school meals, or benefits from the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). Furthermore, 19.7% got food from a food pantry, church, or food bank; 2.0% from an emergency kitchen or soup kitchen.

Additionally, the study reports the average rates of food insecurity in the state of Connecticut at 8.0% of households during the years 2001-2003; these figures represent a decrease of 3.0 percentage points in reported state food insecurity rates from 1996-1998. Food insecurity with hunger affected 3.0% of Connecticut households, on average, from

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<sup>4</sup> Mark Nord, Margaret Andrews, and Steven Carlson. *Household Food Security in the United States, 2003*. U.S. Department of Agriculture, Food and Nutrition Service, Alexandria VA. October, 2004.

2001-2003, with a decrease of 1.1 percentage points since 1996-1998. These figures represent a 27% decrease in both food insecurity and food insecurity with hunger during this time period.

Food shortages and hunger, as described above, have long been acknowledged to be a problem for many U.S. households. However, the actual quantitative measurement of this problem is a recent phenomenon, dating back to the late 1980s. The USDA's Food Security Supplement to the Current Population Survey<sup>5</sup> sets a baseline guide for how researchers should go about this measurement, and synthesizes many of the ideas that arose while researchers were learning how to quantify hunger. Bickel et al. describe the official government methodology for evaluating the prevalence and severity of food insecurity, and explain the rationale behind how food security is measured. They present their concept of food insecurity in contrast to an earlier model which stated that the presence of hunger or food insecurity could be determined by a single indicator. That is, earlier researchers believed that there was one (or perhaps two or three) questions they could ask, the answer to which would allow the researchers to instantly tell whether a family was food secure. Bickel et al. on the other hand, view food insecurity and hunger as a "complex, multidimensional" issue. No single indicator can capture it. Their measure of food security, therefore, relies on indicators of several types of situations that households undergo in different stages of the condition: perception or anxiety about the sufficiency of their food to meet basic needs; reductions in the quality of food eaten; reductions in adults' food intake; and finally, reductions in children's food intake. The concept of food security also addresses several other concerns, such as food safety, nutritional quality, and "social acceptability" of food sources, but Bickel et al. believe the issues that their measure covers are the "key central dimensions" of household food insecurity (p. 9).

One example of how the USDA Food Security survey can be implemented on a local level comes from Duncan et al.'s work in Palm Beach County, Florida.<sup>6</sup> This study

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<sup>5</sup> Gary Bickel, Mark Nord, Cristofer Price, William Hamilton, and John Cook. *Guide to Measuring Household Food Security, Revised 2000*. U.S. Department of Agriculture, Food and Nutrition Service, Alexandria VA. March, 2000.

<sup>6</sup> Robert Duncan et al. *Palm Beach County Food Security Project [Summary]*. 14 October 2004. Palm Beach County United Way. Accessed 13 May 2005 <<http://www.trustedpartner.com/docs/library/000027/Food%20Security%20Final%20Report.pdf>>.

combines quantitative and qualitative tools in measuring household food insecurity; thus, the methodology of this survey is fairly similar to ours. The 18-point USDA Household Food Security Survey was administered door-to-door to families whose yearly income was under \$35,000; and households that were food insecure were asked questions about program utilization. The researchers found that "all food insecure households interviewed were aware of the Food Stamp Program, but only 33 percent were active participants." Some of the reasons why people fell victim to food insecurity were "lack of income, low-paying jobs, high utility bills, transportation problems and disabilities". Despite the general rule that "children are typically shielded from hunger even when resources are inadequate to provide food for the entire family," the Palm Beach survey classified 5.7 percent of households with children as food-insecure with hunger, a rate three times the national average for households with comparable income levels.

While Bickel et al. generally recommend using phone surveys to implement the USDA survey, alternative methodologies have been investigated to obtain an assessment of household food security. The self-administered study is one such example. Dunifon et al.<sup>7</sup> describe how self-administered surveys can be used productively. The self-administered method is useful because it can be done at low cost and it allows smaller communities to learn more about the security status of households at the local level. Self-administered studies can also be expanded through additional questions to target "special populations." Furthermore, phone or self-administered surveys can be followed up by focus groups.

Dunifon et al. distributed surveys to four elementary schools in New York and two in Wisconsin during Spring of 2003, using a six question version of the USDA survey adapted for self-administration as well as other additional questions such as demographic information, access to transportation, etc. The self-administered surveys were sent home to all parents of elementary children through the child's teacher. Parents were given two weeks to return the survey and the response rates were an average of 65% for New York schools and 79% in Wisconsin. Incentives were offered, such as a school-wide ice cream party if 75% response rate was achieved. The main conclusion of this

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<sup>7</sup> Rachel Dunifon, Judith Bartfeld and Mark Nord. "Measuring Household Food Insecurity in Self-Administered Surveys". Poster presented at the Association for Public Policy Analysis and Management Meetings, November 2004.

study was that the self-administered survey can indeed be used to gather food security information from a sample of community members and it is indeed possible to produce accurate data using this methodology.

Finally, while most of this research has been concerned with household-level food security, an alternate concept of community food security is also a useful approach. Tchumtchoua and Lopez<sup>8</sup> examined towns across Connecticut for 38 indicators of community food security, including socio-demographic and economic factors, community food resources (provision & production), and public transportation availability. Although low income is the most common reason for low levels of food security, the authors found that those households that were more vulnerable to food insecurity contained a “high proportion of children under 18.” In addition, more food provision resources (e.g., soup kitchens) were linked to higher food security. This survey is noteworthy because it is the first one designed for Connecticut that allows for the “identification of food related problems at the community level rather than individual household levels.” One of its limitations, the authors admit, is the difficulty of collecting such data. Middletown ranked among towns with lower than average CFS levels.

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<sup>8</sup> Sylvie Tchumtchoua and Rigoberto A. Lopez. *A Town-Level Assessment of Community Food Security in Connecticut*. A Report for the Connecticut Food Council and the Hartford Food System, November 22, 2004.

## **Methodology**

### **General Overview**

The Wesleyan research team worked with the Middlesex Coalition for Children to assess the rates of food insecurity and hunger among families with children in Middletown. Using the USDA-developed survey of food security, the team interviewed Middletown parents about food consumption and availability in their households. Through these interviews, we also determined whether food-insecure households are making use of anti-hunger programs and community resources; survey participants may participate in a focus group at a later date to discuss barriers to accessing these programs. The goal of the study was to obtain quantitative data that will be comparable with national and state figures on the frequency and severity of childhood hunger. The information generated by this research will help the Coalition develop strategies and build programs to eliminate childhood hunger in the city.

### **Study Population**

Our study population consisted of all Middletown households with children ages 0-18. Because there existed no comprehensive list through which we could contact this entire population, we separated it into two sampling frames: one subpopulation contained households with children ages 6-18 who were enrolled in school and the other subpopulation contained households with children ages 0-5.

We surveyed the subpopulation of households with school-age children using a telephone questionnaire based on the USDA's Household Food Security Survey. We obtained standardized lists of the telephone numbers of students at Middletown's public high school, middle school, and eight elementary schools, and of those students under age 18 enrolled in adult education courses (GED, etc.). This student directory information was made publicly available under the No Child Left Behind Act, and we contacted school district officials to get it released. Since this list contained accurate phone numbers for most Middletown families with children, we decided it was a significant

improvement over using telephone directories or other sources. These lists represent approximately 5100 students.<sup>9</sup> We surveyed 235 households from this group.

The second subpopulation consisted of children five years old or younger sampled through local pre-school programs. The programs were selected through consultation with Chris Fahey, School Readiness Coordinator for the Middletown Public Schools. Parents in these programs were asked to complete a paper questionnaire based on the first subpopulation's survey but modified for self-administration. We surveyed 94 of these households.

### **The Telephone Survey**

We chose to use a telephone survey to reach the school-age population because this method is widely considered the most desirable, both because of its ability to reach a random and scientific sample, and because it generally produces the most responses. Through several weeks of calling, 235 households completed the survey. Our response rate was 41 percent. (For more detail on the response rate, see Appendix 5).

The telephone survey had four parts (See Appendix 1 for full interview schedule). After a short introduction by the interviewer, the survey participant was administered the USDA's full Food Security Survey, which classifies households as food secure, food insecure, or food insecure with hunger. The next section consisted of questions on the utilization of food and nutrition assistance programs (food stamps, free and reduced lunches, WIC, emergency pantry/church/food bank, or soup kitchen). The third section of the survey determined relevant demographic information (household composition, race/ethnicity, and income-to-poverty ratio). The questions in this section were divided between two parts of the interview, so that we could confirm at the very start of the interview that the household had children under 18. Finally, we asked participants whether they would be willing to participate in a focus group or follow-up interview about the survey. The survey contained several screening stages, described under

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<sup>9</sup> There are also around 550 children enrolled in five parochial schools throughout Middletown, about 10% of whom, according to records, utilize free and reduced lunch programs. In addition, there are a very small number of home-schooled children. We were unable to obtain contact information for households in these groups. However, because they make up a relatively small amount of the school-age population, we felt that the absence of these households from our survey would not greatly bias our findings.

“Surveying for household food security” below, to minimize the time burden on respondents.

We administered the survey to households whose phone numbers we had obtained from school directories, as described above. From the initial database given to us by the school district, we deleted duplicate entries so that each household was represented once; we then arranged the list in a random order for calling. To protect respondents’ anonymity, we removed parents’ and students’ names from the list before calling, so that each person appeared as only a phone number. For this population, no measures were taken to encourage response except to publicize our survey through various media outlets with the help of the Middlesex Coalition for Children members. From our reading of the literature on phone surveys, we decided that a monetary or physical incentive for responding was neither necessary nor practical with this type of surveying.

Each interviewer followed a shared script for all parts of the interview, including the opening and closing statements, so that the survey would vary little from call to call. A pre-testing protocol was used prior to conducting the actual survey. The phone surveys were conducted between 5:30 and 8:30 p.m. on Monday through Thursday, and between 11 a.m. and 4 p.m. on Sunday. Each household was called back once if a head of the household could not be reached on the first call.

### **The Self-Administered Survey**

We had no equivalent way to obtain a master list of families that had only children too young to attend school. Therefore, we were unable to reach this population using the same methodology of randomized phone surveys; we knew, however, that families with young children were the most likely to be food-insecure, and thus felt it was essential not to limit our project to addressing food insecurity among families with schoolchildren. To measure food insecurity in this population, then, we created a self-administered questionnaire that was distributed through preschool programs and other non-daycare programs serving children under five. Although this was not a random sample, the responses from these surveys were still suggestive of the range of food insecurity among families in this group. In addition, the results from this sample were weighted to more accurately reflect the actual population.

The self-administered survey we used consisted of a shortened, paper version of the USDA telephone survey (see Appendix 2). Included with the survey were also a parent info sheet (see Appendix 6) which explained the project and one follow-up page asking for focus-group participation. A member of our research team met with selected program directors to explain the project to them, distribute surveys, and answer and questions or concerns that they had. We picked the programs to distribute surveys to based on the following criteria:

- Number of children enrolled in the program
- Proportion of Middletown households represented in the program
- Age range of children
- Income level
- Location in Middletown

We selected the following programs to give us a representative sampling of the children under age 5 in Middletown: CRT Head Start, Even Start, Kiddie World, Neighborhood Pre-School, Community Health Center, and WIC. Each program director was given the self-administered survey and asked to get as many households to participate as possible. Families could participate if they satisfied the following criteria:

- Middletown residency
- At least one child aged 0-5 in the household
- No older sibling(s) enrolled in the Middletown Public School system

Each school had between one and two weeks to return the surveys. We were hoping that we would get back most of the surveys as we attached an additional incentive on to the survey to increase participation. Everyone who qualified for and completed the survey received a coupon for a free ice cream cone from Praline's Ice Cream on Main Street. In total, we distributed about 250 surveys, 94 of which were filled out and returned.

Every participant in the self-administered survey was assured, on the information sheet included with the survey, that we would regard all survey results as absolutely confidential. Only the members of the Wesleyan research team had access to the surveys

and other interview materials. All surveys and other personal information were destroyed at the end of the survey.

### **Surveying for Household Food Security**

Each of the questions in the USDA food security survey asks about one of the four types of situations that households without enough money for food may encounter: anxiety about the sufficiency of their food to meet basic needs or the perception that the food was inadequate; reductions in the quality of food eaten; reductions in adults' food intake; and finally, reductions in children's food intake. To minimize the burden on the interviewees, respondents were screened out at several points in the survey; they were not asked questions about more severe levels of food insecurity unless they had responded affirmatively to at least one question about a less-severe level. In addition, we only asked families about program utilization if they either qualified for income-targeted programs (by having an income of less than 185 percent of the poverty line for their family size) or if they showed some signs of need for these programs, by affirming at least one food-insecurity indicator.

Based on the number of affirmative responses to the food-security section of the survey, we assigned each household a value on the 10-point food security scale, as well as one of three food-security statuses (food secure, food insecure without hunger, or food insecure with hunger).<sup>10</sup> Households at the least-severe end of the food-security scale — those that affirmed two or fewer food-insecurity indicators — are classified as food secure, while any household affirming at least three indicators was classified as food insecure. Food-insecure households with hunger affirmed at least eight of the food-insecurity indicators. While these households may not have described themselves as “hungry,” their survey responses indicated that they faced great difficulties in obtaining enough food for their families and had to cut back their food intake.

The self-administered survey contained a shortened six-item questionnaire, also developed by the USDA. The responses to the six-item survey can be converted to the same scale as those from the full survey, although the six-item survey does not measure

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<sup>10</sup> Almost all households in our sample answered all of the questions we asked. For those that refused to answer one or more of the food-security questions, we were able to impute the missing responses using the method described in Bickel, et al. (2000:35-38).

the most extreme forms of hunger that the full survey covers. After scaling the responses, the responses from the self-administered survey were assigned to the same three categories as above. (See Appendix 3 for full responses to questions and food security scale values.)

#### Weighting to combine the two survey groups

Through our surveys, we attempted to reach a representative sample of Middletown households. Since we were able to use a completely random surveying method to reach households with school-age children, this sample is assumed to be representative of families with children in public schools. However, for families with only preschool-aged children, we tried to over-sample low-income families, in order to fully assess the extent of food insecurity in this group. To combine the two survey populations, it was necessary to weight the data from the self-administered survey by income level to correct for this bias. Table 1 shows how the income level of families in each of our samples compares to the income of Middletown households with children, as reported in the 2000 Census. The income of families we surveyed is reported as a ratio between the family's income and the poverty line for a family of that size and composition.

**Table 1. Income-to-poverty ratio for Middletown households with children, as reported in phone survey (2005), self-administered survey (2005), and 2000 Census**

Family income-to-poverty ratio	2000 Census	Phone survey <i>Percent</i>	Self-administered survey
Below 1.00	7.0	11.9	32.1
1.00-1.30	3.7	6.9	13.1
1.30-1.85	7.7	8.3	9.5
Above 1.85	81.6	72.9	45.2

Although the percentages of lower-income families are also higher in our phone survey than in the 2000 Census, we believe that this sample, because it was truly random, is representative of the current population, while the Census reflects the 1999 population.

However, part of this income bias is also due to the fact that we did not survey home-school and private school families, which tend to have higher household incomes.

To weight the data from the self-administered population, we broke out each category of food security status by income level, then weighted the food security rates of each of these income groups by the percentage of the actual population each represented, according to the 2000 Census figures. Then to combine this weighted estimate with the other sample, we took an average of the two groups, weighted by their prevalence in the Middletown population. According to the Census, 24.6 percent of Middletown households with children have only children 4 years of age or younger. This is the portion of households that our self-administered survey represented; thus, when we report weighted overall prevalence rates, 24.6 percent of the data is taken from the weighted results of the self-administered survey, while the remaining 75.4 percent is from the respondents of the telephone survey. Throughout the rest of this report, it is important to notice in the title of each table whether the figures are weighted or unweighted. Weighted percentages are given when overall trends in the population are being analyzed. Any time the results are disaggregated by income, or when food-secure and food-insecure households are being compared, the figures are unweighted; in the latter case, this is because food security and food insecurity are so highly correlated with income that the over-sampling of low-income families simply allows for a larger sample of the food-insecure population, rather than a distorted view.

### **Surveying for demographic information**

The demographic characteristics of the population we surveyed are described in Table 2, below, and compared with the equivalent figures for Middletown households with children from the 2000 Census. While our sample almost exactly mirrored Census data with regards to the age of children in the household, we sampled a higher percentage of non-white households than the Census reported to be in the general Middletown population. We do believe our sample to be an accurate reflection of the pool of public-school students from which it was drawn. Please keep in mind, however, while reading this report, that we have not weighted our survey by race or ethnicity in any way. In addition, we asked about the race and ethnicity of the head of the household who was

answering the survey. However, it is possible that some respondents may have answered about their children's race, if it differed from their own.

**Table 2. Comparison of household characteristics in our survey of Middletown households with children, unweighted, 2005, and those found in the 2000 Census**

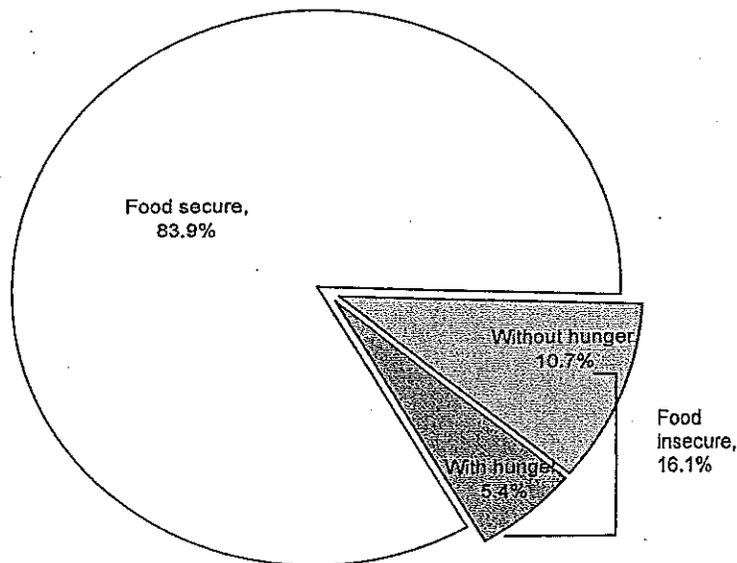
	Our sample <i>Percent</i>	2000 Census Data <i>Percent</i>
Age of children in household		
0-6 years only	32.0	30.0
6-17 years only	48.0	50.0
Both 0-6 and 6-17 years	20.0	19.0
Race and Ethnicity		
White, non-Hispanic	57.4	77.5
Black, non-Hispanic	23.2	11.8
Hispanic, of any race	8.8	5.3
Asian or Pacific Islander	3.4	2.6
Multiracial	5.0	2.4
Other	2.2	0.1

## Section 1: Household Food Security

### Prevalences of Food Insecurity and Food Insecurity with Hunger in Middletown

83.9 percent of Middletown households with children were food secure in the year prior to our survey (See Figure 2). They reported that they had enough food to carry on an active, healthy life, with only a minimum of anxiety about their food situation. The other 16.1 percent, however, were food insecure at some point during the past year. 5.4 percent of Middletown households with children reported a level of food insecurity high enough to be classified as food insecure with hunger—that is, they reported that they had to reduce their food intake substantially because they didn't have enough money for food. The households in the other 10.7 percent faced uncertainty and anxiety about their ability to provide food for their family, but were able to avoid the severe levels of hunger that would require them to eat an insufficient quantity of food.

Figure 2. Middletown households with children by food security status, weighted, 2005



### Margin of error

We surveyed 329 of Middletown's 5,145 households with children, or about six percent (See Table 3). At a 95-percent confidence level, our margin of error for the overall food insecurity rate is 3.83 percentage points. That is, there is around a 95-percent chance that the actual food insecurity rate is between 12.3 percent and 19.9 percent. Since not all of our survey was a random sample, these margin-of-error calculations are assuming that our weighting strategies allowed us to approximate a true sample of the population. While we can't know the confidence level for sure, if our weighting scheme was accurate, it is in the vicinity described above. The margin of error for the estimated prevalence of food insecurity with hunger, with the same caveats listed above, is +/- 2.36 percentage points.

**Table 3. Survey size and margin of error, Middletown, 2005**

Number of households with children		Food insecure (with or without hunger)		Food insecure with hunger	
Number	Interviewed	Prevalence	Margin of error <sup>11</sup>	Prevalence	Margin of error
<i>Number</i>		<i>Percent</i>	<i>Percentage points</i>	<i>Percent</i>	<i>Percentage points</i>
5,145	329	16.1	3.83	5.4	2.36

### Comparison with national and statewide food security rates

The prevalence of food insecurity among Middletown households with children exceeded the statewide level, but fell slightly below the national level (See Table 4). Connecticut as a whole has one of the lowest rates of food insecurity in the nation; our survey suggests, however, that within the state, food security rates may vary widely. Compared to all U.S. households with children, Middletown has a slightly lower rate of food insecurity. However, the rate of food insecurity with hunger is higher than the nationwide rate, suggesting that food insecurity in Middletown may be less widespread but more severe than in the nation as a whole.

<sup>11</sup> Margin of error with 95 percent confidence.

**Table 4. Food insecurity and food insecurity with hunger among Middletown, Connecticut, and U.S. households with children, weighted, 2003 and 2005<sup>12</sup>**

	Households with children	Food insecure, with or without hunger	Food insecure with hunger
	<i>Number</i>	<i>Percent</i>	<i>Percent</i>
Middletown	5,145	16.1	5.4
CT (estimate) <sup>13</sup>	451,411	11.9	3.3
U.S. total	38,022,115	16.7	3.8

**How many Middletown children live in food-insecure households?**

The percentage of children living in food-insecure households, as shown in Table 5, is higher than the percentage of households with food insecurity, because in general, food-insecure households have more children than food-secure ones (See Figure 3, below, for more detail). By analyzing food security at the level of individual children instead of households as a whole, we estimate that 79.9 percent of Middletown children live in food-secure households, while 20.1 percent do not. Therefore, of the 9,364 children that the 2000 Census found live in Middletown, we estimate that 1,883 live in food-insecure households.

**Table 5. Middletown children by food security status of household, weighted, 2005**

	Percent	Number
Food secure	79.9	7,481
Food insecure	20.1	1,883
Without hunger	15.5	1,452
With hunger	4.6	431

<sup>12</sup> Figures for Connecticut and U.S. are taken from Nord, Andrews, and Carlson (2003). Figures from Middletown are from our survey. The number of households with children comes from 2000 Census.

<sup>13</sup> Figures are not available for Connecticut households with children, only for all Connecticut households. To derive this estimate, the figures for all CT households were multiplied by the ratio between the food insecurity rate for all households nationwide and the food security rate for all households with children nationwide. Among all CT households, 8 percent are food insecure (with or without hunger), and 3 percent are food insecure with hunger.

### Probable causes of food insecurity

Because food insecurity is, by definition, the result of having an income insufficient to meet the family's food needs, the likelihood of food insecurity increases as household income decreases. In Middletown, 93.4 percent of households whose income exceeds 185 percent of the poverty line are food secure; in contrast, only 41.5 percent of households below the poverty line are (See Table 6). The prevalence of both food insecurity and food insecurity with hunger increases through each of the four income categories, with the most noticeable jump occurring as families' income drops below 130 percent of the poverty line.

**Table 6. Prevalence of food security, food insecurity, and food insecurity with hunger among Middletown households with children, by household income-to-poverty ratio, unweighted, 2005**

Category	Total Number	Food secure		Food Insecure					
		Number	Percent	All		Without hunger		With hunger	
				Number	Percent	Number	Percent	Number	Percent
Household income- to-poverty ratio									
Under 1.00	53	22	41.5	31	58.5	20	37.7	11	20.8
Between 1.00 and 1.30	26	11	42.3	15	57.7	12	46.2	3	11.5
Between 1.30 and 1.85	26	21	80.8	5	19.2	4	15.4	1	3.8
Over 1.85	197	184	93.4	13	7.6	8	4.1	5	2.5

In the section below, we note other differences between food-secure and food-insecure households. However, it is most important to notice that each household characteristic that increases a family's chance of being food-insecure is also associated with lower household income (See Table 7). Households with young children are more likely to have low incomes than households with older children; households with one parent are more likely to have low incomes than households with two; households with more than one family living in them (often referred to as "doubled-up") are more likely to have low incomes than single-family households; and nonwhite households are more likely to have low incomes than white ones. Therefore, while these groups will be shown

to be more prevalent in the food-insecure population than the food-secure population, this is probably due to their lower incomes, rather than any income-independent factors.

**Table 7. Income-to-poverty ratio by selected household characteristics, Middletown households with children, 2005, unweighted.**

Category	Income-to-poverty ratio			
	Below 1.85		Above 1.85	
	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>
<b>Age of children</b>				
At least one child under age 6	68	38.0	111	62.0
All children over age 6	37	24.7	113	75.3
<b>Number of parents</b>				
Single parent	47	61.0	30	39.0
Two parents	55	22.3	192	77.7
<b>Number of families in household</b>				
Multiple families	11	47.8	12	52.2
One family	92	30.4	211	69.6
<b>Race and Ethnicity</b>				
White	35	19.1	148	80.9
Black	36	48.6	38	51.4
Hispanic	20	71.4	8	28.6
Asian	4	36.4	7	63.6
Multiracial	7	43.8	9	56.3
Other	3	42.9	4	57.1

#### **Characteristics of food-secure and food-insecure households**

As shown in Table 8, food-secure and food-insecure households differ in many characteristics, but most notably in their income levels. While 77.3 percent of food-secure households have an income exceeding 185% of the poverty line, almost the same proportion (79.7 percent) of food-insecure households' incomes fall below that level.

Almost half of food-insecure households have incomes below the poverty line. In addition, the characteristics shown in Table 7 to be linked with lower incomes are also more prevalent among food-insecure households. Food-insecure households are more likely to have young children or multiple families in one household; they are more likely to be headed by a single parent; and they are more likely to be nonwhite.

There are several unexpected differences shown in Table 8 between food-insecure households with and without hunger. For example, more food-insecure households without hunger have children under six years old than food-insecure households with hunger. It is important to note here that our sample size, especially for food-insecure households with hunger, was very small, and that this type of difference is probably a statistical anomaly rather than reflective of a larger trend.

#### **Food insecurity in low-income households**

Households with incomes below 130 percent of the poverty line — the cutoff for Food Stamp eligibility — are especially at risk of food insecurity, as noted above. Table 9 shows how the food security rates vary between different groups of these low-income households. Since we surveyed only 79 households with incomes below this level, the data cannot be thought of as conclusive; however, the findings below suggest that among low-income households, several conditions make it harder to consistently secure enough food. In particular, out of the eight low-income households that contained more than one family, only one was food-secure. It is likely that the instability of this type of doubled-up living situation exacerbates the difficulties that all low-income families face in affording enough food.

**Table 8. Food secure and food insecure Middletown households with children, by selected household characteristics, unweighted, 2005**

Category	Total Number	Food secure		Food Insecure					
		Number	Percent	All Number	Percent	Without hunger Number	Percent	With hunger Number	Percent
<b>Household composition</b>									
With children <6	179	136	51.9	43	64.2	32	71.1	11	50.0
No children <6	150	126	48.1	24	35.8	13	28.9	11	50.0
Single parent	77	53	20.5	24	36.9	15	34.9	9	40.9
Two parents	252	209	79.5	43	63.1	30	65.1	13	59.1
Multiple families	23	15	5.8	8	12.1	5	11.4	3	13.6
One family	306	247	94.2	59	87.9	40	88.6	19	86.4
<b>Race/Ethnicity</b>									
White	183	158	62.0	25	39.1	17	38.6	8	40.0
Black	74	52	20.4	22	34.4	16	36.4	6	30.0
Hispanic	28	17	6.7	11	17.2	6	13.6	5	25.0
Asian	11	11	4.3	0	0.0	0	0.0	0	0.0
Multiracial	16	11	4.3	5	7.8	4	9.0	1	5.0
Other	7	6	2.4	1	1.6	1	2.3	0	0.0
Total	319	255	100.0	64	100.0	44	100.0	20	100.0
<b>Household income-to-poverty ratio</b>									
Under 1.00	53	22	9.2	31	48.4	20	45.5	11	55.0
Between 1.00 and 1.30	26	11	4.6	15	23.4	12	27.3	3	15.0
Between 1.30 and 1.85	26	21	8.8	5	7.8	4	9.1	1	5.0
Over 1.85	197	184	77.3	13	20.3	8	18.2	5	25.0
Total	302	238	100.0	64	100.0	44	100.0	20	100.0

**Table 9. Prevalence of food security, food insecurity, and food insecurity with hunger in Middletown households with children with income below 130 percent of the poverty line, by selected household characteristics, 2005**

Category	Total Number	Food secure		Food Insecure					
		Number	Percent	All Number	Percent	Without hunger Number	Percent	With hunger Number	Percent
All households	79	33	41.8	46	58.2	32	40.5	14	17.7
Household composition									
With children <6	53	20	37.7	33	62.3	25	47.2	8	15.1
Single parent	37	17	45.9	20	64.1	14	37.8	6	16.2
Multiple families	8	1	12.5	7	87.5	5	62.5	2	25.0
Race/Ethnicity									
White	26	12	46.2	14	53.8	10	38.5	4	15.4
Black	31	12	38.7	19	61.3	14	45.2	5	16.1
Hispanic	12	4	33.3	8	66.7	4	33.3	4	33.3
Asian	2	2	100.0	0	0.0	0	0.0	0	0.0
Multiracial	6	2	33.3	4	66.7	3	50.0	1	16.7
Other	2	1	50.0	1	50.0	1	50.0	0	0.0

#### **Characteristics of children living in food-secure and food-insecure households**

In Table 5, above, we noted that the percentage of Middletown children living in food-insecure households was higher than the percentage of Middletown households with children that were food-insecure; this can be largely attributed to higher food insecurity rates among families with more children. As shown in Figure 3, two-child households are more food-secure than all other family sizes, but the largest families — with four to six children — have markedly lower rates of food security than smaller families.

**Figure 3. Food security and food insecurity among Middletown households with children, by number of children in household, unweighted, 2005**

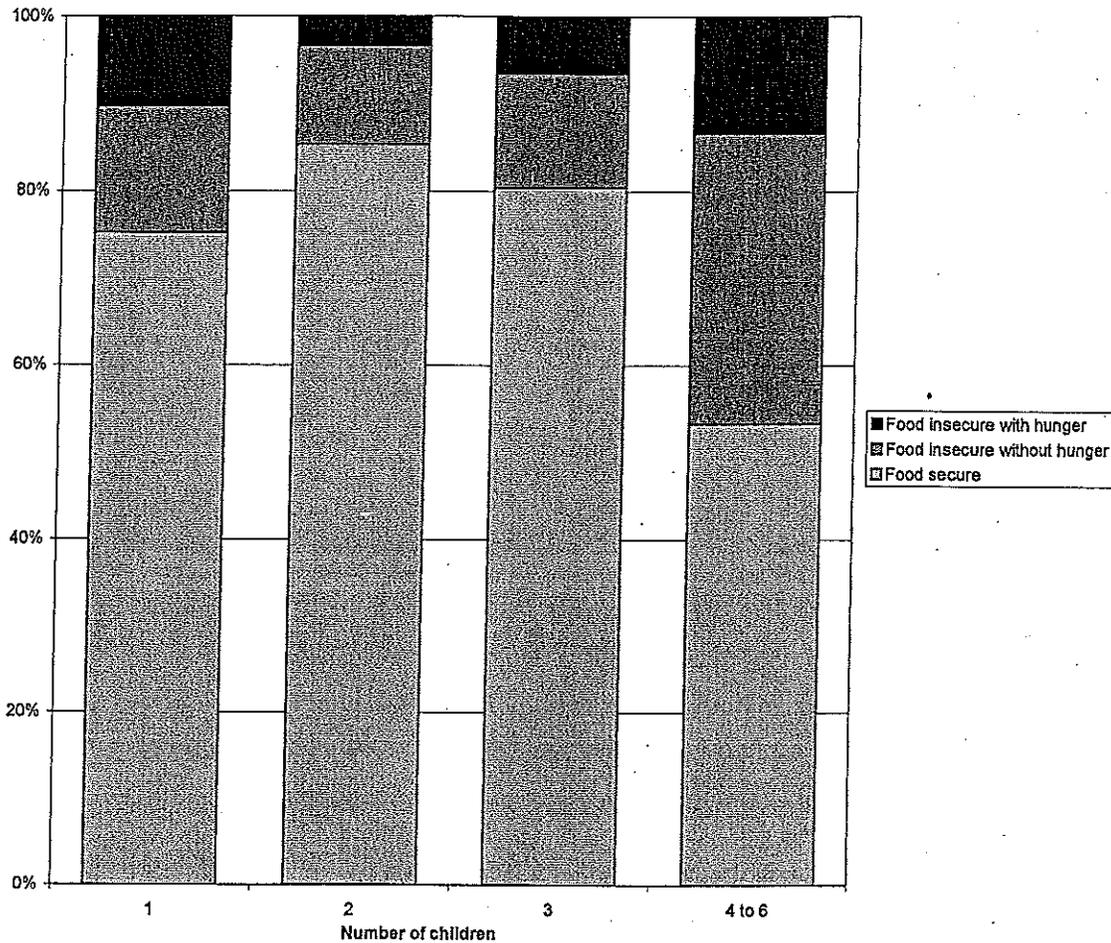


Table 10, below, is directly comparable to Table 8, above, except it addresses this issue of food-insecure households having more children. The table gives the percent of children living in food-secure and food-insecure households (with and without hunger) whose households fall into certain categories. Although the level of analysis is the child rather than the household, the findings described above — that food-insecure families differ from food-secure families mainly by their income level — still appear to hold.

**Table 10. Number of children in food secure and food insecure Middletown households, by selected household characteristics, unweighted, 2005**

Category	Total Number	Food secure		Food Insecure					
		Number	Percent	All Number	All Percent	Without hunger		With hunger	
						Number	Percent	Number	Percent
All children	623	491		132		92		40	
Household composition									
With children <6	358	267	54.4	91	68.9	68	73.9	23	57.5
No children <6	265	224	45.6	41	31.1	24	26.1	17	42.5
Single parent									
Two parents	497	407	82.9	90	68.2	65	70.7	25	62.5
Multiple families									
One family	579	463	94.3	116	87.9	80	87.0	36	90.0
Race/Ethnicity									
White	350	296	61.9	54	42.2	40	43.5	14	37.8
Black	143	101	21.1	42	32.8	32	34.8	10	27.0
Hispanic	55	32	6.7	23	18.0	11	12.0	12	32.4
Asian	19	19	4.0	0	0.0	0	0.0	0	0.0
Multiracial	26	19	4.0	7	5.5	6	6.5	1	2.7
Other	13	11	2.3	2	1.6	2	2.2	0	0.0
Total	606	478	100.0	128	100.0	91	100.0	37	100.0
Household income-to-poverty ratio									
Under 1.00	98	35	7.8	63	49.2	44	48.4	19	51.4
Between 1.00 and 1.30	47	22	4.9	25	19.5	20	22.0	5	13.5
Between 1.30 and 1.85	53	41	9.1	12	9.4	10	11.0	2	5.4
Over 1.85	381	353	78.3	28	21.9	17	18.7	11	29.7
Total	579	451	100.0	128	100.0	91	100.0	37	100.0

## **Section 2: Use of Federal and Community Food Assistance Programs**

Households with limited resources use a variety of different methods and strategies to cope with their situation and increase their food supply. Several Federal food assistance providers are available to the Middletown community to help ensure that everyone has enough food. Programs available include Food Stamps, free and reduced-cost lunches and breakfasts at school, Head Start, WIC, emergency food banks/pantries, and emergency soup kitchens. Households turn to these programs when they are struggling to meet their food needs. From studying various low-income households in the Middletown community, we can see the extent of their food insecurity and which programs/assistance they use to better their food situation.

### **Surveying for Program Utilization**

Our survey included a number of questions about utilization of Federal and community-based assistance programs. As described in the Methodology section, above, we asked these questions to households that met at least one of two criteria: eligibility — having an income below 185 percent of the poverty line — or need — indicating some level of difficulty in meeting their food needs. We asked about the usage of the following programs and resources during the past year:

- Food Stamps
- Soup kitchens
- Emergency food banks and pantries

In addition, we asked whether the household had received food through any of the following programs during the past 30 days:

- Free- or reduced-cost school lunch and breakfast
- Free- or reduced-cost meals at day-care or Head Start programs
- WIC

The time period we ask about varies between these two groups of programs so that our data will be directly comparable to the results of the USDA survey, which uses the same time limits.

Appendix 1 contains the full text of our survey. We selected these questions from the full set of program-utilization questions found in the USDA survey to focus on those programs most directly relevant to our survey population of households with children. To analyze the results, program participation rates were calculated by food security status and selected household characteristics. Additionally, we performed more detailed analysis of Middletown households' utilization of food pantries and food stamps. The total numbers and percentages of households accessing these two selected programs were calculated and then compared with national figures.

### **Middletown Programs**

There were two types of programs in Middletown that we targeted in our survey, federal food assistance programs and community food assistance programs. The federal food assistance programs are as follows:

- 1) Food Stamp Program – The federal government provides money to supplement households' food budget, through electronic benefit transfer (EBT) cards or paper coupons. Only households whose income falls under 130 percent of the poverty line are eligible.
- 2) National School Lunch Program – Public schools provide federally subsidized free and reduced-price lunches to low-income students.
- 3) National School Breakfast Program – Public schools may also provide federally subsidized free and reduced-price breakfasts to low-income students.
- 4) WIC (Special Supplemental Nutrition Program for Women, Infants, and Children) – The federal government provides grants to each state to support the distribution of supplemental foods, health care referrals, etc. to low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and their children under 5 years old.
- 5) Head Start – The federal government sponsors public and private non-profit or for-profit organizations to provide education, health, nutrition, and parent involvement services to low-income children (birth to five years old) and their families.

The community food assistance programs are as follows (see Appendix 4 for a more detailed discussion):

- 1) Food Pantries- These organizations distribute unprepared foods for offsite use. On a national level, households receive an average of 38.2 pounds of food per visit. In Middletown, the **Amazing Grace Food Pantry** is partnered with the Middlesex Central CT Chapter of the American Red Cross and allows over 600 local families to “shop” for groceries within the maximum quota of 32 items per month.
- 2) Emergency Kitchens- These organizations provide individuals with prepared food to eat at the site. In Middletown, **St. Vincent DePaul Place** is a soup kitchen and social service agency which provides 250-300 meals per day; the organization also serves as a food pantry.

#### **Food Security of Households That Received Food Assistance**

The complicated relationship between food assistance program utilization and household food security in Middletown is summarized in Table 11. The table compares the participation rates, by household food security, in all food assistance programs. The first two columns compare participation rates of *all* households, by food security status, giving us an overall picture of program utilization in Middletown. The two columns on the right compare the participation rates, by food security status, of *only* the households that are eligible to participate in the programs. These figures give us an idea of how many households that *could* possibly access the programs *are* actually accessing them. Eligibility for assistance programs usually depends on household income level, as well as having children in certain age brackets.

**Table 11. Participation in federal and community food assistance programs among Middletown households with children, by food security status, 2005 (unweighted)**

	All Households				Eligible Households <sup>14</sup>			
	Food secure		Food insecure		Food secure		Food insecure	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Received food stamps during previous 12 months	18	7.5	26	41.9	11	42.3	21	46.7
Children received free or reduced-price school lunch during previous 30 days	10	5.7	27	77.1	7	35.0	22	91.7
Children received free or reduced-price school breakfast during previous 30 days	3	1.7	20	57.1	2	10.0	17	70.8
Children received free or reduced-price food at daycare or Head start program during previous 30 days	14	5.9	16	26.7	9	28.1	15	44.1
Received WIC during previous 30 days	27	11.4	26	41.9	17	56.7	22	66.7
Received emergency food from pantry, church, or food bank during previous 12 months	6	2.5	29	46.8	These programs do not have eligibility restrictions			
Received emergency food from pantry, church, or food bank during previous 30 days	0	0.0	8	22.9				
Ate meal at emergency kitchen during previous 12 months	3	1.3	4	6.5				
Ate meal at emergency kitchen during previous 30 days	0	0.0	1	2.9				

<sup>14</sup> Eligibility requirements vary depending on the program in question, and are outlined below.  
 Food stamps: income must be below approximately 130% of the poverty line.  
 Free or reduced lunch and breakfast: income must be below 185% of the poverty line, and family must have children between 5 and 18.  
 Free or reduced-price food at daycare or Head Start: income must be below 185% of the poverty line, and family must have children under 13 (While Head Start serves children from birth to age five, older children may still receive food at other daycare programs).  
 WIC: income must be below 185% of the poverty line, and family must have pregnant women and/or children under age 5.  
 Food banks and emergency kitchens: No eligibility requirements.

A substantial number of households that receive food assistance are, in fact, food secure. This observation merits further discussion. Nord, Andrews, & Carlson identify two interrelated factors in the food security of households that use assistance programs (2003:29). On the one hand, participation in food assistance programs means that households are more likely to meet their food needs; thus, program utilization can decrease food insecurity in households. On the other hand, the households that access food programs tend to be the *most* food insecure ones; they get extra help meeting their food needs, yet they are starting out from a more food insecure position in the first place.

To use an example from Table 11, around one-third (11 of 34) of eligible Middletown households receiving food stamps are classified as food secure. Intuitively, we might expect that most people who get food stamps live in food-insecure households. However, food stamp benefits help families afford the food they need; all else being equal, receiving food stamps will improve a household's level of food security.

Alternatively, we might expect that people who receive food assistance would be those with the highest level of food insecurity and hunger. For example, about four out of five households that got emergency food from a pantry, church, or food bank during the previous 12 months were classified as food insecure. Additionally, *all* of the families that had accessed such programs during the previous 30 days were food insecure. These statistics illustrate the high likelihood of food insecurity among food program users. To summarize, our data confirms both trends identified by Nord, Andrews, & Carlson and supports the following conclusion: the Middletown families receiving food assistance are some of the community's most food-insecure households; at the same time, food assistance programs generally raise the food security level of participating households, presumably moving some households from a food-insecure to a food-secure status. Additionally, these data in particular demonstrate the dynamic nature of household food security. The comparisons made in Table 11 show that a family's hunger status may constantly be shifting. A number of factors have an effect on household food security; receiving food assistance is something that can help a family become more food-secure.

### **Comparing use of food stamps and food pantries**

Table 12 compares Middletown households' usage of food stamps and food pantries, according to their food security status and income level. In general, program usage increases as food security level and income decrease. Of all food-secure households, seven percent use food stamps, while less than three percent access food pantries. Among food-insecure households without hunger, utilization levels are equal at 46.3 accessing food stamps and food pantries, with slightly lower rates among households that are food-insecure with hunger. Additionally, while food stamp usage was higher than pantry usage among more food-secure households and households with higher income levels, rates of pantry usage surpassed rates of food stamp usage as household food security and income decreased. In other words, Middletown's poorest and most food-insecure households relied more often on food pantries than food stamps.

This last finding is particularly interesting because it shows a pattern in Middletown that differs somewhat from the national trend. On a national level, food stamps are more widely used than food pantries by people at all levels of food security, though for food-insecure households with hunger, food stamp utilization rates are only slightly higher than pantry use rates. In Middletown, however, food stamp utilization rates drop as household food security decreases; utilization levels for the two programs are equal for food insecure households without hunger, and pantry usage is actually higher than food stamp usage for food-insecure households with hunger. Disturbingly, under one-third (30.0%) of food-insecure households with hunger in Middletown report accessing food stamps in the last 12 months. This low usage rate can be attributed somewhat to eligibility requirements that disqualify some hungry households from food stamp benefits, but may suggest that additional barriers to food stamp usage exist. On a more positive note, we can doubtless attribute the high rate of reported access to food pantries to the quality and accessibility of Middletown's programs at Amazing Grace and St. Vincent DePaul Place.

**Table 12. Compared usage of Food Stamps and food pantries, by household food security status and income-to-poverty ratio, for Middletown households with children, unweighted, 2005**

Category	Use Food Stamps	Use Pantry
	<i>Percent</i>	
Food-secure households	7.1	2.7
Household income above poverty line	2.0	0.7
Household income below poverty line	8.7	8.7
Food-insecure households	41.0	41.0
Without hunger – overall	46.3	46.3
Household income above poverty line	50.0	18.4
Household income below poverty line	60.9	52.2
With hunger – overall	30.0	45.0
Household income above poverty line	33.3	46.7
Household income below poverty line	36.4	54.0

Table 13 provides more detail about the characteristics of households that access food stamps, while Table 14 gives the same details for households accessing food pantries. Table 15 is taken from the 2003 Nord, Andrews, & Carlson report and offers national survey statistics about use of food pantries by household characteristics, for comparison with our statistics for Middletown (Table 12).

As shown in Table 13, 11.7 percent of surveyed households utilize food pantries. There seems to be a “critical point” for pantry usage among Middletown households, located somewhere between 130 and 185 percent of the poverty line; very few families with income above 130 percent of the poverty line utilize the food pantry. At the national level (Table 14), the gap occurs closer to the 1.85 income-to-poverty horizon; in other words, very few families across America with income at or above 185 percent of the poverty line access food pantries. Comparing Middletown’s critical point to the national

statistics shows that Middletown has higher rates of very-low-income people accessing food pantries.

**Table 13. Use of food pantries among Middletown households with children, by selected household characteristics, 2005, unweighted**

Category	Total	Pantry users	
	<i>Number</i>	<i>Number</i>	<i>Percent</i>
All households	300	35	11.7
Household composition:			
At least one child > 6	170	26	15.3
All children > 6	110	16	14.5
No children > 6	130	9	6.9
Two-parent households	229	17	7.4
Single-parent households	68	17	25.0
Multiple-family households	19	5	26.3
Race/ethnicity of households:			
White non-Hispanic	174	11	6.3
Black non-Hispanic	66	16	24.2
Hispanic of any race	26	3	11.5
Asian or Pacific Islander, non- Hispanic	9	0	0.0
Multiracial	16	3	18.75
Other	6	1	16.6
Household income-to-poverty ratio:			
Under 1.00	47	22	46.8
Between 1.00 and 1.30	23	8	34.8
Between 1.30 and 1.85	25	1	4.0
Over 1.85	191	5	2.6

We also found that pantry use was higher among groups with characteristics we have previously shown to be related to lower incomes. For example, single-parent and multiple-family households utilize the food pantry at three times the rate of two-parent households. Out of all households reporting food pantry use, the black population reported higher use rates (24.2%) than any other racial or ethnic group. They were followed by the multiracial (18.8%) and "other" (16.6%) groups. Though the Hispanic

families we surveyed had the lowest income overall, only 11.5 percent reported pantry usage; as a group, Hispanic families differ from the higher tendency of low-income households to access food assistance programs. No Asian or Pacific Islander families reported using food pantries; however, our sample size is too small for this finding to be significant.

**Table 14. Use of food stamps among Middletown households with children, by selected household characteristics, 2005, unweighted**

Category	Total	Food stamp users	
	Number	Number	Percent
All households	301	44	14.6
Household composition:			
At least one child > 6	171	33	19.3
All children > 6	111	28	25.2
No children > 6	130	11	8.5
Two-parent households	229	20	8.7
Single-parent households	68	20	29.4
Multiple-family households	19	9	47.4
Race/ethnicity of households:			
White non-Hispanic	174	14	8.0
Black non-Hispanic	66	13	19.7
Hispanic of any race	26	7	27.0
Asian or Pacific Islander, non- Hispanic	9	2	22.0
Multiracial	16	4	25.0
Other	7	2	28.6
Household income-to-poverty ratio:			
Under 1.00	81	29	35.9
Between 1.00 and 1.30	23	6	26.1
Between 1.30 and 1.85	25	2	8.0
Over 1.85	158	4	2.5 <sup>15</sup>

<sup>15</sup> Households whose current income disqualifies them from food stamp eligibility may still have received benefits within the past 12 months. Additionally, benefits may have been received by an unrelated member of the household with independent income.

Table 14 indicates that 14.6% of surveyed households use food stamps. A similar critical point was observed for food stamps; reported usage drops off significantly for families with income above 130 percent of the poverty line; in this case, however, the drop-off can easily be attributed to food stamp eligibility requirements. Again, we found that households whose incomes are likely to be lower, such as households with at least one young child, are more likely to use food stamps. It is also clear that single-parent and multiple-family households are much more likely to utilize the food stamps than households containing two parents. With the exception of the white population, which had lower usage rates (8.0 percent), all races and ethnicities seem to utilize food stamps at a rate of around 20 to 30 percent.

**Table 15. Use of food pantries among all households nationwide, by selected household characteristics, weighted, 2003<sup>16</sup>**

Category	Total	Pantry users	
	1,000	1,000	Percent
All households	111,929	3,511	3.1
Household composition:			
At least one child < 6	18,037	905	5.0
Two-parent households	27,422	676	2.5
Single-parent households	12,021	1,100	15.8
Multiple-family households <sup>17</sup>	702	47	6.7
Race/ethnicity of households:			
White non-Hispanic	80,941	1,830	2.3
Black non-Hispanic	13,079	2,264	6.9
Hispanic of any race	11,970	2,705	5.1
Other non-Hispanic	5,939	171	2.9
Household income-to-poverty ratio:			
Under 1.00	12,627	1,827	14.5
Between 1.00 and 1.30	17,990	2,264	12.6
Between 1.30 and 1.85	26,919	2,705	10.0
Over 1.85	62,114	362	0.6

<sup>16</sup> (Nord, Andrews, and Carlson, 2003:35)

<sup>17</sup> Other household with child: Households with children in complex living arrangements – e.g., children of other relatives or unrelated roommate or boarder.

## Conclusions

We found that higher rates of food insecurity were linked to lower household income, and that demographic groups tending to have lower incomes (single-parent households, non-white households, and households with younger children) experienced more food insecurity. Although Connecticut is an affluent state, with one of the lowest food insecurity rates in the country, the state as a whole is known for having great disparities of wealth across towns. Middletown is a relatively less wealthy town; compared to state-level statistics on food insecurity, Middletown households with children show surprisingly high rates of food insecurity and food insecurity with hunger. In fact, we found rates that were comparable to, or higher than the national rates (and thus much higher than the Connecticut averages). These rates could not have been predicted from the overall figures for Connecticut.

There are a number of coping strategies that food-insecure households use; we asked about use of federal and community food assistance programs. When we compared food stamp usage to food pantry usage, we saw that lower-income, food-insecure households were more likely to access food pantries than food stamps. There may be some barrier to access of food stamps in Middletown; alternately, these figures could be explained by the high quality of community food assistance programs.

It is important to realize that food security is dynamic – people's status changes easily, and innumerable factors may make households vulnerable to food insecurity. Though income is the most important, there are other issues, such as the availability of federal and community programs as, parents' job stability, and even things like accessibility of grocery stores for people who use public transportation. Improvement in any one of these areas can make a difference in the food security of our community.

Our goal in investigating food security in Middletown's households with children was not only to obtain a quantitative measure of the prevalence of food insecurity and hunger among these families, but also to raise awareness. We hope that our report will prompt the reader to reconsider the importance of this problem both in the local

community and beyond. We designed this project with the hope that our survey could be repeated periodically in order to update local figures; we have included extensive methodological appendices to assist anyone who wants to perform a food security survey in his or her own community. We hope that this report will be the first step towards local advocacy and mobilization to end hunger for all Middletown families.

## Appendix 1: Telephone Survey Interview Schedule

### Introductory Statement

Hello, my name is \_\_\_\_\_, and I'm a student working with the Mayor's task force on hunger. May I speak to a head of the household?

You have been randomly selected to participate in the USDA Food Security Survey. The survey will take under ten minutes and everything you say is totally confidential.

### Household Composition

The first questions concern the people living in the same residence with you, whether related or not.

(HHC1) How many children under the age of 18 live in this household?

IF PARTICIPANT RESPONDS "NONE," SAY "THANK YOU FOR YOUR TIME; THIS SURVEY ONLY CONCERNS HOUSEHOLDS WITH CHILDREN" AND END THE SURVEY.

(HHC2) What are their ages?

(HHC3) How many are related to you or are you the legal guardian of?

(HHC4) How many adults, ages 18 and older, live in this household?

(HHC5) How many of the adults are related to you, by blood or marriage?

### USDA Food Security Survey

The next questions are about the food eaten in your household in the last 12 months, since March of last year, and whether you were able to afford the food you need.

#### STAGE ONE

Now I'm going to read you several statements that people have made about their food situation. For these statements, please tell me whether the statement was often true, sometimes true, or never true for your household in the last 12 months, that is, since last (February, March).

(FS2) The first statement is "(I/ We) worried whether our food would run out before (I/ we) got money to buy more." Was that often true, sometimes true, or never true for your household in the last 12 months?

- Often true
- Sometimes true
- Never true
- Don't know or Refused

(FS3) "The food that (I/ we) bought just didn't last, and (I/ we) didn't have money to get more." Was that often true, sometimes true, or never true for your household in the last 12 months?

- Often true
- Sometimes true
- Never true
- Don't know or Refused

(FS4) "(I/ We) couldn't afford to eat balanced meals." Was that often true, sometimes true, or never true for your household in the last 12 months?

- Often true
- Sometimes true
- Never true
- Don't know or Refused

(FS5) "(I/ We) relied on only a few kinds of low-cost food to feed [(my/ our) child/the children] because (I was/ we were) running out of money to buy food." Was that often true, sometimes true, or never true for your household in the last 12 months?

- Often true
- Sometimes true
- Never true
- Don't know or Refused

(FS6) "(I/ We) couldn't feed [(my/our) child/ the children] a balanced meal, because (I/ we) couldn't afford that." Was that often true, sometimes true, or never true for your household in the last 12 months?

- Often true
- Sometimes true
- Never true
- Don't know or Refused

**IF PARTICIPANT RESPONDS "NEVER TRUE" FOR ALL OF QUESTIONS 2-6,  
SKIP TO END OF SURVEY.**

STAGE TWO

For the next questions, please tell me whether

(FS7) "[My/our] child was/ the children were] not eating enough because (I/ we) just couldn't afford enough food." Was that often true, sometimes true, or never true for your household in the last 12 months?

- Often true
- Sometimes true
- Never true
- Don't know or Refused

(FS8) In the 12 months, did (you/ 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?

- Yes (If yes, ask Question 8a)
- No (SKIP 8a)
- DK or R (SKIP 8a)

(FS8a) [IF YES] How often did this happen – almost every month, some months but not every month, or in only 1 or 2 months?

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

(FS9) In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money to buy food?

- Yes
- No
- DK or R

(FS10) In the last 12 months, were you ever hungry but didn't eat because you couldn't afford enough food?

- Yes
- No
- DK or R

(FS11) In the last 12 months, did you lose weight because you didn't have enough money for food?

- Yes
- No
- DK or R

IF PARTICIPANT ANSWERS YES TO ANY ONE OF QUESTIONS 7-11, THEN CONTINUE. OTHERWISE. SKIP TO END OF SURVEY.

### STAGE THREE

(FS12) In the last 12 months, did (you/ you or other adults in your household) ever not eat for a whole day because there wasn't enough money for food?

- Yes
- No (SKIP 12a)
- DK or R (SKIP 12a)

(FS12a) [IF YES] How often did this happen – almost every month, some months but not every month, or in only 1 or 2 months?

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

(FS13) The next questions are about children living in the household who are under 18 years old. In the last 12 months, since (February, March) of last year, did you ever cut the size of (your child's/ any of the children's) meals because there wasn't enough money for food?

- Yes
- No
- DK or R

(FS14) In the last 12 months, did (your child/ any of the children) ever skip meals because there wasn't enough money for food?

- Yes
- No (SKIP 14a)
- DK or R (SKIP 14a)

(FS14a) [IF YES] How often did this happen – almost every month, some months but not every month, or in only 1 or 2 months?

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

(FS15) In the last 12 months. (was your child/ were the children) ever hungry but you just couldn't afford more food?

- Yes
- No
- DK or R

(FS16) In the last 12 months, did (your child/ any of the children) ever not eat for a whole day because there wasn't enough money for food?

- Yes
- No
- DK or R

### Demographic Information

The next two questions are for research purposes only and, as with the rest of the survey, your answers will be kept strictly confidential.

(INC1) What was your family's total income before taxes in the past year, including all earnings, cash benefits, and interest or dividends?

(USE NUMERICAL RANGES FROM SEPARATE SHEET)

- Below 100% of poverty line
- Between 101% and 130% of poverty line
- Between 131% and 185% of poverty line
- Above 185% of poverty line

(RE1) Which of the following best describes your race and ethnicity:

- White, non-Hispanic
- Black, non-Hispanic
- Hispanic, of any race
- American Indian or Alaskan Native, non-Hispanic
- Asian or Pacific Islander, non-Hispanic
- Multiracial
- Other

### Program Utilization

IF INCOME IS ABOVE 185% OF POVERTY LINE AND NO FOOD INSECURITY INDICATORS HAVE BEEN MET, GO TO END OF SURVEY

The next questions are about different things people do when they are running out of money for food in order to make their food or their food money go further.

(PU1) In the past 12 months, since March of last year, did (you/anyone in this household) get food stamp benefits that is, either food stamps or a food-stamp benefit card?

- Yes  
 No

(PU2) During the past 30 days, did (your child/any children in the household between 5 and 18 years old) receive free or reduced-cost lunches at school?

- Yes  
 No

(PU3) During the past 30 days, did (your child/any children in the household) receive free or reduced-cost breakfasts at school?

- Yes  
 No

(PU4) ONLY IF HOUSEHOLD HAS CHILDREN UNDER 13  
During the past 30 days, did (your child/any children in the household) receive free or reduced-cost food at a day-care or Head Start program?

- Yes  
 No

(PU5) ONLY IF HOUSEHOLD HAS WOMEN OR CHILDREN UNDER 5  
During the past 30 days, did any (women/women or children/children/women and children) in this household get food through the WIC program?

- Yes  
 No

(PU6) In the last 12 months, did (you/you or other adults in your household) ever get emergency food from a church, a food pantry, or food bank?

- Yes  
 No

IF YES:

(PU6A) Did this happen in the last 30 days?

- Yes  
 No

(PU7) In the last 12 months, did (you/you or other adults in your household) ever eat any meals at a soup kitchen?

Yes

No

IF YES:

(PU7A) Did this happen in the last 30 days?

Yes

No

**Follow-up:**

(FU1) Would you be willing to be possibly be contacted during the next year to do a follow-up interview or focus group about this survey?

Yes

No

**Conclusion:**

Thank you for your time. If you'd like, you will be able to read our final report this May at Russell Library, the Center for Community Partnerships library at Wesleyan University, and the Middlesex Coalition for Children office.

**Poverty Thresholds**

Size of family unit	Number of related children							
	1	2	3	4	5	6	7	8+
2	13,000 17,000 24,000							
3	15,000 19,700 28,000	15,000 19,700 28,000						
4	19,800 25,700 36,600	19,000 24,900 35,400	19,200 24,900 35,500					
5	23,800 30,900 44,000	23,000 30,000 42,700	22,500 29,300 41,700	22,000 28,800 41,000				
6	27,000 35,200 50,000	26,500 34,500 49,000	26,000 33,800 48,000	25,200 32,800 46,600	24,700 32,100 45,800			
7	31,200 40,600 57,800	30,600 39,800 56,600	30,000 39,200 55,700	29,200 38,000 54,000	28,200 36,700 52,300	27,100 35,300 50,200		
8	35,000 45,600 64,900	34,400 44,700 63,700	33,900 44,000 62,700	33,000 43,000 61,200	32,000 41,700 59,400	31,000 40,400 57,500	30,800 40,000 57,000	
9+	42,000 54,600 77,700	41,400 53,900 76,700	41,000 53,300 75,800	40,200 52,300 74,400	39,000 50,900 72,400	38,200 49,600 70,700	37,900 49,300 70,200	36,500 47,400 67,500

The first number in each cell is the poverty line for a family with the indicated family size and number of children, rounded to the nearest \$100. The numbers below that are the other income ranges we asked about – 130 and 185 percent of the relevant poverty line.

## Appendix 2: Self-Administered Survey

### Middlesex Coalition for Children Survey of Food Security

Thank you for taking the time to complete both pages of this survey. Please return it within one week to the program where you received it, and your child will receive a coupon for a free ice cream cone from Praline's on Main Street. Before filling out the survey, make sure all of the following statements apply to you:

- You are a Middletown resident
- You have children under the age of 5
- You do not have children in grades kindergarten-12 at any Middletown public school

If you meet all three of these requirements, please continue with the survey. Thanks!

### About Your Household and Children

The following questions are about all the people who live in the same residence as you. Please record your answers in the blank spaces to the right of each question.

	Answers
1. How many children under the age of 18 live in your household?	
2. What are their ages?	
3. How many are related to you or are you the legal guardian of?	
4. How many adults, ages 18 and older, live in your household?	
5. How many of the adults are related to you by blood or marriage?	

### Food in Your Household

The questions in this section are about the food eaten in your household in the last 12 months, since March of last year, and whether you were able to afford the food you need.

The first two questions are statements that people have made about their food situation. Please check one box to indicate whether the statement was often, sometimes, or never true for you and the other members of your household in the last 12 months.

6. "The food that we bought just didn't last, and we didn't have money to get more."	<input type="checkbox"/> Often true <input type="checkbox"/> Sometimes true <input type="checkbox"/> Never true
7. "We couldn't afford to eat balanced meals."	<input type="checkbox"/> Often true <input type="checkbox"/> Sometimes true <input type="checkbox"/> Never true
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?	<input type="checkbox"/> Yes, in 3 or more months <input type="checkbox"/> Yes, in only 1 or 2 months <input type="checkbox"/> No
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?	<input type="checkbox"/> Yes <input type="checkbox"/> No
10. In the last 12 months, were you ever hungry but didn't eat because you couldn't afford enough food?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Survey continues on reverse!

## Use of Food and Nutrition Programs

The next questions are about different things people do different things when they are running out of money for food in order to make their food or their food money go further. Please check the correct box to indicate whether you have used any of the following programs within the time period referred to in the question.

11. In the past 12 months, since March of last year, did anyone in your household get a food stamp benefits card?	<input type="checkbox"/> Yes <input type="checkbox"/> No
12. During the past 30 days, did any children in the household receive free or reduced-cost food at a day-care or Head Start program?	<input type="checkbox"/> Yes <input type="checkbox"/> No
13. During the past 30 days, did any women and/or children in this household get food through the WIC program?	<input type="checkbox"/> Yes <input type="checkbox"/> No
14. In the last 12 months, did you or other adults in your household ever get emergency food from a church, a food pantry, or food bank?	<input type="checkbox"/> Yes <input type="checkbox"/> No
15. In the last 12 months, did you or other adults in your household ever eat any meals at a soup kitchen?	<input type="checkbox"/> Yes <input type="checkbox"/> No

## Personal Information

The following questions are for research purposes only, and, as with the rest of the survey, your answers will be kept strictly confidential.

16. Please check the box below that corresponds to your family's total income before taxes in the past year, including all earnings, cash benefits, and interest or dividends:	
<input type="checkbox"/> \$0-\$5,000	<input type="checkbox"/> \$30,000-\$40,000
<input type="checkbox"/> \$5,000-\$10,000	<input type="checkbox"/> \$40,000-\$50,000
<input type="checkbox"/> \$10,000-\$15,000	<input type="checkbox"/> \$50,000-\$75,000
<input type="checkbox"/> \$15,000-\$20,000	<input type="checkbox"/> \$75,000-\$100,000
<input type="checkbox"/> \$20,000-\$30,000	<input type="checkbox"/> Over \$100,000
17. Please check the box below that best describes your race and ethnicity:	
<input type="checkbox"/> White, non-Hispanic	<input type="checkbox"/> American Indian or Alaskan Native, non-Hispanic
<input type="checkbox"/> Black, non-Hispanic	<input type="checkbox"/> Asian or Pacific Islander, non-Hispanic
<input type="checkbox"/> Hispanic, of any race	<input type="checkbox"/> Multiracial
	<input type="checkbox"/> Other

### Follow-Up

Please note: this page will be immediately detached from the rest of the survey so that your answers are kept anonymous.

---

Would you be willing to possibly be contacted during the next year to do a follow-up interview or focus group about this survey?

Yes

No

If yes, please provide your name and phone number in the space below.

Name: \_\_\_\_\_ Phone Number: \_\_\_\_\_

---

Thank you for your participation! Your answers will guide policy to end childhood hunger in Middletown. If you are interested in learning more about this project, copies of the final report will be available in May at Russell Library and Wesleyan University's Center for Community Partnerships. You may also obtain an executive summary of the report by providing your contact information below.

Yes, I would like a summary of the report!

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Make sure to return your completed survey to  
receive your child's free ice cream cone!**

### Appendix 3: Responses to Food Security Scale Questions and Household Food Security Scale Values

**Table A1: Number and percent of affirmative responses for each food security question, unweighted, 2005.**

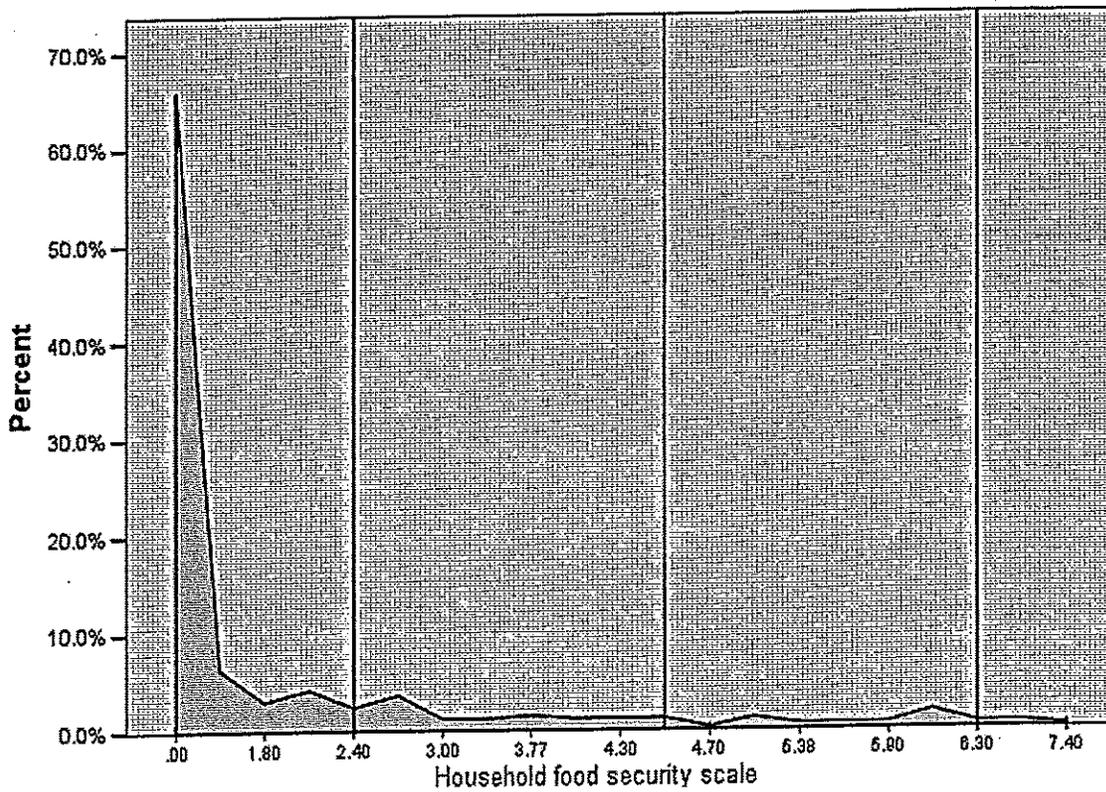
	Affirmative responses to each question			
	Phone survey		Self-administered survey	
	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>
<b>Household items</b>				
Worried food would run out before (I/we) got money to buy more	53	22.6		
Food bought didn't last and (I/we) didn't have money to get more	32	13.6	40	42.6
Couldn't afford to eat balanced meals	29	12.3	26	27.7
<b>Adult items</b>				
Adult(s) cut size of meals or skipped meals	25	10.6	18	19.1
Respondent ate less than felt he/she should	25	10.6	16	17.0
Adult(s) cut size or skipped meals in 3 or more months	21	8.9	7	7.4
Respondent hungry but didn't eat because couldn't afford	13	5.5	8	8.5
Respondent lost weight	8	3.4		
Adult(s) did not eat for whole day	3	1.3		
Adult(s) did not eat for whole day in 3 or more months	1	0.4		
<b>Child items</b>				
Relied on few kinds of low-cost food to feed child(ren)*	44	18.7		
Couldn't feed child(ren) balanced meals	19	8.1		
Child(ren) were not eating enough	12	5.1		
Cut size of child(ren)'s meals	0	0.0		
Child(ren) were hungry	6	2.6		
Child(ren) skipped meals	5	2.1		
Child(ren) skipped meals in 3 or more months	0	0.0		
Child(ren) did not eat for whole day	0	0.0		

While the rest of this report has discussed household food security by dividing households into three categories, the more accurate measure of household food security is along a scale from 0 to 10. A household with a scale value of 0 is the most food-secure, while a scale value of 10 represents the most extreme form of food insecurity with hunger. The following table and figure give the distribution of Middletown households with children by their food security scale value.

Table A2: Number and percent of Middletown households with children by food security scale value, unweighted, 2005

Food security scale value	Number	Percent	Cumulative Percent
0-1	217	66.0	66.0
1-2	21	6.4	72.3
2-3	10	3.0	75.4
3-4	38	11.6	86.9
4-5	13	4.0	90.9
5-6	9	2.7	93.6
6-7	10	3.0	96.7
7-8	10	3.0	99.7
Above 8	1	0.3	100.0
Total	329	100	

Figure A1: Food security scale values of Middletown households with children, unweighted, 2005<sup>18</sup>



## **Appendix 4: Description of Local Food Assistance Programs**

### Amazing Grace

Amazing Grace is the local food pantry in Middletown that provides emergency food for individuals and families in need. Amazing Grace originated through the partnership of St. Vincent DePaul Place, the American Red Cross, the Salvation Army, and the Middlesex United Way. Over the last year, the number of people using the food pantry has doubled from approximately 500 adults early in 2003 to approximately 1,000 in 2004. The organization has started a Families Feeding Families program to help collect the 14,000 items of food it distributes every month. The program operates through commitments from companies, faith communities, civic organizations and schools, each collecting one specific food product, such as canned soup or vegetables. Each group sets a collection goal for each month and measures their progress towards it.

### St. Vincent DePaul Place

St. Vincent DePaul Place is a soup kitchen and social service agency that serves the Middletown community. It provides approximately 250-300 meals per day to members of the community and also serves as a food pantry. According to Executive Director Peter Harding, "Our slogan here at St. Vincent DePaul is 'people helping people.' We try to meet the most basic of human needs on a daily basis." The organization currently provides social service management for the Liberty Commons low income housing development in addition to its emergency food program.

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<sup>18</sup> Vertical lines represent the cutoff points between food-secure households, food-insecure households, and food-insecure households with hunger.

## Appendix 5: Telephone Survey Response and Completion Rates

- Response Rate – defined as the number of people who start a survey, divided by the number of people invited to take the survey and expressed as a percentage.
- Completion Rate – defined as the number of people who start and finish a survey, divided by the number of people invited to take the survey and expressed as a percentage.

Table A3: Percentage of telephone survey responses, by completion category, unweighted, 2005

Category	Percent of calls
Complete	12.1
Not Available <sup>19</sup>	62.4
Refused	19.6
Not in Service	5.0
No Children	0.5
Language Barrier	0.5
Total <sup>20</sup>	100.0

### Response Rate Formula

$$RR = C / E$$

*RR* – Response Rate

*C* – Number of completed calls

*E* – Number of eligible reporting units in sample

Our Response Rate:

$$41\% = 235 / 573$$

<sup>19</sup> This category includes busy signals and numbers where no one picked up or where the head of the household was not available.

<sup>20</sup> 1242 total calls made.

## Appendix 6: Parent Information Sheet for Self-Administered Survey

### *The Project:*

#### *Who Are You?*

We are a team of four Wesleyan students taking part in a Community Research Seminar led by sociology professor Rob Rosenthal. Together with the Middletown Coalition for Children (MDCO), we are trying to find out to what extent parents are troubled about putting food on the table for their kids. Ideally, we would like to estimate what percentage of households with children are struck by food insecurity and possibly hunger, as well as whether affected families feel that they have access to appropriate food programs, such as Food Stamps and WIC.

The goal of our study is not only to measure food consumption, availability and access in families with children in our local community, but also to provide the Coalition with data that will be comparable with national and state figures on the frequency and severity of childhood hunger. The information generated by this research will help MDCO develop strategies and build programs to eliminate childhood hunger in Middletown.

### *The Survey*

#### *What Can I Do?*

We would like you to take the study home with you, fill it out and return it to the program's site in a sealed envelope (provided). The questions of the study should not take you more than 10 minutes, although you can feel free to take longer than that.

It is very important to us to count your voice as soon as you learn about the survey, so we ask you to please bring back the study as soon as you can within one week of receiving it.

To assure your confidentiality, we do not ask you any personal information pertinent to your identification. All the questions that you are about to answer on the survey are considered anonymous.

But if you're still worried about the survey or would simply want to ask us a question, please feel free to contact Wesleyan student Maria Nankova at (860) 685 - [REDACTED] or e-mail at [mnankova@wesleyan.edu](mailto:mnankova@wesleyan.edu), or our professor, Rob Rosenthal, at (860) 685 - [REDACTED] or e-mail at [rrosenthal@wesleyan.edu](mailto:rrosenthal@wesleyan.edu).

### *The Results*

#### *Why Should I Take Part?*

Well, first of all, your child will receive a coupon for a free ice-cream cone upon your completion of the survey. Second, your participation will make this project possible, which in turn will raise awareness and hopefully, lead to better food security planning in the community of Middletown. Third, you will be able to view the results of the final written report. Copies will be available at Russell Library, the Center for Community Partnerships library at Wesleyan University, and the Middlesex Coalition for Children office. Lastly, we are going to offer an executive summary of the report to every one of our participants.