What's Eating You about What You Eat?  
*A Survey of Madison Residents' Likes and Concerns*

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Acknowledgments

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Introduction

This report of the Madison Food System Project (MFSP) explores the likes and concerns of Madison-area residents regarding the Madison food system. The genesis of the report was an informal survey conducted of two dozen shoppers outside several Madison food stores. The results of that survey piqued our interest in knowing more about how residents perceive the food system in the Madison/Dane County area and led us to consider how well Madison residents think the local food system serves their needs and desires. This report is based on a telephone survey that MFSP staff conducted of 372 randomly selected Madison residents between October 1999 and March 2000 to identify their likes and concerns with food in the Madison area (see Appendix A for a fuller description of the study design).

The report is divided into five sections. In Section I, we present the key findings from the overall sample. In Section II, we present the findings on specific groups distinguished by differences in age, education, gender, household income, and housing tenure. In Section III we analyze and interpret the findings. We make specific recommendations for action by the city and county governments in Section IV. These include improving intergovernmental cooperation and information sharing; working more closely with local food-related resident organizations; educating residents about the local food system; improving residents’ physical and economic access to food; strengthening local food production, including community gardens; encouraging the consumption of locally produced food; and conducting further research. In Section V, we offer conclusions based on our analyses.

We found, in general, that the local food system serves well the overall needs of some Madison residents, but that the needs of others are not always met. We found that:

- Those residents whose needs are not being met tend to be among the poorest, the oldest, and the least educated.

- Residents like food that is locally produced.

- Residents get most of their food from food stores, restaurants, and farmers’ markets, but they also get some of their food from family members, hunting, fishing, their own gardens, community gardens, CSA farms, the SHARE program, food pantries, and hot meal kitchens.
• The percentage of respondents relying on moderately used and infrequently used sources of food differs depending on such factors as age, education, household income, and housing tenure.

• Community gardens are used as a source of food more often by renters and individuals from low-income households than by other Madison residents.

• Residents differ in their concerns about the quality and cost of food in the Madison area.

Civic leaders and city and county administrators may wish to correct deficiencies in the local food system, but such action needs to be taken mindfully. Madison residents have strong likes and concerns about food in the Madison area. Some of these perceptions are widely held while others are more diverse. Any intervention to correct deficiencies in the local food system through direct action or through policy development and implementation should take these perceptions into account.
I. Key Findings

The results in this section present an overall picture of the food likes and concerns of Madison residents. We present the key findings as answers to eight questions about the respondents’ food-related experiences:

1. How satisfied are Madison residents with the overall quality of food in the Madison area?
2. How satisfied are they with the overall choice of food?
3. How satisfied are they with the price?
4. Where do they get their food?
5. What do they think of local food production?
6. How food secure are they?
7. What are their food-related health concerns?
8. What are their food-related environment concerns?

When considered together, the answers to these questions provide an overview of the likes and concerns of Madison residents about food in the Madison area.

![Satisfaction with the Overall Quality of Food](image)

*Figure 1*
1. **How satisfied are Madison residents with the overall quality of food in the Madison area?**

   Overall, Madison residents appear to be quite satisfied with the quality of food. Almost all of the respondents agreed or agreed somewhat with the statement: "I like the overall quality of food in the Madison area." (See Figure 1.)

2. **How satisfied are Madison residents with the overall choice of food?**

   Madison residents are highly satisfied with the overall choice of food in the area (see Figure 2). They like:

   - That people have the option to buy food at farmers’ markets and area farms.
   - Being able to buy all kinds of fresh fruits year round at area grocery stores.
   - The choice of grocery stores and restaurants.
   - That people are able to buy organic food in the area.

3. **How satisfied are Madison residents with the price of food?**

   Madison residents are generally satisfied with the price of food, but they express some concerns (see Figure 3).

   - Ninety-one percent of all respondents agreed with the statement: "I like the price of food in the Madison area."

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**Figure 2**

<table>
<thead>
<tr>
<th>Satisfaction with the Overall Choice of Food</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmers’ Markets and Area Farms</td>
</tr>
<tr>
<td>Agree</td>
</tr>
</tbody>
</table>
• When asked to agree or disagree with the statement, "I am concerned about the high cost of food in the Madison area," the majority indicated they have little or no concern, but an ample minority expressed at least some concern.

• One of every two respondents indicated concern about the higher cost of organic food in the area.

4. Where do Madison residents get their food?

Madison residents get their food primarily from food stores, farmers’ markets, and restaurants, but many also get at least some of their food from an assortment of alternative commercial, self-generated, family- and community-assistance, and emergency sources.

• The most commonly used sources of food for Madison residents are food stores, farmers' markets, and restaurants (see Figure 4).

• Some residents get at least some of their food from their own gardens, from family members, by hunting, and by fishing.

• Other sources of food for Madison residents are community supported agriculture (CSA) farms, community gardens, hot meal kitchens, food pantries, and the SHARE Program.
5. What do Madison residents think of local food production?

Madison residents have a high level of interest in buying food produced locally. Respondents indicated that:

- They get at least some of their food from farmers’ markets (see Figure 4).
- They like to buy Wisconsin-grown food. They also like that people have the option to buy food at farmers' markets and area farms and to buy shares of community supported agriculture (CSA) farm produce in the area. However, some respondents indicated that they did not have enough information to form an opinion on buying CSA farm shares (see Figure 5).
A majority of respondents are concerned about the welfare of food producers. Over 80 percent expressed concern about the economic difficulties faced by farmers.7

There is also a fair amount of interest in people having the option to produce and gather their own food.

- Respondents like having community gardens in the area (see Figure 6).
- Many reported producing their food in their own gardens, hunting, fishing, and using community gardens (see Figure 4).

For community gardens, interest exceeds supply. Five times as many people indicated they would like to use community gardens than reported currently using them (17 percent/3 percent).8

6. How food-secure are Madison residents?

Madison residents are not generally concerned about their own food security, but as many as one in five respondents expressed concern about some aspect of their food security.9 Overall, respondents are not concerned about:

- Their households having enough to eat within the next six months.
- Finding food they like to eat.
- Finding food that meets their family's cultural background.
- The high cost of food.
- Their ability to get to and from the grocery store (see Figure 7).

On the flip side, some residents are concerned about their own food security.

- Thirteen percent indicated concern about their household having enough to eat within the next six months.
- Approximately one respondent in five indicated concern about the high cost of food and their ability to get to and from the grocery store.

Figure 6
• About one in eight respondents expressed concern about finding food they like to eat and finding food that meets their family’s cultural background.

Most respondents indicated their satisfaction with the availability of programs to address hunger in the Madison area.

• They like that people can get food when they need to from food pantries.

• They like that there are government meal programs for the elderly and children (see Figure 8).

7. **What are the food-related health concerns of Madison residents?**

Many Madison residents share a variety of food-related health concerns. These concerns have to do mostly with nutritional quality and the presence of impurities in their food. However, some of the concerns are shared by only one-third to one-half of the population.

A majority of respondents indicated concern about:

• Eating food containing chemicals or preservatives.
• Making sure their families eat enough home-cooked meals.
• People in the Madison area eating food with high fat content and little nutritional value (see Figure 10).
• Over one-third of the respondents expressed concern about eating genetically modified (GM) food and eating contaminated food (see Figure 9). Three of four of those asked indicated that they would buy more organic food if it were more readily available and less expensive.

8. **What are the food-related environmental concerns of Madison residents?**

Madison residents are concerned with the effect of food production and processing on the quality of their land and water.

• Seventy-three percent of the respondents are concerned about the presence of chemical and nutrient residues from food production and processing in Madison-area wells, streams, and lakes (see Figure 11).

• Respondents also indicated concern for other effects of food production on the environment in the Madison area.

• Nearly half of them indicated concern about soil erosion.
Nearly half of the respondents indicated concern about the amount of petroleum products used to grow, transport, and store food.

For both of these issues, the next largest group of respondents said that they did not have enough information to form an opinion (see Figure 11).

Seventy-two percent of the respondents indicated their concern about food packaging ending up in area landfills.

Majorities also indicated that they like to buy food in recyclable packaging and bulk food with no packaging. On the other hand, nine out of ten respondents
indicated that they like food packaged in quantities that are appropriate for their needs (see Figure 12).

- When asked about farmland, almost all respondents indicated that:
  - They like having Madison-area farms provide scenic open space
  - They are concerned about the loss of farmland in the Madison area (see Figure 13).

Summary. Madison residents are satisfied with the overall quality and choice of food. Most are satisfied with the price of food, but here there is some element of concern. They get their food primarily from food stores, farmers’ markets, and restaurants. Varying percentages of the population also rely on an assortment of alternative sources of food such as their own efforts to grow and gather food from area land and water, alternative commercial food production and distribution operations, family members, community assistance programs, and emergency food sources. Most residents like to buy food that is produced locally. They are generally food secure, but as many as one in five residents are concerned about some aspect of their food security such as getting to and from the grocery store and their households having enough to eat in the next six months. Most
residents are concerned about eating foods that contain chemicals and preservatives and high-fat foods with low nutritional value. A sizable minority of residents is concerned about eating contaminated food and genetically modified food. Most residents are also concerned about the effect of food production and processing on the quality of land and water in the Madison area.
II. Findings by Respondent Characteristics

In this section, we look more closely at the survey results to understand how the likes and concerns defined in the survey differed among groups of respondents distinguished by differences in age, education, gender, household income, and housing tenure. Although not generalizable to the population of Madison, these findings may still provide deeper insights into the likes and concerns of specific sectors of the population.

Age

Many differences in the survey responses are related to age. The biggest differences are those involving issues associated with food security. Age-related differences also appeared in the respondents’ concerns about food and water contamination and genetically modified food and their preferences for various food sources and for gardening.

We grouped the respondents into the following age categories: 25 and younger, 26-45, 46-60, 61-75, and 76 and older. Figure 14 shows the distribution of respondents across these five age groups. (See Appendix C for an explanation of how we came to this particular grouping of respondents to best highlight age-related differences in their responses.) Because Madison is home to a major university, these age groups are associated respectively with periods of formal education, early professional work, late professional work, early retirement, and late retirement.

The differences among responses varied from issue to issue, but for some, the responses proved to be quite similar between specific groups. The two groups of “professional-aged” respondents (26-45 and 46-60) often had very similar responses to the questions. As often as not, the youngest and the oldest groups differed in like fashion from the other three groups. These parallel differences were most pronounced when compared with the “late professional work” group (46-60). The responses among the five age groups differ most in their concerns about
food security, food and water contamination, food-source preferences, gardening, and the labeling of genetically modified food. The most striking of these differences, especially when compared to the responses of those 46-60, are the higher percentages of respondents 76 and older who are concerned about getting to and from the grocery store and about their households having enough to eat in the next six months.

**Food Security.** There are pronounced differences in food security concerns among the groups on the issues of transportation, having enough to eat, and the high cost of food.

- *Transportation* concerns were most frequently reported by those 76 and older. Respondents in this group expressed concern about getting to and from the grocery store twice as often as those 25 and younger, three times as often as those in the age groups 26-45 and 61-75, and over ten times more often than respondents from 46-60 (see Figure 15).

- Likewise, the oldest group of respondents expressed *concern about their household having enough to eat within the next six months* more often than the other respondents. The eldest respondents expressed this concern about having enough to eat from two to six times more often than respondents in the other four age groups (see Figure 16).

![Figure 15](image1.png)

![Figure 16](image2.png)

- The oldest and the youngest respondent groups expressed their concern about the *high cost of food* one-third more often than respondents from 26-45 and over twice as often as those in the two groups from 46-75 (see Figure 17).
Concern about the High Cost of Food

Concern about the Higher Cost of Organic Food

• Conversely, twice the percentage of respondents in the two groups 26-45 and 46-60 were concerned about the higher cost of organic food than in the youngest and the two oldest age groups (see Figure 18).  

Food security concerns were expressed most often by respondents 76 and older and second most often by respondents 25 and younger (see Figures 15 to 17). The youngest respondents did not express concern about hunger as often as did respondents in the oldest age group. However, like those 76 and older, respondents 25 and younger expressed concern about getting to and from grocery stores and about the high cost of food more often than respondents in the three age groups from 26-75.

**Food and Water Contamination.** A smaller percentage of respondents 25 and younger expressed concern about the contamination of their food and water than in any other age groups. Respondents age 26-45, 46-60, and 76 and older expressed concern about eating food with chemicals and preservatives in it.
about 65 percent more often than those 25 and younger and 50 percent more often than those 61-75 (see Figure 19). Respondents age 26-45 and 46-60 expressed concern about the presence of chemicals and nutrient residues from food production and processing in Madison-area wells, streams, and lakes around 45 percent more often than those respondents 25 and younger (see Figure 20). Higher percentages of respondents from 26-45 and 46-60 years of age are concerned about chemical and nutrient contamination of their food and of their water.

Food Source Preferences. For most sources of food, the preferences expressed by respondents among the five age groups are quite consistent. However, there were some differences. Age groups, for instance, differed in the percentage of those liking the choice of food co-ops (see Figure 21). The percentages of respondents from 26-45 and from 46-60 who like buying unpackaged bulk food are twice that of respondents 25 and younger (see Figure 22). Similarly, the percentages of respondents from 26-45 and from 46-60 who like that people have the option to buy shares of CSA farm produce in the Madison are twice the percentages of respondents from the two age groups 61 and older (see Figure 23). In all three instances, over one-half of the respondents from 26-60 agreed with the statements while less than one-half of respondents in the other groups agreed with the statements. For the choice of food co-ops and the option to buy shares of CSA farm produce, the lack of information was a prominent response, particularly for those 25 and younger and 61 and older.

There was very little disagreement with the question on buying shares of CSA farm produce among any of the age groups. However, the respondents in three out of the five age groups responded more often that they lacked the information necessary to form an opinion than they did with agreement. 13
No lack of information was expressed about fast food restaurants, but the difference between the responses of those in the youngest age group and all others is quite strong. The percentage of respondents 25 and younger who expressed their like of fast food restaurants in the Madison is double that of the two age groups from 46-75 (see Figure 24).

Age-related differences also occur in the use of supplemental food sources. The percentages of respondents who get their food from their own gardens, CSA farms, hunting, fishing, hot meal kitchens, and family members vary with age. The percentage of respondents from 46-60 who use their own garden as a supplemental source of food is three times that in both the youngest and oldest age groups (see Figure 25). The percentage of respondents 26-45 who report using CSA farms is two to six times the percentage from any other age group. The percentage of respondents in the three age groups up to age 60 who use hunting or fishing as supplemental sources of food is two to four times that of the respondents from the two age groups 61 and older. Just over 10 percent of the
Like that People Have the Option to Buy Shares of Community Supported Agriculture

Figure 23

respondents 76 and older reported using hot meal kitchens as a supplemental source of food, but that is more than three times the percentage of respondents from any other age group. Respondents from all five age groups reported relying on family members as supplemental sources of food. Almost 60 percent of respondents 25 and younger reported relying on their family members for at least some of their food. This is about half again as large as the percentage of respondents in the two age groups 61 and older and over four times that of the group from 46-60. How old the respondents are appears to make a difference as to which of the supplemental sources of food they can and do use.

Gardening. We asked several follow-up questions about gardening. The questions explored respondents’ tendencies to garden at home and in community gardens, the availability of land, and the respondents’ desire to grow their own food.

The peak percentage of respondents who would like to be able to grow some of their own food occurred in the age group...
from 26-45 (see Figure 26). The peaks for growing some of their own food and the importance of growing some of their own food, occurred at the next older age group (see Figures 26 and 27). The 44 percent of respondents in this age group who grow some of their own food is three and seven times more, respectively, than those in the youngest and oldest age groups who grow their own food.

The two younger age groups have the greatest unmet desire to grow their own food. The difference between the percentage of respondents reporting that they grow some of their own food and those who want to was greatest in the group of respondents 25 and younger. Over 2.5 times more respondents in this age group reported wanting to be able to grow their own food than reported actually growing some of their own food. This is almost the exact reverse of the difference for respondents from 61-75. The two oldest age groups have little or no desire to grow some of their own food.

Over half of all respondents in the four age groups 26 and older have access to land to grow food where they live. Land is most readily available to respondents in the three age groups 46 and older (see Figure 27). Across all age groups the percentage of respondents reporting that they have land available to grow food where they live is greater than the percentage of those reporting that it is important to grow some of their own food at home. However, the youngest and oldest respondents were over ten times more likely to have land available where they live to grow their own food than to think it important to grow their own food at home.

The percentage of respondents expressing the desire to use community gardens was greatest in the three age groups under 61
years of age. However, only respondents in the three age groups from 26-75 reported using community gardens (see Figure 28).

**Genetically Modified Food.** Younger respondents are more often aware of genetically modified (GM) foods than older respondents (see Figure 29). The percentage of respondents in the three age groups under 61 who reported awareness of GM foods is one-third more than those 61-75 and over twice that of respondents 76 and older. A greater percentage of respondents 26-45
and 46-60 reported awareness that genetically modified foods were not labeled as such than in any other age groups. The percentage of respondents who reported this awareness in these two groups is twice that of the respondents 25 and younger and 61-75. It is nine times greater than the percentage of respondents 76 and older. The percentage of respondents who are aware that these foods are not labeled and want them to be is highest among those 26-45 and 46-60.
Summary. Overall, the oldest respondents are most often concerned about their food security. They showed this in their more frequent expressions of concern about getting to and from the grocery store, their households having enough to eat in the next six months, and the high cost of food. The percentage of respondents in this age group who reported using hot meal kitchens as a food source is three times that in any other age group. Fewer of them reported growing their own food than in any other age group. They were second only to those 25 and younger in the percent of respondents who rely on their family members for food.

Like the oldest group, high percentages of those 25 and younger reported relying on their families for food and being concerned about the high cost of food and getting to and from the grocery stores. They paralleled the oldest group in the low percentage of respondents reporting that they grow their own food.

Respondents from 46-60 are the least often concerned about their food security. The percentage of respondents from this group was the lowest of all groups in expressing concerns about getting to and from the grocery store, the high cost of food, and their household having enough to eat in the next six months. On the other hand, those aged 46-60, along with those 26-45, are most often concerned about the environmental effects of food production and processing and the quality of their food and water.

Education

There are relatively large differences in the patterns of responses between the nine groups of respondents segregated by their level of education. The nine groups distinguish those with less than a high-school diploma, high-school diploma, technical college/associate's degree, some university/college, bachelor's degree, master's degree, Ph.D., other advanced degree, and those who did not answer (see Figure 30). The biggest differences among levels of education are in the respondents' risk of hunger, choices of supplemental sources of food, perceptions of the price of food, preferences for alternative food stores and fast food restaurants, and awareness of genetically modified foods and food labeling.

Education appears to be inversely related to respondents' concerns with having enough to eat (see Figure 31). Respondents with at least a high-school education, but less than a bachelor's degree, reported about twice as often as respondents with bachelor's degrees that they are concerned about their families having enough food to eat in the next six
months. They expressed this concern over three times as often as did respondents with master's degrees. No one with a doctoral degree expressed this concern. The more educated the respondents, the less often they expressed concern about their families having enough to eat in the next six months.

Education appears to be associated with respondents’ choices of supplemental sources of food (see Figure 32). Those who completed no more than high school and those with associate’s degrees or degrees from technical colleges said that they get at least some of their food from a hot meal.
kitchen five times more often than did those with some university or college education or a bachelor's degree. Those with graduate degrees did not report using this source at all.

- Those with less than a bachelor's degree reported that they get at least some of their food from food pantries from three to eight times more often than did those with master's degrees. None of those with bachelor's and doctoral degrees reported using food pantries as a supplemental source of food.

- Respondents with technical college or associate's degrees reported that they get at least some of their food from family members three to four times more frequently than those with master's or doctoral degrees.

- Respondents with technical college or associate's degrees reported over twice as often as all other education levels that they get at least some of their food from hunting or fishing.

The more educated the respondents, the less often they report having to rely on family members for food or on emergency sources such as food pantries and hot meal kitchens.

Education appears to relate to the respondents' perceptions of the price of food in the Madison area.

On average, those with less than a bachelor's degree indicated over 2.5 times more often than did those with bachelor's, master's, or doctoral degrees that they are concerned about the high cost of food (see Figure 33).

![Supplemental Food Sources](image)

Figure 32
Concern about the High Cost of Food in the Area

Figure 33

- Conversely, when compared to those with high-school educations, those with master's degrees reported almost 2.5 times more often that they are concerned about the higher cost of organic food (see Figure 34).

Education also appears to affect food store and restaurant preferences.

- The percentage of respondents expressing a like of specialty food stores is almost doubled for those with a doctoral degree when compared to those with no more than high-school degree (see Figure 35).
• On average, those with at least a bachelor's degree indicated over 75 percent more often than those with less than a bachelor's degree that they like the choice of food co-ops in the Madison area (see Figure 36).

• Respondents with less than a bachelor's degree indicated that they liked fast food restaurants two-thirds more often than those with at least a bachelor's degree (see Figure 37).

![Figure 35](image1)

![Figure 36](image2)
As education increases, so too does the percentage of respondents who have heard of genetically modified food, are aware that genetically modified foods are not labeled as such, and think they should be (see Figure 38).

- A little over one-half of the respondents with no more than high-school education have heard of genetically modified food. That percentage increases with each higher level of education, and reaches 100 percent for those with a doctoral degree.

- The percentage of affirmative responses to the question, “Are you aware that genetically modified foods are not labeled as such?” quadrupled with the increase in education from those with no more than a high-school education to those with a doctorate.

- The proportion of those who thought genetically modified food should be labeled also increased from group to group with progressively higher levels of education. The proportions changed progressively from 36 percent for those with no more than a high-school education to 61 percent for those with a doctorate.

**Summary.** There are some clear distinctions in the likes and concerns of Madison residents when looking at differences associated with their level of education. The more educated the respondents, the less often they reported concerns related to food security. Respondents with no more than a technical college education or associate’s degree indicated more often that they relied
on hot meal kitchens as a supplemental source of food. Respondents with less than a bachelor’s degree indicated more often that they relied on food pantries. They were concerned more often about having enough to eat and about the high cost of food. A higher percentage of respondents with less than a bachelor’s degree reported liking fast food restaurants. Conversely, those with at least a bachelor’s degree reported more often that they were concerned about the higher cost of organic food. They reported liking specialty food stores and food co-ops more often than did those with less than a bachelor’s degree. As education increased so too did the frequency with which respondents reported having heard of genetically modified food and being aware that it was not labeled as such. Food security stands out as a concern for respondents with less than a bachelor’s degree. The character of food and the stores from which they purchase it stand out as concerns for respondents with at least a bachelors degree.

Gender

We found very little difference between men and women regarding their food likes and concerns. The differences we note are relatively subtle and occur exclusively in the areas of food quality concerns and where the respondents get their food. Women made up 53 percent of the survey respondents; 47 percent of the respondents were men.

![Labeling of Genetically Modified Food](image)

**Figure 38**
Women expressed concern about eating food containing chemicals or preservatives, eating genetically modified food, and eating contaminated food in the Madison area one-quarter to one-half again more often than men (see Figure 39).

- Women expressed concern about the higher cost of organic food one-quarter again more often than men (59 percent/47 percent).
- Men and women indicated with about the same frequency that they obtained at least some of their food from their own gardens, CSA farms, community gardens, hot meal kitchens, SHARE, and food pantries. However, women indicated only about one-half as often as men that they obtain at least some of their food through hunting or fishing and only three-quarters as often that they get at least some of their food from family members (see Figure 40).

There are few substantial differences between the men and women respondents in this survey. These differences are quite subtle compared to the differences occurring between respondents with different levels of education and between respondents with different household incomes.

![Concerns about Food Quality](image)

*Figure 39*
There are several distinctions between groups of respondents segregated by household income. The respondents are relatively evenly distributed across the seven income brackets (see Figure 41).

The food-related differences between income groups are concentrated in areas of food security and supplemental food sources. There is also some difference in the groups' attention to food-related environmental concerns. For instance, we found that respondents in the $35,000-$49,999 and the $50,000-$64,999 income brackets reported more than twice as often as those making less than $20,000 and 30 percent more often than those making over $95,000, that they are concerned about food packaging ending up in Madison-area landfills. The largest difference in the percentage of respondents agreeing with the concern is between those in households with annual incomes less than $20,000 and those making $35,000-$49,999 and those making $35,000-$49,999.

- Respondents who live in households with annual incomes less than $20,000 indicated more than twice as often that they are concerned about their households having enough to eat within the next six months as those with household incomes from $20,000-$34,999, more than three times as often as those with incomes $35,000-$49,999, and more than seven times as often as those with incomes over $50,000 (see Figure 42).
- Along with those making between $20,000 and $34,999, respondents who live in households with annual incomes less than $20,000 indicated over five times as often as those making above $65,000 that they are concerned about the high cost of food (see Figure 43).
- Respondents who live in households with annual incomes less than $20,000 indicated more than twice as often as those making between $20,000 and $64,999 and over twenty-five times more often than did those making over $65,000 that they are concerned about getting to and from the grocery store (see Figure 44).

- Respondents who live in households with annual incomes less than $20,000 indicated more than twice as often as those making between $35,000 and $64,999 that they are concerned about finding the food they like to eat in the Madison area. They indicated this concern over eight times more frequently than did those making over $65,000 (see Figure 45).
Respondents who live in households with annual incomes less than $20,000 indicated more than twice as often as those from any higher income bracket they *get some of their food from hot meal kitchens* (see Figure 46).  

Respondents who live in households with annual incomes less than $20,000 indicated about one-half again more often than those in the $20,000-$34,999 income bracket that they *get some of their food from food pantries*. No one in any higher income bracket reported getting any of their food from food pantries (see Figure 46).
Supplemental Sources of Food. Those with household incomes less than $20,000 also stood apart from those in all other income brackets when it came to supplemental sources of food.

- Although three to four respondents in ten from all other income brackets indicated that they get some of their food from their own garden, fewer than one respondent in ten making under $20,000 indicated that they get food from their own gardens (see Figure 47).
- They indicated twice as often as those in the two income brackets between $20,000 and $49,999 and more than three times as often as those in the four income brackets above $50,000 that they get some of their food from community gardens (see Figure 47).
• They indicated only one-half as often as those in any other income bracket that they get some of their food from hunting or fishing (see Figure 47).

• While indicating just as often as those in all other household income brackets that they get some of their food from restaurants, a greater percentage of respondents making less than $20,000 indicated that they liked fast food restaurants in the Madison area. Eight of every ten respondents making less than $20,000 indicated this preference compared to six in ten of those making between $20,000 and $34,999 and roughly half of those respondents with annual incomes greater than $35,000 (see Figure 48).
Concern about making sure that their families eat enough home-cooked meals.

They also indicated one-third less often than those making more than $50,000 that they are concerned about making sure that their families eat enough home-cooked meals (see Figure 49).

Summary. The differences between respondents segregated by household income are distinct. The lower the household income, the more the respondents expressed their concerns about food security issues.

While the differences were relatively uniform from income bracket to income bracket above $20,000, the greatest differences most often occurred between those with household incomes less than $20,000 and all other respondents. Respondents with household incomes less than $20,000 were the most concerned about their household having enough to eat, and about the high cost of food, getting to and from the grocery store, and finding food they like to eat in the Madison area. They were the most likely to use hot meal kitchens, food pantries, and community gardens as supplemental sources of food, and the least likely to use their own gardens and hunting or fishing as sources of food.

Respondents with household incomes of $80,000 and above (the two highest income brackets) expressed no concern at all about their households having enough food to eat or about getting to and from the grocery store. None of the respondents in these two highest income brackets reported using food pantries or hot meal kitchens as supplemental sources of food.

Food security is not an issue for respondents with higher household incomes. However, it appears to be a very real issue for many households with incomes less than $20,000.

![Figure 49](image-url)
**Housing Tenure**

The main differences in responses associated with housing tenure are concentrated around gardening and issues of food security.

**Gardening.** Housing tenure differences play out most dramatically in gardening (see Figure 50).

- Homeowners outnumbered renters by nearly two-to-one in the survey (65 percent/35 percent).
- Respondents who own their homes indicate over three times more frequently that land is available where they live to grow some of their own food if they want to.
- Homeowners reported over three times more often than did those who rent that they get at least some of their food from their own garden.
- Homeowners indicated over two times more often that they grow at least some of their own food.
- Although a small minority of respondents reported using community gardens, renters reported using community gardens over two times more often than did those who own their homes.
- Renters also reported four times more often that they get some of their food from community gardens.17

![Figure 50](image-url)
• Although, one in every three renters expressed an interest in using a community garden, only one in every ten homeowners expressed this interest.

**Food Security.** A greater percentage of renters than homeowners expressed concern about issues related to food security (see Figure 51).

• Renters indicated twice as often as homeowners that they are *concerned about the high cost of food.*

• Renters expressed concern about their ability to get to and from the grocery store over three times more frequently than did homeowners.

• A minority of renters indicated a *concern about their household having enough to eat within the next six months,* but they expressed this concern over twice as often as did homeowners.

• A smaller minority of renters reported over eight times more often that they get some of their food from food pantries and more than twice as often that they get some of their food from *hot meal kitchens.*

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**Figure 51**

**Housing Tenure Differences in Food Security Concerns**

- The high cost of food
- Getting to and from the grocery store
- Household having enough to eat
- Food pantry
- Hot meal kitchen

**Concerns and Emergency Food Sources**

<table>
<thead>
<tr>
<th>Concerns and Emergency Food Sources</th>
<th>Percent of Respondents</th>
</tr>
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<tbody>
<tr>
<td>Owners</td>
<td>Renters</td>
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<tr>
<td>The high cost of food</td>
<td></td>
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<tr>
<td>Getting to and from the grocery store</td>
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<tr>
<td>Household having enough to eat</td>
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<tr>
<td>Food pantry</td>
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<tr>
<td>Hot meal kitchen</td>
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Supplemental Sources of Food.
Homeowners reported almost twice as often as did renters that they get at least some of their food from hunting or fishing (28 percent/15 percent).

Summary. The key differences between homeowners and renters show up around access to arable land and issues of food security. Homeowners tend to have land available to grow food where they live and report using that land to grow their own food more often than renters. Some homeowners expressed concern about food security and hunger issues, but did so less frequently than renters. Renters, on the other hand, reported using community gardens and getting at least some of their food from community gardens more often than did homeowners. They also reported over twice as often that they would like to use community gardens. Food security is much more often an issue for renters. They reported more often being concerned about the high price of food, getting to and from grocery stores, and having enough to eat. They also reported more often getting at least some of their food from food pantries and hot meal kitchens. Higher percentages of renters than homeowners are food insecure.
III. Analysis and Interpretation of Findings

The preceding sections of the report present mostly response patterns of the interviewees in percentages. This section presents analyses and interpretation of the findings. We found that Madison residents are quite uniform in many of their likes and dislikes, but there are some notable disparities.

The largest differences in the concerns of Madison residents occur over the quality and cost of food in the Madison area (see Figure 52). Madison residents are strongly divided in their concerns about eating food containing chemicals or preservatives, eating genetically modified food, eating contaminated food, the high cost of food, and finding food that is ripe and unspoiled. The results of the survey offer few explanations for these differences.

Differences in concern about the high cost of food appear to be closely linked to differences in age, housing tenure, and household income. However, because age and housing tenure are typically correlated with income, the difference in concern for the high cost of food is largely an issue of household income (see Figures 53 and 54, and compare Figure 53 with Figures 17 and 43).

![Differences in Concerns of Madison Residents](image)

*Figure 52*
The remaining four largely disparate concerns are concerns about food quality (see the later section on food quality). Two of the food-quality disparities occur over human-introduced, chemical and genetic impurities. The other two concern spoiled food. Comparisons based on the gender of respondents revealed some gender-based differences in the concern about food quality, but even the differences shown in Figure 39 do not reflect the magnitude of the overall differences in response. Little of the difference between the percentage of those who agree and those who disagree with these food quality concerns can be attributed to differences defined by age, education, gender, household income, or housing tenure. The results of this survey give little indication as to what might explain the disparate concerns about food quality.

**Overall Satisfaction**

A cursory review of the survey data suggests that the Madison food system well serves the needs and desires of Madison residents. On the whole, Madison residents are highly satisfied with the overall quality, choice, and price of food in the Madison area.
At least 19 out of every 20 residents are satisfied with the overall quality of food, being able to shop at farmers' markets, the choice of grocery stores and restaurants, and the year-round availability of produce. “I feel we are fortunate,” said a 62-year-old man who has lived in Madison all his life, “good selection and good variety from all over the world.” There are “lots of restaurants . . . a good variety for a midsize, midwestern city,” said a 50-year-old woman.

The Madison food system offers an abundance of food choices. According to the U.S. Economic Census, there are 47 supermarkets, 31 specialty food stores, 379 full and limited service restaurants, and 2 farmers’ markets that both operate Wednesdays and Saturdays from April to November.20

In addition a majority of Madison residents are of ages and have household incomes that are not commonly associated with food security concerns. Sixty-three percent of Madison residents live in households earning $35,000 or more a year; 49 percent have annual household incomes over $50,000. Food-security concerns are expressed mostly by residents making less than $20,000 with some also being expressed by residents making between $20,000 and $35,000. Eighty-seven percent of the residents of Madison are in the three age groups between 26 and 75, where food-security concerns are mostly expressed by those 25 and younger and 76 and older.

Many Madison residents have much to like and little about which to be concerned in the local food system. Looking only at Figures 1 and 2, the satisfaction appears nearly unanimous. However, a closer analysis of the survey data yields a different picture, one in which respondents express greater concerns about some features of the local food system. The data suggest that the Madison-area food system serves the needs and preferences of some residents better than others.

The most pronounced differences in the responses of those surveyed were associated with differences in education, household income, and housing tenure. Respondents with higher household incomes or more education do not have the concerns of those making less than $20,000 or those with less than a bachelor’s degree. Respondents who own their own homes have different concerns than those who rent. These differences are more pronounced in respondents’ sources of supplemental food, their likes and concerns about local food production, and specific issues they have related to food quality. The differences also come into play on issues of food-related health and the environment. These differences will be analyzed later in
this section. The high level of satisfaction holds in general, but fails to hold with the identification of specific likes and concerns of different groups of Madison residents.

**Consuming Locally Produced Food**

Madison residents like to buy locally produced food, and many also like to produce and gather their own food. A number of factors may contribute to this preference. Madison is located in a county that has a strong tradition of local agricultural production. Residents appear to have more confidence in local produce than produce shipped in from elsewhere. “I like local farms,” said one eight-year resident of Madison, “I trust them.” Respondents’ sense of loyalty to local farms even appears to overcome any misgivings regarding genetically engineered food. The same respondent, for instance, felt that labeling genetically engineered food was unnecessary since “it damages a good farmer.” “I am concerned for farmers,” said another respondent. “Organic food is not necessary.”

The Madison area supports a number of alternatives that offer more direct links between producers and consumers. Madison hosts the highly visible Dane County Farmers’ Market, which has become a very popular link between farmers and city residents. Wisconsin has a high concentration of CSA farms. The 56 CSA farms in Wisconsin are the most in any state in the U.S. Many of these CSA farms are in and around the Madison area. These alternatives strengthen local awareness and appreciation of locally grown food.

Preference for locally produced food may also be rooted in older respondents’ personal life experiences. A number of respondents reported that they came from a farming background and remarked that they much preferred the quality of produce their own families used to grow. Others responded that the produce their families purchase fresh from the farm tastes much better than produce they buy from grocery stores. A 93-year-old woman who still cooks for her family put it this way: “I wish fruits and vegetables were the way they used to be; fresh and ripe, straight from farmer’s field.”

At least one respondent, a 23-year resident of Madison, seems to have given up hope of finding fresh produce locally. “I guess it would be nice to have fresh produce available near my home, but times are changing, and I guess I can’t expect that.”

A high percentage of residents want to consume locally produced food even when they don’t believe they can expect to. Residents who do are likely to back city- and county-based initiatives to promote and support local food commerce.
**Food Security**

Several questions in the survey were included to acquire some knowledge of food security in Madison. We found that while Madison residents are mostly food secure, a sizable minority are concerned about the high cost of food, getting to and from the grocery store, and having enough to eat—issues associated with community food security. All three of these concerns occur two to ten times more frequently in the responses of those 76 years and older and those earning less than $20,000.

This is not coincidence. Age and income are related (see Figure 53). Higher percentages of the youngest and oldest respondents have household incomes less than $20,000.

Evidence from the survey provides a mixed signal about residents’ satisfaction and concerns about the price of food. We heard the concern for the high price of food most often from the oldest respondents and those with the lowest household incomes. There are indications that this concern may be locationally distinct as well. One particular interviewee, a single parent with two graduate-level degrees, believed that the prices of food in her neighborhood were relatively high compared to other parts of the city. A pricing study of selected supermarkets in Madison found that there are discrepancies between Madison’s supermarkets. The average price of market baskets was higher at supermarkets located in low-income census tracts than supermarkets in other-income census tracts. While 91 percent of Madison residents like the price of food, there are specific sectors of the population in which up to half of the individuals may be concerned about the high cost of food in the area. Said one man who gets his food primarily at Aldi’s, “Food is expensive, and then when you want or have to buy at some good store, it is even more expensive.”

Food security is a very real issue for some Madison residents. Up to 25 percent are concerned about one or more of the elements of food security. For instance, a number of respondents reported that transportation to the grocery store was difficult. One 55-year-old woman said, “Grocery stores are too far away, especially since I don’t own a car, it’s a problem.” An 80-year-old woman reported that her friend takes her to buy groceries. “If something happens to him,” she said, “I don’t know what’ll happen to me.” Another woman said that it was not a concern now, but admitted that it soon may be a problem. The greatest concentration of respondents with food security concerns is among those with annual household incomes less than $20,000.
We found respondents with household incomes between $20,000 and $35,000 expressing concern for the high cost of food more often than those with household incomes less than $20,000. We did not expect this. For these respondents, the more frequent expression of concern may reflect less on their inability to pay than a greater surprise at the proportion of their income that goes to food. They may be less reconciled to the difficulties of meeting their food needs than those with household incomes less than $20,000.

The inflexible nature of household expenditures like rent, electricity, and heat forces some residents to limit their expenditures on food of their preference. For instance, one respondent remarked “I buy organic food only when I don’t have other bills to pay.” Food security is not just an issue of people being able to buy the desired amount of food but also an issue of being able to buy the desired quality of food.

Most respondents appear to be food secure, but a number of them are not. Those who are not tend to be among the oldest and the youngest residents of Madison. They also tend to be renters, to have the lowest household incomes, and to have lower levels of education. This is not the profile of a food system that well serves all area residents.

**Community Gardens**

Community gardens are more frequently used by some groups of respondents than by others. Homeowners and those with household incomes of $20,000 or more tend to garden on their own land. Renters and those with household incomes under $20,000 rely more on community gardens. The biggest differences in use and interest in use of community gardens were among those groups defined by housing tenure and household income.

Housing tenure and household income are highly correlated. The survey results show that the percentage of respondents who own their own home increases with income. This relationship was the reverse for renters. The percentage of respondents who rent their home goes down with each successively higher household income group (see Figure 54). A higher percentage of respondents who own their own home get food from their own gardens, and a higher percentage of those who rent their homes use community gardens. As one resident put it, “if I didn’t have access to land, I would absolutely want to.” Those with lower household incomes are less able to own their own home and have less land available to grow food where they live.
Without the income necessary to own a home, residents may turn to community gardens to produce some of their own food. A number of respondents qualified their response by saying community gardens “are great for those who don’t have access to land.” Unfortunately, little land is currently available for community gardening.

Community gardens are an infrequently used source of food for Madison residents. The difference between the percentage of respondents who use their own garden for food and those who use community gardens is striking. However, evidence provided by this study suggests that if current demand for community gardens were met, the percentage of Madison residents who get at least some of their food from community gardens would increase enough to make community gardens a moderately used source of food.

The percentage of respondents who use and wish to use community gardens is about the same as that for respondents (both homeowners and renters) who reported using their own garden; that is, about 35 to 40 percent (see Figure 50). The difference is that the percentage of homeowners and renters who wish to use community gardens is five times greater the percentage of those who actually do. A number of respondents also said that they might consider using a community garden when they retire and move into a smaller residence.

A report by the City of Madison Advisory Committee on Community Gardens indicated that there is persistent demand for community gardens even though the Community Action Coalition (CAC), which manages many of the community gardens in Madison, has stopped advertising its gardens. In the case of one CAC-managed community garden (the Atwood Community Gardens), for instance, the waiting list is about 1.5 times the 48 plots in the garden. On average, however, only three plots per year open up in the Atwood Community Gardens for waiting gardeners.24 “I know about the Atwood garden,” said one woman who had lived in Madison for over 30 years. “I am trying to get a plot.” It is not lack of demand, but shortage of community open space devoted to gardening that keeps community gardens from being more frequently used as a source of food by Madison residents.

In the absence of available land to use for community gardening, some respondents described making other arrangements to access land for gardening. Two respondents, both renters in downtown Madison, drive to the country on weekends to garden on properties owned by their friends and family. Not all Madison residents have the resources that would allow them this option. For
residents who wish to garden but do not have access to land of their own, their friends, or their family, community gardens can be an important source of food, but there are not enough plots to satisfy the demand in Madison.

**Food Sources**

We identified five types of food sources and three levels at which Madison residents use these sources. We grouped the levels of use as follows. Those sources used by almost all Madison residents are *commonly used sources*. *Moderately used sources* are those from which 20 to 30 percent of Madison residents get their food. Sources from which fewer than 10 percent of Madison residents get their food are *infrequently used sources* of food. The matrix in Figure 55 arranges the various food sources across these five types and three levels of use.

Three points are worthy of note in this matrix. The first is the presence of farmers’ markets, an alternative commercial food source, in the common food source category. We believe Madison is an unusual community in the predominance of residents who use farmers’ markets as a food source. The second is that although CSA farms are an infrequently used food source, the higher percentage of respondents (38 percent) who lack information about them and, we suspect, about the SHARE program, suggests there is potential for these sources to be moderately used sources of food for residents of Madison. Third, the failure to meet the demand for community gardens keeps them from being a moderately used source of food. Although the use of farmers’ markets in Madison is higher than might be expected, the percentages of residents using community gardens, CSA farms, and the Share program are lower than they could be.

**Environmental Effects of Local Food Industry and Commerce**

A number of Madisonians expressed concern about the effect of food production on environmental quality. One-half to three-quarters of Madison residents are concerned about the erosion and pollution that occur as consequences of the local production, processing, and distribution of food. Nearly three-quarters of Madison residents are concerned about food packaging ending up in area landfills and the accumulation of chemical and nutrient residues from food production and processing in area wells, streams, and lakes.
A combination of factors creates a heightened awareness of the effects of agricultural production and processing on the environment. The presence of the University of Wisconsin-Madison, with its strong tradition of agricultural, environmental, and land-use research, generates a wealth of knowledge and awareness within the university and the surrounding community. The news media contributes a great deal in creating definitive perceptions as well. For instance, the introduction of enormous dairy farms (with 1,500 cows or more) and farm-generated pollution are frequent items in the local news.\textsuperscript{25}

At the same time, over one-half of the residents are not concerned about the amount of petroleum products used to grow, transport, and store food in the area. These residents may not understand the connection between the food they choose to buy and the environmental effect of transporting it over long distances. Production and transportation information is not available to residents when they are making their selections at the grocery store.

Although a large number of respondents are aware of and concerned about solid waste and water pollution, there appears to be a disconnect between their personal behavior and their concern for the local environment. For instance, a number of respondents were concerned about food packaging ending up in Madison-area landfills (70 percent). However, almost all liked buying food packaged in quantities appropriate for their needs (90 percent), while only one-half of the respondents liked buying unpackaged, bulk
food. This paradox in preferences may be due to limited understanding of the connection between residents’ decisions to buy packaged foods and the quantity of food packaging ending up in area landfills.

**Food Quality**

Madison residents are more concerned about some aspects of the quality of their food than others. This difference in level of concern speaks to the character of the food system. Around two-thirds of Madison residents are concerned about fat content, nutrition, and the presence of chemicals or preservatives in their food while two-thirds are not concerned about eating contaminated food or finding ripe and unspoiled food.

We perceive three aspects of food quality in these results. The first is nutritional quality, which, for the sake of this discussion, includes other qualities inherent in food that can affect human health. The second may be described as quality related to the presence or absence of chemical and genetic impurities introduced by humans. The third is commonly understood as spoilage due to oxidation or bacterial infestation.

Madison residents differ in their expressions of concern about these three aspects of food quality. Over two-thirds of Madison residents are concerned about the nutritional quality of their food. Forty-four to 63 percent of the residents are concerned about human-introduced, chemical and genetic impurities. About a third of the residents are concerned about spoiled food (see Figures 9 and 10). The first may reflect concern about increasing incidences of obesity and malnutrition in this society. The second may reflect concern about the unknown consequences of ingesting foreign substances. “[I am] concerned about the unnatural colored stuff” said one respondent, a 63-year-old woman who had lived in Madison for twenty-two years. The third may reflect a confidence in the ability of the local food system to deliver food that is ripe and unspoiled—a confidence that may be eroding with accumulating reports of E. coli-infested food making it onto the market. More residents are concerned about the nutritional quality of their food than are concerned about spoilage.

Out of these concerns emerge images of a food system that usually delivers ripe and unspoiled food at the same time it delivers food that is nutritionally unhealthy. In these two images, residents are relatively confident and concerned. They seem less sure of a food system that delivers food with human-introduced chemicals and genetic impurities. The unknowns are too great. These three images go a long way toward describing the Madison food system and explaining the
different levels of concern expressed by Madison residents about the quality of their food.

One interviewee, the single parent with two graduate-level degrees, pointed out that the quality of food in Madison varied in different areas of the city. She informed the interviewer that she believed that grocery stores in the vicinity of her neighborhood on the south side of Madison carried food items of lesser quality than their counterparts in other areas of the city. She also revealed that on several occasions she had found food products past their expiration date available on the shelves of a major food store on the south side.

Several respondents remarked that contradictory information regarding food-related health issues was confusing for them. One respondent, for instance, pointed out that despite being a cancer patient she pays little attention to warnings (particularly government warnings) because health warnings of different food products keep changing.

**Appreciation of Local Farming**

Madison residents appreciate area farms. Over 90 percent of Madison residents like the scenic open space the farms provide. Over 80 percent are concerned about the loss of farmland and the economic difficulties faced by area farmers. One respondent expressed his concern for the loss of farmland in the following way: “Sprawl is a huge problem in my mind. I’d rather see Madison farms get developed than see the countryside get developed.” The rural, agricultural character of the Madison area seems to be very much a part of Madison residents’ local identity.

However, that character is changing. Dane County is one of the fastest growing counties in Wisconsin, and that growth comes at a cost. The population of the county is projected to grow 22.7 percent between 1996 and 2020.27 Five thousand acres of farmland are lost each year to residential development in the county.28

Too often in a growing community, when open space is agricultural, farms are sacrificed for new homes. In the face of growth, even smart growth, the trade-off will continue.29 At best it will be slowed. Most Madison residents like the scenic open space provided by Madison-area farms and they are concerned about the economic viability of these farms. However, it remains to be seen how strongly these preferences and concerns will hold when traded off against economic growth, population growth, and the growing demand for new housing.
**Having Enough Information**

The survey suggests several areas in which Madison-area residents can benefit from additional information. Respondents indicated more frequently that they did not have enough information to form an opinion when the questions involved alternative food sources, food production, and the environmental effects of food production and packaging. Respondents indicated a need for more information about people having the option to buy a share of CSA farm produce (see Figure 56). They also lacked information about soil erosion, the choice of food co-ops, the treatment of migrant farm laborers who help produce the food the respondents eat, and the amount of petroleum products used to grow, transport, and store food in the Madison area.

The need for information about several issues listed here relates directly to concerns analyzed above and the need to better educate residents about alternative food sources—like CSA farms, food co-ops, and SHARE—and the environmental effects of food production, processing, transportation, and storage. In some cases, the lack of information appears to be related to respondents’ lack of concern. In others, the lack of information may inhibit their ability to resolve the concerns they do have. Increased knowledge about food, food sources, and food-related problems and issues might empower Madison residents to adjust those behaviors with negative environmental consequences and to help them resolve their own food concerns.

**Figure 56**
IV. Recommendations

The overall picture of food in Madison is one of relative satisfaction, but a closer look at the data identifies many problems. Any assessment of food in Madison must start by recognizing this satisfaction and then acknowledge that it fails to permeate the experiences of all Madison residents. We look to governmental and non-governmental organizations to take the lead in ensuring that the city and county maintain a healthy and sustainable food system that provides for the needs of all residents. The following are some specific suggestions.

**Improve interagency cooperation and information sharing.** We recommend that the city and county governments work even more closely with each other and with local organizations to build a shared understanding of the local food system. Some of these organizations include the Community Action Coalition of South Central Wisconsin, the Hunger Prevention Council of Dane County, the Madison Area Community Supported Agriculture Coalition (MACSAC), the Madison Community Gardeners Coalition (MCGC), the Dane County R.E.A.P. (Research, Education, Action, and Policy on) Food Group, and the Wisconsin Rural Development Center. For example, a point person or lead agency needs to be assigned within the city or county government to address food system issues. Concerned and interested citizens would then have an established source of information available to them. In addition, older residents and those with household incomes less than $20,000 appear to figuratively slip through the cracks in the local food system. Vigilance and planning for food system issues at an interagency and intergovernmental level can improve the local food system so that the satisfactions experienced by most residents will extend to all.

**Strengthen local food production.**

*Dane County*

The Dane County Executive has taken some steps toward supporting consumption of local produce. The recent initiative, *Farms and Neighborhoods: Keeping Both Strong!*, proposes a three-pronged approach to preserving farmland in Dane County: preserving the farmer, preserving the countryside, and preserving the city. The proposals to preserve the farmer include establishing a “Buy Dane County” campaign to promote the sale of Dane County farm produce. According to the report, the key to preserving the city lies in building “great” neighborhoods. One of the proposals for building such neighborhoods calls for the establishment of an Urban Expeditor to help
promote more efficient, environmentally friendly neighborhoods that could incorporate urban agriculture and community gardens. The proposals in the Farms and Neighborhoods initiative to establish a “Buy Dane County” campaign and to build “great” neighborhoods promote local production and consumption of food.

The Buy Dane County campaign targets mainstream commercial markets in which to test the feasibility of selling Dane County food products, but the county could do more. As discussed previously, CSA farms may have untapped potential for expanding their customer base. The county could expand the scope of its Buy Dane County campaign to include the promotion of alternative commercial venues for the local production and distribution of produce. Chief among these are CSA farms. Our survey data indicate that demand exists in Madison that could help make the Buy Dane County marketing effort a success.

The county promotes urban agriculture, but it could do more to promote local food production by individual residents. Both urban community gardens and agriculture are used in the Farms and Neighborhoods initiative to define “environmentally-friendly” or “green” urban development. The Urban Expeditor position is intended to work with government and private concerns to promote and expedite redevelopment, infill, compact, and green development projects. The Farms and Neighborhoods initiative is currently a set of proposals. The county needs to act on these initiatives.

City of Madison

The City of Madison can play a role in strengthening local food production through infill development and the promotion of urban agriculture. The planning department should support dense infill development—concentrating development in available space within the inner city—to prevent the incursion of residential development into neighboring agricultural areas. Land that is required to fulfill legislated open space standards can also be used for urban agricultural projects. City officials are taking steps to meet these challenges.

These two approaches need to be carefully balanced. While infill development is crucial for protecting surrounding land, it is important to protect productive urban open space for agriculture. The recent conflict over open land on the north side of Madison is a case in point. The Northside neighborhoods successfully fought city plans for new, single-family, detached housing on 31 acres of state-owned land along Troy Drive. A coalition of neighborhood residents, community gardeners, the Northside Planning Council, two land trusts,
and the University of Wisconsin-Madison instead will use much of the soon-to-be-acquired space for community gardens, a CSA farm, and a small, mixed-income, cohousing project. This case is exceptional.

Two organizations operating in Madison and Dane County specifically promote production and consumption of local food. MCGC promotes community gardens in Madison. MACSAC facilitates, promotes, and supports the CSA model for local food production and commerce. The city and the county should work with MCGC and MACSAC to expand the availability and use of community gardens and CSA shares programs to promote local food commerce and the residential production of food through community gardens.

**Implement the Community Gardens Advisory Committee’s recommendations.** The City of Madison has begun a municipal planning process for community gardens partially to strengthen local food production. Results from our survey show that there is strong interest in community gardens as well as a lack of adequate information regarding gardens in Madison. We recommend that the city work with MCGC to follow up on the recommendations of the advisory committee. Foremost among these is to hire a staff member to be the point person for community gardens. This person should actively reach out to the community to share information to help it face the challenges of gardening in the city.

**Educate residents about the local food system.** Some Madison-area residents need to be better educated about their food system. Results from the study indicate that they lack information about key aspects of the food system, such as the nature and availability of alternative food sources and the environmental effects of production, processing, transportation, and storage of food in the area. The city and county need to conduct outreach programs with the aid of UW-Extension and local organizations to educate residents about their local food options and the environmental consequences of their food choices. For example, the city and county should work with MACSAC to educate residents about the CSA model. This kind of education effort is right in line with the county’s proposed Buy Dane County campaign. Educating residents about the local food system may help them be more savvy about their food options. It might also help them make the connection between the food they eat and the packaging and food waste that ends up in area landfills and the food-commerce associated petrochemical use and waste by-products.
Remove structural constraints. We recommend a change in thinking on the part of the city government. It has an interest in seeing that its residents are well nourished. We see the city’s role as one of identifying and correcting structural constraints that keep those in need from meeting their own food needs. To that end, the city should:

- Improve and publicize convenient transportation to food sources from lower-income neighborhoods. Similar services are also crucial for people of older age groups from all areas of the city.
- Support development proposals for neighborhood grocery stores or alternative food sources such as community gardens in lower-income and underserved neighborhoods.
- Continue to build and support economic development programs for the lower income groups in Madison to alleviate poverty and thereby reduce risks of hunger.

Conduct further research. This survey reveals specific gaps in our knowledge and understanding of the food system. Further research could potentially include a follow-up study with a larger sample and detailed studies of community gardening, food security, and CSA farms in Madison.

Larger Study of Likes and Concerns. The group profiles presented in Section II are too small to allow confident generalization of the results to the population of any specific group of Madison residents. A follow-up study needs to be conducted using samples large enough to allow the findings for every sample group to be generalized to the population of Madison. Such a study would also shed more light on what may account for differences in perceptions of various groups of respondents particularly regarding food quality.

Food Security. Based on the issues identified in this study, we suggest a study to look specifically at the food security of residents in Madison and more generally in Dane County to identify conclusively the nature and extent of food insecurity in the area.

Community Gardens. This study found the demand for community gardens to exceed the supply of community gardens by over five times. We suggest a follow-up study to confirm our findings of unmet demand.

CSA Farms. Thirty-seven percent of the respondents overall reported not having enough information to form an opinion about CSA farms even though most residents are interested in consuming fresh, locally produced food. A study of how CSA farms are used in the area would benefit interested citizens, CSA farmers, the city, and the county.
V. Conclusions

When we recommend change, we are not talking of government-driven programs to radically overhaul the food system. We are talking about making significant adjustments at the margin. Improving the location of and access to food stores and the availability of community gardens are places to start. However, it is important to keep in mind that the failure or success of the local food system to deliver adequate, safe, and sustainable nourishment to Madison area residents is also tied to deeper issues such as poverty, employment opportunities, and changing family structures and life styles.

Ultimately, one of our goals as a community must be to expand the boundaries of food security to include those who are currently at risk of being hungry and malnourished for both personal and structural reasons. Emergency sources of food should be the only sources that are infrequently used. We need to make the food system work for residents who are most at risk, like the elderly and those living in households making less than $20,000. We need to make sure they too can answer with confidence that they are not concerned about their family having enough to eat in the next six months.

Planning for a sustainable and equitable community food system requires an inclusive and strategic planning effort. It requires identifying the weaknesses and strengths of the local food system, examining alternative solutions, determining how to alleviate food insecurity, and, finally, implementing and monitoring a strategic food system plan. This study is but a beginning.
Appendix A
Study Design and Limitations

Design. Madison Food System Project (MFSP) staff collected the data for the report through a telephone survey of Madison residents conducted between October 1999 and March 2000. The survey consisted of sixty-eight statements and questions organized into five areas: food choice and health, the environment, alternative food choices, food sources, and demographics. See Appendix B for a copy of the survey instrument. We asked residents to respond to each of the survey statements with one of the following alternatives: Agree, Agree somewhat, Neutral, Disagree somewhat, Disagree, or I don’t have enough information to respond.

In conducting the survey we called 1,000 Madison telephone numbers from a randomly generated list of Madison addresses and telephone numbers obtained from the Walter Karl info-USA database. Two hundred of the 1,000 numbers on the list had either been disconnected or changed to numbers outside of the Madison area. We were able to complete 372 telephone surveys from calls made to the remaining 800 numbers.

The 1990 census reported that Madison had 77,361 households. For this number of households, a statistically representative sample is equal to 384 households at a 95 percent confidence level with a +/- 5 percent sampling error. For a confidence level of 90 percent with a +/- 10 percent sampling error, the sample size would need to be only 96 households. The data set of responses from 372 households allows us to make reasonable generalizations and provide descriptive statistics regarding the likes and concerns about the Madison food system for all Madison households at a 95 percent confidence level with close to a +/- 5 percent sampling error.

Limitations. We limited the study to the greater Madison area, and designed it to explore the relationships between Madison residents and their local food system. The time and cost of data collection prohibited us from conducting the same survey using individual Madison residents as the unit of study. This would have required us to interview about 3,000 Madison residents. The challenges and limitations typically associated with the telephone interview format were experienced in this study. For example our data set did not include people without a telephone connection.
Appendix B
Survey Instrument

In the Madison area, I'm calling from the University of Wisconsin to find out their views about food in the Madison area. May I ask you some questions about your thoughts on food in the Madison area? I hope an adult or child answers the phone.

Please feel free to ask me anything you would like me to recall those 6 choices at any point. Everything that you tell me is confidential and your participation is voluntary.

Thank you. Everything that you tell me is confidential and your participation is voluntary.

If the answer is "yes," process with interview. If the answer is "no," ask if there is a more convenient time to call and thank them for their time.

If the answer is "yes," process with interview. If the answer is "no," ask if there is a more convenient time to call and thank them for their time.

Thank you. Everything that you tell me is confidential and your participation is voluntary.

If the answer is "yes," process with interview. If the answer is "no," ask if there is a more convenient time to call and thank them for their time.

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Thank you. Everything that you tell me is confidential and your participation is voluntary.

If the answer is "yes," process with interview. If the answer is "no," ask if there is a more convenient time to call and thank them for their time.
Thursday, November 18, 1999

15. The high cost of food in the Madison area.
14. Finding food in the Madison area that meets my family's cultural background.
13. My ability to get to and from the grocery store in the Madison area.
12. Finding the food I like to eat in the Madison area.

I'm concerned about:

11. That there are government meal programs for the elderly and children in the Madison area.
10. The availability of convenience foods such as frozen foods or ready-to-eat foods from grocery store delis.
9. To buy Wisconsin-grown food in the Madison area.
8. The choice of specialty food stores (e.g., Chinese, Italian, etc.) in the Madison area.
7. Fast food restaurants in the Madison area.
6. The choice of restaurants in the Madison area.
5. The choice of food co-ops in the Madison area.
4. The choice of grocery stores in the Madison area.
3. That people have the option to buy all kinds of fresh produce year-round in Madison area grocery stores.
2. The price of food in the Madison area.
1. The overall quality of food in the Madison area.

I like:

1. Food Choice and Health

Madison Food System Project
Telephone Survey Instrument - Summer 1999
<table>
<thead>
<tr>
<th>IN</th>
<th>ON</th>
<th>NO</th>
<th>DS</th>
<th>N</th>
<th>AS</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td>26. My household not being able to afford to buy enough food within the next six months.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>25. My household having enough to eat within the next six months.</td>
</tr>
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<td></td>
<td></td>
<td>24. Eating ecologically harvested foods in the Madison area.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>23. People in the Madison area eating food with high nutritional value.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>22. Making sure my family eats enough home-cooked meals.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>21. Eating food with chemicals and preservatives in it in the Madison area.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20. Finding food that is ripe and unpolluted in the Madison area.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>19. Finding food that is ripe and unpolluted in the Madison area.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>18. Eating commercially grown food in the Madison area.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>17. The temperature of infant formula and other breast milk substitutes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16. The economic difficulties faced by farmers in the Madison area.</td>
</tr>
</tbody>
</table>

If "agree or slightly agree" why do you think the cost of food in the Madison area is high?

Madison Food System Project
Telephone Survey Instrument – Summer 1999
II. OTHER FOOD CHOICES

1. I like:

2. I'm concerned about:

3. Other things that are important to me:

IV.  Madison Food System Project

Telephone Survey Instrument - Summer 1999
I don't have any concerns about food in the Madison area.

46. If the respondent has not mentioned any concern so far, then make this statement:

Write in the space below:

45. Do you have any other concerns about food in the Madison area that I didn't ask about?

44. If we were more available or more inquisitive, would you buy (more) organic food?

43. The higher cost of organic food in the Madison area.

I'm concerned about:

Write in the space below:

42. Is there anything else that you have about food in the Madison area?

41. Having community gardens in the Madison area.

40. That people have the option to buy food at farm stands and area farms in the Madison area.

Madison Food System Project
Telephone Survey Instrument – Summer 1999
47. From which of the following sources do you get your food?

Check all those that apply:

Food pantry
Your family members
the Share Program
hot meal kitchen
hunting and/or fishing
Community garden
Community Supported Agriculture
corn garden
restuarants
fermats
food stores

48. Please tell me where you get most of your food. Name the top five places in order.

49. How do you usually get to the places where you get your food?

1.
2.
3.
4.
5.

IV. FOOD SOURCES

Madison Food System Project
Telephone Survey Instrument - Summer 1999
<table>
<thead>
<tr>
<th>Number</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>50.</td>
<td>Have you heard of genetically engineered or modified foods?</td>
</tr>
<tr>
<td>51.</td>
<td>If yes, are you aware that genetically engineered foods are not labeled as genetically engineered?</td>
</tr>
<tr>
<td>52.</td>
<td>If yes, do you think they should be labeled?</td>
</tr>
<tr>
<td>53.</td>
<td>Do you grow any of your own food?</td>
</tr>
<tr>
<td>54.</td>
<td>Would you like to be able to grow some of your own food?</td>
</tr>
<tr>
<td>55.</td>
<td>Is it important to you to be able to grow your own food at home in the Madison area?</td>
</tr>
<tr>
<td>56.</td>
<td>Is there land available, where you live, to grow some of your own food if you want to?</td>
</tr>
<tr>
<td>57.</td>
<td>Did you know there are community gardens in the Madison area where residents can rent plots and have their own gardens?</td>
</tr>
<tr>
<td>58.</td>
<td>Do you use a community garden?</td>
</tr>
<tr>
<td>No answer</td>
<td>Know it</td>
</tr>
<tr>
<td>-----------</td>
<td>---------</td>
</tr>
<tr>
<td>own rent</td>
<td>own</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

67. How old are you?

68. What is your race or ethnicity?

69. How many years have you lived in Madison?

70. How many people live in your household, including children and adults? Answers: Household: All people living in your

71. How many people are from Madison? Answers: Household: All people living in your

72. How many people are from Madison? Answers: Household: All people living in your

73. How many children live in your

74. Are you female or male?

75. What is the highest level of education that you have completed?

76. What is your highest level of education that you have completed?

77. What is your highest level of education that you have completed?

78. What is your highest level of education that you have completed?

79. If no to using a community garden, would you like to use a community garden?

80. Madison Food System Project

Telephone Survey Instrument – Summer 1999

**V. DEMOGRAPHIC SECTION**
Time of completion of interview:

We are conducting this survey for the Madison Food System Project. We hope to raise awareness among policy makers, producers, and residents of consumers' concerns and desires regarding food in Madison area.

If they ask: What will this survey be used for:

I thank you for your time in helping with this survey.

<table>
<thead>
<tr>
<th>Employment of Respondent</th>
<th>95,000-99,999</th>
<th>80,000-84,999</th>
<th>65,000-79,999</th>
<th>50,000-64,999</th>
<th>35,000-49,999</th>
<th>20,000-24,999</th>
<th>Less than 20,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don't Know</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refused</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

If I'm going to read some income categories, stop me when I get to your household income and people's initials.

68. I have one last question. We ask it to understand the relationship between household income and people's attitudes.

Madison Food System Project
Telephone Survey Instrument – Summer 1999
Appendix C
Segregating Respondents by Age

We organized the respondents into contiguous age groups differentiated by the patterns of response to all other questions. We recorded the initial data on age by year, and then organized it into 15 five-year groupings for comparison. The initial grouping started with the groups less than 21, 21-25, 26-30, and 31-35 and ended with 86 and older. The last three groups, 76-80, 81-85, and 86 and older, were numerically smaller than the rest with seven, seven, and three respondents respectively. The other groups had at least 14 respondents each. We combined the seventeen respondents in the three oldest groups of respondents into the group 76 and older (see the figure below for the distribution of respondents by age). We compared the responses of these thirteen groups for all survey questions to identify patterns of response among groups. We combined the contiguous, five-year groupings for which the responses were similar to derive the five larger age groups we describe and compare in our discussion of age.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percent of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 &amp; younger</td>
<td>5</td>
</tr>
<tr>
<td>21-25</td>
<td>7</td>
</tr>
<tr>
<td>26-30</td>
<td>6</td>
</tr>
<tr>
<td>31-35</td>
<td>11</td>
</tr>
<tr>
<td>36-40</td>
<td>15</td>
</tr>
<tr>
<td>41-45</td>
<td>12</td>
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<tr>
<td>46-50</td>
<td>11</td>
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<tr>
<td>51-55</td>
<td>10</td>
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<tr>
<td>56-60</td>
<td>9</td>
</tr>
<tr>
<td>61-65</td>
<td>7</td>
</tr>
<tr>
<td>66-70</td>
<td>6</td>
</tr>
<tr>
<td>71-75</td>
<td>5</td>
</tr>
<tr>
<td>76 &amp; older</td>
<td>3</td>
</tr>
</tbody>
</table>

Distribution of Respondents
NOTES

1 The Madison Food System Project is a pilot project of the Wisconsin Food System Partnership, which is funded by the W. K. Kellogg Foundation. The MFSP has three primary goals: (1) to provide a better understanding of how the Madison/Dane County food system works, (2) to develop strategies for improving food security for low-income residents, and (3) to establish partnerships between Madison area community groups, university faculty members, and students.

2 Our use of the term food system refers to all the social-commercial and environmental relationships related to food. The social-commercial relationships within food systems are those among the people and organizations who produce, process, transport, store, sell, and consume food as well as all the people and organizations who support these activities. The environmental relationships within the food system that involve negative effects on the environment are soil erosion and water pollution resulting from agricultural production, air and water pollution resulting from the supply and use of petroleum products in the production, processing and transportation of food, and the contribution of food scraps and food packaging to the solid waste stream.

3 The question, "What are your major concerns about food?" was first raised in April 1998, during the monthly meeting of the Dane County R.E.A.P. (Research, Education, Action, and Policy on) Food Group. The members agreed to ask this of people not associated with the group, and to share the responses at the next meeting. We took that assignment one step further. On two evenings in early May 1998, we interviewed twenty-four shoppers outside five food stores in Madison, WI. We asked only the one question: "What are your major concerns about food?" The shoppers’ responses identified cost, quality, contamination, nutrition, hunger, human and environmental health, and taste. One respondent didn’t know. Another did not have any concerns. Stevens and MFSP Director Jerry Kaufman presented the collection of responses to the other members of the Dane County R.E.A.P. Food Group in May 1998.

4 In subsequent figures, we sum the Agree and Agree Somewhat responses and report them as Agree. Likewise, we sum the Disagree and Disagree Somewhat responses and report them as Disagree. These two options often represent the bulk, but not all of the responses we received to any one question. For most questions, we report only these two combined responses, though they may not always represent 100 percent of the responses. In some instances, where the Neutral and Not enough information options receive notable percentages of responses, we report these as well.

5 CSA farms offer a direct link between the producer and consumer. Under the CSA model, the consumer (member) buys one or more shares of CSA farm produce before the growing season begins. This arrangement provides benefits for both the CSA farmer and the CSA member shareholder. For the farmer there is a guaranteed income that provides capital to cover operating expenses in advance of the growing season. The member receives delivery of fresh farm produce every one or two weeks from spring to fall. This arrangement also allows for direct communication between the farmer and consuming member. Farmers may tailor their plantings to the expressed desires of their CSA farm members. The members have better access to information on production methods and inputs than when they buy their produce through mainstream, commercial venues. For additional information on CSA farms, visit the USDA Alternative Farming Systems Information Center web page on CSA farms at http://www.nal.usda.gov/afsic/csa/ and The Biodynamic Farming and Gardening Association, Inc., CSA farms web page at http://www.biodynamics.com/csa.html.

6 SHARE (Self-Help and Resource Exchange) is a non-profit social business serving a network of organizations that strengthen their communities by helping people to help themselves and others (see the SHARE web site at http://www.worldshare.org/). SHARE affiliates reward people who volunteer in their communities with up to 50 percent savings on food. They work with volunteers at churches, schools, senior centers, and other social
organizations to distribute this low-cost food. SHARE is active in twenty-two states, including Wisconsin. Each month, more than 250,000 U.S. families help their communities and take advantage of significant savings on food through SHARE.

7 Fifty-six percent of the respondents indicated their concern about the treatment of migrant farm laborers who help produce the food the respondents eat, but the wording of the statement left the resulting responses open to interpretation. The survey statement was: “I am concerned about the treatment of migrant farm laborers who help to produce the food I eat in the Madison area.” This can be interpreted either to mean the treatment of farm laborers producing food in the area or the treatment of farm laborers everywhere who produce food that is consumed in this area. It is not clear whether the responses refer to the former interpretation or the latter. Because the survey question allows multiple interpretations of the responses, the results of this question, if analyzed at all, must be analyzed with caution.

8 The design of the survey allows us to identify this difference. It does not allow us to identify any factors that might account for the difference.

9 Food security is defined differently by different people and organizations. It generally refers to people's ability to access enough nutritionally adequate food through non-emergency sources to maintain their health and welfare in a way that sustains the integrity of the environment. The Community Food Security Coalition (CFSC) specifically defines community food security as: "all persons obtaining at all times a culturally acceptable, nutritionally adequate diet through local non-emergency sources.” The CFSC is a national organization for the promotion of comprehensive, system-oriented solutions to the nation's food and farming problems. The organization’s definition of community food security appears regularly in its organizational newsletter Community Food Security News. See the CFSC web site at http://www.foodsecurity.org.

10 We analyzed the results of the survey by location as well, but found the results inconclusive. Although we might have used census tracts, neighborhoods, or wards to spatially locate the respondents, we chose to use mailing address Zone Improvement Plan (ZIP) codes. We did this as a matter of convenience. The ZIP Codes were included in the Walter Karl info-USA database. ZIP Codes, and more generally location, are surrogates for such factors as lot size, housing type, housing density, and the proximity of preferred grocery stores, specialty food stores, food co-ops, hot meal sites, food pantries, community gardens, and other forms of open space. For these, ZIP Code areas proved to be a poor surrogate. They are determined by volume of mailing characteristics. As a result, they are often larger than neighborhoods and census tracts and do not logically map to these or other characteristics of the city. Our use of ZIP Codes as spatial designators provided little information and insight on which to base the analyses of the differences among respondents. Locational analysis for understanding people’s satisfaction with their food system may provide more insight if conducted at the neighborhood level.

11 The size of the survey sample allows us to generalize our overall findings in Section I to the total population of Madison with 95 percent confidence. However, the relatively low numbers of respondents in each group defined in this section do not allow us to generalize our observations to the overall population of like residents of Madison with the same level of confidence. We can only report our findings in this section in terms of the actual respondents to the survey.

12 The lower percentages of agreement for respondents 25 and younger and from 61-75 is accompanied by higher percentages of respondents who did not have enough information. Lower percentages of agreement may be due more to the lack of information rather than to greater disagreement.
We hypothesize that the more Madison residents know about CSA farms the more they are likely to view these farms favorably. We did not design this study to test the hypothesis. We suggest it as a direction for further study.

We asked the series of questions about community gardens and gardening at home as follow-up questions. We did not ask these questions of all survey respondents. However, we report the responses as percentages of the full sample rather than of just those who were asked these questions.

Some of the respondents in the other advanced degree category hold multiple advanced degrees. Three categories—those who did not graduate from high school, those with other advanced degrees, and those who did not answer—each contain less than 2 percent of the total sample. Because they are so small numerically (n = 3, 6, and 7 respectively), we do not include these categories in our discussion of the patterns of response associated with education or in the figure in Appendix C.

We were surprised to observe that respondents with household incomes up to $65,000 reported using hot meal kitchens as supplemental sources of food. However, this result should be viewed with considerable caution. Raja reported that in some of the surveys respondents appeared to confuse the term hot meal kitchen with their personal kitchens. The apparent confusion over the meaning of hot meal kitchen raises serious questions about validity of this finding.

The difference between the percentages of renters who reported using community gardens and renters who reported getting at least some of their food from community gardens suggests that some community gardeners share their produce with non-gardeners. The design of this survey does not allow us to verify this hypothesis.

We consider the responses in this section to be notably disparate when more than 20 percent of the respondents agreed and more than 20 percent of the respondents disagreed with the same statement.

Over 10 percent of the respondents were neutral about the statement and 14 percent did not believe they had enough information to form an opinion about eating genetically modified foods.

The number of grocery stores, specialty food stores, and restaurants comes from the 1997 U.S. Economic Census, Geographic Area Series for Madison, Wisconsin. By rough count, there are at least eleven markets catering to ethnic cuisine, six food co-ops and natural food stores, and twenty local markets, delis, and other specialty food stores with Madison addresses listed in the 2000 edition of the Ameritech Yellow Pages.

See the Dane County Farmers’ Market web site at http://www.madfarmmkt.org/.

See the Madison Area Community Supported Agriculture (MACSAC) web site at http://www.wisc.edu/cias/macsac/.


We did not distinguish between supermarkets, specialty food stores, co-op food stores, and convenience stores when asking from what sources respondents get their food. These four types of stores are lumped under food store in the survey. Our designation of co-op food stores as a moderately used food source is based on 50 percent of the respondents agreeing with the statement: “I like the choice of food co-ops in the Madison area.”


29 Smart growth in Wisconsin was recently instituted through state legislation that defines a *comprehensive plan* and requires all local governments that engage in land-use planning to have a comprehensive plan by January 1, 2010. The legislation also requires the local government to adopt the comprehensive plan in its entirety. After January 1, 2010, local programs and actions that affect land use must be consistent with the governing comprehensive plan. (See UW-Madison, Department of Urban and Regional Planning Professor Brian Ohm’s projects page in the department’s web site at http://www.wisc.edu/urpl.

30 We consider only those questions for which respondents did not believe they had enough information to form an opinion when the percentage of respondents answering this way is greater than 20 percent.

31 *Farms and Neighborhoods: Keeping Both Strong!* is a Dane County Executive Design Dane! initiative. Released in July 2000, the initiative proposes policies for preserving the rural farm character of the county. Its proposals aim at preserving farmers and their farms both directly and by developing high-quality neighborhoods that attract development to cities and away from farmland.

32 1000 Friends of Wisconsin also has an initiative to promote the benefits of compact, urban development as a way to relieve development pressures on rural open space. Designed to address the proliferation of suburban sprawl, *The City Project* includes series of conferences, lectures, and publications that seek to strengthen public recognition of the benefits of and current problems with Wisconsin cities. The project also seeks to identify solutions to the challenges these cities face. For additional information on *The City Project* visit The City Project web page of 1000 Friends of Wisconsin at http://www.1kfriends.org/landuse/cities.shtml.