Consumption Patterns and Demand for Local Food in Chittenden County, Vermont

Preliminary Report

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Introduction

During the past several years, Vermont consumers have been voicing and demonstrating increased interest in local, Vermont-grown food products. Over just a ten year period, from 1992 to 2002, direct sales of local, Vermont-grown food products increased by 140 percent (Timmons, 2006). Furthermore, the amount of money spent on local food products can be a substantial portion of a households total food spending. In 2005, the average Vermont household spent approximately $125 dollars per week on food, almost $25 or one-fifth of that money was spent on local products (Center for Rural Studies, 2005).

In order to assess current patterns of local food purchasing in Chittenden County, Vermont with the goal of assisting in the facilitation of future interactions between local farms and consumers, the Invervale Center (IC) and the Center for Rural Studies (CRS) at the University of Vermont developed and conducted a study on the demand for local food products.

This preliminary report presents the (a) research questions, (b) study methodology, (c) preliminary findings and discussion, and (d) conclusions. The complete, final report, including all of the findings from the descriptive and explanatory analyses, is expected to be available in May 2008.

Research Questions

In order to understand current consumption patterns and the demand for local food, the IC developed ten research questions. These questions were stated as follows:

1. *Who are the consumers?*
2. *How much do they spend?*
3. *What are they purchasing and why? What are shopping trends for organic/non, local/non, prepared/processed, etc?*
4. *Where are they purchasing? Why or why not? How frequently?*
5. *Are consumers interested in local products? Why or why not?*
6. *Are people willing to pay more for local products? Why or why not?*
7. *Are there any products in demand that are currently unavailable? If so, which?*
8. *Are consumers satisfied with current shopping options? Why or why not? (Do they have to go to multiple stores; are the food options, quality, prices adequate, etc?)*
9. *Would alternative options for procuring local food be appealing? Alternatives include food delivery, year-round local availability, increased local products at chain supermarkets, etc.*
10. *What is the level of interest in having local food delivered to work, home, etc.?*

Informed by the findings from the demand study, the final report will answer each of these research questions, while this preliminary report addresses the four following questions: (a) What is the level of interest in local food (Question 5); (b) Are consumers satisfied with their current food options and the availability of food (Question 8); (c) How great is the current level of interest in Community Supported Agriculture (CSA) (Question 9); and (d) What is the best method and product mix for a CSA to satisfy the current demand (Question 10)? The study was designed to effectively answer each of these research questions and the findings are presented in a manner that answers each question using results of the survey.

Study Methodology

Study Design

For this study, the design and methods were selected and developed collaboratively by the IC and CRS. The survey sample was randomly drawn from a list of telephone numbers of households in Chittenden County, Vermont. The survey instrument (questionnaire) was developed by CRS and approved by IC staff. The instrument was pre-tested by trained professional interviewers prior to the implementation of the survey. The study methods, sample, and instrument were reviewed and approved by the UVM Committees on Human Research (CHR).

Data Collection

The survey was conducted from the University of Vermont by telephone between the hours of 4:00 p.m. and 9:00 p.m. beginning on November 5, 2007 and ending on November 13, 2007. The telephone polling was conducted by a trained staff of interviewers using the Sawtooth Software Ci3 computer-aided telephone interviewing (CATI) system. Only Chittenden County residents over the age of eighteen who were the primary household food shopper were eligible and interviewed for this study.

In total, 1,030 eligible households in Chittenden County were successfully contacted, yielding 412 usable completed questionnaires; therefore, the response rate was 40 percent. The results based on a group of this size have a confidence interval of 95 percent with a margin of error of plus or minus 5 percentage points. This means that if the survey were repeated, 95 percent of the time the results would be plus or minus 5 percent of the number reported.

Data Analysis & Reporting

The survey results were analyzed using the statistics program SPSS 15.0 (Statistical Package for the Social Sciences). Frequencies and descriptive statistics are calculated for each of the variables. Possible relationships between variables are explored using either t tests or f tests to calculate the statistical significance of the variation in the mean values of similar questions from both surveys. Chi-square tests are used to calculate the statistical significance of the cross tabulation tables, which compare the variables to the demographic characteristics of the sample. Relationships are only reported if they meet the standard social science threshold of a significance value of equal to or less than 0.100, meaning that 90 times out of 100 we would get the same result.

Tables presenting the frequencies and the results of the descriptive analysis and statistical tests were created using Word XP. Graphs used to illustrate the results were created using Excel XP.

Preliminary Findings and Discussion

Interest in Local Food

Respondents were asked to indicate their first, second and third most important factors when purchasing food products, given the choices of price, quality, local, and organic. Based on this question, Figure 1 shows that 46.1 percent of respondents indicated that “quality” was the first most important factor in their purchasing decisions. “Price” was mentioned by a quarter of respondents as the first most important factor, followed by local and organic factors.

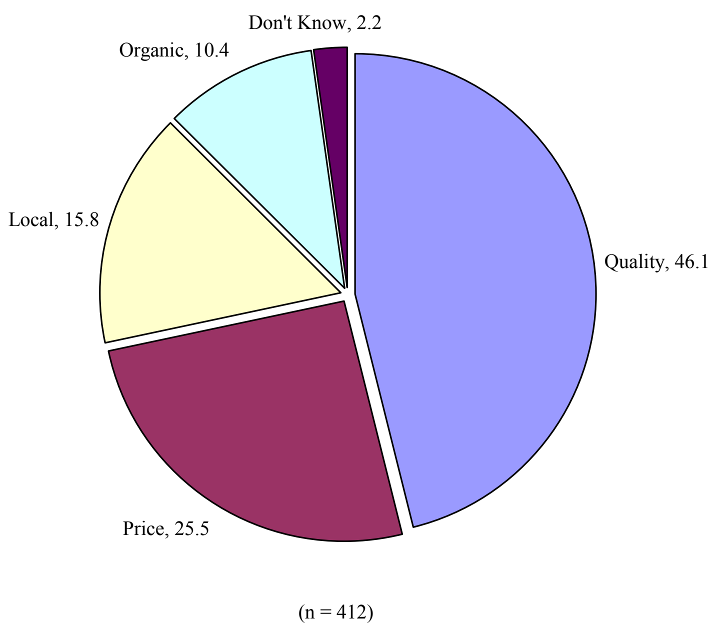

Figure 1. Most Important Factors When Buying Food Products by Percent of Population.

Although the option of locally grown was not the top priority for respondents’ first choice, consumers indicated that locally grown products was their top factor for both their second and third options, at 30.6 and 37.0 percent of consumers, respectively. Thus, while the local factor may not be the primary concern of the greatest number of consumers, it is widely considered as a secondary or tertiary factor. The organic factor was mentioned by the smallest percent consumers as a primary and secondary concern, while being second to last as a tertiary factor. The results suggest that quality, locally produced, and reasonably priced products are important factors in purchasing decisions of this market over products being organic.

Consistent with these findings, 71.1 percent of consumers agreed or strongly agreed with the statement, “I usually buy the local option when it is available” and 69.9 percent say they buy food items of the “highest quality.” However, only 17.0 percent agreed that they “usually buy the least expensive option.” Based on these findings of consumer preferences and purchasing patterns, there is a high demand for high quality and locally produced products.

Satisfaction with Current Food Options and Availability

The majority of consumers are satisfied with their current options of places to shop for local food (see Figure 2). However, the 21.7 percent of primary household shoppers who are not satisfied represent a large portion of households in Chittenden County (12,250[1]).

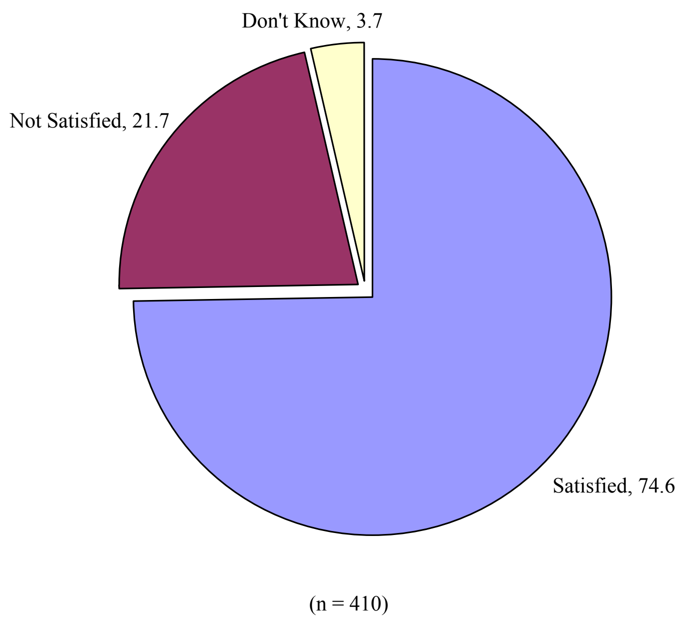

Figure 2. Consumer Satisfaction with Current Options of Places to Shop for Local Food.

Of the 21.7 percent who were not satisfied with the current options of places to shop for local food (n = 89), 28.5 percent would like more options of places to shop, based on a follow-up question asking respondents what was missing in their opinion. Another 17.0 percent would like to see local food offered in grocery stores. Other reasons for not being satisfied with current options for buying local foods include: the seasonal availability of food in Vermont (12.5 percent), general availability (10.2), and price of local products (8.0).

In addition, although 85.4 percent of consumers are generally satisfied with the "selection of local foods," approximately, 24.1 percent said that there were "specific products that [they] would like to buy locally, but have not been able to find." The five most commonly mentioned products, which consumers feel are not readily available at the local level, include: meat (21.2 percent), vegetables (20.2 percent), fruit (14.1 percent), produce (7.1 percent), and dairy products (4.0 percent) (n = 99). Less often mentioned items include cereals, grains, and fish/seafood products.

[1] Based on 2000 US Census Bureau figures, which indicate there are 56,452 household in Chittenden County.

In addition to the selection of local foods available, a majority of consumers (86.6 percent) are satisfied with the availability of local food products during the summer months. However, more than half (52.0 percent) not satisfied with the availability of local food during the winter months. This finding reflects consumers' comments that "seasonality" is an issue when buying local foods. This finding suggests that there is a potential market for supplying local food products during the winter months. Additional research into this area may be warranted to determine what types of products would be of interest to consumers during this time frame.

Overall, satisfaction with the quality of local food is high among respondents, with 88.6 percent being satisfied to very satisfied. This finding is of critical importance, since a plurality of consumers view "quality" as the first most important factor when purchasing food products. Over half (51.2 percent) of respondents indicated satisfaction with the price of local food, 25.3 percent of this group are not satisfied. As shown in Figure 3, households learning less than $25,000 in annual income are significantly less likely to be satisfied with the price of local foods compared to households that earn a higher income (p=.022).

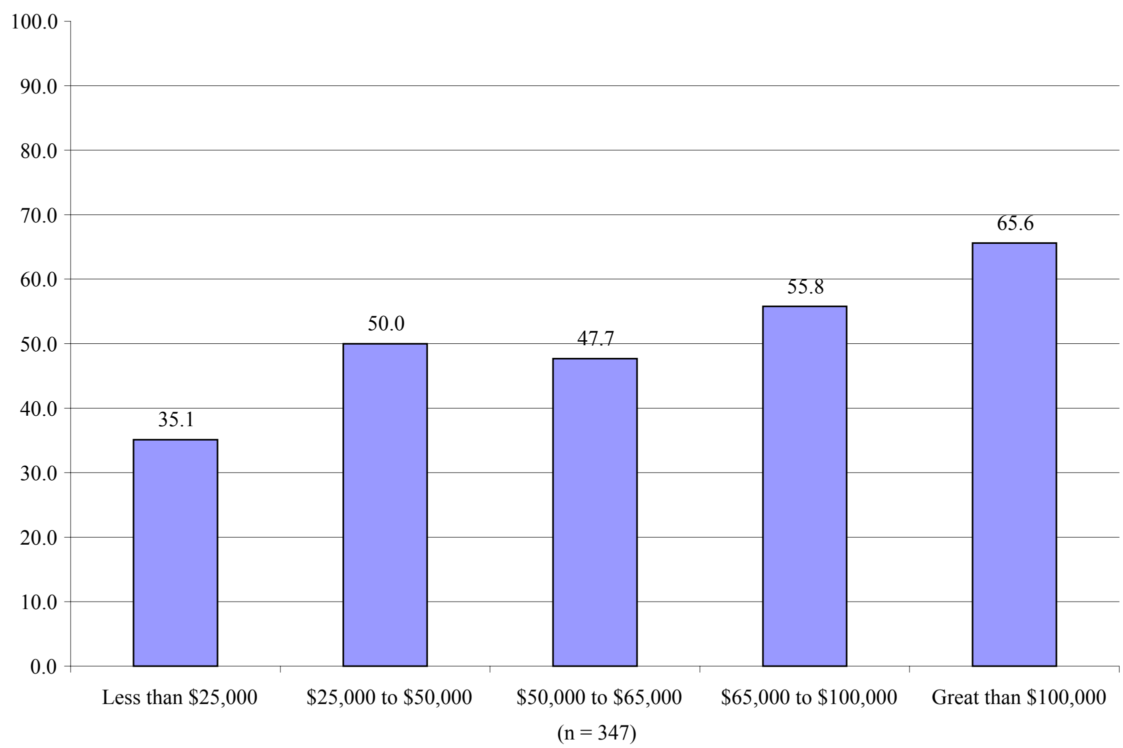

Figure 3. Satisfaction with the Price of Local Food by Household (significance value = .022)

Consumers mentioned three major barriers to buying local food, which were price (27.9 percent), seasonal (19.3), and general availability (18.8 percent) issues. When asked what the best method would be to overcome these barriers, there was a wide array of responses. Many respondents (33.0 percent) did not know what the best solution would be to overcome these barriers. Another 13.1 percent of the population would like to see more local foods offered in grocery and other stores. Just over 8.0 percent would like prices to be lowered or different pricing schemes set for local foods.

It appears that although a large percentage of consumers surveyed are satisfied with the current options of places to shop and products, there is a sizable section who would like to see both more shopping options for buying locally produced products. Community Supported Agriculture (CSA) farms may be one alternative method for providing more options for consumers.

General Interest in Community Supported Agriculture

Awareness of CSAs is high in both Chittenden County and Vermont in general (see Table 1). All respondents were presented with a definition[2] of a CSA and asked if it would be an option that they might consider. After hearing this definition, 38.8 percent would consider being a part of a CSA, while 50.0 percent would not consider this option. A small portion, 11.2 percent, did not know if they would consider being part of a CSA. Comparing interest in joining a CSA by income levels, a greater percentage of higher income consumers said that they would possibly be interested in a CSA share, compared to those with lower incomes. Specifically looking at the opposite ends of the income spectrum, 45.6 percent of consumers earning $100,000 or more in 2007 were interested in the CSA model, compared to 27.0 percent of households earning less than $25,000 that expressed interest ($p = .077$). This finding reflects that of Figure 3 where lower income households were less satisfied with the price of local foods. Perhaps, they perceive that a CSA share would be too expensive or they eat few fresh foods, don't know how to cook them and/or have less time to prepare foods, etc.. Additional research would need to be conducted to explore the reasons for these differences. Cost of a CSA share should be taken into consideration so that locally grown and produced products are available to people at all income levels.

Table 1. Percent Awareness of the Term "Community Supported Agriculture (CSA)"

	Chittenden County	Vermont
Yes	54.1	52.3
No	42.4	47.0
Don't know	3.4	0.7

Source: Center for Rural Studies (2008)

Membership Experiences in a CSA

Regarding previous membership of a CSA, 10.7 percent of respondents indicated that their household had been a member of a CSA at some point in time, with 4.2 percent being a CSA member in the past growing season. When these CSA shareholders (n=15) were asked why they were members, they responded that they wanted to "support local farmers," receive "fresh food," "build community", and "make friends." Consumers who were former members of a CSA (n = 26) were asked why they were no longer current members. The most common response (30.8 percent) was that they received too much food from their CSA share, which produced too much

[2] The definition developed by the IC read as follows: Community Supported Agriculture (or CSA) is a system where members pay in advance for a share of farm products and receive a basket of food each week. Typically in Vermont, a CSA share of vegetables and fruit costs about $20 per week and feeds a family of four.

waste. Another 26.9 percent said that the location of the share pick-up was not convenient, while others moved to places without CSAs, began gardening, found it too expensive, thought the CSA had the wrong product mix, or simply no longer wanted to be a part of a CSA.

Consumer Preferences for a CSA Model

As previously stated, 38.8 percent of those surveyed expressed interest in the CSA model (n = 159), which demonstrates demand for this service over the current 4.2 percent who are members or you could say the 10.7 who are or have been members. Interested persons indicate that the best methods for delivering the share would either be to their home (47.8 percent), which was the most often mentioned delivery method, or a central distribution center where the share can be picked up by the consumer (39.0 percent). Almost 5.7 percent of consumers said that they would like their share distributed at their workplace, while another 5.7 percent gave some other location and 1.9 percent did not know where they would want to receive a CSA share. Figure 4 shows consumers' preferences for local products that they would like to see offered in a CSA share. Almost all respondents were interested in a share of vegetables, followed by fruit, eggs, and dairy. Meat products were also of interest to respondents. This product mix should be taken into consideration when developing a CSA model to meet the demands of consumers.

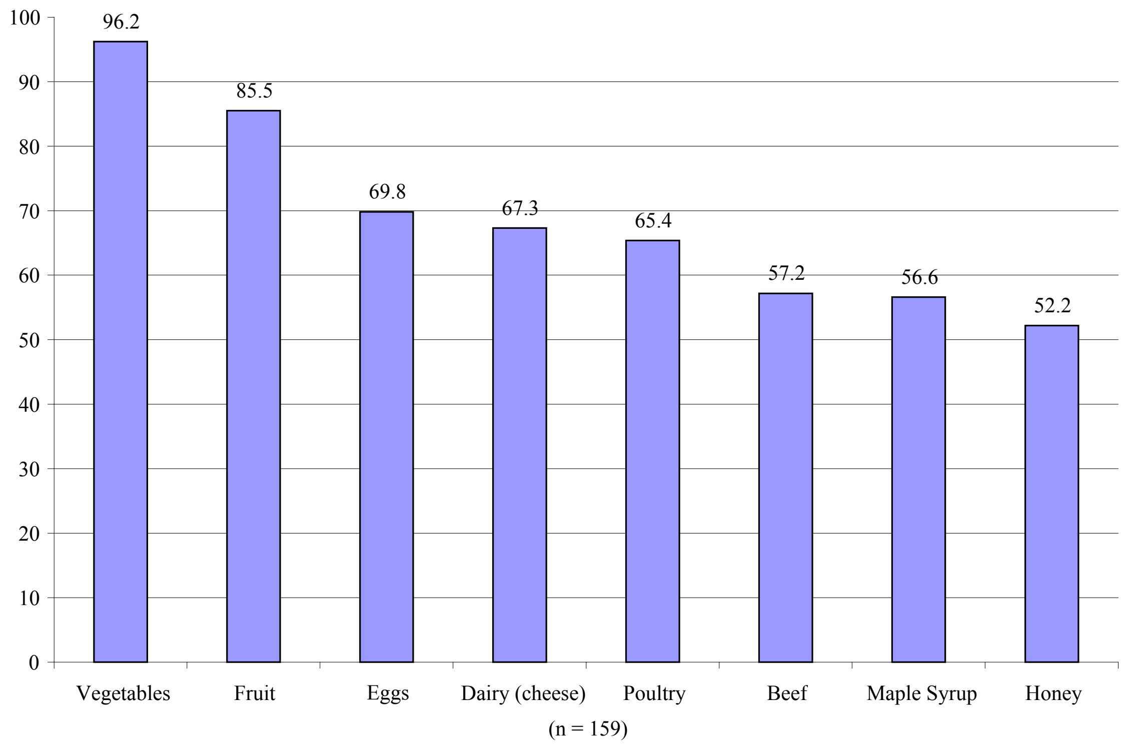

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Figure 4. Local Products that Potential CSA Members Would like offered in a Share

Conclusions

The results suggest that there is high demand for quality, locally produced, and reasonably priced products. Being organic is less of an important option to respondents. Further, according to consumers, if a local option exists, they are *usually* more likely to buy that option. Three quarters of consumers are satisfied with their current options of places to shop for local food. However, of the quarter who is not satisfied, there is a demand for more options in general to find local products, specifically in grocery stores. The seasonal availability of local foods in Vermont was consistently expressed as a reason for not being satisfied with current options for buying local foods. This finding suggests that there is a potential market for supplying local food products during the winter months. Additional research into this area may be warranted to determine what types of products would be of interest to consumers during this time frame.

In addition, many respondents were not satisfied with the price of local products as a factor that limits one's access to local options. Price was of particular concern to households earning less than $25,000 a year in 2007. As price is possibly a barrier to some consumers, it may be worthwhile to explore methods for lowering local food prices or alternatively explain to consumers more effectively why the price of local food can be higher. General availability of local foods was also of concern for respondents. The five most commonly mentioned products, which consumers feel are not readily available at the local level, include: meat vegetables and fruit, with a small portion mentioning produce and dairy products. Because there is a sizable portion of those surveyed who would like to see more shopping options for buying locally produced products, Community Supported Agriculture (CSA) farms may be one alternative method among several other for providing more options.

More than half of residents in Chittenden County and Vermont as a whole were aware of the term Community Supported Agriculture or CSA. A little over a third of respondents expressed willingness to consider joining a CSA, which demonstrates demand for this service over the current 4.2 percent who are members. Interest in joining a CSA is related to earning a higher income, which reflects that lower income households were less satisfied with the price of local foods. It is possible that they perceive that a CSA share would be too expensive, but we cannot be certain of the reasons without further research on the topic area. Cost of a CSA share should be taken into consideration so that locally grown and produced products are available to people at all income levels.

Respondents who are interested in potentially joining a CSA indicated that overall convenience is an important factor for receiving the food share. Specifically, respondents would like shares delivered to their home, which was the most commonly mentioned delivery method, or a central distribution center where the share can be picked up by the consumer, such as their workplace or another convenient location. The product mix desired by potential consumers of a CSA share include: vegetables, fruit, eggs, and dairy. Meat products were also of interest to respondents. This product mix should be taken into consideration when developing a CSA model to meet the demands of consumers.

This preliminary report presented descriptive findings and examined some of the relationships between the different variables in order to answer four of the ten research questions. In the final report, all ten areas will be addressed and examined. In addition, several clusters of consumers will be presented, which are the results of cluster analysis. This analysis will allow for segmentation of the market and should be useful in the marketing of local food products to specific types of interested consumers in Chittenden County.

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