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Consumer Interest in Food Systems Topics: Implications for Educators

Jan Perez
University of California Santa Cruz, jperez@ucsc.edu

Phil Howard
Michigan State University, howardp@msu.edu

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Consumer Interest in Food Systems Topics: Implications for Educators

Abstract
To assist consumers in understanding food system issues and to help them make informed choices, educators first need to engage their interests. To identify widely held consumer interests, focus groups informed a random sample survey conducted in the Central Coast region of California. Survey respondents reported the most interest in the safety and nutrition of their food, as well as in the external impacts of how their food was produced. Correlational analysis was used to explore characteristics and behaviors associated with these interests. The results offer strategies for public issues educators to target or structure food system related education initiatives.

Jan Perez
Associate Specialist
Center for Agroecology & Sustainable Food Systems
University of California - Santa Cruz
Santa Cruz, California
jperez@ucsc.edu

Phil Howard
Assistant Professor
Department of Community, Agriculture, Recreation and Resource Studies
Michigan State University
East Lansing, Michigan
howardp@msu.edu

Introduction

Currently, there is a national focus on issues related to the food system, which can be defined as all of the steps involved in producing, distributing, and consuming food, as well as the disposal of food waste. Topics such as obesity, mad cow disease, genetic engineering of food crops, the potential for "terrorists" to affect food safety, and the quality of food served in schools have been in the media spotlight. These subjects are important for the public to comprehend, so that they may choose healthier personal behavior and participate in public decisions about their food system.

Extension is an ideal institution to assist in this task because of its historical focus on topics related to the food system and its newly emerging attention to public issues. It has been involved in food system-related education through traditional focus on education of youth (4-H), families (nutrition and consumer food education), the public in general (gardening), and the agricultural community. A more recent role advocated for Extension is to educate people about public issues (Patton & Blaine, 2001; Hahn, 1990), such as the controversies surrounding genetic engineering (Brown, Kiernan, Smith, & Hughes, 2003).

Public education about food system issues often relies on informal education, where credit is not granted and attendance is not required. Research on informal adult education shows that peoples' interests are a component of getting them to participate (Gorard, Fevre, & Rees, 1999). Educational initiatives must compete with a myriad of other priorities and commitments to garner people's time and attention. As a result, the "first challenge is to attract and then to hold an audience" (Crane et al., 1994, p. 7). However, little research has been conducted from the consumer's perspective, to find out what they *want* to know about the food system.

Purpose

The purpose of the study reported here was to find out what people want to know about the food system. The objectives of this study were to:

- Identify the topics that consumers find most interesting;
- Quantify the level of consumer interest in food system topics; and
- Identify demographic and behavioral variables that are associated with these interests.

Methods

Research involved focus groups and a random sample mail survey. Both phases were conducted in the Central Coast region of California, which is defined as five counties south of San Francisco: San Mateo, Santa Cruz, Santa Clara, San Benito, and Monterey.

Focus Groups

Five focus groups were held in March and April of 2003. The 27 participants were recruited from retail markets in Monterey, Santa Clara, and Santa Cruz Counties. Two large supermarket chains, a natural foods store, a discount grocery store, and a farmer's market were chosen to ensure that we recruited people with a variety of socioeconomic and ethnic backgrounds, as well as different shopping habits.

To determine food system topics that people wanted to learn about we asked the following questions: 1) "Imagine you could find out anything about your food or any of the steps involved in getting food to your plate. What would you like to know?" and 2) What is good and bad about the current food system? Thematic analysis of these questions yielded eight overall topics: environmental impacts, how far food travels, corporate influence, nutrition, safety, treatment of animals, wages/salaries of workers, and working conditions.

Survey

To quantify the level of interest in the topics identified in the focus groups, a survey was mailed to a random sample of 1,000 households in the Central Coast region in March and April of 2004. The sampling frame, which included names and addresses, was obtained from the marketing firm USADATA. A modified Tailored Design Method was used. Each household was mailed a hand-signed pre-notice letter, a survey with a cover letter and a $1 bill incentive, a reminder postcard, and a replacement survey with a cover letter (Dillman, 2000). Four hundred and seventy-five surveys were returned (16 were undeliverable, response rate=48.3%).

The survey questions included:

"On a scale where '10' means you have a great amount of interest in the topic, and '1' means you have none at all, how would you rate your interest in each of the following topics?

- ☐ How far your food travels from where it is grown
- ☐ How nutritious your food is
- ☐ How safe your food is
- ☐ The environmental impacts of your food
- ☐ The influence of large corporations on food production and marketing
- ☐ The treatment of animals involved in the production of your food
- ☐ The wages or salaries of workers who grow, make or sell your food
- ☐ The working conditions of those who grow, make or sell your food"

Additional variables were obtained from the survey and their potential associations with food system interests were explored using correlations (Table 1). Demographic variables included gender, age, ethnicity, income, and education. Behavioral variables included the frequency of purchasing organic food and obtaining local food (defined as household gardens, farmer's markets, community-supported agriculture subscriptions, and roadside stands).

Another behavior variable, agreement with the statement "When I buy products (not just food), I try to consider how my purchases will affect the environment," was measured on a 7 point Likert scale. This statement was taken from the "perceived consumer effectiveness" literature which indicates that some people are more likely to believe they can contribute to sustainability efforts through their purchasing behaviors. Consideration of the environment when making purchases was hypothesized to be an important predictor of interest in food system topics because prior studies have found it to be associated with what is often a goal of educational programs engaging in

specific behaviors (Ellen, Wiener, & Cobb-Walgren, 1991).

Table 1.
Demographic and Behavioral Variables

Nominal and Ordinal Variables	**Percent**
Women	52.3
European-American	58.0
Asian-American	19.4
Hispanic-American	10.5
Other	9.7
Low-income	24.9
Middle-income	36.9
High-income	29.1
High school or less	12.9
Some college	30.6
College degree	31.4
Postgraduate education	23.2
Obtain local	14.6
Frequent purchase of organic	30.3
Occasional purchase of organic	44.4
Never purchase organic	22.1
Interval Variables	**Mean (S.D.)**
Age	51.1 (15.2)
Consider environment when purchasing	4.4 (1.8)

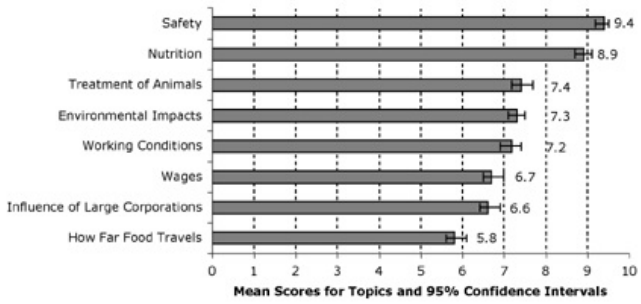
See Howard (2006) and Howard and Allen (2006) for additional methodological details.

Results

Topic Ratings

People expressed the most interest in safety, with an average score of 9.4 out of 10. Nutrition (8.9) garnered the second highest mean level of interest. The next most frequently cited topics of interest, which do not differ at the 95% confidence level, are the treatment of animals (7.4), environmental impacts (7.3), and working conditions of people who grow their food (7.2). People were least interested in how far their food travels (5.8).

Figure 1.
Level of Interest in Food System-Related Topics--10 Equals 'Great Amount of Interest', 1 Equals 'None at All' (N = 475)



Associations with Demographics and Behaviors

Table 2 reports the results of the correlation analyses, which indicate the strength of the association between the demographics and behaviors and level of interest in the various food systems topics (0 represents no association, 1 indicates a perfect positive association and -1 indicates a perfect negative association).

Table 2.

Association of Demographic and Behavioral Variables with Interest in Food System Topics

Demographics & Behaviors	Correlation Coefficients and Significance Level							
	Distance Food Travels	**Nutrition**	**Safety**	**Environmental Impacts**	**Large Corporations**	**Treatment of Animals**	**Wages**	**Working Conditions**
Age (N=432)	0.080	-0.021	-0.037	-0.051	0.006	-0.032	0.049	0.045
Consider Environment (N=422)	0.268***	0.230***	0.165**	0.479***	0.292***	0.377***	0.383***	0.363***
Gender - Women=1/Men=0 (N=446)	0.087*	0.141**	0.067	0.156***	0.140**	0.264***	0.215***	0.219***
Asian Ethnicity (N=445)	0.016	0.037	0.011	0.069	-0.034	-0.060	-0.093*	-0.085*
Hispanic Ethnicity (N=445)	0.084*	0.068	0.017	0.140**	0.076	0.139**	0.221***	0.215***
Other Ethnicity (N=445)	0.000	0.076	0.015	0.000	0.073	-0.034	0.017	0.007
Education (N=450)	-0.089*	-0.024	-0.033	-0.011	-0.093*	-0.113**	-0.115**	-0.129**
Income (N=418)	-0.120**	-0.048	-0.015	-0.059	-0.117**	-0.117**	-0.070	-0.105**
Frequency of Organic Purchases (N=447)	0.150***	0.128**	0.125**	0.223***	0.179***	0.200***	0.162***	0.149**
Obtain Local Frequently (N=452)	0.142***	0.101*	0.097*	0.133**	0.117**	0.092*	0.105*	0.050

*** p<.001, ** p<.01, * p< .05
Note: Pearson's r used for Age and Consider Environment--Kendall's Tau-b used for remaining independent variables

Those who consider the environment when they make purchases are the most likely to be interested in all of the food system topics and generally have the strongest associations. Not surprisingly, these respondents were most interested in the environmental impacts of their food, with a correlation coefficient of .479. Other topics that are more likely to be of interest to this group of people revolve around the impact of food production on others, such as interest in worker wages (.383), the treatment of animals (.377), and working conditions (.363).

Women were more likely than men to be interested in almost all of the topics. More specifically, women were more likely to be interested in the treatment of animals (.264), working conditions (.219), and wages of workers (.215).

The more people purchased organic, the more likely they were to be interested in all of the food topics, particularly environmental impacts (.233) and the treatment of animals (.200). Additionally, those who frequently obtained local food were slightly more likely to be interested in almost all the other interest categories, although the relationships tended to be weaker (correlation coefficients < .150) than for organic purchasers.

People who identified themselves as Hispanic Americans were more likely to be interested in the wages and working conditions of those who produced their food, (correlation coefficients were .221 and .215 respectively). Interest in environmental impacts, treatment of animals, and the distance food travels were also statistically significant ($p < .05$), yet weaker, relationships (< .200).

Education and income were both negatively associated with interest in how far food travels, large corporations, treatment of animals, and working conditions at the .05 significance level. However, these relationships were relatively weak compared to the associations noted above (< .130).

Implications

For those involved in public issues education or other education activities aimed at meeting the stated needs of the community, this research offers several suggestions. Food safety and nutrition, topics frequently addressed by Extension programs, have the most universal appeal. However, many people also have high levels of interest in the impacts of the production of their food (e.g., effects on the environment, etc.). Therefore, youth or family education program instructors may want to further assess whether audiences would be interested in more in-depth discussion or exploration of these topics.

Additionally, specific demographic groups or consumers with behaviors in common could be targeted according to their interests. For example, those serving Hispanic populations could address interests in the working conditions and wages of workers who produce their food by

including such information, when appropriate, in outreach or education efforts.

The results may also be helpful when trying to attract audience attention to a topic that is not necessarily of strong personal interest, but important for communities or society as a whole. Examples of these types of programs might include efforts to encourage ethical consumption of natural resources (Simon-Brown, 2004) or other behavioral change initiatives involving social marketing.

Framing socially important topics around issues that are more likely to be of interest to the target audience could draw people in and help them make connections between personal and social issues of importance. For example, if a program is trying to encourage people to purchase produce from local growers, as suggested for Extension driven farmers' market related education (i.e., Abel, Thomson, & Maretzki, 1999), initial education or outreach could introduce this in terms of its potential nutritional benefits instead of in terms of the distance food travels.

Additionally, this information can be used for marketing education efforts or other outreach activities. For example, education on almost any of these food system-related topics would likely find a more interested audience in women, those who purchase organic/local, and those who consider the environment when purchasing their food. Logical places to distribute information (such as brochures or other materials) or market classes might include natural food stores, green product retailers, or farmer's markets.

Ultimately, understanding the public's interests in food system issues will help encourage them to engage with food system issues education, to meet both their needs and that of the community as a whole.

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