

6-1-2017

## Different Definitions and Great Expectations: Farmers' Market Consumers and Local Foods

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### Recommended Citation

Sneed, C. T., & Fairhurst, A. (2017). Different Definitions and Great Expectations: Farmers' Market Consumers and Local Foods. *Journal of Extension*, 55(3), Article 10. <https://tigerprints.clemson.edu/joe/vol55/iss3/10>

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## Different Definitions and Great Expectations: Farmers' Market Consumers and Local Foods

### Abstract

Farmers' markets and local foods are popular among today's consumers. Despite this popularity, researchers have only begun to fully understand the farmers' market consumer. The study discussed in this article involved a sample of 485 farmers' market consumers from across the United States and was designed to provide a better understanding of how farmers' market consumers define the term *local food* and what characteristics these consumers expect from local foods. Differences among the definitions and characteristics relative to demographic variables were explored. The article concludes with marketing considerations for producers and market managers and implications for Extension professionals.

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### Introduction

The number of farmers' markets in the United States increased significantly from 1,755 in 1994 to 8,268 in 2014 (U.S. Department of Agriculture Agricultural Marketing Service, 2014). Despite this explosive growth, national research on farmers' market consumers is still in its infancy (Freedman et al., 2016). Of the consumer research available, most involves data drawn from county, state, or regional samples, making it difficult to extrapolate findings to broader geographies and markets (Palma, Morgan, Woods, & McCoy, 2013). Researchers such as Byker, Shanks, Misyak, and Serrano (2012), Freedman et al. (2016), and Tropp and Barham (2008) have pointed to the need for farmers' market and local foods studies based on national samples of consumers.

Studies involving county, state, or regional samples have been conducted for the purpose of better understanding aspects of farmers' market consumers, including their demographics (Alkon, 2008; Conner, Colasanti, Ross, & Smalley, 2010), their motivations for shopping at farmers' markets (Dodds et al., 2014; Gumirakiza, Curtis, & Bosworth, 2014), and their definitions of what constitutes "local" (Jefferson-Moore, Robbins, Johnson, & Bradford, 2014; Smithers, Lamarche, & Joseph, 2008). Yet despite these efforts, a clear understanding of the demographic factors characterizing farmers' market consumers, means by which farmers' market consumers define the term *local food*, and characteristics these consumers expect from local foods remains elusive (Byker et al., 2012; Darby, Batte, Ernst, & Roe, 2008).

Involving a national sample of farmers' market consumers, the study discussed in this article addressed these gaps in the extant research. Specifically, the objectives of the study were as follows:

1. Describe the demographic profile of consumers purchasing local foods at farmers' markets.
2. Identify how farmers' market consumers define the term *local food*.
3. Identify characteristics farmers' market consumers expect from local foods.
4. Determine whether differences exist in how farmers' market consumers define *local food* relative to demographic variables of gender, ethnicity, age, income, education, and area of residence.
5. Determine whether differences exist in the characteristics farmers' market consumers expect from local foods relative to demographic variables of gender, ethnicity, age, income, education, and area of residence.

Although the very nature of local foods necessitates a connotation based on geographic distance, such distance is not easy to conceptualize (Hand et al., 2010). Two predominant means of conceptualizing geographic distance include geopolitical boundaries (e.g., county, state) and driving distance (e.g., 50 mi, 100 mi). The use of one conceptualization over another has varied across studies and consumer groups (Harris, Burrell, Mercer, Oslund, & Rose, 2000; Zepeda & Leviten-Reid, 2004).

The complexity in defining the term *local food* is compounded by additional characteristics consumers ascribe to local foods. According to Darby et al. (2008) such characteristics—called credence attributes—include freshness, quality, healthfulness, and variety. In spite of consumers' inability to definitively verify such characteristics, they have been found to be important in influencing purchasing intentions (Schroeder, Tonsor, Pennings, & Mintert, 2007). Additionally, these characteristics are important to farmers' market vendors and managers relative to the development of stronger production plans (Baker, Hamshaw, & Kolodinsky, 2009) and targeted marketing efforts (Perez & Howard, 2007).

Research offers little conclusive evidence characterizing the farmers' market customer (Byker et al., 2012). Although studies have shown farmers' market customers to be predominantly White non-Hispanic/Latino females (Conner et al., 2010; Elepua & Mazzocco, 2010; Onianwa, Wheelock, & Mojica, 2005), the extant research offers a less clear picture regarding age, income, and educational attainment. Several studies have shown that on average farmers' market customers have a household income of \$50,000 per year (Byker et al., 2012). Yet other studies, such as that by Zepeda (2009), have shown farmers' market customers to have lower incomes than customers who shop at other food outlets, such as supermarkets or grocery stores. Moreover, whereas some studies point to farmers' market customers as well educated, other studies offer contradictory findings, pointing to no educational differences between those who do and those who do not shop at farmers' markets (Zepeda & Li, 2006).

## Methods

### Sampling Frame

A national sample of consumers who had purchased local foods at a farmers' market during the preceding 12 months was obtained through a partnership with the online marketing research company Qualtrics.

## Research Design and Instrumentation

A web-based, self-administered survey was developed. The survey was composed of three sections. For the first section, respondents were asked to select the option best reflecting their definition of *local food*. Six options were provided, three based on geopolitical boundaries ("within my county," "within my state," "within my region") and three based on distance ("within 10 mi of my residence," "within 50 mi of my residence," "within 100 mi of my residence"). These response options are similar to those used in other studies (Adams & Adams, 2011; Onozaka, Nurse, & McFadden, 2010; Zepeda & Leviten-Reid, 2004). For the second section, respondents were asked to select characteristics they expect local foods to have. Questions soliciting demographic information comprised the final section. The study was approved by the University of Tennessee's institutional review board.

To test for content validity, the survey was reviewed by five subject matter experts. Pilot testing with a convenience sample of 40 consumers occurred before the full study was launched.

## Data Collection

For the purpose of ensuring that responses were not duplicates, a personalized link to the survey was emailed to each recipient. Only one use per individual link was allowed. A total of 515 surveys were returned; 30 were incomplete. An examination of the incomplete surveys revealed data missing at random. On the basis of guidance from Schafer and Graham (2002), incomplete surveys were excluded. A total of 485 surveys were submitted for analysis through SPSS version 20.

Frequencies were computed for demographics, definitions of *local food*, and characteristics of local foods. For determining whether relationships existed among respondents' definitions of *local food* and the demographic variables of gender, ethnicity, income, level of education, and area of residence, a Pearson's chi-square test was performed and the adjusted residuals examined. An analysis of variance was performed for examining differences between respondents' ages and definitions of *local food*. Binary regression was used for determining whether differences existed in the characteristics respondents expected from local foods relative to the demographic variables. For each characteristic, respondents' selections were coded as yes or no. With the answers coded as dichotomous variables, the binary regression model was run.

## Findings

### Objective 1: Demographic Profile

Table 1 contains a breakdown of respondents by state. Table 2 summarizes respondent demographics. Over half the respondents (63.9%) were female, 69.9% were White (Caucasian), and 26.6% were between 25 and 34 years of age. Over one quarter (26%) reported having an annual income between \$50,000 and \$74,999. Slightly over 8% reported an annual income over \$150,000. Respondents were well educated, with slightly over half (50.5%) reporting attainment of a bachelor's, graduate, or professional degree. Finally, respondents tended to reside in urban clusters (29.1%), urbanized areas (21.9%), and metropolitan statistical areas with a population above 250,000 (21.9%).

**Table 1.**  
Respondents by State

<b>State</b>	<b>No. of respondents</b>	<b>State</b>	<b>No. of respondents</b>
Alabama	5	Missouri	15
Arizona	12	Montana	3
Arkansas	2	Nebraska	1
California	108	Nevada	2
Colorado	7	New Mexico	2
Delaware	2	New York	39
District of Columbia	1	North Carolina	10
Florida	30	Ohio	19
Georgia	17	Oklahoma	5
Hawaii	3	Oregon	14
Idaho	1	Pennsylvania	16
Illinois	18	South Carolina	5
Indiana	9	Tennessee	6
Iowa	6	Texas	34
Kansas	4	Utah	1
Kentucky	10	Virginia	11
Louisiana	4	Washington	16
Maryland	9	West Virginia	3
Massachusetts	2	Wisconsin	9
Michigan	14	Wyoming	1
Minnesota	9		

**Table 2.**  
Demographics Summary for Respondents

<b>Demographic variable</b>	<b>Frequency</b>	<b>Percentage</b>
Gender		
Male	175	36.1%

Female	310	63.9%
Ethnicity		
White (Caucasian)	339	69.9%
Asian	62	12.8%
Hispanic (Latino/Spanish)	43	8.9%
African American	26	5.4%
American Indian	4	.8%
Other	11	2.3%
Age		
Under 25	87	17.9%
25–34	129	26.6%
35–44	95	19.6%
45–54	86	17.7%
55–64	88	18.1%
65+	0	0%
Annual household income		
Under \$25,000	68	14%
\$25,000–\$49,999	117	24.1%
\$50,000–\$74,999	126	26%
\$75,000–\$99,999	72	14.8%
\$100,000–\$124,999	38	7.8%
\$125,000–\$149,999	24	4.9%
\$150,000+	40	8.2%
Highest educational level		
Less than high school	4	.8%
High school diploma or GED	71	14.6%
Some college or associate's degree	164	33.8%
Bachelor's degree	169	34.8%
Graduate or	76	15.7%

professional degree		
Other	1	.2%
Area of residence		
Small city or town, population less than 2,500	88	18.1%
Urban cluster, population between 2,500 and 49,999	141	29.1%
Urbanized area, population between 50,000 and 99,999	106	21.9%
Metropolitan statistical area, population between 100,000 and 249,999	44	9.1%
Metropolitan statistical area, population above 250,000	106	21.9%

*Note.*  $n = 485$ .

## Objective 2: Definitions of *Local Food*

Almost equal percentages of respondents identified local foods as those produced within 10 mi of their residence (26.2%) or those produced within 50 mi of their residence (24.7%) (Table 3). "Within my county" (14.2%) and "within my state" (14.4%) were the most frequently used geopolitical definitions (Table 3).

**Table 3.**  
Definitions of *Local Food*

Definition	Frequency	Percentage
Within 10 mi of my residence	127	26.2%
Within 50 mi of my residence	120	24.7%
Within 100 mi of my residence	65	13.4%
Within my county	69	14.2%

Within my state	70	14.4%
Within my region	34	7.0%
Total	485	100%

### Objective 3: Expected Characteristics of Local Foods

From a list of six characteristics, respondents were asked to select the characteristics they expect from local foods. Among the most frequent responses were that local foods be environmentally safe (74.4%) and produced in a socially responsible manner (72.2%) (Table 4). In addition, 65.8% expected local foods to be produced and distributed in a sustainable way (Table 4).

**Table 4.**  
Characteristics of Local Foods Expected by  
Respondents

Characteristic	Frequency <sup>a</sup>	Percentage
Produced by my neighbors	220	45.4%
Produced in a socially responsible manner	350	72.2%
From community-supported agriculture organizations	240	49.5%
Environmentally safe	361	74.4%
Organically grown	293	60.4%
Produced and distributed in a sustainable way	319	65.8%

<sup>a</sup>Frequency is greater than 485 as respondents were able to select more than one characteristic.

### Objective 4: Differences in Definitions of *Local Food* Relative to Demographics

At the .05 significance level, no significant relationships were found between respondents' definitions of *local food* and gender ( $p = .151$ ), ethnicity ( $p = .701$ ), income ( $p = .722$ ), level of education ( $p = .101$ ), or age ( $p = .069$ ). However, a significant relationship was found between respondents' definitions of *local food* and their areas of residence ( $p = .001$ ). For respondents residing in small cities or towns, a greater number than expected were likely to identify local foods as those produced within 50 mi of their residence (adjusted residual = 1.7). Alternatively, for respondents residing in the largest metropolitan statistical area, a greater number

than expected were more likely to identify local foods as those produced within 100 mi of their residence (adjusted residual = 4.1).

## Objective 5: Differences in Expected Characteristics of Local Foods Relative to Demographics

Significant differences were found in the relationships of the local foods characteristic "produced by my neighbors" and the demographic variables of age and area of residence. Additionally, significant differences were found in the relationships of the local foods characteristic "produced and distributed in a sustainable way" and age and the characteristic "organically grown" and age. Older consumers as well as those residing in communities with populations less than 100,000 were more likely to expect local foods to be produced by their neighbors and to be produced and distributed in a socially responsible way. Younger consumers were more likely to expect local foods to be organically grown. No other significant differences were found. See Table 5.

**Table 5.**

Characteristics of Local Foods and Demographic Variables

Characteristic	Wald chi-square	df	Sig.
Produced by my neighbors			
Gender	3.85	1	1.00
Ethnicity	4.47	5	.49
Age	5.31	1	.02*
Income	4.32	6	.63
Level of education	3.29	5	.65
Area of residence	13.33	4	.01*
Produced in a socially responsible manner			
Gender	.77	1	.38
Ethnicity	7.40	5	.19
Age	.46	1	.50
Income	7.62	6	.27
Level of education	3.15	5	.68
Area of residence	1.38	4	.85
From community-supported agriculture organizations			
Gender	.004	1	.95
Ethnicity	7.52	5	.19
Age	.371	1	.54
Income	4.19	6	.65

Level of education	3.43	5	.63
Area of residence	4.05	4	.40
Environmentally safe			
Gender	2.05	1	.15
Ethnicity	7.79	5	.17
Age	3.61	1	.06
Income	6.17	6	.40
Level of education	2.43	5	.79
Area of residence	2.76	4	.60
Organically grown			
Gender	.081	1	.77
Ethnicity	9.66	5	.09
Age	13.46	1	.00*
Income	12.64	6	.05
Level of education	4.83	5	.44
Area of residence	1.90	4	.75
Produced and distributed in a sustainable way			
Gender	1.10	1	.16
Ethnicity	7.32	5	.20
Age	7.96	1	.01*
Income	10.43	6	.11
Level of education	1.60	5	.90
Area of residence	7.69	4	.10

\* $p < .05$ .

## Discussion and Implications

### Consumer Demographics

As indicated by data from the U.S. Census Bureau (2016), study respondents differed in some ways from the U.S. population. A larger proportion of respondents identified as White non-Hispanic/Latino (69.9% compared to 63.7% of the U.S. population). Fewer respondents identified their ethnicity as African American (5.4% compared to 13.3% of the U.S. population) or Hispanic (8.9% compared to 17.6% of the U.S. population). Over half (50.7%) had obtained a bachelor's degree or higher, almost twice the proportion of the U.S. population reporting the same educational attainment (29.3%). Finally, a greater proportion of respondents were female (63.9% compared to 50.8% of the U.S. population).

Strategies aimed at increasing access to farmers' markets among limited-resource and minority consumers have gained traction in recent years. Yet the limited diversity among farmers' market consumers shown by the results of the study indicates that continued focus on strategies for fostering increased patronage by minority and limited-resource individuals is warranted.

## Definitions of *Local Food*

In the study, respondents were more likely to use driving distance (64.3% of respondents) in comparison to geopolitical boundaries (35.6% of respondents) when defining the term *local food*. A clear consensus, however, on the length of the driving distance did not emerge. Thus, in light of previous research, one can conclude that "local" remains a fluid concept, with consumers employing a variety of reference points when describing it.

Producers selling local food items directly to consumers must remain keenly aware of this lack of consensus. To simply label an item as "local" may not be enough. Instead, as producers craft marketing messages for their products, they may find benefit in explicitly stating the parameters by which they are defining the term *local*.

## Expected Characteristics of Local Foods

Consumers expect a lot of local foods. More than half of the study respondents expected local foods to have at least five of the six characteristics listed on the survey instrument. For respondents in the study, local foods represent more than simply food items grown nearby. Instead, these consumers endowed local foods with a variety of characteristics—characteristics that local foods may or may not actually have. Given the importance placed on these characteristics, farmers' market vendors would be well served to offer descriptions, pictures, and stories that speak to the safe, responsible production of their local food items.

Sixty percent of respondents expected local foods to be organically grown. This association of organic and local is a concerning misconception that provides impetus for additional research. Additionally, such a misconception points to the need for consumer education regarding local foods. Such education could include research-based explanations of local foods, including explanations of how *local* is defined and what the similarities and differences are among local, organic, sustainable, and conventionally produced foods.

The study did not examine the bases for the expectations consumers have of local foods. Therefore, the means by which consumers have come to hold their expectations of local foods is worthy of additional study. Additionally, research examining the extent to which those who shop for local foods via other channels, such as grocery stores, hold similar expectations is warranted.

## Demographic Differences

In the study, no relationships were found between respondents' definitions of *local food* and demographics of ethnicity, income, level of education, and gender. A significant relationship was found between respondents' definitions of *local food* and their areas of residence. Respondents living in small cities and towns were more likely to use restrictive parameters, identifying local foods as those produced within 50 mi of their residence. Respondents living in large metropolitan statistical areas were more likely to define *local food* broadly, using

the term *local* to describe those foods produced within 100 mi of their residence.

In light of these differences, practitioners (such as Extension agents) whose work relates in some way to local foods must give careful consideration to the audiences with whom they are engaging. Practitioners may find it advisable to tailor definitions of the term *local* to match those used by such groups. For example, practitioners may find that a narrower view of what is local resonates best with clients residing in smaller communities whereas a broader view is best suited for clients residing in larger metropolitan areas. Practitioners should be mindful of younger consumers' expectation that local foods be organically grown. Practitioners can use this expectation as an opportunity to educate consumers on regulations that govern local and organic foods. Finally, differences among consumer groups in how they define *local* and the characteristics they expect of local foods hinders the adoption of a nationally recognized definition of the term *local food*.

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