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AN EVALUATION OF CONSUMER SEGMENTS FOR FARMERS' MARKET  
CONSUMERS IN INDIANA AND ILLINOIS

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1 AN EVALUATION OF CONSUMER SEGMENTS FOR FARMERS' MARKET  
2 CONSUMERS IN INDIANA AND ILLINOIS

3 Abstract

4 In Spring 2005 and Fall 2009 consumer surveys were collected in several Metropolitan  
5 cities in Indiana and Illinois to explore differences based on psychographic and behavioral  
6 characteristics of farmers' market consumers. Consumer intercept surveys were conducted in:  
7 South Bend, IN; Bloomington, IN; Springfield, IL and Peoria, IL. Likert scale questions were  
8 analyzed using factor and hierarchical cluster analysis to identify clusters of consumers based on  
9 several farmers' market characteristics. Survey results show that of the 164 Metropolitan  
10 surveys analyzed, 85.3% of respondents were Caucasian, 71.9% were between the ages of 35 and  
11 64 and 78% were female. Data analysis showed that four clusters were formed: Recreational  
12 (42%), Minimalists (27%), Enthusiasts (23%) and Time-challenged (8%). Each cluster had a  
13 unique set of preferences based on farmers' market attributes ranging from overall convenience  
14 of the shopping trip to the presence of nearby stores. Differences in consumer segments suggest  
15 that farmers' market managers can develop specific marketing messages toward each segment.

16  
17 Keywords: cluster analysis, consumers, farmers' market, primary data, surveys

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Executive Summary

A factor and hierarchical cluster analysis showed four clusters existed based on farmers' market characteristics. *Recreational* shoppers were the largest segment of consumers (42%) and had a low average expenditure per visit, a high average distance traveled (Table 7) and a high average of visits to the survey market per season showing they were likely to travel and visit often but were not as likely to spend large amounts of money. *Minimalists* had the highest percentage of primary shoppers of any other segment (81.8%). *Minimalists* had a high average expenditure per visit, a low average distance traveled (Table 7) and a low average of visits to the survey market per season. *Time-challenged* shoppers valued the presence of nearby stores. *Time-challenged* shoppers had a low average expenditure per visit, a low average distance traveled (Table 7) and a high average of visits to the survey market per season. *Enthusiasts* were dedicated shoppers that enjoyed all aspects of the farmers' market shopping experience but did not place much importance on variety. *Enthusiasts* had a high average expenditure per visit, a high average distance traveled (Table 7) and a high average of visits to the survey market per season. *Enthusiasts* spent the most (\$19), traveled the farthest (12.4 miles), and visited the market more than any other segment (8.7 times).

35 1. Introduction

36 Farmers' markets have experienced brisk growth in recent years; however, slowly rising  
37 sales question the sustainability of the industry. From 2000 to 2005, the number of farmers'  
38 markets in the United States (U.S.) grew 43%. However, sales lagged, growing at 2.5% each  
39 year (Ragland and Tropp, 2009). In 2005, annual sales for farmers' markets in the United States  
40 were \$242,500 (Ragland and Tropp, 2009). Farmers' markets that took the initiative to learn  
41 more about customers reported higher sales than markets that did not. However, only 27.6% of  
42 farmers' market managers conducted surveys to learn the needs and preferences of their  
43 consumers (Ragland and Tropp, 2009).

44 Farmers' market managers are seeking ways to learn about their customers and how to  
45 effectively promote to their target markets. Consumer segmentation is a technique commonly  
46 used by traditional retail managers to classify customers based on needs, preferences, behaviors,  
47 and demographics (Reynolds et al., 2002). Consumer segmentation is vital to the farmers' market  
48 industry to take steps toward overcoming challenges, increasing profitability and sustainability.  
49 Therefore, the objective of this study is to identify preference based segments in farmers' market  
50 consumers using self-reported psychographic, behavioral, and demographic characteristics of  
51 Metropolitan consumers in Indiana and Illinois and to evaluate their differences.

52 *Consumer Segmentation*

53 Consumer segmentation is a technique used to classify consumers into groups based on  
54 factors such as consumption trends, behaviors, and preferences. Consumer segmentation has  
55 been used in previous research to better understand customers and to build a foundation for  
56 better promotion and marketing (Elepu, 2005; Coca-Cola Retailing Research Foundation, 2004;  
57 Reynolds et al., 2002). Past research has focused on consumers of retail shopping outlets such as

58 malls or grocery stores (Coca-Cola Retailing Research Foundation, 2004; Reynolds et al., 2002).  
59 Elepu (2005), to date, is the only study to segment farmers' market consumers. These studies are  
60 examined in detail below.

61 Reynolds et al., (2002), focused on developing retail shopper types and determining the  
62 difference between the attitudes and preferences of traditional versus factory outlet mall  
63 shoppers. Shoppers at traditional and outlet malls participated in an intercept survey and ranked  
64 market attributes such as cleanliness, number of stores and safety as "not important" (1) to  
65 "extremely important" (7). From the cluster analysis, six shopper types were identified: Basic,  
66 Apathetic, Destination, Enthusiasts, Serious, and Brand Seekers. All shopper type descriptions  
67 were similar for traditional and factory outlet malls except for the Brand Seekers segment, which  
68 did not exist for traditional mall shoppers and was exclusive to the factory outlet mall shopper  
69 group. "Brand Seekers" were most concerned with brand name merchandise above all other  
70 factors and enjoyed the shopping experience.

71 According to the Coca-Cola Retailing Research Council of North America (2004),  
72 consumers were categorized into different segments based on their need states or purpose for  
73 shopping. Shoppers were surveyed and interviewed in online panels and week-long focus groups.  
74 Based on ratings from store attributes and attitudes towards grocery shopping, consumers  
75 shopped for different reasons each time; therefore they were categorized based upon reasons  
76 called "need states". Need states refer to specific needs a shopper brings to a shopping trip,  
77 which may strongly influence their purchasing decisions and can change from one occasion to  
78 the next. The nine segments of consumers in this study were: Care For Family, Smart Budget  
79 Shopping, Discovery, Efficient Stock-Up, Specific Item, Bargain-Hunting Among Stores,  
80 Reluctance, Small Basket Grab and Go and Immediate Consumption (Coca-Cola Retailing

81 Research Council, 2004). This study helped retailers, specifically the Coca-Cola Company, make  
82 a beneficial connection with consumers.

83 Elepu (2005) used the two previous studies (Reynolds et al., 2002 and The Coca Cola  
84 Research Foundation, 2004) to examine whether differences existed in urban farmers' market  
85 consumers. An intercept survey was conducted at six urban and suburban farmers' markets in  
86 Illinois. Five segments existed including: Basic, Serious, Enthusiast, Recreational and Low-  
87 involved. Overall, consumers were Caucasian, female, between the ages of 35 and 44, primary  
88 shoppers of food, college graduates, working professionals, with an annual income of \$100,000  
89 or greater, living in two person households (Elepu, 2005). Based on these studies, hypothesis one  
90 was formed.

91 H<sub>1</sub>: Preference based segments exist for farmers' market consumers in Metropolitan areas  
92 in Indiana and Illinois.

## 93 2. Methodology

94 In the spring 2005 and fall 2009, consumer intercept surveys were conducted at Illinois and  
95 Indiana farmers' markets, respectively, to evaluate consumer preferences for farmers' market  
96 attributes. Data were collected using a written survey administered face-to-face to farmers'  
97 market consumers. Indiana farmers' markets were selected from the Indiana AgroTourism  
98 Directory published by the Indiana State Department of Agriculture. Illinois markets were  
99 selected to include a stratified sample of urban and suburban markets from the USDA National  
100 Directory of Farmers' Markets. Using census data on population categories, markets categorized  
101 as Metropolitan cities (cities with 50,000 residents or more) were selected (OMB, 2008). Using a  
102 random number generator, Indiana markets were selected using the same selection method as  
103 Elepu (2005). The cities surveyed in Indiana were South Bend and Bloomington. The cities

104 surveyed in Illinois were Springfield, and Peoria. Farmers' market managers were contacted to  
105 obtain permission to conduct intercept surveys taking place at their market. Upon approval from  
106 each market, dates were scheduled and surveys were collected. Surveys were completed on a  
107 voluntary, anonymous basis by consumers present at each market.

108 The survey focused on demographics, importance of market attributes and behavioral trends  
109 at the market. In total, 165 of the 196 Metropolitan surveys were usable. One hundred and five  
110 surveys were collected in Indiana, 78 of which were fully completed by respondents and used in  
111 this study. One hundred and forty-eight metropolitan surveys were collected in Illinois, 87 of  
112 which were fully completed and used in this study.

113 The first section of the survey, questions one through eleven, asked respondents about their  
114 motivations for shopping, consumption trends, frequency of visits to the market, market location,  
115 frequency of visits to other markets and attitudes towards farmers' markets. Section two,  
116 questions twelve through fourteen, focused on consumer's attitudes toward farmers' markets and  
117 farmers' market attributes. Question twelve was a seven-point Likert scale that asked  
118 respondents to indicate the level of importance they attached to the 23 market attributes listed,  
119 where one meant "not at all important" and seven meant "very important" (Figure 1.1). Section  
120 three, questions fifteen through twenty-two, asked for demographic information such as gender,  
121 age, number of individuals living in the household, zip code, primary shopper status, education  
122 level, ethnicity, and income level. Demographic characteristics were categorized as: age, gender,  
123 education, ethnicity, household size, primary shopper, and income.

124 A multi-step cluster analysis was used to segment consumers. Multi-step cluster analysis has  
125 been used in previous consumer segmentation studies (Elepu, 2005; Reynolds et al., 2002; Bloch  
126 et al., 1994; and Darden and Ashton, 1974). Multi-step cluster analysis uses factor analysis,



127 Ward's clustering method and K-means clustering. A factor analysis was conducted in SPSS  
128 (The Statistical Package for Social Scientists) for data reduction of the Likert scale variables  
129 (Table 1) (SPSS 17.0, 2010). Component factors were then used to form consumer segments  
130 with Ward's hierarchical clustering method. Cluster centers were identified by performing the k-  
131 means analysis method (Table 2). An Analysis of Variance (ANOVA) test was used along with  
132 k-means analysis to identify statistical significance of component factors. Factor analysis was  
133 used to reduce the number of market attributes into component factors. There were 23 market  
134 attributes used in the survey. The component factors identified accounted for 64.2% of the  
135 variance. Six component factors were named: trip experience, adjunct products, nearby stores,  
136 superior produce, organic produce and variety (Table 1). These factors were then used to identify  
137 consumer segments.

### 138 *Consumer Segmentation*

139 The Ward's cluster method, a hierarchical clustering technique, was used to identify outliers  
140 to establish the number of clusters. One outlier was identified and eliminated leaving 164  
141 observations to be further analyzed. Output from the hierarchical cluster analysis gave the option  
142 of three, four or five clusters. The four cluster option was distinct and the dendrogram showed  
143 four clusters as the optimal solution (data not shown). To determine the number of the clusters,  
144 points where the distance agglomeration coefficients changed drastically were also identified. In  
145 this case, the increase was at observation 160 which was subtracted from the number of  
146 observations (164) for a total of four clusters. The initial conclusion of four distinct clusters was  
147 further validated by examining the dendrogram and using the agglomeration coefficients  
148 technique.

149 The initial cluster seeds derived from the Ward's method were used in the k-means method

150 to obtain final clusters of consumers. Clusters were named based on their preferences for  
151 component factors (Table 2) and were given the following names: *Recreational Shoppers*,  
152 *Minimalists*, *Time-challenged Shoppers*, and *Enthusiasts*. ANOVA results indicated that each  
153 component factor was statistically significant (Table 3).

### 154 3. Results

#### 155 *Overall Demographics of Sample*

156 The highest percentage of respondents were Caucasian (85.3%), female (78%), between the  
157 ages of 55 and 64 (27%), primary shoppers of food (73%), in a two-person household (44%),  
158 with a post graduate degree (36.2%), and annual income between \$50,000 and \$74,999 (29.6%),  
159 (Table 4). These findings were consistent with previous literature that found farmers' market  
160 consumers were typically Caucasian, female, middle aged, middle class, primary shoppers, with  
161 some form of college degree (Kezis et al., 1998; Govindasamy et al., 1996; Govindasamy et al.,  
162 1998; Otto and Varner 2005; Onianwa, Mojica and Wheelock, 2006; Rainey and Vetter, 2009;  
163 Zepeda and Li, 2006; Bond, Thilmany and Bond, 2009). Thus data are presumed to be  
164 representative of farmers' market consumers.

165 *Recreational Shoppers* were the largest consumer segment, accounting for 42% of the total  
166 sample. This segment traveled an average of 10 miles to the market, visited the market an  
167 average of 2.5 times during the season, visited other markets an average one time per season and  
168 spent an average of \$16 per trip (Table 5). Demographically, the highest percentage of  
169 *Recreational Shoppers* were (75.4%), mostly between the ages of 45-54 (29.4%), Caucasian  
170 (85.3%), primary shoppers of food (72.1%) of a two person household (42.6%) with annual  
171 income of \$50,000 to \$74,999 (32.3%) (Table 6). This segment also had the highest percentage  
172 of respondents that identified themselves as "post-graduates" at 42.6 % (Table 6). *Recreational*

173 *Shoppers* placed value on nearby stores, superior products, organic products and variety based on  
174 positive standardized factor scores (Table 2). *Recreational Shoppers* were most likely attending  
175 the market to enjoy the atmosphere and browsing, but were not interested in any extra amenities  
176 the market had to offer.

177 *Minimalists* were the second largest segment group, consisting of 27% of the total sample.  
178 On average, *Minimalists* shoppers traveled approximately four miles to the market, visited the  
179 market one time during the season and spent \$17 per trip (Table 5). Demographically,  
180 *Minimalists* were female (86.4%), mostly between the ages of 45-64 (27.3%), post graduates  
181 (36.4%), living in a two person household (47.7%), with an annual income between \$20,000 and  
182 \$49,000 (34.3%) (Table 6). These shoppers placed value on trip experience and superior  
183 products based on positive standardized factor scores (Table 2).

184 *Enthusiasts* accounted for 23% of the total sample. *Enthusiasts* were predominately  
185 Caucasian, (80.6%), female (77.8%), primary shoppers of food (69.4%), mostly between the  
186 ages of 55 and 64 (50%), living in a two-person household (42.9%), with an annual income  
187 between \$50,000 and \$74,999 (29.4%), and had completed “some college” (41.7%) (Table 6).  
188 *Enthusiasts* had a preference for trip experience, adjunct products, nearby stores, superior  
189 products, and organic products based on positive standardized factors (Table 2). *Enthusiasts*  
190 were generally very dedicated and loyal to the market and loved every aspect of shopping.  
191 *Enthusiasts* traveled an average of 12 miles to the market, visited the market an average of nine  
192 times per season and spent an average of \$19 per trip (Table 5).

193 *Time-challenged Shoppers* accounted for 8% of the total sample, ranking fourth in size of the  
194 consumer segments. This segment reported traveling an average of three miles to the market,  
195 visiting five times during the season, visiting other markets once per season and spending \$14

196 per trip (Table 5). *Time-challenged Shoppers* were mostly female (53.8%), between the ages of  
197 25-34 and 45-54 (23.1 %) respectively, college graduates (46.2%), Caucasian (84.6%), living in  
198 a household with one to three individuals (69.3%), primary shoppers (53.8%), with an annual  
199 income between \$75,000 and \$99,000 (38.5%) (Table 6). Nearby stores was the only component  
200 factor that was of importance to these shoppers based on positive standardized factor scores  
201 (Table 2). The presence of nearby stores was important because *Time-challenged Shoppers* most  
202 likely planned to visit a grocery or other retail outlet in conjunction with their farmers' market  
203 trip. These shoppers are most likely to only buy a few items from the farmers' market and then  
204 complete the remainder of their shopping at other stores.

205 A chi-square test was run to determine statistical significance in behavioral characteristics  
206 amongst clusters. Consumer segments were significantly different in average amount spent per  
207 visits, frequency of visits to the survey market per season, frequency of visits to other markets  
208 per season, and distance traveled to the market per trip (Table 8). Therefore, hypothesis one is  
209 supported.

#### 210 4. Summary, Conclusion, and Implications

211 This study showed differences existed in preferences for farmers' market consumers in  
212 Metropolitan areas in Indiana and Illinois. Four preference based segments for Metropolitan  
213 farmers' market consumers in Indiana and Illinois were identified and further distinguished by  
214 behavioral and demographic characteristics.

215 There are differences in preferences, behavioral characteristics and demographics among  
216 segments. Farmers' market consumers shop based on preferences for market attributes. Thus, it  
217 is beneficial for market managers to take these factors into consideration when evaluating their  
218 target market. This information can be used to the benefit of farmers' markets across the U.S. as

219 it provides a basis for the development of promotional and marketing techniques. For instance,  
220 since nearby stores was an important factor for three of the four segments (*Enthusiasts*,  
221 *Recreational*, and *Time-challenged*) a new market manager may find it beneficial to consider  
222 proximity of the market to nearby stores when planning to start a market. An existing market  
223 manager may try to develop promotional strategies to attract consumers that visit the least, in this  
224 case *Minimalists*.

- 226 Bloch, P. H., Ridgway, N. M., & Dawson, S. A. (1994). The shopping mall as consumer  
227 habitat. *Journal of Retailing*, 70, 23–23.
- 228 Bond, J. K., Thilmany, D., & Bond, C. (2009). What Influences Consumer Choice of Fresh  
229 Produce Purchase Location? *Journal of Agricultural and Applied Economics*, 41(01).
- 230 Coca-Cola Retailing Research Council. (2004) “The World According to Shoppers:  
231 Different Days, Different Needs.” Study Conducted by TNS NFO, 41 Pp
- 232 Darden, W. R., & Ashton, D. (1974). Psychographic profiles of patronage preference  
233 groups. *Journal of Retailing*, 50(4), 99–112.
- 234 Elepu, G. (2005). Urban and suburban farmers markets in Illinois: a comparative analysis of  
235 consumer segmentation using demographics, preferences and behaviors. PhD Thesis,  
236 University of Illinois at Urbana Champaign, Urbana.
- 237 Govindasamy, R., & Nayga Jr, R. M. (1996). Characteristics of farmer-to-consumer direct  
238 market customers: an overview. *Journal of Extension*, 34(4).
- 239 Govindasamy, R., Zurbriggen, M., Italia, J., Adelaya, A., Nitzsche, P., & VanVranken, R.  
240 (1998). *Farmers Markets: Consumer Trends, Preferences and Characteristics*, New  
241 Jersey Agricultural Experiment Station.
- 242 Kezis, A., Gwebu, T., Peavey, S., & Cheng, H. T. (1998). A study of consumers at a small  
243 farmers' market in Maine: results from a 1995 survey. *Journal of Food Distribution  
244 Research*, 29, 91–99.
- 245 Oberholtzer, L., & Grow, S. (2003). *Producer-Only Farmers' Markets in the Mid-Atlantic  
246 Region*. Arlington va: Henry A. Wallace Center for Agricultural and Environmental  
247 Policy at Winrock International.
- 248 OMB. (2008, November 20). *Update of statistical area definitions and guidance on their uses*.  
249 Retrieved from <http://www.whitehouse.gov/omb/bulletins/fy2007/b0701.pdf>  
250
- 251 Onianwa, O., Mojica, M., & Wheelock, G. (2006). Consumer Characteristics and Views  
252 Regarding Farmers Markets: An Examination of On-Site Survey Data of Alabama  
253 Consumers. *Journal of Food Distribution Research*, 37(1), 119.
- 254 Otto, D., & Varner, T. (2005). Consumers, Vendors, and the Economic Importance of Iowa  
255 Farmers' Markets: An Economic Impact Survey Analysis. *Iowa State University,  
256 Leopold Center for Sustainable Agriculture. March.*

- 257 Ragland , E, & Tropp, D. (2009, May). *Usda national farmers' market manager survey*.  
258 Retrieved from  
259 <http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELPRDC5077203>
- 260 Rainey, R, & Vetter, A. (2009). *Understanding direct markets: characteristics of the farmers'*  
261 *market consumer*. Retrieved from  
262 <http://www.uark.edu/afma/Meetings/2009%20AFMA%20Survey%20Handout.pdf>
- 263 Reynolds, K. E., Ganesh, J., & Lockett, M. (2002). Traditional malls vs. factory outlets:  
264 comparing shopper typologies and implications for retail strategy. *Journal of Business*  
265 *Research*, 55(9), 687–696.
- 266 SPSS for Windows, Release 17.0. 2010. Chicago: SPSS, Inc.
- 267 Zepeda, L., & Li, J. (2006). Who Buys Local Food? *Journal of Food Distribution*  
268 *Research*, 37(3), 1.  
269

Table 1: Factor Loadings of Market Attributes

Attribute	Component					
	Trip experience	Adjunct products	Nearby stores	Superior products	Organic products	Variety
FRESHN	.106	-.050	-.031	.865	.104	.046
QUALITY	.157	-.090	.011	.841	-.123	.072
SAFETY	.520	.015	.120	.257	.483	-.247
LOCALLY	-.171	.221	.075	.165	.296	.625
VARIETY	.269	.047	.047	.015	-.060	.811
PRICE	.281	-.090	.533	.020	.239	.100
CRAFTS	.051	.873	.024	.065	-.045	-.020
FLOWERS	.077	.754	.025	.058	.136	-.079
PFOOD	.074	.737	.116	-.081	.098	-.018
MEAT	-.081	.645	.034	-.099	.425	.134
SNACKS	.162	.760	.072	-.171	-.079	.201
EVENTS	.119	.641	.106	-.034	.069	.149
ORGANIC	.041	.247	-.063	-.058	.752	.131
SERVICE	.736	.199	-.014	.115	.169	.017
ACCESS	.757	.096	.036	-.052	-.149	.056
PARKING	.678	-.118	.227	.163	.050	.059
DISTANCE	.458	-.104	.517	.127	.087	.165
CLEANLINES S	.844	.029	.091	.107	.069	-.070
TIME	.709	.157	.146	.143	-.037	.072
APPEARANCE	.788	.126	.207	-.054	-.053	.047
PAYMENT	.609	.110	.383	-.060	.122	.087
GROCERY	.136	.215	.830	-.087	-.116	-.025
NGROCERY	.154	.288	.800	.008	-.124	-.016



Table 2: Final Cluster Centers Based on Standardized Factor Scores

	Recreational	Minimalists	Enthusiasts	Time-challenged
Trip Experience	-.28628	.39514	.23248	-.49749
Adjunct Products	-.35555	-.57278	1.39178	-.24252
Nearby Stores	.07500	-.34285	.18895	.21004
Superior Products	.14091	.29147	.22346	-2.38762
Organic	.46565	-.80579	.12754	-.11700
Variety	.53875	-.40109	-.31881	-.57008
Total	69	44	38	13

Table 3: ANOVA of Component Factors

Component	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
Trip Experience	5.932	3	.908	160	6.537	.000
Adjunct Products	32.510	3	.409	160	79.450	.000
Nearby Stores	2.497	3	.972	160	2.569	.056
Superior Produce	27.038	3	.512	160	52.832	.000
Organic Products	14.776	3	.742	160	19.921	.000
Variety	11.731	3	.799	160	14.686	.000

Table 4: Metropolitan Consumer Demographic Characteristics

Characteristic		Percentage
Gender	Male	22.0%
	Female	78.0%
Age	Under 25	6.5%
	25-34	8.6%
	35-44	20.5%
	45-54	24.4%
	55-64	27.0%
	65 and over	13.0%
Education	Some high school	1.1%
	High school graduate	8.1%
	Some college	25.4%
	College graduate	29.2%
	Post-graduate	36.2%
Ethnicity	Black	7.7%
	Caucasian	85.3%
	Asian	2.2%
	Hispanic	1.1%
	Native Hawaiian Pacific Islander	1.6%
	American Indian	0.5%
	Other	1.6%
	Household	1
2		44.0%
3		14.1%
4		14.7%
5		4.9%
6		2.7%
Primary Shopper	Yes	73.0%
	No	27.0%
Income	Less than \$20,000	14.2%
	\$20,000-49,000	25.4%
	\$50,000-74,999	29.6%
	\$75,000-99,999	16.0%
	\$100,000 and over	14.8%

Table 5: Behavioral Characteristics by Segment

Characteristic	<i>Recreational</i>	<i>Minimalists</i>	<i>Enthusiasts</i>	<i>Time-challenged</i>
Average Money Spent (Dollars)	\$16	\$17	\$19	\$14
Average Number of Visits to Market	2.5	1	8.7	5.0
Number of other FMs visited	1.2	.4	.5	1.2
Average Distance Traveled (Miles)	10.3	4.3	12.4	3.3

Table 6: Cross tabulation of Demographic Characteristics by Segment

Characteristic		<i>Recreati onal</i>	<i>Minima lists</i>	<i>Enthusi asts</i>	<i>Time- challenged</i>	Chi- square
Gender	Male	24.6%	13.6%	22.2%	46.2%	6.259
	Female	75.4%	86.4%	77.8%	53.8%	
Age	Under 25	5.9%	2.3%	13.9%	15.4%	28.184 *
	25-34	10.3%	6.8%	5.6%	23.1%	
	35-44	25.0%	18.2%	16.7%	15.4%	
	45-54	29.4%	27.3%	2.8%	23.1%	
	55-64	20.6%	27.3%	50.0%	15.4%	
	65 and over	8.8%	18.2%	11.1%	7.7%	
Education	Some high school	0%	0%	6%	0%	21.136 *
	High school graduate	5.9%	15.9%	8.3%	.0%	
	Some college	22.1%	18.2%	41.7%	23.1%	
	College graduate	29.4%	29.5%	16.7%	46.2%	
	Post-graduate	42.6%	36.4%	27.8%	30.8%	
Ethnicity	Black	7.4%	9.3%	8.3%	7.7%	14.43* *
	Caucasian	85.3%	83.7%	80.6%	84.6%	
	Asian	1%	5%	3%	0%	
	Hispanic	.0%	.0%	2.8%	7.7%	
	Native Hawaiian Pacific Islander	3%	2%	0%	0%	
	American Indian	1.5%	.0%	.0%	.0%	
	Other	1.5%	.0%	5.6%	.0%	
Household	1	25.0%	20.5%	8.6%	23.1%	18.754 *
	2	42.6%	47.7%	42.9%	23.1%	
	3	13.2%	9.1%	20.0%	23.1%	
	4	13.2%	15.9%	20.0%	15.4%	
	5	4.4%	6.8%	5.7%	.0%	
	6	1.5%	.0%	2.9%	15.4%	
Primary Shopper	Yes	72.1%	81.8%	69.4%	53.8%	4.375*
	No	27.9%	18.2%	30.6%	46.2%	
Income	Less than \$20,000	9.2%	8.6%	23.5%	30.8%	21.756 *
	\$20,000-49,000	29.2%	34.3%	17.6%	7.7%	
	\$50,000-74,999	32.3%	25.7%	29.4%	23.1%	
	\$75,000-99,999	16.9%	8.6%	8.8%	38.5%	
	\$100,000 and over	12.3%	22.9%	20.6%	.0%	

(1) \* indicates significant at p= 0.05, \*\* indicates significant at p= 0.10.

Table 7: Consumer Behavior Matrix-Average Spent and Distance Traveled

		Average Distance Traveled	
		<i>Low</i>	<i>High</i>
Average \$ Spent	<i>Low</i>	<b>Time-challenged</b>	<b>Recreational</b>
	<i>High</i>	<b>Minimalists</b>	<b>Enthusiasts</b>

Table 8: Cross tabulation of Behavioral Characteristics by Segment

Characteristic		<i>Recreational</i>	<i>Minimalists</i>	<i>Enthusiasts</i>	<i>Time-challenged</i>	Chi-square
Frequency of Visits to Survey Market	0-10	94.10%	97.70%	80.00%	92.30%	62.27**
	11-20	2.90%	2.30%	5.70%	0.00%	
	>20	2.90%	0.00%	14.30%	7.70%	
Frequency of Visits to Other Markets	0	33.30%	59.10%	52.80%	46.20%	39.85*
	1	63.80%	38.60%	41.70%	30.80%	
	2	0.00%	2.30%	5.60%	7.70%	
	>3	2.90%	0.00%	0.00%	15.40%	
Average Money Spent per Visit	\$0-10	43.50%	41.90%	28.90%	53.80%	83.00**
	\$11-20	37.70%	34.90%	42.10%	38.50%	
	\$21-40	17.40%	20.90%	23.70%	0.00%	
	\$>40	1.40%	2.30%	5.30%	7.70%	
Average Distance Traveled per Visit	0-10	76.80%	93.00%	75.70%	92.30%	108.12**
	11-20	17.40%	7.00%	16.20%	7.70%	
	>20	5.80%	0.00%	8.10%	0.00%	

(1) \* indicates significant at p=0.01, \*\* indicates significant at p=0.10

Figure 1.1: Likert Scale Question from Survey

Please indicate the level of importance you attach to each of the following market attributes when deciding to come to shop at this farmers' market. Please rate *each* item on a scale of 1 to 7 (*1 = not at all important and 7 = extremely important*). Please attach a rating of 1-7 to *each* item depending on its level of importance to you.

- Freshness
- Loud Music
- Quality
- Food safety
- Presence of locally grown produce
- Product variety
- Price of products
- Customer service
- Accessibility of market
- Availability of parking space
- Distance to market
- Non-local products
- Cleanliness of market
- Hours of operation of market
- Presence of crafts
- Presence of flowers/shrubs/herbs
- Presence of meat and poultry
- Presence of processed food products (i.e., cheese, jellies, jam, etc.)
- Presence of food for on-site consumption
- Social events/entertainment
- Presence of organic produce
- Physical appearance of market
- Method of payment at market
- Presence of nearby grocery stores
- Presence of nearby non-grocery stores
- Other (please specify) \_\_\_\_\_