

Identifying Levels of Engagement in Local Food Systems by Generation in the State of Georgia, U.S.A.

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Abstract

Local food systems are an emerging way for communities to build vibrant economies, improve health outcomes, and limit their environmental impact. Studies have shown local food engagement differs significantly between generations; however, what remains unclear is how generations' perceptions and engagement compare to each other so the agricultural community can most effectively communicate about local food systems. Leveraging audience segmentation theory from social marketing, this study sought to address how the five living generations in the United States – Generation Z, Millennials, Generation X, Baby Boomers, and The Silent Generation – perceived and engaged with local food systems. To address this question, a non-probability opt-in sampling of 863 adults in the state of Georgia was used. Each participant was asked four questions pertaining to different aspects of local food systems – the purchase of local foods from grocery stores, use of local food markets, participation in local food events, and level of engagement with local food related media. Millennials and Generation X'ers expressed significantly higher levels of engagement with local food systems when compared to Baby Boomers and The Silent Generation, this was not observed between Generation Z and any other group. While Millennials and X'ers engaged at higher levels, significant opportunities remain for engagement through generation-specific media to turn the universal tepid interest in local food systems into action. Future research should seek to identify the relationship between generational media preferences and how effective they are at transforming interest in local food systems into action.

Keywords

local food systems, social marketing, generational differences, audience segmentation

Cover Page Footnote/Acknowledgements

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Introduction and Literature Review

The demand for establishing vibrant local food systems – networks by which food produced in a given locality is purchased and consumed in the same area – continues to grow with communities and state governments in the United States striving to create a new generation of farmers. Between 2012 and 2015, total sales in ‘local food’ venues (farmers’ markets, community supported agriculture, online distribution, and farmer stands) increased from \$1.3 to \$3.0 billion dollars (USDA 2014; 2016). States are responding to this demand for local agricultural products. For example, Rhode Island created a program to purchase existing small farms and sell them to new farmers at 20 percent of market value in hopes that it will enable the state to produce the majority of its food needs before the end of the century (Kuffner 2016; Leydon, 2018). Other communities, such as the U.S. Territory of Puerto Rico, see building vibrant local food systems as a way to improve community resilience in the face of extreme weather, while also addressing issues such as access to nutritious food at a reasonable cost.

Local food systems offer significant opportunities for communities to take ownership of their economic and environmental futures. Feenstra (1997) noted, local food systems are reflections of the economic vitality of a community; their success is in turn reflective of the community’s ability to improve overall wellbeing. Making food available in communities that lack access to affordable and healthy foods (otherwise referred to as food deserts) creates opportunities for improving community health; especially among low-income and older groups (Morton & Blanchard, 2007; Wilkins, Farrell, & Rangarajan, 2015).

Recent scholarship has focused on identifying who interfaces with local food systems and why they choose local food over conventional alternatives. Feldmann and Hamm (2015) studied the influence of current knowledge on consumer perceptions of local food, noting that, in general, local food participants are generally wealthier, older, and live in rural communities. Conversely, in a study of local food users in Lebanon Pugliese, Zanasi, Atallah, and Cosimo (2013) noted younger individuals were more likely to engage in local food systems. Other researchers found consumers engaged in local food systems for a variety of reasons, including personal values surrounding local economic development, quality of food, and its connection to the community and environment in which an individual resided (Nyob 2012; Qu, Lamm, Rumble, & Telg, 2017a, Qu, Lamm, Rumble, & Telg, 2017b; Rumble, Lamm, & Gay 2018).

Despite this growing body of knowledge on consumer preferences, significant gaps persist in our understanding of how perceptions differ within the population, and how these differences indicate opportunities and barriers for expanding communication efforts that would influence the reach of local food systems. Beattie, Lamm, Rumble, and Ellis (2018) noted that differences existed in communication preferences around genetically-modified crops based on the generation in which a respondent was born. Similarly, Yu, Gibson, Wright, Neal, and Sirsat (2017) identified significant differences in the perception of food safety at farmer’s markets between Millennials and Generation X’ers. These results indicated that audience segmentation by generation may yield valuable insights for targeted communication campaigns about local food system engagement.

Audience segmentation is one of the primary commercial marketing techniques used in social marketing (McKenzie-Mohr, Lee, Schultz, & Kotler, 2012) and should be “one of the first activities when developing a social marketing campaign” (Warner, Kumar Chaudhary, Rumble, Lamm & Momol, 2017, p. 315). McKenzie-Mohr et al. (2012) stated that audience segmentation, as a conceptual framework, is a way to identify the most important subgroup or subgroups within the larger population of interest. When developing a successful campaign for a

large group of people, Lee and Kotler (2011) stated the goal is to “select only one or a few segments as target audiences for the campaign and then develop a rich profile of their distinguishing characteristics that inspire strategies to uniquely and effectively appeal to them” (p. 135).

Generations are made up of groups of individuals classified by what events, trends, and changes occurred in or around the time-period of their birth (The Center for Generational Kinetics, 2016). Each generation’s identity as a group are primarily based on trends in parenting, technological trends, and economic downturns or upswings (The Center for Generational Kinetics, 2016). Millennials, individuals born between the years 1981 and 2000 (The Center for Generational Kinetics, 2016) currently make up 30 percent of the adult population (Pew Research Center, 2015). While the youngest adult generation, Millennials, make up the largest living generation and are already altering the types of foods consumers purchase, and therefore what is available, due to their consumer power (Duff and Phelps Corporation, 2016). Millennials natural tendencies are to depend on the opinions of others and, as digital natives, are eager to seek online sources of information guide their purchasing decisions (U. S. News and World Report, 2014).

Generation Xers were born between the years 1965 and 1980 (The Center for Generational Kinetics, 2016) and currently make up 27% of the adult population (Pew Research Center, 2015). Generation Xers are regarded as the informed generation because the development of the Internet occurred during this generation and drove them to research products prior to making purchasing decisions (Williams, n.d.). While they are informed, they are not reliant solely upon information garnered online.

Baby Boomers make up 30% of the adult population (Pew Research Center, 2015) and are individuals born between 1946 and 1964 (The Center for Generational Kinetics, 2016). As consumers, Baby Boomers are brand loyal and the most financially stable of the large consumer segments (U. S. News & World Report, 2015). The Silent Generation, individuals born prior to 1945 (The Center for Generational Kinetics, 2016) are also brand loyal and extremely hesitant to change (Williams & Page, 2013). They now make up only 11% of the population and much of their consumer decision-making is done by their children who are primarily Gen Xers and older Millennials (Pew Research Center, 2015).

Georgia’s local food movement has grown significantly over the past three decades, expanding from a limited group of non-profit organizations in metropolitan Atlanta to encompass urban agriculture and farmers’ market programs in Atlanta, Athens, Augusta, Savannah, and many other smaller communities. With agriculture a critical component of the state’s economy, contributing \$74.3 billion in 2017 (Wolf, 2018), including a total \$14.4 million in sales of local food within the state (Georgia Organics, 2019), these new local food systems provide an important way for impoverished and isolated communities to generate valuable economic output. Despite these opportunities, over two million Georgians in urban and rural communities alike live in ‘food deserts’ ([SCRUBBED], 2015). Complicating matters further, Georgians also struggle with significant barriers to health and wellness. According to the Center for Disease Control (CDC), over 30% of Georgia’s adult and 12% of the adolescent population is obese (CDC 2016). Identifying the impact of generation on perception and engagement with local food systems has the potential to both inform how to create communication strategies that reach key at-risk populations and, more broadly, how generations view transformations in agricultural systems.

Purpose and Objectives

The purpose of this study was to identify Georgians' level of engagement in local food systems based on generational differences. The study was guided by the following objectives:

1. Describe Georgians' overall engagement in local food systems.
2. Describe the engagement in local food systems of each generation in Georgia as determined by age.
3. Determine if generational differences in local food system engagement existed for Georgians.

Methods

To address the aforementioned research objectives, an online survey was developed and administered through Qualtrics, an online survey platform. While part of a larger study of Georgians' perceptions of agricultural issues, the specific items examined in this study were a local food system engagement scale developed by Qu et al. (2017a) and demographic characteristics including generation of belonging as determined by age, gender, race, ethnicity, level of education, and income. Generation of belonging was established using the Pew Research Center's breakdown by age of birth (Dimock, 2019). The survey was reviewed by an expert panel for external validity and deemed appropriate for the population of interest.

The population of interest was Georgia citizens over the age of 18. Using non-probability opt-in sampling, 863 Georgians representative of the state responded. Respondents were identified based on their gender, age, race/ethnicity, and geographic representation across the state. Non-probability sampling methods, such as those employed in this study, are a common framework for analogous public opinion and agricultural communications research (Baker et al., 2012; Lamm & Lamm, 2019). To improve the representativeness of the sample, responses were weighted according to Georgia's race/ethnicity, gender, and age demographics in the 2010 Census (Abate, 1998; Kalton & Flores-Cervantes 2003; Twyman 2008; Vavrek & Rivers 2008).

The Qu et al. (2017a) scale consisted of four questions designed to identify engagement with local food systems. The questions identified if the respondent (1) purchased locally grown food in grocery stores, (2) purchased food from farmers' markets (including Community-Supported Agriculture), (3) participated in local food events, and (4) learned about local food from a media (new or traditional) channel. Respondents were asked to indicate their level of engagement using a five-point Likert-type scale ranging from 0 = *Never*, 1 = *Rarely*, 2 = *Sometimes*, 3 = *Often*, and 4 = *Very Often*. A local food engagement index was created by taking the average response to the four questions. The index was found to be a reliable measure of local food engagement *post hoc* ($\alpha = 0.83$). The real limits of the scale were 0.00 - 0.49 = *Never*, 0.50 - 1.49 = *Rarely*, 1.50 - 2.49 = *Sometimes*, 2.50 - 3.49 = *Often*, and 3.50 - 4.00 = *Very Often*. Descriptive statistics were used to reach objectives one and two and an ANOVA for objective three. A *post-hoc* Chi-squared test was conducted in an effort to determine differences between generations for each survey item.

Results

Overall Engagement with Local Food Systems

The 863 respondents showed an overall moderate level of engagement with local food systems. The greatest level of engagement was in purchasing local foods at grocery stores. Table 1 outlines how respondents categorized their level of interaction with the four local food system items assessed in the survey. As a group, respondents showed an interest in occasionally

purchasing local foods from grocery stores; conversely the majority showed little to no engagement with local food events such as tastings, 100-mile diet challenges, and school/urban gardens.

Table 1.
Overall Local Food System Engagement (n = 863)

	Never %	Rarely %	Sometimes %	Often %	Very often %
Purchased food from grocery stores that you know was locally produced	7.3	9.8	41.9	24.2	16.7
Purchased local food from local food markets (e.g. farmers market, community supported agriculture, roadside stand. etc.)	10.1	18.3	35.4	23.0	13.2
Participated in local food related events/activities (e.g. 100 mile diet challenge, local food taste testing, school garden projects, urban garden tour, etc.)	41.9	25.5	17.4	9.3	5.9
Learned about local food from a media channel (e.g. watching documentaries about local food, watching videos about local food on social media, reading books about local food, etc.)	28.4	20.4	28.9	15.6	6.6

Respondents indicated, on average, a limited to moderate engagement with local food systems, with the highest level of self-reported engagement in the purchase of local foods from grocery stores (Table 2).

Table 2.
Average Engagement in Local Food Systems (n = 863)

Statement	<i>M</i>	<i>SD</i>
Average Level of Engagement Score	1.77	0.95
Purchased food from grocery stores that you know was locally produced	2.33	1.09
Purchased local food from local food markets (e.g. farmers market, community supported agriculture, roadside stand. etc.)	2.11	1.16
Participated in local food related events/activities (e.g. 100 mile diet challenge, local food taste testing, school garden projects, urban garden tour, etc.)	1.12	1.22
Learned about local food from a media channel (e.g. watching documentaries about local food, watching videos about local food on social media, reading books about local food, etc.)	1.52	1.24

Note. 0 = Never, 1 = Rarely, 2 = Sometimes, 3 = Often, and 4 = Very Often.

Engagement in local food systems of each generation

Table 3 provides a breakdown of the engagement with local food systems index scores for each respective generation. The sample breakdown by generation was relatively close to the current American population composition, with the exception of The Silent Generation participants who only comprise 5% of the sample (as opposed to approximately 11% of the population). Overall, Silent Generation respondents ($n = 47$) had a lower average level of engagement with local food systems relative to when compared to other generations, and in particular Generation Z, Millennials, and Generation X. Surprisingly, Generation Z (those born

after 2000) showed a lower level of engagement with local food systems than their comparable peers, Millennials, who tend to exhibit similar political beliefs (Parker, Graf, & Igelnik, 2019).

Table 3.

Generational Breakdown and Local Food System Index Score

Generation	<i>n</i>	<i>M</i>	<i>SD</i>
Generation Z	39	1.84	0.96
Millennials	271	1.96	1.06
Generation X	245	1.82	0.94
The Baby Boom Generation	261	1.58	0.81
The Silent Generation	47	1.35	0.62

When broken down by question, key differences between generations emerged on the constituent elements of local food engagement. As shown in Table 4, the three youngest generations, Generation Z, Millennials, and Generation X, have similar index scores but differed considerably on their engagement with media channels on issues surrounding local food. On average, Generation Xers reported they were less likely ($M = 1.56$) to utilize media sources (print, digital, social media, videos, and documentaries) to learn about local food systems when compared to Generation Z ($M = 1.87$) and Millennials ($M = 1.82$). Millennials, by contrast, expressed a higher level of engagement with local food events ($M = 1.54$), though Generation Z ($M = 1.37$) and Generation X ($M = 1.13$) differed considerably as well.

Table 4.

Engagement with local food systems by generation (n = 863)

	Gen Z <i>M</i> (<i>SD</i>) <i>n</i> = 39	Millennials <i>M</i> (<i>SD</i>) <i>n</i> = 271	Gen X <i>M</i> (<i>SD</i>) <i>n</i> = 245	Baby Boomers <i>M</i> (<i>SD</i>) <i>n</i> = 261	Silent Generation <i>M</i> (<i>SD</i>) <i>n</i> = 47
Overall Local Food System Engagement	1.84 (0.96)	1.96 (1.06)	1.82 (0.94)	1.58 (0.81)	1.35 (0.61)
Purchased food from grocery stores that you know was locally produced	2.16 (1.11)	2.41 (1.21)	2.37 (1.06)	2.30 (1.02)	2.00 (0.83)
Purchased local food from local food markets (e.g. farmers market, community supported agriculture, roadside stand. etc.)	1.97 (1.11)	2.10 (1.24)	2.22 (1.60)	2.03 (1.08)	2.13 (1.01)
Participated in local food related events/activities (e.g. 100 mile diet challenge, local food taste testing, school garden projects, urban garden tour, etc.)	1.37 (2.21)	1.53 (1.34)	1.13 (1.23)	0.74 (0.98)	0.60 (0.62)
Learned about local food from a media channel (e.g. watching documentaries about local food, watching videos about local food on social media, reading books about local food, etc.)	1.87 (1.10)	1.82 (1.32)	1.56 (1.24)	1.25 (1.11)	1.52 (1.24)

Note. 0 = Never, 1 = Rarely, 2 = Sometimes, 3 = Often, and 4 = Very Often.

Generational differences in local food system engagement

To determine the statistical significance of generation on respondents' level of engagement with local food systems a one-way ANOVA was performed. As detailed in Table 5, generation had a statistically significant effect on level of engagement with local food systems [$F(4,875) = 6.365, p < 0.01$].

Table 5.

Differences in Level of Local Food System Engagement by Generation

	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	28.59	4	7.15	8.25	0.00**
Within Groups	743.08	858	0.87		
Total	771.66	862			

Note. ** $p < 0.01$

A Tukey test was performed to determine if there were statistically significant differences in the level of local food engagement between each generation group. The results demonstrated that Millennials and Baby Boomers had a statistically significant level of engagement difference when compared to the Silent Generation engagement at the $p < 0.01$ level; in addition, Generation X'ers and The Silent Generation differed at the $p < 0.01$ level. No statistically significant differences were identified between Generation Z and any of the other generations.

Post-hoc Chi-squared analysis were performed to compare generation and each specific local food system question. Statistically significant differences ($p < 0.01$) were found between generation for (1) the purchase of local food, (2) respondents' participation in local food related events, and (3) participants' use of media channels to learn more about local food systems. A statistically significant difference ($p < 0.05$) was also found between generation and the purchase of local food from local markets (e.g., farmers' markets, community-supported agriculture, etc.).

Conclusions

The objective of this study was to determine to what extent Georgians engaged with local food systems and what, if any, generational differences existed. Georgians as a whole do not engage a great deal with local food systems, and when they do they tend to lean towards engaging in ways that do not deviate from traditional food purchasing practices, e.g., purchasing local foods at grocery stores. When broken down by generation, however, the results demonstrated that on average the three youngest generations reported a higher level of engagement with local food systems than their older counterparts (Baby Boomers and The Silent Generation). Generation X'ers, Millennials, and Generation Z reported an occasional engagement with local food systems and in particular higher levels of engagement with local food-related events.

These observations were corroborated via statistical analysis for Millennials, Generation X'ers and the older generations. Millennials and Generation X'ers were more engaged in local food systems than Baby Boomers and The Silent Generation; this cannot be said of Generation Z, despite having a similar average local food index score to that of the other two younger generations. Given the limited sample of Generation Z participants ($n = 39$) and their relative youth (all participants from this generation were 18 years old) their preferences in terms of allocating financial and social resources to local food systems may yet be emerging.

In terms of differences between generations on a question by question basis, the *post hoc* analysis highlighted that regardless of purchase location (grocery stores versus local markets) or

engagement on a more social basis (local food events and media outlets) there is a significant difference between how generations engage in the various dimensions of local food systems. The difference was not as strong between generations as it pertained to engagement with local food markets, where all respondent groups indicated they occasionally participated in these aspects of local food systems ($M = 2.11$, $SD = 1.16$).

These findings differed considerably from those of Feldmann and Hamm (2015) as older generations surveyed in this study did not appear to engage more in local food systems than their younger counterparts. Older generations may have a generally more positive attitude towards local food systems, however our results indicated their willingness to turn this opinion into action was more limited than had been previously identified. Rather, our results indicated that Georgians, much like the younger consumers in Lebanon examined in Pugliese, Zanasi, Atallah, and Cosimo (2013) are, as a whole, more engaged.

Implications and Recommendations

Local food system engagement has the potential to improve local economies, reduce reliance on highly processed foods and global food systems, and improve health and wellbeing. The results of this study revealed that engagement is strongly linked to generation, and that across generations there are opportunities for increasing engagement. When considering which generations to engage with first, and how, communication experts should carefully focus on specific and tangible opportunities for beginning to change attitudes, preferences, and action.

One area of particular interest should be that of improving media offerings around the value of local food systems; as noted by Zepeda and Deal (2009), knowledge and information seeking are critical to establishing new norms and values pertaining to the benefits of local food systems. Increasing media offerings that focus on each generations norms and values (social action, local economy, etc.) through formats that each group finds approachable. Other studies have indicated, for example, short videos can enable a positive shift in views on local food systems (Qu et al., 2017b) – focused research on generation differences between these and other forms of media may yield valuable insights on how to foster these changes of opinion more widely.

The results of this study, undertaken to examine current local food system trends and their generational differences in Georgia should be taken as a first stage exploration of how generational views and behaviors impact engagement. Generation Z participants were a limited group, all of the same age (18), and likely limited in their experience making decisions about food choices in the home. Conducting more longitudinal analyses of how this emerging group of consumers chooses to engage in local food systems may yield more fruitful insights as to how local food promoters can enroll them in participating. Another issue not addressed in this study is whether or not generations talk about local food systems differently, and how this impacts targeted communication for each group. Groups that share common norms, values, and experiences within a society also share a similar language for describing their experiences; to achieve targeted communications towards promoting local food systems, it is crucial that communicators understand how each generation talks about food and its role in their lives, social groups, and communities writ large.

Limitations of this study included the lack of a sample size of The Silent Generation participants that is commensurate with their current percentage of the American population – likely a result of the survey being delivered as part of a much larger online survey via Qualtrics. The length of the survey may have also contributed to a response bias, as respondents had to

complete a series of 30 questions before reaching those pertaining to local food systems alone. As noted by Dutskens, de Ruyter, Wetzels, and Oosterveld (2004) longer surveys yield a statistically significant number of incomplete surveys when compared to shorter ones of similar content. In addition, the non-probabilistic sampling methods utilized in this study may be introducing biases that cannot be addressed solely by weighing the sample by demographic characteristics (Heckathorn, 2002); to this end future studies should endeavor to take a more experimental design approach to analyzing local food perceptions and behaviors across and between generations.

In addition, the survey did not address variation in the local food systems within the State of Georgia, such as the presence of farmer's markets, farmstands, or urban versus rural settings, impacted Georgians engagement with local food. Future surveys and semi-structured interview studies should seek to streamline survey content and leverage the results from studies such as the one discussed above to generate fine-grained analyses of local food trends and perceptions that address variation based on Georgia's multivalent local food systems.

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