

People, Palates, and Places: An Exploration of Urban, Suburban, and Rural Local Food Perceptions in the Mountain South

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Abstract

Emerging research suggests that urban and rural areas experience food systems and local food access in different ways. The purpose of this research study was to investigate how perceptions of local foods vary across urban, suburban, and rural areas in the Appalachian region of North and South Carolina. The study utilized a cross-sectional design with a convenience sample of 54 adult participants recruited and surveyed after their visits to their local health department and/or social service department. The instrument was a 10-minute verbal and written questionnaire. Key questions focused on perceptions of local foods and local food movements, shopping habits and decision-making, and desired changes. Across all regions, over 85% of participants said they would choose the local product over the non-local product when price was the same. A higher proportion of participants in rural areas were very likely to purchase local foods even when they were more expensive than participants from other areas. When asked what they think of when they hear the term “local foods”, the majority of participants reported benefits to the local economy and farmers, as well as knowing where the food comes from. The findings suggest that people in rural and in urban areas are more likely to have positive attitudes toward local foods compared to those in suburban areas. This research will inform local foods promotion and will be translated into an educational video based on the findings, incorporating audio recordings and photos from the study.

1. Introduction

Many health and social advocates argue that local foods improve the nation’s health and bring other positive benefits, such as economic and community growth, to our society. As consumer demand for locally-produced, marketed, and consumed products increases, so does the discourse around the characteristics and value of local foods and local food systems.

1.1 Definitions of Local Foods

Currently, there is no universal definition for what constitutes a local food. Johnson and others (2013) refer to local foods as foods produced near the location where they are consumed.¹ According to the U.S. Congress in the 2008 Food, Conservation, and Energy Act (2008 Farm Act), the total distance that a product can be transported and still be considered a “locally or regionally produced agricultural food product” is less than 400 miles from its origin, or within the State in which it is produced.”² The Appalachian Sustainable Agriculture Project, which is stationed in Asheville, North Carolina, defines local as food produced “within roughly 100 miles of Asheville, NC.”³

From the consumer perspective, the term ‘local foods’ has a range of definitions. In the 2011 ASAP Consumer Survey, when given categories to choose from, WNC residents defined local as either being grown in WNC (37%),

being grown in their county (23%), or being grown within 100 miles of their home (19%).⁴ Some participants in Dr. Batada's study reported that the definition for local changes according to the product being considered. For example, an avocado from California may be considered local compared to an avocado grown in Central America to North Carolina residents.⁵

Although defining local in terms of distance can be useful, Pirog and others explain that, "if local food is only interpreted and referenced in terms of geographic proximity, one could imagine a food system that is geographically local but reflects none of the values found in the attributes of good food. Such a geographically local system may continue to disadvantage vulnerable children and their families."⁶ When defining "local," in addition to geography, other factors such as nutritional content of regional products need to be taken into consideration.

The term "local foods," can also relate to the ways in which foods are marketed to consumers and may additionally "invoke certain attributes desired by the consumers who purchase them, involving certain social or supply-chain characteristics in producing food, such as supporting small family farms, urban gardens, or farms using sustainable agriculture practices."⁷ The latter has potential to use local foods systems to address community needs. Existing definitions of local foods appear to be dependent on the circumstances. Varying definitions notwithstanding, there are several benefits and some debate about the value of local foods.

1.2 Benefits of Local Foods

Cultivated and consumed for the majority of human existence, local foods appear to provide numerous benefits over non-local foods. Local foods are more likely to be grown for nutritional quality and taste as compared to non-local varieties, which are chosen for high yield potential and traveling durability.⁷ Local farmers are more likely to utilize sustainable farming methods that benefit soil health and are able to harvest foods closer to their optimal ripe stage than non-local foods, which have to travel further and are often grown using harmful synthetic chemicals. Additionally, industrial harvesting methods, more common to non-local foods, are frequently more damaging to crops than smaller operations, which preserve the integrity of the crops and are more frequently associated with local foods.⁷

In terms of nutritional quality, determining whether local produce is superior to non-local produce depends on multiple factors including: the specific variety of plant, how it was grown, how ripe it was when harvested, harvest, storage and processing methods, and the distance it traveled.⁷ Dr. Vern Grubinger, with the University of Vermont explains that local food not only looks and tastes better, but that it is more nutritious. Grubinger reports that local foods preserve genetic diversity and wildlife, are safer than non-local products, support local families, and keep taxes down.⁸

Like the definition of local foods, the perceptions of benefits also are of interest. Johnson and others (2013) found the following *perceptions* of local food benefits as purchasing motivators: local foods are of higher quality than non-local foods, allow consumers to support the local economy and farmers, have greater levels of food safety, are better for the environment, offer a close connection between farmer and consumer, don't benefit large corporations, the source of the product is known, and the producers were more likely to be treated and paid fairly¹. Lamie and others (2003) note that some research supports these perceptions and the notion that local foods provide multiple benefits to "health, the environment, food security, social capital, and economic well-being."⁹ These positive perceptions are a necessary component to encourage the growth of participation in local food systems.

1.3 The Local Foods Movement

The local foods movement refers to a set of related movements, including: community food security, food justice, food democracy, new agrarianism, food safety, anti-hunger, and Slow Food.¹⁰ The local foods movement, which has been evolving over the past 25 years, is transforming into a platform to address many of the issues segmented in each sub-movement. It has the potential to serve as a catalyst for the process of converging the many issues faced by the current food system into a movement that encompasses local and "good foods," which are defined as being healthy, green, fair, and affordable.⁶

Many of the components of local foods movements involve direct-to-consumer marketing tactics employed by small farms to stay in business. These tactics include the creation of farmer's markets, where multiple famers congregate to sell their products directly to consumers, farm-to-school programs, and Community Supported Agriculture (CSAs), where consumers pay up front to receive local foods throughout the growing season. These interactions help to provide visuals to the local foods movements and have increased consumer interest in knowing how their food was produced and by whom. This shift encourages larger institutions to participate in the local foods

movement such as schools and major retailers. Additionally, an increase in urban agriculture and community gardens is bringing fresh, healthy foods to communities with limited access.⁶

Although local foods have great potential for providing individual and societal benefits, they need to be recognized as a part of a more complex food system in need of reform in terms of inequality, human rights, and food access among others. The various segmentations need to form alliances and "reach beyond the dominant (and depoliticizing) food-movement narrative to build strategic political alliances and construct a new narrative. But who should reach; to whom; and on what basis?"¹⁰ Pirog and others argue that outreach is the responsibility of "local food advocates, along with advocates of food access and health, food justice, environment, food sovereignty, and racial equity."⁶ When viewing smaller local foods movements with a large-scale perspective considerate of the larger, more complex food issues that surround them, they can be strategically utilized to address multiple deficits in the communities that they serve.

1.4 Current Research

Despite the increased interest and attention to local foods and local foods systems, research on perceptions of these systems across geographic sub-groups is limited in terms of size and outcomes.⁹ Research on these perceptions is warranted considering that local foods movements are associated with urban areas although the foods is often grown in rural areas.

The purpose of this research study was to investigate how perceptions of local foods vary across urban, suburban, and rural areas in the Appalachian counties of North and South Carolina. This study explored perceptions on local foods, their benefits, their importance across urban, rural, and suburban populations, assessed the potential impact of local food messaging on spending, and aimed to understand the perceptions of availability of local products at grocery stores and surrounding areas.

This paper explores the findings related to a sub-set of the overall questions, including specifically:

1. What came to mind when participants were asked to respond to the phrases "local foods" and "local foods movement?"
2. How important are local foods to the health of the participants and their families?
3. How available are local foods perceived to be in each region?
4. How do participant shopping habits and local food engagement levels differ between regions?
5. How much more are consumers willing to pay for local products?
6. How does food messaging influence consumer purchase?

2. Methodology

2.1 Design and Sample

The study utilized a cross-sectional design, with the sample drawn from visitors to the Department of Health and Human Services (DHHS), or Social Service (SS) office in each study location. As such, the participants included DHHS clients and are not representative of all residents in the sample regions. Since we were interested in perceptions among people living in urban, rural, and suburban areas in the Appalachian region of North and South Carolina, the CDC's 2013 NCHS Urban-Rural Classification Scheme for Counties,¹¹ and the Appalachian Regional Council's list of Appalachian counties were utilized in order to define these areas.¹² Therefore, for the purpose of this research paper, *urban* refers to medium metro counties, or counties with populations between 250,000 and 999,999, *suburban* refers to micropolitan counties which contain populations between 10,000 and 49,999, and *rural* refers to noncore counties which have populations under 10,000 (Figure 1).¹¹

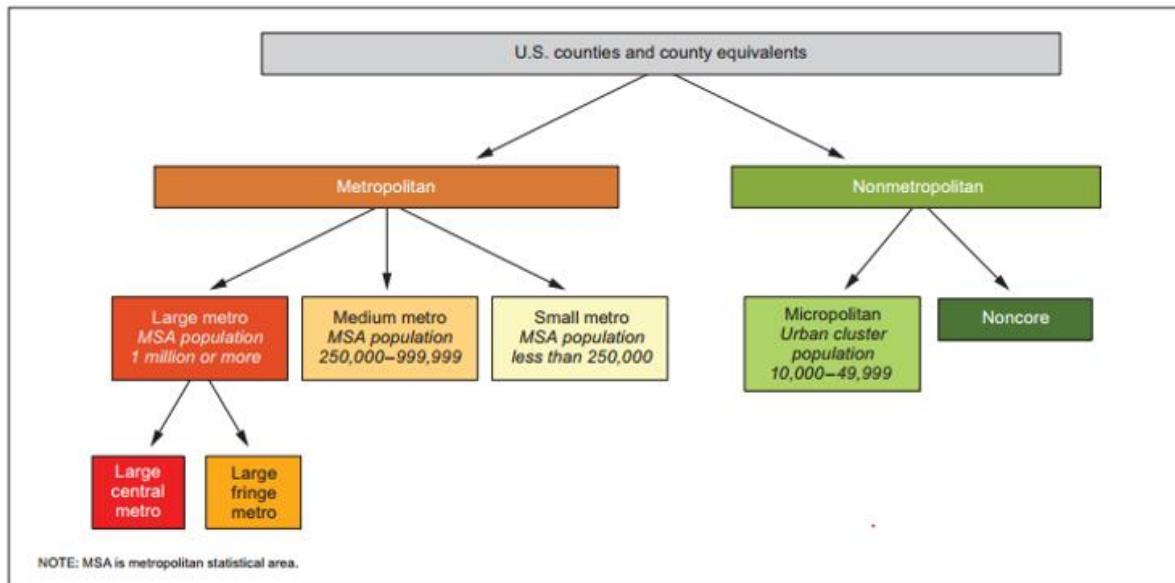


Figure 1. Structure of the 2013 NCHS Urban-Rural Scheme for counties¹¹

After reviewing the classifications of nearby counties in the Mountain South, we contacted 13 counties and were approved to visit one urban/medium metro county (Buncombe, NC), 2 suburban/micropolitan counties (Jackson, NC and Cherokee, SC), and 2 rural/non-core counties (Yancey and Swain, NC). Due to time, budget, and geographical limitations, a large metro county was unable to serve as our most-urban location.

Between July 2014 and January 2015, the primary researcher visited each location. The researcher stayed at each DHHS office for four daytime hours and approached all people entering or exiting the office to introduce herself and the project and to see if they were eligible to participate. Eligible participants were: over the age of 18 years and visiting the department for services that day. If a person was found to be eligible, they were asked if they were willing to participate in a short survey. Of the 175 people approached, 88 were not eligible to participate because they were employees of the department/not visiting for services or they spoke a language other than English. Fifty-four people (30.9%) agreed and were surveyed. The sample was distributed fairly evenly across regions (17 rural, 19 suburban, and 18 urban participants). The sample included 40 women (74.1%) and 14 men (25.9%), which was similar to the proportions of those who did not participate (68.5% women and 31.5% men). Across regions, the male to female ratio remained similar.

2.2 Questionnaire and Analysis

The survey included a 10-minute verbal and written questionnaire. Respondents were first asked to indicate which of two sweet potatoes they would purchase (one local and one unspecified) (Figure 2). They were also asked questions about their preference for local based on price (Figure 3). After stating what came to mind when they heard the phrases “local foods” and “local foods movement,” they were asked to complete the written survey which included questions about their food purchase patterns (cost per month, amount spent on local products), availability of local foods in their area at grocery stores or other locations, and their interest in incorporating local or home grown foods into their communities. The following questions from the broader set of questions used were adapted from ASAP’s 2011 Survey of Primary Household Food Shoppers in Western North Carolina.⁴



Figure 2. Images shown to participants when asked “Which of these would you rather buy?”

The following questions from the written survey were adapted from ASAP’s survey as noted.⁴

In the 2011 survey, ASAP asked respondents to indicate how various phrases would influence their purchase of local foods. The phrase “buying locally grown foods is important for the health of your family,” was rated as highly likely to influence local food purchase.⁴ This was transformed into a question in order to evaluate the validity of this statement (Figure 3).

Buying locally grown foods is important to the health of my family.

Agree Somewhat Agree Neither Agree Nor Disagree Somewhat Disagree Disagree

Figure 3. Local foods and family health question

ASAP’s data demonstrated that local products were perceived to be worth the extra cost.⁴ To evaluate this perception the following questions were created (Figure 4).

How much more likely are you to purchase a food from a local farmer if the price is the same?

a. Not at all likely b. somewhat likely c. very likely

How much more likely are you to purchase a food from a local farmer if it was more expensive?

a. Not at all likely b. somewhat likely c. very likely

Figure 4. Likelihood of purchase questions

The following question was modeled after ASAP’s question, “Where do you purchase locally grown food?”⁴ The answer choices were the same although an “other” choice was added (Figure 5).

Where else do you shop for food? (Please check all that apply)

<input type="checkbox"/> Farmers Market	<input type="checkbox"/> Farm or Farm Stand
<input type="checkbox"/> CSA (Community Supported Agriculture)	<input type="checkbox"/> Other (please list) _____

Figure 5. Food purchase question

The two questions below were modeled directly from ASAP’s survey (Figure 6).⁴

How much do you spend on food each month (including the use of any food assistance)?

Less than \$100 \$100-\$200 \$201-\$300 \$301-\$400 \$401-\$500 \$501 or more

What percentage of your total monthly food bill is spent on local foods? Local foods are foods grown or produced within a 100 miles of the store.

None 1-5% 6-10% 11-20% 21-30% 31% or more

Figure 6. Food purchasing patterns questions

According to the 2011 ASAP survey, 58% of respondents reported growing their own food.⁴ This finding was adapted into a question to examine the percentage of respondents growing their own food and discover what other local foods activities they participate in (Figure 7).

Do you do any of the following? (Please check all that apply)	
<input type="checkbox"/> Grow your own food	<input type="checkbox"/> Participate in a community garden
<input type="checkbox"/> Exchange food for services, other items, or food	

Figure 7. Local foods engagement question

After data collection, the data were entered into an online Survey Monkey form and cross-tabulations were applied to view and analyze the data by region.

3. Results

3.1 Definitions and Perceptions of Local Foods

Regarding perceptions of local foods, respondents were asked to explain their associations with various local foods-related phrases and indicate their beliefs about local food's connection to family health. Generally, perceptions of local foods were positive and people perceived a wide range of benefits.

When respondents were asked what came to mind when they heard the term "local foods," responses varied from simple statements such as "fresh," and "homegrown," to more complex ideas, such as "People in the community who go out of the way to grow the stuff that they sell so they can support their families as opposed to big companies where there's not as much personalization and not as much care given to it," and "People organically raising. They're more aware of their health. They're not doing it merely for profit per-say. They're doing it for their own health and their concern for other people."

Frequently-mentioned aspects of local foods included: the geographical area in which the food was grown, gardens, freshness, specific products well-known in their area, a connection with food and the community, concerns about additives/chemicals, transportation and the environment, food grown specifically in rural areas, and supporting the local economy and farmers. All of the respondents replied to question about the phrase "local foods" with an association.

When respondents were asked what came to mind when they heard the term "local foods movement," a large number of respondents had never heard this phrase before, ranging from 22.2% for urban respondents, 29.4% for rural, and 63.2% for suburban respondents. Among those who had heard of the phrase, themes in their responses included: supporting the local community, economy, and local farmers, taking advantage of fresh produce, increasing awareness of local foods, and improving health. One respondent commented:

Local foods movement means a more conscious, sustainable way of getting food-something we all need. I think of food co-ops and permaculture and sustainably raised and sourced food, something that goes back into the community. Food in general is about community, it's about culture and where we come from. I think the local foods movement is about community-community first before corporate foods. It's about sustainability and a conscious way of obtaining food. It's like a revolution. If we can start with food then we can have local businesses and we can have stronger communities and we can build our communities and build around food. We can come together around food and it can lead into other issues like women's rights or fair wages. It all starts with food. We all need to be conscious about how we're getting food now. Land is running out and it's not sustainable.

When asked to rate their agreement on a 5-point scale from agree-disagree when prompted with the statement "Buying locally grown foods is important to the health of my family," over 50% of all respondents selected "agree." By region, respondents who reported "agree" ranged from 55.6% (urban) to 79% (suburban), suggesting that buying locally was important to all participants, particularly in the suburban region (Figure 8).

Buying locally grown foods is important to the health of my family.

Answered: 54 Skipped: 0

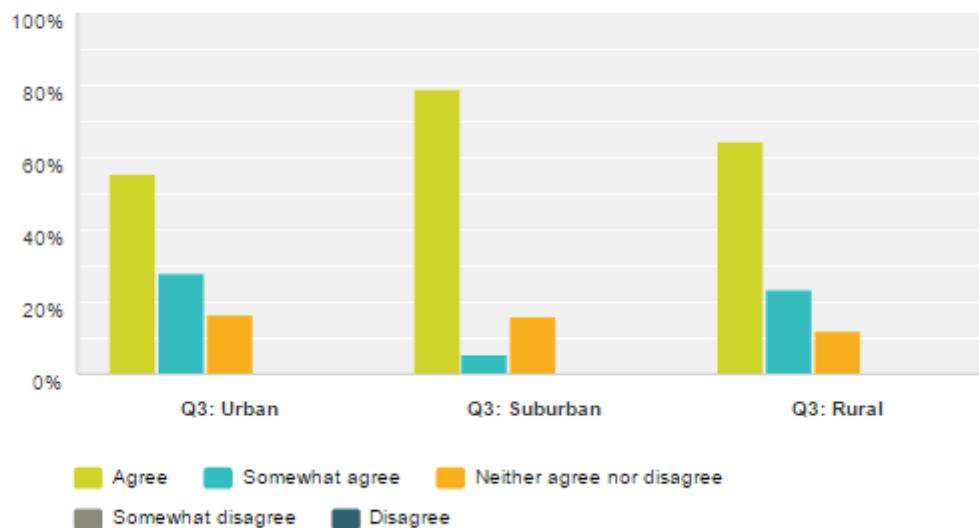


Figure 8. Local foods and family health

When respondents were asked to report their perceived availability of local foods at the places where they regularly shop, no one selected "not available." Across all regions, they most frequently selected "somewhat available," ranging from 52.9% (rural) to 73.7% (suburban) (Figure 9). Rural respondents most frequently perceived high availability, with 47.1% responding "very available;" suburban respondents were the least likely to select "very available" (26.3%).

How available are local foods at the places where you regularly shop?

Answered: 54 Skipped: 0



Figure 9. Perceived availability of local foods

3.2 Local Food Engagement Across Regions

To investigate local foods engagement across regions, respondents were asked what local foods activities they participate in, in addition to questions about their shopping habits.

Participants were asked to indicate which of the following local foods activities they participate in (Table 1). They were asked to choose among multiple potential responses. Suburban respondents were most likely to select "none." The proportion that reported exchanging food or services, other items, or food ranged from 5.3% (suburban) to 33.3% (urban). Many respondents across all regions reported growing their own food. At least 42% of urban and suburban respondents and 64.7% of rural respondents reported growing their own food. Urban respondents were most likely to participate in a community garden and rural participants were least likely.

Table 1. Local foods participation

	None	Grow your own food	Participate in a community garden	Exchange food for services, other items, or food	Total
Q3: Urban	38.89% 7	44.44% 8	16.67% 3	33.33% 6	44.44% 24
Q3: Suburban	57.89% 11	42.11% 8	5.26% 1	5.26% 1	38.89% 21
Q3: Rural	29.41% 5	64.71% 11	0.00% 0	23.53% 4	37.04% 20
Total Respondents	23	27	4	11	54

3.2.1 shopping habits

Respondents were asked to estimate the percentage of their monthly food bill that they spend on local products (Table 2). Over all, the majority reported spending more than 5% of their budget on local products and about 5% reported spending more than 31% of their food bill on local products. Urban residents were more likely to spend a percentage of their bill on local foods. A large percent indicated that they receive food assistance, ranging from 72.2% (urban), 79% (suburban), and 64.7% (rural). The rural group had the largest number of participants not receiving food assistance (35.3%).

Table 2. Percentage of food bill spent on local products

	None	1-5%	6-10%	11-20%	21-30%	31% or more	Total
Q3: Urban	0.00% 0	5.56% 1	22.22% 4	33.33% 6	33.33% 6	5.56% 1	33.33% 18
Q3: Suburban	5.26% 1	31.58% 6	36.84% 7	5.26% 1	15.79% 3	5.26% 1	35.19% 19
Q3: Rural	17.65% 3	35.29% 6	11.76% 2	17.65% 3	11.76% 2	5.88% 1	31.48% 17
Total Respondents	4	13	13	10	11	3	54

When asked to indicate where they shop for food other than grocery stores, almost all participants reported utilizing either farmers markets or farm stands for food (Figure 10). They were asked to choose among multiple potential responses. Urban residents were most likely to shop at farmers markets (83.3%) and suburban residents were most likely to shop at farm stands or farms (57.9%). Rural participants were most likely to utilize CSAs (17.7%).

Where else do you shop for food?

Answered: 54 Skipped: 0

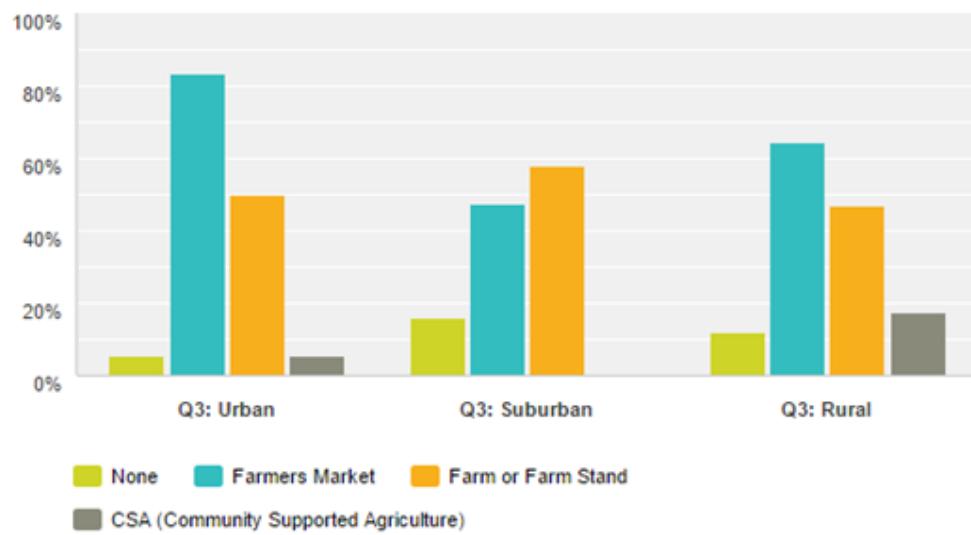


Figure 10. Shopping locations

3.3 Likelihood to Purchase

To evaluate the impact of price on the purchase of local foods, respondents were asked to state their likelihood of purchasing a local product if the price was the same as a non-local product and then if it was more expensive. In general, participants were more willing to select the local product even if it was more expensive. The perceived benefits made it worth the price.

When asked how much more likely they were to purchase a food from a local farmer if the price was the same as a non-local product, greater than 75% of respondents selected "very likely" across all regions, with a range of 78.95% (suburban) to 100% (rural) (Figure 11). Suburban respondents were the least likely to choose a local product over a non-local product even if the price was the same.

How much more likely are you to purchase a food from a local farmer if the price is the same?

Answered: 54 Skipped: 0

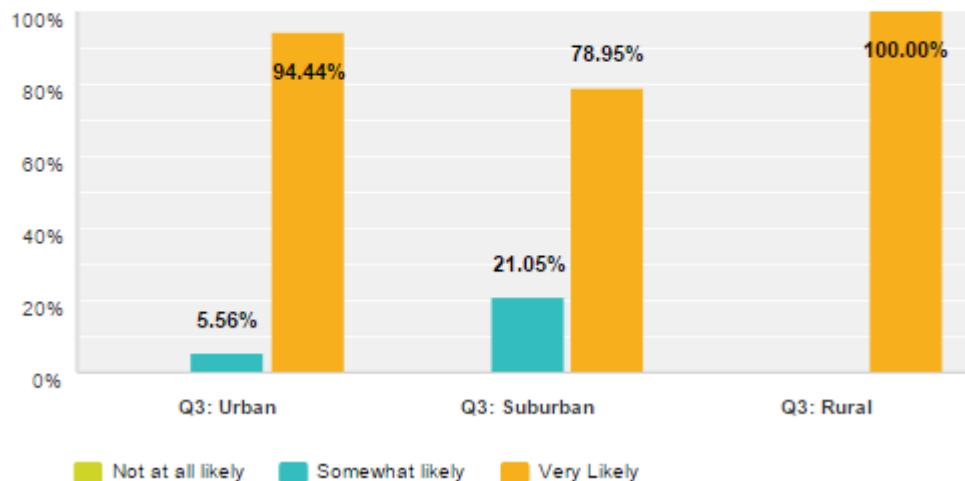


Figure 11. Likelihood of choosing local over non-local products when price is not a factor

When asked how much more likely they were to purchase a food from a local farmer if the price was more expensive than a non-local product, the proportion of respondents who reported somewhat or very likely was similar in urban (83.3%) and rural (82.4%) areas. Suburban residents differed, however, with only 68.4% who were somewhat or very likely to purchase a food from a local farmer if the price was more expensive than a non-local product (Figure 12).

Some respondents provided reasons for their response. For example, one respondent discussed the following personal health reasons: "I would pay more because what I put in my body is important to me and I'm against GMO's. It's important for the environment. It's worth the cost." Another focused on the possible link between organic food and local food, "If I had the money I would probably still buy from the local farm as long as they were more organic. If I knew they were this big farmer that mass produced it and used a lot of those G-O things then I wouldn't buy it." Others indicated price as a barrier to purchasing local and stated that the choice depended on several factors including their current financial picture and how much of the product they would get for the price.

However, some of respondents described local products as being worth the extra cost in the case that they are more expensive than non-local products. If the non-local product was priced at \$.98, many said they would pay at least \$.20 more per pound, with a range all the way up to \$5.00 per pound.

How much more likely are you to purchase a food from a local farmer if the price is more expensive?

Answered: 54 Skipped: 0

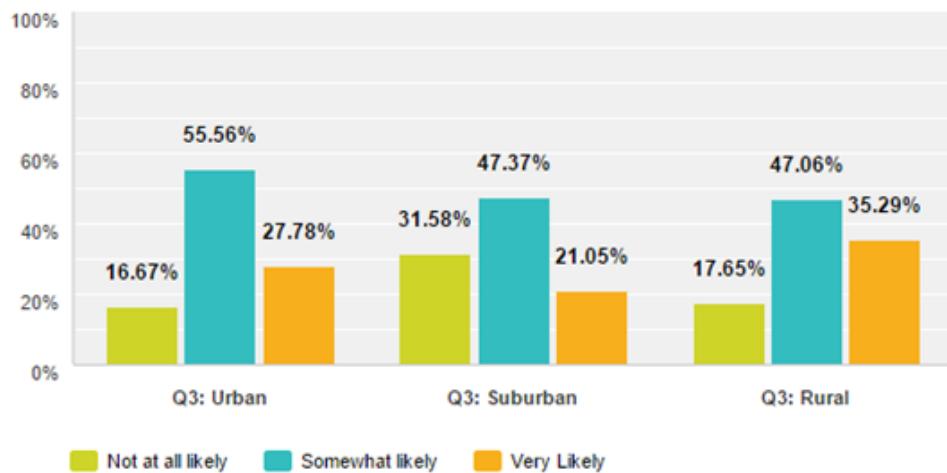


Figure 12. Likelihood of choosing local over non-local products when local is more expensive

Respondents were asked which sources of local food they wished to see more of their communities (Table 3). All types of local food sources were of interest to respondents in all areas, some more than others. Across all regions, more local foods at grocery stores were strongly desired, ranging from 47% among rural respondents, to 66.7% among urban respondents.

Farmers markets also received significant interest, with urban respondents being least likely to desire more (38.9%) compared to 52% among suburban and rural regions. In contrast, urban participants were most likely to desire more community gardens (55.7%), compared to suburban (26.3%) and rural (35.3%). Among rural participants, 52.9% desired more local foods in restaurants compared to urban (33.3%) and suburban (15.8%).

Across the board, CSA's were of least interest to all participants. It is unclear how many participants were aware of what CSA's are. Only 1 in 6 urban participants, 1 in 10 suburban participants, and 1 in 20 rural participants desired more CSA's in their community.

Table 3. Desired community sources of local foods

	None	Community Gardens	Farmers Markets	CSA (Community Supported Agriculture)	Local foods at the grocery store	Farm stands	Local foods in restaurants	Other (please specify)	Total
Q3: Urban (A)	11.11% 2	55.56% 10	38.89% 7	16.67% 3	66.67% 12	38.89% 7	33.33% 6	11.11% 2	90.74% 49
Responses									
Q3: Suburban (B)	0.00% 0	26.32% 5	52.63% 10	10.53% 2	47.37% 9	47.37% 9	15.79% 3	0.00% 0	70.37% 38
Responses									
Q3: Rural (C)	0.00% 0	35.29% 6	52.94% 9	5.88% 1	47.06% 8	29.41% 5	52.94% 9	5.88% 1	72.22% 39
Responses									
Total Respondents	2	21	26	6	29	21	18	3	54

3.4 Local Food Messaging

In order to examine the impact of local foods messaging on consumer purchase, participants were asked to choose between two pictures of sweet potatoes that were identical except for the sign and contained no information on price (Figure 2).

When asked to select one of two sweet potatoes pictured, one labeled “local” and the other without any additional information, respondents overwhelmingly selected the local potatoes over the other product (Figure 13). The proportion selecting the local sweet potatoes ranged from 88.2% (rural) to 94.4% (urban). More respondents from rural regions, compared to other regions, reported that they had no preference. Not many (9.3% across all regions) commented specifically on the sign design but chose based on their perceptions of local foods. Those who chose non-local had concerns about the quality of the soil in surrounding areas, preferred the cheaper product, or simply had no preference. Of the 9.3% of all respondents who commented on the content and design of the sign, 80% were urban respondents, and 20% were rural respondents. Several respondents perceived the local product to be associated with food safety, citing that they weren’t aware of what chemicals were used on the non-local potatoes, or that they knew the local would be free of additives and chemicals.

Several respondents elaborated on their responses. For example, one respondent said, “The sign is kinda cute but it also says locally grown and it's NC so I would be supportive of that.” Another stated:

There's more information on the sign. It says where it comes from and it's locally grown which is really important to me and it has a picture of a sun. It means a low carbon footprint. It didn't have to travel far to get here. It means investing in the state where I live instead of sending it off to a corporation. Sunny Sprout Farms-I would imagine it would be a really conscious farm where the people who pick the potatoes are paid fairly and live good lives.

There were a couple discrepancies in individual responses. One respondent reported that he would choose either but later reported that he loves garden foods. Another respondent also reported having no preference between the local and non-local potatoes but then reported that she was *very likely* to buy local if it was the same price or even more expensive than a non-local food.

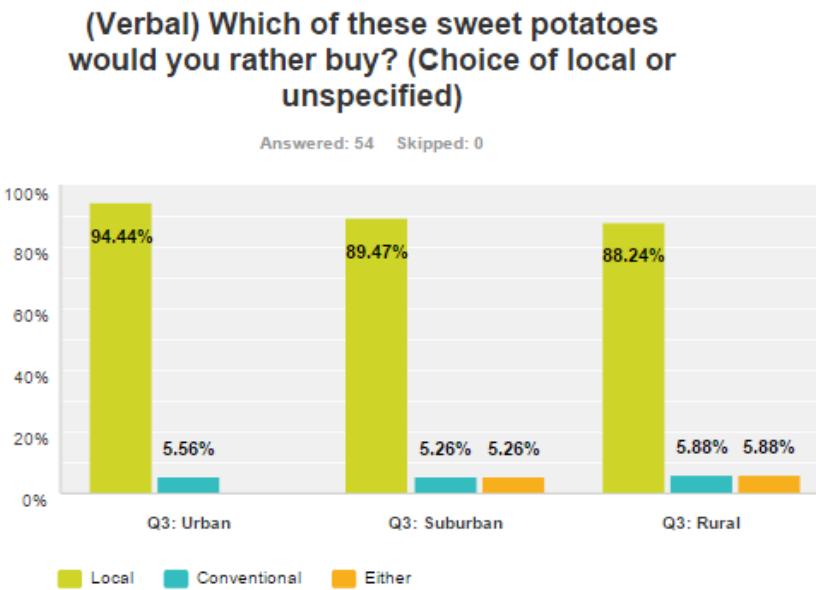


Figure 13. Local foods messaging

4. Discussion

4.1 Perceptions

When participants responded to the phrase “local foods,” they most frequently noted characteristics of local foods such as “home grown,” who it was grown by, and how far it was transported. Many stated that local foods were grown in their area but did not specify boundaries, indicating that perceptions of the definition of local foods is dependent on the form of the question. For example, ASAP’s 2011 Consumer Survey asked participants to choose among geographically sensitive categories for defining local foods in which 37% of participants defined local as being grown in Western North Carolina, 23% of participants defined local as being produced in their county, and 19% defined it as being grown within 100 miles of their home.⁴ An open ended question to define local foods may result in answers without of specific geographical limits.

Although a large percentage of participants did not know how to describe a “local foods movement,” those who did had more substantive responses than when prompted with the phrase “local foods.” Among urban respondents, many eluded to a need to help local farmers.

Although suburban respondents were most likely to agree that local is important to family health, they were the least engaged with local foods across many categories. When asked whether they grow their own food, participate in a community garden, or exchange food for services, other items, or food, they were most likely to select “none” (57.9%). Additionally, only 5.3% reported exchanging food, compared to 23.5% for rural respondents, and 33.3% for urban respondents. They were also least likely to grow their own food or have an association with the phrase “local foods movement.” In general, suburban respondents seem to be disconnected from the local foods movements. One hypothesis is related to the lack of attachment to the land in suburban areas as compared to rural residents who were most likely to grow their own food. Suburban areas are also neglected in terms of systemic local foods marketing. The USDA for example, is critiqued for marketing its support of local foods to “affluent consumers in urban areas, rather than farmers”¹³ and report that local food sales are highest in urban areas.¹³

4.2 Food Engagement and Likelihood of Purchase Across Regions

Although rural respondents were most likely to grow their own food, they were also most likely to select “none,” when asked what percentage of their food bill is spent on local products. This is interesting considering that this group had the greatest number of respondents not receiving any food assistance and they were most likely to select “very likely,” when asked how likely they would be to purchase a local food even if it was more expensive. Additionally, cost is reported as a barrier to the purchase of local foods in this study and in ASAP’s 2011 consumer survey which also notes that “strong purchasers of local foods were more likely to also grow a sizeable percent of food consumed that is self-grown and those who spent less on local food were less likely to grow their own food.”⁴ According to these data, rural respondents might have been more likely to spend a larger percentage of their food bill on local products.

However, many respondents described local products as being worth the extra cost in the case that they are more expensive than non-local products.

Similar to the 2011 ASAP Consumer Survey, a large portion (44.4%) of respondents reported spending over one-tenth of their budget on local products. Although the ASAP survey cites that 55% of respondents spend over one-tenth of their budget on local products, 44.4% is a large number considering that the majority of respondents noted receiving food assistance.⁴

Urban residents were most likely to shop at farmers markets (83.3%) and participate in a community garden (16.7%), and suburban residents were most likely to shop at farm stands or farms (57.9%). Rural were most likely to utilize CSAs (17.7%). ASAP’s 2011 Consumer Survey yielded similar results, with the outermost surveyed counties being most likely to utilize CSA’s (4%). In contrast with this study, the outermost counties reporting greater use of farmers markets (53%). The ASAP survey also reported the urban counties (45%) to be more likely to shop at farm stands than the outermost counties (33%).⁴

Almost all respondents indicated interest in increased availability of local products in their community with strong desires for more local foods at grocery stores (53.7%) and more farmers markets (48.1%).

4.3 Food Messaging

Results indicated a strong preference for local foods when respondents chose between two sweet potatoes (Figure 10). This is in concurrence with ASAP's 2011 Consumer Survey which reported that 88% of shoppers would choose a local product if it was labeled local.⁴

Despite some discrepancies and inconsistencies in the data, the sign indicating "local," greatly influenced participant choice. For at least 10% of participants, the design and informational content of the sign had a positive influence on their perception, not only of the food itself, but of the producer as well.

4.4 Implications for Messaging and Education

4.4.1 gaining consumer support

Various attributes of local products influence the likelihood of consumer support. Johnson and others (2013) cite production from locations such as small farms, community gardens, and operations using sustainable growing practices as important attributes.¹ Some of these attributes were cited by study participants when prompted with the phrases "local foods," and "local foods movement." Strengthening this association and advertising such characteristics directly on products could exist as a major selling point for local foods. ASAP's 2011 Consumer Survey supports this notion as they note the following phrases as strong motivators for purchasing local products: "Buying locally grown foods greatly contributes to the local economy," "When you buy locally grown food you are helping to preserve the rural character of Western North Carolina," and "Buying locally grown food helps support our local farms."⁴

4.4.2 consumer-specific messaging

More research needs to be conducted to highlight the different audience segments of local foods consumers. The results from this study indicate a gap in suburban areas regarding local foods engagement and interest. More research and promotion efforts are needed to targets these areas. In areas lacking local foods in retail settings, cultivating a connection between people and the land through the establishment of community gardens or farm-to-school programs can improve local food consumption. This effect can be seen by the fact that rural respondents were most likely to grow their own food although they were not most likely to purchase local products.

4.4.3 education

Several respondents connected local products with other food descriptors and characteristics such as "organic," assumed they are grown without added chemicals, or assumed that they are grown sustainably. Another respondent associated the Sunny Sprout Farm sign with a business that treats their employees well. Johnson and others explain that that lack of a universal definition for local foods enables fraud by enabling the marketing of non-local products as local.¹ This extends to marketers potentially taking advantage of common consumer assumptions about the inherent qualities of local foods. This could allow for certain growing and employee treatment practices not supported by consumer values to enter the market using the term "local."

Consumers need to be educated about these discrepancies and encouraged to research the origins of the products they purchase and their respective definitions of "local." Additionally, more advocacy for stricter regulations placed on what can be labeled as a local product is needed.

4.4.4 acknowledgement from stakeholders and policy-makers

This research indicates a strong interest across all regions for increased local food accessibility. Stakeholders need to be educated on the depths of consumer interest to increase engagement in local foods promotion and money allocation efforts. As empirical data on the benefits of local foods increases, policy makers will increasingly consider the role of local foods in their community.

The associations that study participants indicated with phrases "local foods," and "local foods movement," indicate substantial potential for local foods to bring communities together around issues ranging from local economies to public health. However, price of local products remains a barrier for many interested in purchasing them.

4.5 Strengths and Limitations and Experiences

This is the first study in NC to examine local food perceptions, purchasing habits, and local foods engagement in urban, suburban, and rural regions. The study obtained a fairly equal participant distribution across all regions, and utilized a unique visual tool to examine the effect of signage on consumer preference.

Meeting people at various Departments of Health and Human Services, or Social Service Departments provided valuable qualitative information as well. At rural and suburban locations, the survey process often involved spending four hours at a department and completing only 4-6 surveys. At the urban departments, there were many more clients utilizing services but it still often proved challenging to achieve desired levels of participation.

Future research should include non-English speaking populations and a large metro county, to serve as the most urban site for data collection. A larger sample size also would provide greater power for multivariate statistical analyses.

5. Conclusion

Across all regions in this study, local foods were perceived to be important. Participants were aware of some of the benefits and often willing to spend more to access them. However, local foods and local food system promotion needs to be customized for different demographical regions instead of targeting only urban areas. Although populations have depended on the production of local foods for much of our existence, more research to increase community and individual awareness, and education about local foods is warranted. This will encourage stakeholders to take advantage of the potential of local foods movements to address a myriad of community health, equality, and sustainability issues. As policy moves more towards the use of evidence-based research to support new initiatives and community and individual-level advocacy for local foods increases, the local foods movement will increase its capabilities of becoming a powerful and transformative platform for combining the benefits of local foods with positive changes in communities large and small.

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