

Quantity demand and latent demand for local foods among public institutions in Lee and Russell Counties, Alabama

by

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Abstract

Institutional food service operations have shown an increased interest in locally grown foods in the last two decades and are providing business opportunities for farmers and distributors as well as potential benefits for the community. Farm to school, farm to hospital, and other farm to institution programs have proliferated around the United States. Alabama is no different as farmers markets increase and agrotourism increases, we can see that the public has an interest in local foods and supporting local farms. The purpose of this paper is to present and discuss the results and implications of a study assessing public institutional food service operations in Lee and Russell Counties, Alabama. An interview script and qualitative research methods were used to highlight demand themes and subthemes found across public institutions and answered two questions: (1) were local foods in public (quantity demand) and (2) would local food be in public institutions if it were available (latent demand)? Results showed that there was an insignificant amount of quantity demand but a significant amount of latent demand.

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Table of Contents

ABSTRACT	II
ACKNOWLEDGMENTS.....	III
TABLE OF CONTENTS.....	IV
LIST OF TABLES.....	VI
LIST OF FIGURES.....	VII
CHAPTER 1.....	8
INTRODUCTION	8
Definition of Terms	10
CHAPTER 2.....	13
LITERATURE REVIEW.....	13
Introduction.....	13
Institutional Sourcing Models.....	14
Benefits and Barriers of Farm-to-Institution.....	16
Producers.....	16
Institutions	18
Consumers	21
Conclusion of benefits	21
Further gaps in research.....	22
CHAPTER 3.....	24
RESEARCH DESIGN	24
Population/Sample.....	25
Instrumentation.....	26
Procedures.....	27

CHAPTER 4.....	29
RESULTS	29
Community Profile	29
Quantity Demand.....	29
Contractual Influencers.....	30
Providers.....	33
Champions.....	34
Latent Demand.....	36
Organizational	37
External	40
External factors affecting latent demand included drivers (promotional materials and provider buy-in) as well as barriers.....	40
Personal	42
Conclusion.....	44
CHAPTER 5.....	45
DISCUSSION	45
Implications	48
Limitations.....	51
Further Research.....	51
Conclusion	53
REFERENCES	55
APPENDICES.....	62
Appendix A – Interview Script.....	62
Appendix B – IRB Approval	66

List of Tables

Table 1 (Primary driver for food choice of distinct types of institutions)..... 29

List of Figures

Figure 1 (Food hub circular economy, benefits, and support system)	7
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CHAPTER 1

Introduction

Local food is a rising term in connection with farmers, grocers, researchers, and public policy employees. All things that involve a more direct marketing strategy of foods from the production to the consumer can be called local foods. At a policy level, the promotion and much of the research can be traced back to the American Food, Conservation and Energy Act of 2008 (Public Law 110-246, 2012) also termed the 2008 U.S. Farm Bill, which included funding for local food programs such as the Farmer's Market Promotion Program overseen by the national Institute of Food and Agriculture (NIFA). The 2008 Farm Bill further stipulates that "The term 'locally or regionally produced agricultural food product' means any agricultural food product that is raised, produced, and distributed in the locality or region in which the final product is marketed, so that the total distance that the product is transported is less than 400 miles from the origin of the product; or the State in which the product is produced." This 'local food' definition is not the norm in the highly global and industrial United States agri-food system (Nesheim et al., 2015).

Demand for local foods has increased both nationally and regionally (Reynolds-Allie & Fields, 2012), for a variety of reasons focused mostly on environmentally sustainable practices, social, individual health, and economic improvements (Ikerd, 2011; Rossi et al., 2017). Nationally, the number of farmers markets tripled from 2000 to 2015 (ERS, 2015). In Lee and Russell counties, Alabama, there was a net decrease of farms with direct sales, but a 100 percent increase in agrotourism from 2007-2012 (Rhone, 2020), showing an increase in interest for local farms locally.

While public demand for local foods can generate sales, public institutions often play a key role in developing local food systems because they are aggregators of food, people, and funding (Richman et al., 2016). Public institutions have a social role as centers of education, employment, and healthcare. Identifying and studying these local and regional food systems requires research that is place based (Dimitri & Gardner, 2019) and therefore focuses on a local or regional food system and all the players involved.

Despite the perceived benefits that consumers, producers, and institutions can gain from local foods, local food systems are not commonplace in the United States southeast (Huang et al., 2011). Many believe that local foods are a luxury item because most communities are unable to meet total food demand with local foods (Kinnunen et al., 2020). But local foods have the potential to create jobs, serve important social needs in communities, increase health through diet, and reduce negative impacts of the current food system (Berti & Mulligan, 2016; Conner et al., 2012; Martinez et al., 2010; Moore et al., 2008).

The focus of this study is on local foods in local institutions, local being Lee and Russell Counties, Alabama. The institutional foodservice industry is changing. This research aimed to discover if public institutions participate in one narrow segment of foodservice: local food procurement. As noted, public institutions can play a key role in local food systems development and longevity. The purpose of this study was to investigate the demand of local institutions for local food and if there was interest in it beyond what was being purchased.

Demand was broken into two definitions to give demand a more robust potential for describing the feelings surrounding local food. Two research questions were asked in this study: (1) were institutions purchasing local foods (quantity demand)? and (2) were institutions interested in purchasing more local foods (latent demand)? The study was designed as a

qualitative interview with food procurement specialists at each institution identified to answer these two questions. The design of the study is built on existing literature methods and identified gaps at a foundational level in local studies.

The methodology was designed to first identify all public institutions in Lee and Russell Counties, Alabama. Then, the researcher interviewed food procurement specialists responsible for institutional purchase. Transcribed interviews were coded and sorted into code groups that became the themes and subthemes discussed later in this paper. Themes and subthemes implications are discussed in the last chapter.

Definition of Terms

1. **Champions:** defined by the literature as individuals who initiate, inspire, and direct Farm-to-Institutions programs (Bagdonis et al., 2009).
2. **Farmers Market:** Marketing outlet at which farmers sell agricultural products to individual customers at a temporary or permanent location on a periodic and recurring basis during the local growing season or during the time when they have products available, which might be all year (Martinez et al., 2010)
3. **Farm to Institution (FTI):** Farm to Institution programs give farmers and ranchers the opportunity to develop new markets and sell to local K-12 schools, hospitals, colleges, cafeterias, or government agencies (Farm to Institution | Alternative Farming Systems Information Center | NAL | USDA, 2022).
4. **Food Miles:** The distance a food product travels from the place of production to the location where it is sold for final consumption (Martinez et al., 2010).
5. **Good Agricultural Practices (GAP):** “Good Agricultural Practices (GAP) audits are

voluntary audits that verify that fruits and vegetables are produced, packed, handled, and stored to minimize risks of microbial food safety hazards.” (United States Department of Agriculture, 2022a)

6. **Public Institution:** Any institution that received state or federal government funding for operations in 2019 or 2020 (during the time of this study).
7. **Latent demand:** “currently desired demand that is not realized because of a wide variety of constraints” (Clifton, 2017). For this study it is defined as a person or institution's interest in or willingness to purchase local foods if they were more available.
8. **Local Food System (LFS):** "Local and regional food systems' refers to place-specific clusters of agricultural producers of all kinds—farmers, ranchers, fishers—along with consumers and institutions engaged in producing, processing, distributing, and selling foods..." (Low et al., 2015)
9. **Local Foods:** In a broad definition, researchers agree local foods are “marketing arrangements, such as farmers selling directly to consumers at regional farmers markets or to schools” (Martinez et al., 2010). However, direct sales are difficult for larger institutions and often, an institution that tracks or markets local food will define local in terms of miles from origin (Martinez et al., 2010) whether it came through an intermediary or directly.
10. **Locavore Movement:** A consumer who primarily eats minimally processed, seasonally available food grown or produced within a specified radius from his or her home, commonly 100 or 250 miles (Martinez et al., 2010).
11. **Quantity demand:** the amount of goods that buyers are willing and able to purchase (Mankiw, 2018). For this study it is defined as an institution’s apparent commitment to

the purchase of local foods through the previous purchase of local food items. The more local food items an institution purchased in the last year at the time of the interview, the more quantity demand was shown.

12. **Value Added Products:** Value-added products are defined as follows:

- a. A change in the physical state or form of the product (such as milling wheat into flour or making strawberries into jam).
- b. The production of a product in a manner that enhances its value, as demonstrated through a business plan (such as organically produced products).
- c. The physical segregation of an agricultural commodity or product in a manner that results in the enhancement of the value of that commodity or product, (*USDA Value-Added Ag Definition | Agricultural Marketing Resource Center, 2022*).

CHAPTER 2

Literature Review

Introduction

Interest in local foods in the United States has grown, as shown by a 180 percent increase in farmers markets from 2006 to 2014 (Martinez et al., 2010). Research of local foods has also grown during the last couple of decades. There are many names for programs that focus on local foods like: farm-to-plate, farm-to-fork, farm-to-school, farm-to-hospital, and farm-to-institution (FTI). One of the most well-documented programs nationwide is the National Farm to School Network, who saw an increase from more than 12,000 FTS programs in 2013 to more than 42,000 schools in 2022 (*Farm to School*, 2015).

Local food is still undefined as a term (Kloppenborg et al., 1996). In a broad definition, researchers agree local foods are “marketing arrangements, such as farmers selling directly to consumers at regional farmers markets or to schools” (Martinez et al., 2010). However, direct sales are difficult for larger institutions and often, an institution that tracks or markets local food will define local in terms of miles from origin (Martinez et al., 2010), whether it came through an intermediary or directly. Some argue food miles are not always an adequate indicator for local food (Cleveland et al., 2015). Therefore, food miles, foods grown in-state, and goods produced within the region are all appropriate ways to define local foods; institutions participating in any of these methods of food procurement have become players in the local food system (LFS).

Research in LFS differs from traditional economic reports or research because of the difficulty in quantifying the data. Supply chain is the common model for understanding different actors in an economic market like food systems, such as costs and profits (Ahearn et al., 2018).

However, FTI often employs a different framework to make sense of its benefits and impacts. Instead of thinking about FTI in strictly economic terms, researchers use values-based supply chains (VBSC) to describe impacts of FTI (Berti & Mulligan, 2016). The “Goals of VBSCs are to: (1) provide greater economic stability for producers and others along the supply chain; and (2) provide high quality, regional food to consumers.” (Feenstra & Hardesty, 2016). These goals allow researchers to view the benefits of entire communities and quantify social relationships and perceived benefits as well as easily measurable economic benefits for different parties in a community. Because linear supply chain models are troublesome when measuring the benefits of LFS, many researchers suggest viewing benefits through the “supply web” (Buckley et al., 2013). Institutions pull foods from a variety of locations depending on the institutions size, location, and distributors willing to work with them (Krejci & Beamon, 2014). The research literature described here includes institutional sourcing models, benefits, and barriers of FTI, and further gaps in research.

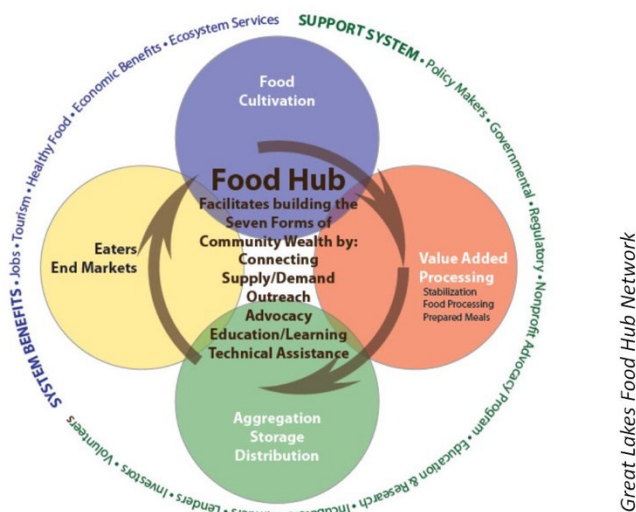
Institutional Sourcing Models

There are three models discussed in the literature on the topic of institutional food sourcing (Berti & Mulligan, 2016; Farnsworth et al., 2009; Friedmann & McMichael, 1989; Schmidt et al., 2011): (1) Wholesale from a national or regional provider, (2) direct sales, and (3) a hybrid model. Wholesale from national or regional provider models often rely heavily on large multi-national or regional food suppliers that are not working with smaller and midsized producers. According to producers in Mississippi (Holland, 2016), it is impractical for institutions to develop a business relationship with producers.

Direct sales are used when a producer sells directly to an institution (Krejci & Beamon, 2014), to avoid contracting with large providers. Direct to consumer models used by small

producers rely on informal agreements with consumers, where producers have autonomy to grow based on what they want. Wholesale marketing models used by large producers use legally binding contracts with producers or aggregators and food suppliers (Bloom & Hinrichs, 2011).

Figure 1. Food hub circular economy, benefits, and support system



http://community-wealth.org/sites/clone.community-wealth.org/files/foodhub_0.jpg

A hybrid model of the two more common models that still follow the VBSC goals are Food Hubs (Cleveland et al., 2014). The USDA defines food hubs as, “a centrally located facility with a business management structure facilitating the aggregation, storage, processing, distribution, and/or marketing of locally/regionally produced food products.” (Barham, 2017). Food hubs often work with or want to work with institutions (Cleveland et al., 2014; Hoey et al., 2018) and can play a key role as aggregators, marketing, and informational intermediaries between producers, consumers, and wholesale or institutional markets (Market Ventures, 2007; Matson et al., 2013). As you can see in Figure 1, food hubs (Great Lakes Food Hub Network)

claim to assist in creating jobs, tourism, healthy food, economic benefits, and ecosystem services as benefits from local food hubs. Figure 1 also shows the circular nature of food hubs, as opposed to the linear model used by most large providers.

Food hubs represent a bridge between producers and consumers. As producers reach a capacity with their ability to scale up from direct marketing to wholesale markets, food hubs can be a key organization in those producers finding success in wholesale marketing (Cleveland et al., 2014). Many food hubs primary function is to facilitate the aggregation, storage, and distribution for local producers; opening new stable markets for small and medium sized producers (Schmidt et al., 2011). Food hubs are expected to move into more institutional markets in the future, connecting more regional producers with institutions (Bielaczyc et al., 2020).

Benefits and Barriers of Farm-to-Institution

Research on the benefits of FTI may focus on the producers, purchasers, consumers, or more than one group. Within these groups, perceived benefits are usually described as being environmental, social, economic, or health related. Different players (producers, purchasers, and consumers) are either impacted by or causing these benefits. Each of these players represents a part of the value chain and researchers study these independently or jointly in their relationship to the LFS.

Producers

Producers' benefits include economic, social, and environmental, with most benefits being an economic edge from LFS and FTI programs.

Economic: Farms grossing <\$350,000 per year are likely to benefit from direct marketing strategies (Bauman et al., 2018; Market Ventures, 2007; Matson et al., 2013). While FTI programs offer opportunities for increased sales because institutions provide a larger

magnitude than direct sales (Friedmann, 2007), other direct marketing strategies like farmers markets, CSA, and roadside stands are a cornerstone of LFS and diversify producers' portfolios (Conner et al., 2012). Small and midsized farms are less likely to benefit in commodity markets where their product becomes mixed with product from farms all over the country (Bauman et al., 2018). Small and midsized producers often turn to alternative food aggregation and distribution models that are less intermediated than the commodity market, such as food hubs (Diamond & Barham, 2012; Kirschenmann et al., 2008). Farmers receive more of the food dollar when participating in direct sales and FTI programs compared to more traditional marketing channels (Dumont et al., 2017; Schmidt et al., 2011; Vogt & Kaiser, 2008). These diversified channels lead to diversified customer base and a stable market for product (Bellows et al., 2013). While these findings are exciting for farmers, FTI only accounts for about 5% of farmer incomes (Joshi et al., 2008).

Economic barriers for producers are often tied to price (Becot et al., 2014). Small and medium sized producers do not have the same economies of scale that larger producers have, and this causes price fluctuation leading to difficult partnerships between institutions and producers (Dimitri & Gardner, 2019). Many smaller and medium sized farms choose direct to consumer sales and avoid wholesale all together, finding a market niche (Stephenson & Lev, 2004). Wholesale markets are increasingly asking for Good Agricultural Practices (GAP) certification (Chapman et al., 2012). Certifications like GAP can increase production cost for the producers and require time that producers do not feel that they have to spend on the process (Sinkel, 2016). Time is a commodity many producers cannot spare as labor shortages have been an issue in the US for some time (Veeck et al., 2020).

Social: Producers also recognize the social benefits of LFSs and FTI (Alonso, 2011). Local food systems provide an opportunity for producers to interact with the community and assume a position as an educator (Bellows et al., 2013). Producers who partake in FTS programs have opportunities to interact with students, parents, and faculty of school systems, leading to more exposure and social capital for the producer (*Farm to School*, 2015). For small producers exposure and creating loyalty from customers is important (Matts et al., 2015).

Environmental: The literature often cites LFS and FTI leading to positive environmental impacts for the farmer. Many researchers (Berti & Mulligan, 2016; Harris et al., 2012; Palmer et al., 2017) agree that producers benefit from LFS and FTI by meeting and collaborating with environmentally focused community and industry members. Small and medium scale producers often do not meet their environmental goals without the partnerships that come from FTI programs that invest in infrastructure and more efficient transportation, as many institutions are seeking similar environmental goals as the producers (Palmer et al., 2017). Without support, small and medium scale producers struggle with environmental goals with certain crops because of production difficulties and inefficient distribution and do not always provide better environmental outcomes over conventional purchasing methods (Edwards-Jones, 2010). There is also the added support from the community as producers become more connected with individuals through the LFS (Berti & Mulligan, 2016).

Institutions

Institutional purchasers benefit from FTI as well, including social, economic, environment, and health benefits.

Social: Like the producers finding a position in their community among institutions, the institutions can benefit from the community's positive view of working with producers (Dauner

et al., 2011). FTI programs promote community wellness and create value in society by embodying sustainable social environments (Ballamingie & Walker, 2013). Beyond the benefits of FTI programs, institutions often desire to incorporate a sustainable mission as well as education as part of a local foods initiative that has healthy eating and community at the center (Conner et al., 2012; Friedmann, 2007). The desire for local foods evidenced in the 42,000 FTS programs referenced earlier is undeniable. But there are also over 14,000 hospitals in the U.S. and Canada engaged in healthy food initiatives that use local foods as a part of their program (*About Us | Health Care Without Harm*, 2022). Half of hospital food procurement specialists think that local foods is becoming more common, but they also are not sure how to access local foods in their own communities (Raison and Scheer, 2015). The Real Food Challenge was active on Auburn University's campus and many college campuses around the country in the 2010s, pushing for healthy local foods on campus (*Auburn Real Food Challenge - Office of Sustainability*, 2012). Other institutions like nursing homes and correctional facilities are also seeking local foods to support the local economy (Bagdonis et al., 2009).

Economic: While there is institutional economic return on investment in the short term with local foods, it is often better to measure based on long term investment in the community (Diamond & Barham, 2012). Institutions do benefit economically as well from positive publicity and brand management when participating in FTI programs (Dauner et al., 2011). Support of local businesses, community, and public relations were all cited as reasons that institutions developed FTI programs; not proving that local food purchase led to economic benefits but showing that many institutions involved still have plans to develop economic goals (Martinez et al., 2010). Similarly to producers, institutions in Vermont have price barriers when purchasing local foods (Becot et al., 2014).

Environment: Institutions with environmental as well as economic goals can utilize FTI programs to meet both goals (Berti & Mulligan, 2016; Dauner et al., 2011; Palmer et al., 2017) through partnerships as mentioned earlier. Institutions involved in LFS can act as economic anchors that lead to more efficient and environmentally friendly postharvest and distribution channels for local producers to access (Palmer et al., 2017). There is also opportunity to establish brands based around community engagement and sustainability, increasing institutional profits based on environmental programs (Becot et al., 2014). Social media has opened new opportunities for institutions to share the ‘stories’ of local farmers, which can be mutually beneficial for the institution and producer as more people become aware of environmental efforts and move toward a shared goal in the community (Sevoian & Connor, 2012).

Barriers for institutions to engage in local food purchases are numerous and depend on the place that the institution is located. Nationwide, top barriers to expanding local foods into both lower and higher educational institutions were seasonality of fruits and vegetables (or specific fresh produce items not being available when the institution needs it the most), producers’ prices not meeting institutional pricing requirements, meeting product volume needs, and producers meeting food safety requirements (like being certified in Good Agricultural Practices (GAP)) (Bielaczyc et al., 2020). Other issues mentioned tend to be on the institutions side like staff and infrastructure ability to process raw produce (Kulick, 2005; Vogt & Kaiser, 2008). Sometimes these barriers can become opportunities as producers can provide education on seasonal menus and partner with chefs to teach students and community member how to use seasonal produce that can lead to additional community engagement (Alonso, 2011; Kulick, 2005).

Consumers

Because FTI programs serve a consistent and large population in the community that it resides in, this review will present benefits to consumers through the lens of the community at large. Benefits include increasing in community awareness of local farming and food systems; encouraging healthy lifestyle; and improving access to fresh, nutritious food; engaging the community in collaborative, hands-on learning experiences; and strengthening local economies (Bellows et al., 2013).

Economic and Health: FTI programs create opportunity for increased access to locally grown foods and create new job opportunities in the region (Dumont et al., 2017). A study in Michigan found these economic benefits extend to farm staff and other workers in the farm industry, for whom jobs are created (Conner et al., 2008). Not only does it increase access to fresh locally grown foods, but there is also an increase in healthy food consumption by school children and the community (Joshi et al., 2008; Martinez et al., 2010). There is also reason to believe that fresher produce that is not selected for shelf life has a higher amount of nutrients (Mayer et al., 2022).

Social: FTI programs promote opportunities for community cohesion and increasing social and economic sustainability (Krejci & Beamon, 2014) while increasing civic engagement (Bagdonis et al., 2009). Research also clearly shows there is a desire among communities to see local small and medium-sized farms succeed, and there is reason to believe that people want to know from where their food is coming (Martinez et al., 2010).

Conclusion of benefits

To review, the people benefiting from FTI programs are the producers, institutions, and consumers. The people and parties engaging in local food often have overlapping yet different

goals. Partnership is key in the literature, as well as regional research into common goals among the different players. Whether the goals among different parties are economic, environmental, social, or health related, research into the regional local food demand and supply can help identify and describe the common goals and themes between the separate groups in the area.

Further gaps in research

A gap exists in research for local foods in the region and understanding motivations for institutional purchase in different regions is important for the accuracy of data surrounding local foods research (Becot et al., 2014). Continued collection of data at regular intervals in more localized areas is key for policy changes and allocation of funding for LFS (Dimitri & Gardner, 2019). We already know that producers in Alabama want to work with institutions (Alonso, 2011) but there is less data on institutional perspective. The mission of land-grant universities is to help local producers through research and fill in the information gaps in local food research, which remain local (Palma, Morgan, & Woods, 2013). Therefore, land grant universities should be involved in research and advocacy of local food systems within the region it resides.

Interest in local foods and FTI programs is increasing. However, the geographic United States Southeast is behind compared with the rest of the country when it comes to local foods, and institutions are well positioned to build LFS (Palma, Morgan, Woods, et al., 2013). Farmers in Alabama want to work with institutions (Alonso, 2011). One study cited that 90 percent of farmers would like to sell to institutions (Tramel, 2019). Consumer demand has increased as well in Alabama (Reynolds-Allie & Fields, 2012). This puts institutions at the intersection of community demand and a growing desire of producers to meet that need. Despite the well documented desire of producers to sell to institutions and the growing demand for local, there is not any existing research on local institutions' attitudes toward local foods. Particularly, there is

a gap in the literature on: 1) quantity demand for local foods, or if institutions are already purchasing local foods and 2) latent demand, or if institutions have an interest in purchasing local. This study proposes to fill these gaps for universities, K-12 school systems, hospitals, nursing homes, and correctional facilities. First, the research investigates the presence of local foods served in public institutions in Lee and Russell Counties, Alabama. Second, it measures the drivers and barriers that lead to the purchase of or lack of purchase of local foods in these institutions.

CHAPTER 3

Research Design

When looking at farm-to-institution research, the preferred model is qualitative. Understanding the markets in which these programs exist is key. Local food research began somewhere in the late 1960s as a rising awareness of declining farm numbers with rising production created an area of study that questioned the efficacy and moral conundrum of capitalism's imperial ties with agriculture (Friedmann & McMichael, 1989). Early on, local food research has compared the current model, theoretical models, marketing, and demand of local food. Case studies about local food began in the mid 2000's as the beginning of the locavore movement became widely known (Giovannucci et al., 2010).

The research design chosen for the current study was a grounded theory qualitative study researching local public institutions in Lee and Russell counties in Alabama. Variables were quantity demand and latent demand. Quantity demand was conceptually defined as, "the amount of the goods that buyers are willing and able to purchase" (Mankiw, 2018). Latent demand represented "currently desired demand that is not realized because of a wide variety of constraints" (Clifton, 2017). The researcher conducted the study between October 2020 and February 2021.

For the purposes of this study, quantity demand was operationally defined as an institution's apparent commitment to the purchase of local foods through the previous purchase of local food items. The more local food items an institution purchased in the last year at the time of the interview, the more quantity demand was shown. Likewise, the more an institution had searched for local food items or had taken initiative to purchase local food items, the more

quantity demand was shown. If the institution did not purchase any local food items or attempt to purchase local food items, there was a lack of demand.

Latent demand was gauged through questions that allowed the participant to show a desire for local foods to be immediately available. Latent demand measurements included purchase constraints and personal/external motivations participants encountered or perceived when trying to purchase local foods. Motivations might be an intrinsic desire to purchase local foods or an external force that made the employee less or more likely to purchase local foods. Latent demand can also be described as institutional interest in local foods.

Population/Sample

The research subject area was Lee and Russell of central eastern Alabama. The selected area reflects an association built on the economic ties of the two counties as defined by the Alabama Association of Regional Councils. At the time of the study, Lee had an estimated population of 166,831, and Russell County had an estimated population of 58,237, giving the area a total of 225,068 people. The area contained three urban centers with school systems highlighted with grey: Auburn, Opelika, and Phenix City. Beyond these three cities, most of the surrounding area included small towns, limited agriculture, and some forested land.

The researcher identified 14 institutions as potential research participants. The researcher selected participants using public records to find institutions that received some form of state or federal funding in 2020 and served food to employees, customers, patients, residents, inmates, or students. Institutions that outsourced all dining services to independent contractors were excluded. The researcher stratified institutions meeting sample criteria into five categories: higher education (N=1), K-12 education (N=5), hospitals (N=1), jails (N=2), and nursing homes (N=5). The researcher used random sampling and interviewed the first institution within each

category and continued interviewing the next randomly selected institution within each category until at least half the institutions in each category were interviewed. Individual employees interviewed were nutrition program directors, dining service directors, and food procurement managers.

Instrumentation

The researcher conducted individual in-depth-interviews using an interview script to ensure consistency during each interview (Appendix A). The first section of the interview script consisted of questions all participants answered and was focused on the descriptive elements of the institution including dining services and food purchase budget, providers used, any external or internal forces that dictate buying habits, and description of the target audience of the dining service. The second section included questions for institutions who purchase local food and was focused on what foods the institution purchased and from where, why they chose to purchase local, how much they are currently purchasing, and if they want to purchase more local foods in the future. While the third section included questions for institutions who do not purchase local food and focused on barriers that they perceive to purchasing local food, if they have ever tried to purchase local foods, and what type. And the last section contained feedback questions to conclude the interview. The last section also allowed the participant to detail anything previously discussed, including insight from personal experience. Each interview took between 20 minutes and an hour and a half.

Follow-up communication through email was voluntary for each participant interviewed. The follow-up email gathered further information regarding quantity demand and latent demand data, including contracts, budget, and clientele.

Procedures

Before contacting study participants, the researcher sought and received approval from Auburn University's Institutional Review Board (Appendix B). Recruitment for this research was done entirely by phone and email by reaching out to institutions through public listings of phone numbers and emails in contact pages via website or similar means.

A description of desired characteristics was given to the employee that answered the phone. This started the chain of conversations that led the researcher to find the director of food purchase within the institution. The researcher sent the potential participant an information sheet about the study. The information sheet was signed and returned before the interview. After the participant was informed about the research, the researcher and participant scheduled a date and time for the interview.

Individual interviews were conducted via Zoom. Zoom video/audio files were saved on OneDrive using an Auburn University account. The audio files were converted through Zoom into transcripts and the researcher reviewed the audio and edited each transcript to make it verbatim to the audio file. The researchers conducted thematic analysis using the qualitative software ATLAS.ti to analyze the transcripts and data. Following the Grounded Theory Method of Constant Comparative (Creswell, 2013), data were coded into categories by two researchers independently of one another and then combined into one code book. A group of researchers focused on these code groups and developed themes. The data were then analyzed by the researcher and theories describing the situation were formed.

The code groups and subthemes were weighted by code frequency. Each unique code within a code group represented a single data point. Each code group had a weight by the number of data points. Across themes, codes may appear multiple times, but within each code group a

code only occurs once. Also, code groups were often used in multiple subtheme categories. The individual codes were reviewed if the code group was used in multiple subtheme categories and codes sorted into one subtheme or multiple subthemes if they were applicable to each subtheme. By categorizing weighted code groups into themes, the researchers were able to give a hierarchy to each theme.

CHAPTER 4

Results

Community Profile

This study was conducted from October 2020 to February 2021. The following narratives summarize the results from the qualitative study on local food use by institutions. The sample consisted of nine (n=9) from a population of 14 institutional food procurement employees to interview across Lee and Russell Counties of Alabama. One higher education institution (n=1), one hospital (n=1), one sheriff's office (n=1), three K-12 school systems (n=3), and three nursing homes (n=3). Each employee interviewed provided oversight for the purchase and scheduling of food shipments for their individual institution. At the time of the study, employees were experts in the field of food procurement and understood best the difficulties and desires their institution had for food purchase.

Quantity Demand

'Quantity demand' is a borrowed term from economics used to describe the ongoing purchase or lack of purchase of local foods. This section captures the quantity demand for local foods, current food purchasing habits as well as company policies guiding food purchasing. Quantity demand is not a number as much as it is an idea of food purchasing habits and how much of it is or could be locally produced foods. Three main themes for quantity demand emerged: (1) contractual influencers, (2) providers, and (3) champions. The main themes and subtheme elements described below are in descending order of the code frequency or number of occurrences as weighted by the researchers.

Contractual Influencers

Every institution has contracts with food providers, and those contracts are the largest influence on institutions' purchasing habits. Since institutions developed their own menus, menu decisions also influenced specific foods purchased based on cost and availability.

Contract requirements: Universities, correctional facilities, and hospitals utilize large national food providers for the majority of their foods. Contracts with these providers mean the universities, correctional facilities, and hospitals tend to serve what their provider carries, and they cannot deviate much beyond what is available through the provider. Public-school systems in this interview all used the state bid system available to all Alabama public schools. That bid system helps to provide schools with foods that are consistently available at reasonable prices. Nursing homes were the most likely to use multiple regional providers with less restrictive contracts to fulfill their needs.

Participants from the university mentioned they had contracts that allowed off contract purchases at a rate of 20 percent of total food supply. These contracts were a driving force for where the university purchased foods. Similarly, the hospital contracts allowed purchases off contract at only 5 percent of total purchases.

"...now we're allowed to go off contract, but only like at 5%. So, if for some reason the contract item is not in stock, we can go off contract and purchase something. But, you know, we do try to stay within the contract as much as possible."

These numbers mean institutions must buy what the provider has available at the time. This made universities and hospitals unlikely to use local foods in their menu, because the large providers were not sourcing foods locally, and the interviewee did not regularly check from where foods originated. Knowledge of food origin coming from providers was not common

among interviewees from school systems, nursing homes, hospitals, or correctional facilities. With the biggest institutions tied into contracts, this incentivizes those institutions to purchase more from the contracted provider. What the provider carries was dictating the quantity demand for local foods of the local institutions.

One institution interviewed negotiated a contract with the provider that dictated 20 percent of what the provider offered should come from within the state, but at the time of the interview, the provider was unable to fulfill that requirement.

Public school systems must utilize the state bid for all food purchases, which means the state must approve all vendors and farm-to-school farmers. While the state bid does utilize statewide and regional vendors, the state bid does not prioritize local food over cost, leaving most traceable local foods as one-off occurrences through the farm-to-school program. The state bid did directly increase quantity demand for local foods.

Correctional facilities were not dictated as much by their contract requirements, but rather by their safety concerns. They need all food orders to come in one shipment to limit the number of trucks coming to and from the facility. This limits them to a provider that can serve all their needs which makes the provider prefer bulk foods over local foods.

Nursing homes used multiple regional providers to fulfill their needs and were the most likely to shop locally to find unique or seasonal options, though none of them used local foods regularly.

Results show that contract requirements led to less local food purchase by institutions. Institutions were unlikely to go off contract to seek local foods and were more likely to use breaks in contract to find items that were unavailable through their contracted provider. Without

clear statements from the providers indicating food origin, institutions were unlikely to know if foods were local.

Menu decisions: Each institutional category has unique needs for the menus created to serve the population eating at the institution. Individual factors for menu decisions are summarized in Table 1. With these factors in mind, it is important to note that each institution has different requirements when developing the menu for that specific institution. Nursing homes and hospitals can choose any food while meeting client’s medical dietary restrictions. Public school systems have strict nutrient requirements that must be met within budget constraints. Correctional facilities need to meet a calorie limitation requirement for each individual. Employees were building menus on what was offered through providers while following these guidelines. Given these driving factors, menu decisions had very little to contribute to the purchase of local foods.

Table 1 Primary driver for food choice of distinct types of institutions.

Menu Decisions	
Institution Type	Menu Decision Driver
University	Marketing, Fresh foods
Hospital	Meeting dietary restrictions
K-12 School System	Meeting governmental regulations for school lunches
Correctional Facility	Calorie intake
Nursing Home	Meeting resident expectations and needs

Ultimately, there is no demand for local foods in the Lee-Russell area. None of the institutions interviewed have a contract focused on local foods. Even the one institution with 20 percent listed in the contract, the provider was unable to meet the institutions local foods stipulation. Quantity demand was not a top contributor for institutional menu decisions. All institutions stated they did not see local foods as a positive marketing aspect when developing menus. While some institutions did seek out local foods, the local foods were not a guiding factor for institutions' menu decisions.

Providers

The second theme of providers in quantity demand includes food providers (any independent organization that sells produce to the institutions at wholesale prices) and local food presence. Interviewees described purchases both from food providers and in farmers markets or other regional vendors.

Food Providers: Upon review of the larger providers, there is no evidence that they source local food. While some providers do have initiatives for sourcing local foods, there was no evidence of sourcing through local producers within 200 miles of Lee or Russell Counties. As mentioned earlier, interviewees said that providers did not clearly list or label food origin, leading to a gap in knowledge about food origin among institutions. Even the state bid system and regional providers did not promote local foods as a part of their products.

Local food presence: Local foods represented a small percentage of institutional purchases across institutions, with the greatest percentage being around five percent in a single large institution. Of that five percent, the foods used were beef, pork, fish, poultry, lettuces, grits, cucumbers, tomatoes, goat cheese, dairy, kiwi, sweet potatoes, apples, and satsumas. Many of the institutions sourced a variety of products like coffee, bread, and dairy from regional vendors

but regional vendors are not sourcing all the ingredients from local producers, so these items did not fit the definition of local foods for this study.

Data does not show evidence of a substantial amount of local foods in institutions. The knowledge gap is in the marketing between provider and institutional buyer. With only two exceptions, food procurement specialists interviewed did not have knowledge of the origin of foods they purchased. Providers did not indicate local foods as a part of the purchasing process, which led to a lack of knowledge about food origin among the food procurement specialists.

All institutions in this study mentioned that food providers were not advertising local food or did not label local food. However, the variety of providers, with some being regional, gives reason to believe institutions are serving a small percentage of local foods in the Lee-Russell area.

Champions

Champions are included in the quantity demand category because of their past purchasing habits, that is, purchasing local and regional foods when the opportunity presents itself. Without keystone institutions and individuals at those institutions who are committed to the idea and development of local food procurement, local foods are not typically sources. This theme will discuss champions and wins related to supporting local vendors in the area.

Champions: Data revealed two champions among the institutional food procurement specialists. These employees talked at length about their involvement with specific local producers and efforts to purchase more local foods than they were already purchasing. They were knowledgeable about what local foods were available to them and what they were currently purchasing.

“Anytime you can provide marketing material, sometimes we can use it sometimes we can't, but anytime you can find that, and then you just add it to your program with what you serve that day.... Last year we had this sweet potato farmer come to our [institution] and the dairy council has also provided some great materials in the past as well.”

“...if we had additional produce to sell into the local food system, and especially in local schools, because, it can be a pretty easy transfer, it would allow the local school system to start having more sustainable produce and buying from local farms as well. I think that there's great stories to be told (of the farms and farmers.)”

These employees saw the need for and had the desire for a strong local food system. They could see how the institutions in the area had a responsibility toward the local economy, and in their given position, the best way to support their local economy was to purchase foods from local producers. This is evidence that when there is a product there is a quantity demand as well.

Wins: Some interviewees had no initial knowledge of local food purchases within their institutions. However, after discussing further, these institutions had indirect evidence of local food purchases. Shopping at local farmers markets or purchasing food from a regional provider that advertises working with local producers are two instances. Another example is that of local vendor preference. Some institutions have a formal system of preference for local businesses while others have an informal preference for local businesses. The formal preference can lead to local vendors having a competitive edge in the bidding process of food procurement.

“Because they asked those local vendors as well, they get a bonus on the bids to use like a 10% difference because they're right here.”

Noting ‘wins’ show that some institutions have programs that may not measure local food purchase but were likely leading to the purchase of local foods through policy or practice.

Three of the five institutional categories gave formal preference to local businesses when purchasing products from vendors. The other two institutional categories showed an informal interest in local businesses. This is significant as it shows that there were potentially more local foods than officially documented among institutional purchase, and there may be more demand than ‘quantity demand’ can capture.

Latent Demand

‘Latent demand’ is another term borrowed from economics. This paper uses ‘latent demand’ to ask if there is an unrealized interest in local foods or a desire that the previous question, ‘quantity demand,’ did not show. Food procurement specialists interviewed expressed several distinct kinds of latent demand. During the categorization of the codes, three main themes emerged and are listed most impactful to least impactful: (1) organizational drivers and organizational barriers, (2) external drivers and external barriers, and (3) personal drivers and personal barriers. Food purchase is driven or impeded by organizational (institutional rule and preference), external (outside the employee or institutions control), and personal (employee level) aspects. Drivers are intrinsic motivations that either motivate one toward or away from the purchase of local foods. Barriers are extrinsic aspects that make the purchase of local foods difficult. Main themes are organized from most code occurrences to least code occurrences within the named theme.

When asked about their interest in local foods, most food procurement specialists were indifferent to the idea of local foods. They did not see local food as a positive or negative idea, but when probed further, all but one showed at least some interest in the idea. The idea of supporting local businesses was ubiquitous across all institutional categories. Supporting the local economy and farmers proved to be popular ideas as well. Purchasing more fresh fruits and

vegetables was also a common incentive for specialists, especially among educational institutions. Knowing where food comes from was not a crucial factor for any of the institutions other than universities.

Organizational

Organizational drivers and barriers affected latent demand the most. Some examples included institutional requirements, contractual obligations, budget, shipping, and consumer preference.

Drivers: Cost and adhering to budget were the dominating drivers for institutional food purchase. Institutions expected food procurement specialists to keep food shipments coming in, without running out of food, while remaining within the institutional budget.

School systems were the institutional group with the most requirements for food purchase and therefore had the most drivers for maintaining cost while meeting state and federal requirements. This made school systems unlikely to seek out local foods on their own, as they were subject to an audit where every purchase needed to be justified as well as meeting nutritional requirements.

However, school systems were also the most likely to benefit through marketing, community buy in, and receiving assistive programing materials from participating in the farm-to-school program and other state initiatives connecting producers with school systems. The drive was present to purchase more local foods if those local foods come with marketing materials and through existing programs leading to evidence of latent demand.

“Now. Additionally, we try to provide promotional materials out of our office, and we've done different things, different years. One year we had food play come in, which was a play that we brought in for the younger kids to kind of talk about fruit and foods and

making healthy choices. So, we've done that, (and) like I said, the farmer school marketing materials we use those”

A negative driver for larger institutions was the contractual obligations with providers. As discussed in the previous section, larger institutions tended to contract with larger providers. These providers were able to keep costs down by keeping foods sourced in the network. This makes the likelihood of small and medium sized producers less likely to work with large providers. The lack of local foods offered by providers was seen as an institutional driver away from local food purchases.

“We do a bid process every year and we send out letters to other food vendors and then during our bid opening, we look at those bids and we go with the lowest bidder at the time.”

Keeping food costs down was important to all institutional groups. The smaller institutions like nursing homes, were most likely to source from many different smaller regional providers to keep within their budget, making regional providers a potential for latent demand, if the foods were already local and simply unmarked.

Barriers: Like the drivers, many of the organizational barriers stemmed from budgeting restrictions. Local foods do not represent any cost savings for institutions. So, there is often a barrier there, even if the desire and institutional drive is there to purchase local foods.

As discussed before, school systems had to justify every purchase through an audit. The school system would need to justify all food purchases above the average pricing.

“When we have auditors come in, they're looking at our bid pricing and we have to justify why we make a purchase if it's premium pricing. You've got to have really good,

documentation that the other product is not going to meet your timelines and that is not going to meet the requirements as well. So, if you're specking it out, how do you justify a premium when you're a school district that (is) trying to be financially savvy?"

Seeking competitive prices and adding the justification step is a barrier for institutions that would prefer purchasing food wholesale.

However, wholesale purchasing was a barrier for local foods latent demand. Because institutions were buying foods in bulk through wholesale providers, local foods needed to come into the institution in a specific way (i.e., prechopped and bagged lettuce, frozen veggies, and others). A common issue for institutions was the lack of personnel available to process raw foods. If an institution purchased local foods, the foods needed to be processed in a way the institution could use it. One specific product that came up in several interviews was chopped romaine lettuce. Institutions used chopped romaine lettuce as a salad base but did not have capability or time to chop the romaine lettuce in house. This required the institution to seek out prechopped romaine lettuce that was almost always shipped from California. Purchasing processed wholesale foods at an affordable price was a key barrier for institutions purchasing local foods.

Another barrier to local purchase was consumer preference. At the time of the study, no institution found a significant driver among consumers to purchase local foods. Because institutions were expected to meet consumer demands, they needed to create dishes they thought consumers would prefer. Changing the menu to meet seasonal restrictions and paying more for local foods were both seen as barriers for local food purchase.

Shipment was another somewhat common barrier. Many institutions have a strict schedule for deliveries coming to the institution. This was seen as a barrier for direct sells of local foods to institutions.

External

External factors affecting latent demand included drivers (promotional materials and provider buy-in) as well as barriers.

Drivers: Food procurement specialists made it clear that few external drivers influenced the purchase of local foods. External drivers were promotional materials and provider buy-in.

Some institutions would be interested in local foods if promotional materials were also provided. Public-school systems used promotional material in programming when available, which made it an incentive to purchase local foods.

“Honestly, we're in the day-to-day operations and sometimes (local foods) is on the back burner, because that's just a bonus, and we want to provide the education, but when (the education) is available, man, we can really go to town with that”

Even more institutions expressed interest in purchasing local foods if the provider were to show local food options. An example was when the provider indicated local foods with a decal or flare, and the institution would purchase that food over a similar one at a similar price. Another example was when providers had programs where they advertised working with local or regional producers, and institutions tried to support those programs. Interviewees mentioned if there were more marketing materials available and local foods programs, the institution would likely participate in said programs.

Barriers: Many barriers to local food purchase were outside of institutional or individual employee's control. Producer barriers, size and scale barriers, and provider barriers were mentioned during interviews.

Of the institutions that did want to purchase local foods, it was said that seasonality was major barrier to purchasing more local foods. Growing season and peak demand did not line up well for purchasing local produce. Not only did the growing season not line up well but institutions did not think enough producers were available to meet the demand of the institution, or that producers were too unreliable to make them a regular part of the food order.

Working with smaller producers is not common among the larger providers, which led to less local foods as providers seek out larger producers to fulfill orders. If the provider did not carry the product, the institutions were much less likely to seek it out.

"...a local vendor would have to be able to supply all the food items on the menu"

Larger providers require a scale that many small and medium sized producers cannot accommodate. For the smaller institutions, some said that they used to buy value added products from local vendors who have since closed. This meant there were potentially value-added products produced locally at one time, but during the interview were purchased further away. The loss of local (and reliable) vendors is a barrier for local food purchase.

"...depends on the product and the reliability of the vendor. You know if he can meet our requirements and it is something that we can use on the menu. Of course, yes. I don't have to put a dollar amount on, but you know (feeding) 3000 kids, if he got a product that you know we serve on the menu... I would love to help a local vendor."

Personal

While personal drivers and barriers impacted latent demand for local foods the least, when compared to organizational and external factors, food procurement specialists were quite open to the idea of local food purchase. Interviewees discussed the economic benefit of doing so, which conveyed personal drivers and barriers.

Drivers: The main personal driver for the purchase of local foods would be to support the local economy. Every employee interviewed thought it was important to support local businesses whenever possible. Some of the smaller institutions said that they personally chose to purchase from local vendors specifically to support local businesses. When considering local producers as business, then there was a great amount of latent demand for local foods.

“But by purchasing locally, you help your economy where you live and of course your tax base... So, we help support that effort by buying local... Of course, we are in the business of saving money. So, that's why you have more than one company that you can buy from, that you can negotiate a more balanced price.”

Employees also expressed a personal desire to improve the community through increased social engagement as well. Employees found that personal connections to vendors and suppliers gave them a feeling that they were helping the community, gave more opportunities for producers to interact with the community they serve, and gave consumers a chance to interact with those producers and the farms. This aspiration to support the local economy and community revealed a latent demand for purchasing local foods.

Barriers: Education in sustainable practices and how local food systems operate were major barriers for the food procurement specialists interviewed.

Even employees with more of an interest in local foods were not sure how they would fit into current purchasing models. Sometimes an employee had some knowledge of a new program or new offerings by the vendor or through a third-party provider. However, often the employee was not aware of how to use those opportunities. Among the less interested employees, there was a general lack of knowledge of where one would look to find local foods accessible at wholesale prices.

For others, it was the strict system of pricing that made pricing decisions difficult. In some cases, there might have been an opportunity for the purchase of local food that normally is too expensive but may become the better option. However, the employee might not have a clear understanding if paying more would be accepted by auditors.

“So, let's say romaine, and there's fires out west. It's affecting our romaine purchases that's not local. But it's still produce purchase that affects your pricing. So, when you're allowing that type of documentation it would be acceptable for you to do that because if you had that, and we have some things in order. I just think we could always strive to do better on that pricing. Because I'm responsible for maintaining the finances for my district, and I need to make sure that I'm following all of the requirements for pricing. And I think that's a hard piece to know local price in Atlanta; should I allow them to purchase that here? Should my pricing for if I buy locally from a farmer or my pricing is higher, when is that acceptable and how to better gauge that? I think we're all learning on that, but I don't think we're there.”

While personal barriers are important findings, there were less codes present for latent demand personal barriers, when compared to personal drivers

Conclusion

Latent demand for local foods among organizations, external forces, and individual employees exists in the form of desire to see more local foods in local institutions, the openness to the idea of using local foods, and overwhelmingly the desire to support local businesses. Organizations have policies that were intended to support the local economy. When there was more support from local producers through providers and third parties, institutions were able to make use of local foods, leading to the conclusion that, when there is more available, there is also more latent demand. While there were barriers at many levels, most codes were drivers which showed evidence of a latent demand for local foods.

CHAPTER 5

Discussion

This study's findings provide insights into the institutional demand of local food in Lee and Russell Counties. At the time of the study, quantity demand for local foods among institutions was low, while latent demand for local business partnerships was high and will remain high in the near future. Support of local business would extend to local food systems if conditions made institutional food purchase more accessible and economically competitive with conventional purchasing habits. The success and rise of existing national Farm to Institution (FTI) programs, like Farm to School (FTS) in K-12 schools, the Real Food Challenge on college campuses, and the Health Care Without Harm's Healthy Food Initiative in Hospitals, are further evidence that latent demand would remain high with the introduction of more local food purchasing options in the supply chain.

Three themes emerged from the quantity demand question: (1) contractual influencers, (2) providers, and (3) champions. Contracts did not mention local foods directly, except for one large institution that had a statement in their contract with the provider to purchase local foods at a rate of 20 percent of the total amount of food provided. Most contracts with providers allowed some purchase from third parties for institutions to find items that were unavailable through the provider. Contracting from large providers created a culture of compliance within the institution's purchasing methods and thus was a barrier to local food purchase. To raise quantity demand within current contracts, providers should carry more local foods, or institutions should renegotiate to allow/require purchase from local producers. The contract barrier for large institutions is consistent with other literature focused on FTI programs (Kulick, 2005; Perline et al., 2015). The lack of local foods mentioned in contracts with providers leads into the second

theme of quantity demand as interviewees said providers did not indicate food sources as a part of marketing to institutions, but rather price was the main attribute attached to food purchase. Limited available information on food origin, common among large providers (Golan et al., 2004), makes the choice for local an intentional and time-consuming prospect, leading to very little quantity demand for local food.

The last emergent theme of champions shows that while not statistically significant, there is some quantity demand in the area. The research identified two champions from those employees interviewed, champions as defined by the literature as individuals who initiate, inspire, and direct FTI programs (Bagdonis et al., 2009). These employees had supported the purchase of local foods in their institutions. As the literature (Joshi et al., 2006; Perline et al., 2015) indicates, the presence of champions are key findings for the establishment of a local food system (LFS). These findings also show that for two of the institutions, there is a culture of local food demand, thus a small but present quantity demand.

When asking employees about the potential for institutional local food purchase the latent demand themes took shape in the form of drivers and barriers to the purchase of local food. These findings were separated into three major themes of (1) organizational, (2) external, (3) and personal while drivers and barriers became subthemes within each major theme.

Drivers within the institutional organizations ranged from marketing objectives to streamlining the process of food purchase and delivery. The main driver tended toward keeping the food budget low. Though most of these drivers directed institutions away from local food purchase, institutions also valued support of local businesses through policy and incentives. Desire for local businesses creates a latent demand within the organization, or a potential for local food demand as local foods become more available. One large institution queried different

stakeholders to determine important features in the dining operation. Supporting local farmers was determined to be of significant importance to stakeholders and added to the mission of the dining department, meaning there is an unmet demand and money ready for local foods if there is a safe, consistent, and competitively priced supply. Multiple organizations already have a practice and culture of favoring local businesses, similar to others studied (Conner et al., 2014), which is evidence of latent demand.

The largest external driver was the cost of local foods. Increasing latent demand is contingent on a competitive price of local foods compared to conventional foods. When local foods were complimented with marketing materials, a reasonable demand resulted. In the advent of more local foods offered by providers, demand for local products would also increase. Barriers to latent demand for local food purchase is that many institutions require reliable, convenient delivery of processed products. Both issues are beyond any single employees' control and would require a coordinated effort from multiple groups beyond the institution.

At a personal level, all the employees supported local businesses whenever possible, making local businesses support a major driver for interviewees. Personal barriers mostly revolved around knowledge of local food products and how to incorporate local food in their normal buying process. It is possible that employees are purchasing local foods and unaware they are purchasing local food, because providers are not indicating local foods during the ordering process. Most interviewees stated they would purchase local foods over non-local foods. Personal latent demand would increase if local foods were incorporated into the normal buying process and if there is a clear local business recipient of the patronage according to the interviewees.

The findings clearly show that there is a capacity for local food purchase. Though as a whole the amount of local food purchase that food procurement specialists were aware of are insignificant, the latent demand theme reveals that most institutions could be purchasing local foods without their knowledge and have the capacity and desire to purchase more. Many barriers still exist for local food purchase take place, namely a competitive price and easily accessible forms of purchase. For institutions and individuals there is an opinion of local foods being overpriced, inaccessible, and unreliable. Even the two champions were unable to purchase the amount of local food that they wanted to due to lack of access and long-term contracts with local providers. The contracts with local producers that the champions used were informal and flexible, meaning they represented only a small number of food purchases used mainly for special events and unique occasions.

Implications

For producers, the amount of latent demand in Lee and Russell Counties means a large potential market will likely exist into the near future. Evidence of a potential market for local foods among institutions can create flexibility in a conventional system leading to LFS development (Cleveland et al., 2014). On one end of the LFS, producers can start by looking for provider groups to access larger institutions as explained by one of the institutional employees.

For large institutional sales, certification is important. Good Agricultural Practices (GAP) certifications among producers are a standard for institutional purchase and were mentioned by many as a necessity. Some providers require producers to become certified vendors, which means producers sign an economic and quality agreement with the provider.

There is an opportunity with smaller institutions, namely nursing homes, for producers to make long term contracts to supply specialty items a provider may not carry. Serving regional,

seasonal, or unique cultural items to nursing homes on a long-term contract could prove profitable. Nursing homes were the most likely to search for certain items to serve their residents. Nursing homes tend to find unique items to incorporate in their menu through feedback from residents.

Many government programs are available through the USDA (*Farm to Institution | Alternative Farming Systems Information Center | NAL | USDA, 2022*), the Alabama Department of Agriculture (Alabama Department of Agriculture & Industries, 2022), and non-profits, like Sweet Grown Alabama (Sweet Grown Alabama, 2022) and Alabama Sustainable Agriculture Network (ASAN) (Alabama Sustainable Agriculture Network, 2022). For many producers, the Farm to School (FTS) program represents a unique opportunity to engage with the community as well as sell produce. Some of the school systems have participated in the USDA Fresh Fruit and Vegetable Program (United States Department of Agriculture, 2017) that sends unique fresh fruits and vegetables from anywhere, not necessarily local.

The results of this study show that Lee and Russell County are underserved in the FTS program and if there are promotional materials available, the program could grow extensively. Of the schools interviewed none had a past partner that assisted in finding/procuring local produce. One institution mentioned a future partnership with Sweet Grown Alabama to find more producers. For producers, partnering with Sweet Grown Alabama or in other cooperative type groups could help meet the demand among institutions who want a more robust FTS program.

Recently, many grants became available to build local food systems and surrounding industries (United States Department of Agriculture, 2022b). Through external funding and long-term partnerships, groups of small to medium sized producers could potentially access a largely

untapped market by forming food hubs and cooperatives. Food hubs are groups specializing in aggregating and/or marketing local and/or regional produce to small or medium-sized producers. At the time of writing this paper, no operating food hubs exist in Alabama, though there are some groups operating like a food hub and still others that are outside the state of Alabama but inside the 200-mile radius set as a local food guideline for this study. Strategies to coordinate supply and demand among institutions and producers would take a third party like a food hub to act as an intermediary.

One of the major barriers to institutional purchase of local foods is processing. Finding food that was produced and processed in the state of Alabama is difficult. Most institutions purchased local foods in bulk, as unprocessed produce, institutions then processed in house, which was typically washing then cooking. These findings are similar to other studies (Becot et al., 2014). Processing facilities for small to medium sized producers are scarce across the United States. Partnerships of local producers and institutions are unlikely to progress past a small percentage of total purchases as many institutions lack the staff and facilities to process raw produce on site. There is an opportunity for partnerships between institutions and food hubs that already exist like The Common Market, Southeast (The Common Market, 2022), which specialize in institutional partnerships. Or institutions could partner with each other and seeking outside funding for a food hub pilot project (United States Environmental Protection Agency, 2022)

Other studies showed certain institutional categories (i.e. nursing homes vs. Universities) differed on price sensitivity (Becot et al., 2014). Though this study did not look at price as a variable for institutional purchasing habits, a trend seems to exist. Direct sales to universities, K-12 school systems, and nursing homes may yield profitable as one-time sales for producers but

developing relationships between producers and institutions would be key to a sustained local food system (Buckley et al., 2013; Dimitri & Gardner, 2019). After producers begin to establish local relationships, the LFS may be able to scale production and diversity to meet the price required by consistent institutional sales and scale up to demands of hospitals and correctional facilities, who tend to be less flexible in budget (Dimitri & Gardner, 2019).

Limitations

Though all public institutions were considered, not all were interviewed, limiting the sample size for this study and consequently did not fully reflect all institutions in the area, nor did this study reflect the state of local foods across the state. Though data saturation was reached within each institutional category, some institutions were not interviewed and may have differing opinions than those interviewed. The focus was also only on Lee and Russell counties, making sampling confined to two counties without a large city and only five municipalities. This limited the scope of the study and the findings to a small, unique region of the state and country.

Questions during the interview process may have led to a focus on local foods when the interviewee was not knowledgeable about local foods, causing biased answers. Because the focus of the study was on local foods, interviewees were forced into thinking about local foods when often, local foods were not a topic they had previously pondered. The focus may have caused bias toward local foods by the interviewee. Likewise, the section of questioning about institutional drivers and barriers likely had a larger presence in the analysis of ‘Latent Demand’ due to the subject matter being about institutional buying habits when purchasing foods.

Further Research

Many other key employees in an institution likely contribute to foods purchased by the institution. Future research should consider additional key employees in institutions as well as

key players outside the institution. Community demand, patron demand, employee demand, and institutional leadership demand are all players that can change institutional interest in local foods. Future studies could identify and investigate other players involved in the region for institutional food procurement.

Further research may focus on barriers and opportunities for producers. While some producers were present in the area, there was a price barrier for institutions purchasing from many regional producers. Finding a way for producers to provide produce at a competitive price will be key for future partnerships. Research focusing on specific crops that provide good yields at a competitive price and those institutions that can buy as raw produce could lead to long-term contracts. Most of the interviewees from the study were unaware of any producers in the area. Further research should focus on finding common goals between producers and institutional buyers. A mixed framework survey with environmental, economic, social, and health goals as well as fresh produce desires would reveal if there were any overlapping community driven goals while giving a starting point for institutions to partner with producers for specific product. Opening wholesale markets with producers would create a stable market of local produce at a competitive price.

Questions beyond the scope of this study are important in local food systems. A study into existing providers used by institutions in the area that focuses on the providers requirements of producers would help producers be strategic about what certifications they take into consideration. Learning about the attitudes of providers when it comes to GAP certification, HACCP (Hazard Analysis Critical Control Points) programs, and other certifications would help guide development of localized efforts towards a LFS. Aggregation and distribution are complex and expensive for upstarts and should build on existing infrastructure, when possible (Bloom &

Hinrichs, 2011), meaning that in a system that does not support local foods, partnerships should try to build on existing infrastructure to minimize risk.

Conclusion

The current study measured demand of local public institutions for local foods in Lee and Russell counties by interviewing food procurement specialists at universities, hospitals, K-12 school systems, nursing homes, and correctional facilities. A strength of this study is the in-depth interview process giving a voice to the people making food purchasing decisions in local public institutions. At the time this paper was written, no other studies have given a voice to institutional food procurement specialists in the geographic region represented. The interview process established a strong connection between institutional food procurement and preference for local business. If institutions can overcome the barriers of production, aggregation, distribution, and marketing, quantity demand among institutions will rise along with product availability through both conventional and newly formed product streams. The system's lack of support or marketing of local foods keeps quantity demand low, and the latent demand present shows us that as the systems already in place adapt to accommodate local foods the demand for local food will grow as well.

The interest of institutional purchasers was present during the study for an increase in local business partnerships. The challenge is identifying producers who are ready for wholesale markets and distributors who are willing to bridge the gap between producers and institutions. An opportunity exists for new producers and the creation of matchmakers that provide connection and technical assistance to producers. Anchor institutions are present in Lee and Russell counties and represent an opportunity for a more equitable, sustainable, and healthy local food system.

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Appendices

Appendix A – Interview Script

Interview Script

Hello, _____. Thank you for talking with me. I'm Jesse Teel, and I am conducting a study to better understand the supply and demand of locally sourced foods by local institutions. I am most interested in hearing your perceptions and practices regarding local food at your institution.

For the purpose of this conversation, we will consider locally sourced foods as any produce, meat, poultry, dairy, or other foods originating within a two-hundred-mile radius from where it will be served. As you answer the questions, think specifically about your institution.

A few housekeeping items before we get started.

- I will be reading from a script to ensure I say the same thing in all my interviews. Before we start, I hope to keep this conversation to one hour or less if possible.
- My goal is to keep this conversation to one hour or less if possible.
- Your participation is voluntary, and you may choose not to answer any of the questions. If you decide later to answer any of the questions or rescind any of your answers, you can email me until the end of October to discuss.
- Your responses will remain anonymous and any comments you make will not be attributed to the institution you are representing.
- At the end of my study, will provide you a report of the findings.

To ensure I get all the details but at the same time carry on an attentive conversation with you, I would like to record this conversation. Do I have your permission to interview?

Do you have any questions for me before we get started?

Questions

<p>1. Would you be willing to provide your operating budget for your dining program?</p> <p>2. Who are you serving? (Age range, employees/clients)</p> <p>3. Does your institution currently source local foods?</p>		
Yes		No
4. What items are you sourcing locally?	5. Are there any plans or commitments to make locally sourced foods a part of your menu in the future?	
<p>6. Who are your sources for (read the different items?)</p> <p>a. What is your process for you acquiring local products? (Look back at list again)</p>	Yes	No
3. Why is it important for your institution to purchase locally sourced foods?	2. What kind of commitment have you made? Is it a contract or a handshake deal? (Move to question 4, on the left)	3. Do you know if there is a demand for locally sourced foods in your institution?
<p>4. What barriers/or challenges have you encountered?</p> <p>a. How are working to overcome some of those barriers?</p>		a. Among the management team, from the staff, or customers/ patients/ students?

<p>5. Are you currently sourcing local foods to meet a contractual requirement from either a board, state, or federal initiative?</p> <ul style="list-style-type: none"> a. (Yes) Would you be willing to send me that information? b. Are you meeting requirements? c. What is the priority for sourcing locally? <p>a. Are you currently sourcing local foods to achieve a health initiative?</p> <ul style="list-style-type: none"> a. (Yes) Would you be willing to send me that information? b. Are you meeting requirements? <p>b. Are you currently sourcing local foods to achieve a local/community partner initiative?</p> <ul style="list-style-type: none"> a. (Yes) Would you be willing to send me that requirements? b. Are you meeting those requirements? <p>c. Are you currently sourcing local foods to meet a clause in your institution’s purchasing statement? How do you quantify that? Through percentages, pounds, or dollars?</p> <ul style="list-style-type: none"> a. (Yes) Would you be willing to send me that information? 	<p>4. Is there a system in place that can measure demand?</p>
<p>b. Are you meeting those requirements?</p>	
<p>6. Is there a dollar amount that is or could be dedicated to the purchase of local food?</p> <ul style="list-style-type: none"> a. Are you willing to pay a premium for locally sourced produce? 	<p>5. Would you consider buying produce from a local producer if they could consistently supply most if not all your produce needs?</p> <ul style="list-style-type: none"> a. What if a local vendor could supply all a single item or ingredient?
<p>7. Do you feel that you could promote branded local produce to your customers/students/patients? In other words, would branded locally grown ingredients be of value to you?</p>	
<p>9. What kind of role, if any, do you feel that local institutions play in the local food system?</p>	
<p>10. Do you have any insight you would like to share about the local food system?</p>	
<p>11. Do you have any questions for me?</p>	

Appendix B – IRB Approval

Auburn University Human Research Protection Program

EXEMPTION REVIEW APPLICATION

For information or help completing this form, contact: THE OFFICE OF RESEARCH COMPLIANCE, Location: 115 Ramsay Hall Phone: 334-844-5966 Email: IRBAdmin@auburn.edu

Submit completed application and supporting material as one attachment to IRBsubmit@auburn.edu.

1. PROJECT IDENTIFICATION

Today's Date 9/11/20

a. Project Title The potential for institutions to bring local foods to the public: the case of Alabama's Lee-Russell area

b. Principal Investigator Jesse Teel Degree(s) Bachelors in Horticulture Rank/Title Graduate Student Department/School Horticulture/Agriculture Phone Number (334)524-0075 AU Email jct0014@auburn.edu

Faculty Principal Investigator (required if PI is a student) Carolyn Robinson Title Associate Professor Department/School Horticulture/Agriculture Phone Number (334) 844-3031 AU Email cwr0001@auburn.edu

Dept Head Desmond Layne Department/School Horticulture/Agriculture Phone Number (334)844-4906 AU Email drl0021@auburn.edu

c. Project Personnel (other PI) – Identify all individuals who will be involved with the conduct of the research and include their role on the project. Role may include design, recruitment, consent process, data collection, data analysis, and reporting. Attach a table if needed for additional personnel.

Personnel Name Degree (s) Rank/Title Department/School Role AU affiliated? YES NO If no, name of home institution Plan for IRB approval for non-AU affiliated personnel?

Personnel Name Degree (s) Rank/Title Department/School Role AU affiliated? YES NO If no, name of home institution Plan for IRB approval for non-AU affiliated personnel?

Personnel Name Degree (s) Rank/Title Department/School Role AU affiliated? YES NO If no, name of home institution Plan for IRB approval for non-AU affiliated personnel?

d. Training – Have all Key Personnel completed CITI human subjects training (including elective modules related to this research) within the last 3 years? YES NO

The Auburn University Institutional Review Board has approved this Document for use from 09/04/2020 to Protocol # 20-379 EX 2009

e. **Funding source** – Is this project funded by the investigator(s)? YES NO
 Is this project funded by AU? YES NO If YES, identify source _____
 Is this project funded by an external sponsor? YES No If YES, provide the name of the sponsor, type of sponsor (governmental, non-profit, corporate, other), and an identification number for the award.
 Name _____ Type _____ Grant # _____

f. List other AU IRB-approved research studies and/or IRB approvals from other institutions that are associated with this project.

2. Mark the category or categories below that describe the proposed research:

- 1. Research conducted in established or commonly accepted educational settings, involving normal educational practices. The research is not likely to adversely impact students' opportunity to learn or assessment of educators providing instruction. 104(d)(1)
- 2. Research only includes interactions involving educational tests, surveys, interviews, public observation if at least ONE of the following criteria. (The research includes data collection only; may include visual or auditory recording; may NOT include intervention and only includes interactions). **Mark the applicable sub-category below (i, ii, or iii).** 104(d)(2)
 - (i) Recorded information cannot readily identify the participant (directly or indirectly/linked); **OR**
 - surveys and interviews: no children;
 - educational tests or observation of public behavior: can only include children when investigators do not participate in activities being observed.
 - (ii) Any disclosures of responses outside would not reasonably place participant at risk; **OR**
 - (iii) Information is recorded with identifiers or code linked to identifiers and IRB conducts limited review; no children. **Requires limited review by the IRB.***
- 3. Research involving Benign Behavioral Interventions (BBI)** through verbal, written responses (including data entry or audiovisual recording) from adult subjects who prospectively agree and ONE of the following criteria is met. (This research does not include children and does not include medical interventions. Research cannot have deception unless the participant prospectively agrees that they will be unaware of or misled regarding the nature and purpose of the research) **Mark the applicable sub-category below (A, B, or C).** 104(d)(3)(i)
 - (A) Recorded information cannot readily identify the subject (directly or indirectly/linked); **OR**
 - (B) Any disclosure of responses outside of the research would not reasonably place subject at risk; **OR**
 - (C) Information is recorded with identifiers and cannot have deception unless participant prospectively agrees. **Requires limited review by the IRB.***
- 4. Secondary research for which consent is not required: use of identifiable information or identifiable bio-specimen that have been or will be collected for some other 'primary' or 'initial' activity, if one of the following criteria is met. Allows retrospective and prospective secondary use. **Mark the applicable sub-category below (I, ii, iii, or iv).** 104(d)(4)
 - (i) Biospecimens or information are publically available;
 - (ii) Information recorded so subject cannot readily be identified, directly or indirectly/linked; investigator does not contact subjects and will not re-identify the subjects; **OR**

- Procedures subject to FDA regulations (drugs, devices, etc.) YES NO
- Use of school records of identifiable students or information from instructors about specific students. YES NO
- Protected health or medical information when there is a direct or indirect link which could identify the participant. YES NO
- Collection of sensitive aspects of the participant's own behavior, such as illegal conduct, drug use, sexual behavior or alcohol use. YES NO
- Deception of participants YES NO

4. Briefly describe the proposed research, including purpose, participant population, recruitment process, consent process, research procedures and methodology.

Purpose of this study: to measure the demand and interest in local foods among local public institutions in the Lee-Russell area of Alabama with a dining program. These public institutions receive government funding of some sort and serve people food. The institutions are stratified into five categories; higher education, K-12 education, hospitals, correctional facilities, and assisted living facilities. In the case of K-12 education, the central office will be contacted and someone may speak for the entire district of schools.

The research participants are dining directors and food sourcing employees at publicly funded institutions in Lee and Russell Counties in Alabama. The employees will be asked to participate in an interview at a later date through an email or phone call. Recruitment for this research will be done entirely by phone and email by reaching out to the institutions through public listings of phone numbers and emails in contact pages via website or similar means. Individual interviews will be conducted via Zoom or phone call and permission asked of each participant to record the conversation for accuracy. Questions cover the dining program budget, clientele, contract agency, and desires of the institution to promote local foods. Further communication through email is

5. Waivers

Check any waivers that apply and describe how the project meets the criteria for the waiver. Provide the rationale for the waiver request.

- Waiver of Consent (Including existing de-identified data)
- Waiver of Documentation of Consent (Use of Information Letter)
- Waiver of Parental Permission

All retrospective information will be de-identified.

Participants will be contacted first through email if possible which will include the information letter about the study. They will then have the opportunity to choose to be a part of the study. Any participants that need to be called first will be asked for an email address to send then the information letter in order for them to better understand the survey. They will then also have the choice to participate or not in the study.

6. Describe how participants/data/specimens will be selected. If applicable, include gender, race, and ethnicity of the participant population.

Participants will be selected based on their position at each institution. The participant should be the director or manager of food procurement at the given institution or someone designated by that role with the ability to speak for the director/manager of food procurement.

7. Does the research involve deception? YES NO If YES, please provide the rationale for deception and describe the debriefing process.

8. Describe why none of the research procedures would cause a participant either physical or psychological discomfort or be perceived as discomfort above and beyond what the person would experience in daily life.

The interview questions are designed to gain an understanding of the current workings of selected institutions in food procurement. The participants will be asked questions in a conversational manner and should be able to answer without difficulty. There will not be any personal questions for the participants.

9. Describe the provisions to maintain confidentiality of data, including collection, transmission, and storage.

Conversations with willing participants are to be recorded, with consent, and the file stored on the researchers computer. The conversations will be transcribed and reviewed by the primary researcher to maintain accuracy and will not be copied or sent to anyone. The participants' names will not be used in the publication of the research paper.



**INFORMATION LETTER
for a Research Study entitled**

“The potential for institutions to bring local food to the public: The case of the Lee-Russell area”

You are invited to participate in a research study to assess the demand for local foods among institutions in Lee and Russell County. The study is being conducted by Jesse Teel, under the direction of Dr. Carolyn Robinson in the Auburn University Department of Horticulture. You are invited to participate because you have been identified as policy maker or procurer of foods for your institution and are age 19 or older.

What will be involved if you participate? If you decide to participate in this research study, you will be asked to have a virtual meeting on Zoom with the researcher and talk about your institution's role in providing food to the people of Lee or Russell County. Your total time commitment will be approximately one hour.

Are there any risks or discomforts? The risks associated with participating in this study are minimal. Your interview time will be set by you, and you will not be manipulated to disclose personal information. To minimize these risks, we will not be naming individuals in the report.

Are there any benefits to yourself or others? If you participate in this study, you can expect to receive a full copy of the report and an ongoing correspondence with the researcher if desired. The report should be completed by the spring of 2021, and you will receive an email that contains the report. You will not directly benefit from being in this research.

Are there any costs? There are no costs associated with the study. There is also no compensation for participating in this study.

If you change your mind about participating, you may withdraw at any time during the study. Your participation is completely voluntary. If you choose to withdraw, your data can be withdrawn as long as it is identifiable. Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University, the Department of Horticulture or the College of Agriculture.

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Any data obtained in connection with this study will remain anonymous. We will protect your privacy and the data you provide by not naming any individuals and keeping all files within the University Network. Information collected through your participation may be used to fulfill an educational requirement, published in a professional journal, and presented at a professional meeting.

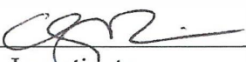
If you have questions about this study, contact Jesse Teel at jct0014@auburn.edu or by calling 334-524-0075. You may also contact Dr. Carolyn Robinson at cwr0001@auburn.edu.

If you have questions about your rights as a research participant, you may contact the Auburn University Office of Research Compliance or the Institutional Review Board by phone (334)-844-5966 or e-mail at IRBadmin@auburn.edu or IRBChair@auburn.edu.

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, THE DATA YOU PROVIDE WILL SERVE AS YOUR AGREEMENT TO DO SO. THIS LETTER IS YOURS TO KEEP.

 8.28.20
Investigator's signature Date

Jesse Copeland Teel
Print Name

 8-26-20
Co-Investigator Date

Carolyn W. Robinson
Printed Name

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Recruitment Script Email

Dear _____,

My name is Jesse Teel and I am a graduate student in the Public Horticulture Program at Auburn University. I am writing to invite you to participate in my research study about the role of local food in institutions. I am contacting you because the institution you work for receives public funding and is buying and serving food. I obtained your contact information from _____.

If you decide to participate in this study, we can set up a later date and time to talk to you on the phone or over zoom video chat. I would like to record our interview, but you can choose to allow that, and then we will use the information discussed to assess the current state of local food demand in the Lee-Russell area. The research findings will be released to all the participants after the study is complete and could help you in further sourcing product for your institution.

Remember, this is completely voluntary. You can choose to be in the study or not. If you would like to participate or have any questions about the study, please email or contact me at

(334) 524-0075.

There is an attached information letter covering your participation in this study.

Thank you very much.

Sincerely,

Jesse Teel

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Recruitment Script Phone Call

Dear _____,

My name is Jesse Teel and I am a graduate student in the Public Horticulture Program at Auburn University. I am calling to invite you to participate in my research study about the role of local food in institutions. I am contacting you because the institution you work for receives public funding and is buying and serving food. I obtained your contact information from _____.

If you decide to participate in this study, we can set up a later date and time to talk to you on the phone or over zoom video chat. I would like to record our interview, but you can choose to allow that, and then we will use the information discussed to assess the current state of local food demand in the Lee-Russell area. The research findings will be released to all the participants after the study is complete and could help you in further sourcing product for your institution.

Remember, this is completely voluntary. You can choose to be in the study or not. If you would like to participate or have any questions about the study, please email or contact me at

(334) 524-0075.

Is there an email address that I can send an information letter that covers more about your participation in this study?

Thank you very much.

Sincerely,

Jesse Teel

Wording borrowed from University of Oregon Sample Human Subjects Recruitment and Consent Materials page.

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Protocol # 20-379 EX 2009

Interview Script

Hello _____ thank you for talking with me. I'm Jesse Teel, and I am conducting a study to better understand the supply and demand of locally sourced foods by local institutions. I am most interested in hearing your perceptions and practices regarding local food at your institution.

For the purpose of this conversation, we will consider locally sourced foods as any produce, meat, poultry, dairy, or other foods originating within a two-hundred-mile radius from where it will be served. As you answer the questions, think specifically about _____ (institution).

A few housekeeping items before we get started.

- I will be reading from a script to help me address all my questions the same in each interview.
- Your participation is voluntary, and you may choose not to answer any of the questions. If you decide later to answer any of the questions or change any answers, you can email me by the end of October to discuss.
- Your responses will remain anonymous and any comments you make will not be attributed to _____ (institution).
- At the end of my study, I will send you what we learned from the findings.
- I hope to keep this conversation to one hour or less.
- Do you have any questions for me before we get started?

In order to give you my full attention without the need for detailed notes I would like to record you. Do I have your permission to record this interview?

Questions

1. Would you be willing to provide your operating budget for your dining program?		
2. Who are the people serving food to? (age range, employees/clients)		
3. Does _____ (institution) currently source local foods?		
Yes		No
4. What items are you sourcing locally?	5. Are there any plans or commitments to make locally sourced foods a part of your menu in the future?	
6. Who are your sources for (read the different items)?	Yes	No

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 Protocol # 20-379 EX 2009

<p>a. What is your process for you acquiring local products? (Look back at list again)</p>		
<p>3. Why is it important for your institution to purchase locally sourced foods?</p>	<p>2. What kind of commitment have you made? Is it a contract or a handshake deal? (Move to question 4, on the left)</p> <p>3. Is there a personal desire to see local food in your program?</p>	<p>3. Do you know if there is a demand for locally sourced foods in your institution?</p>
<p>4. What barriers/or challenges have you encountered?</p> <p>a. How are working to overcome some of those barriers?</p>		<p>a. Among the management team, from the staff, or customers/patients/students?</p>
<p>5. Are you currently sourcing local foods to meet a contractual requirement from either a board, state, or federal initiative?</p> <p>a. (Yes) Would you be willing to send me that information?</p> <p>b. Are you meeting requirements?</p> <p>c. What is the priority for sourcing locally?</p> <p>a. Are you currently sourcing local foods to achieve a health initiative?</p> <p>a. (Yes) Would you be willing to send me that information?</p> <p>b. Are you meeting requirements?</p> <p>b. Are you currently sourcing local foods to achieve a local/community partner initiative?</p>	<p>4. Is there a system in place that can measure demand?</p>	

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<p>a. (Yes) Would you be willing to send me that requirements?</p> <p>b. Are you meeting those requirements?</p> <p>c. Are you currently sourcing local foods to meet a clause in your institution's purchasing statement? How do you quantify that? Through percentages, pounds, or dollars?</p> <p>a. (Yes) Would you be willing to send me that information?</p> <p>b. Are you meeting those requirements?</p>	
<p>6. Is there a dollar amount that is or could be dedicated to the purchase of local food?</p> <p>a. Are you willing to pay a premium for locally sourced produce?</p>	<p>5. Would you consider buying produce from a local producer if they could consistently supply most if not all your produce needs?</p> <p>a. What if a local vendor could supply all a single item or ingredient?</p>
<p>7. Do you feel that you could promote branded local produce to your customers/students/patients? In other words, would branded locally grown ingredients be of value to you?</p>	
<p>9. What kind of role, if any, do you feel that local institutions play in the local food system?</p>	
<p>10. Do you have any insight you would like to share about the local food system?</p>	
<p>11. Do you have any questions for me?</p>	

Once again, I want to thank you for giving up your time to be a part of this study.

If you need to get in touch with me, you can call or email me.

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Completion Date 31-Oct-2019
Expiration Date 30-Oct-2022
Record ID 33833444

This is to certify that:

Jesse Teel

Has completed the following CITI Program course:

**IRB # 2 Social and Behavioral Emphasis - AU Personnel -
Basic/Refresher**
IRB # 2 Social and Behavioral Emphasis - AU Personnel
1 - Basic Course

(Curriculum Group)

(Course Learner
Group)

(Stage)

Not valid for renewal of certification
through CME. Do not use for
TransCelerate mutual recognition
(see Completion Report).

Under requirements set by:

Auburn University



Verify at www.citiprogram.org/verify/?w36956c69-13c8-48e0-9873-7ab8f26c5801-33833444



Completion Date 07-Aug-2020
Expiration Date 07-Aug-2023
Record ID 23250090

This is to certify that:

Carolyn Robinson

Has completed the following CITI Program course:

IRB Additional Modules (Curriculum Group)
HIPAA and Human Subjects Research (Course Learner Group)
1 - Basic Course (Stage)

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Under requirements set by:

Auburn University



Verify at www.citiprogram.org/verify/?wde9d6af7-5820-468d-b9c9-d29caa9046f6-23250090