
Community Food Assessment for Jackson and Union Counties in Illinois



A study conducted by the Jackson and Union County CFA Team

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EXECUTIVE SUMMARY

The Jackson and Union County Community Food Assessment (CFA) was initiated in 2008 and carried out through 2010. The community residents who participated were united in identifying current local food system elements and highlighting the needs, as well as the existing assets. The assessment served as an excellent tool with which to speak to the community and identify the projects that might strengthen our local food system.

A steering committee of more than 20 local residents originally mapped out several questions about the food system which were translated into objectives for the project. The CFA Team then used a variety of methods to analyze the production, marketing and consumption of food in the two counties. To ensure that the research was relevant and meaningful, two graduate students from Southern Illinois University-Carbondale were recruited to assist. The data collected was processed and interpreted with a great deal of effort on the part of the student researchers. We then reviewed census data, previously conducted CFAs, and other available research and information. Our research showed that there is tremendous opportunity for local food system development in Jackson and Union counties. At the same time, the area has many wonderful advantages and resources on which to build.

Community food security was the catalyst for the assessment. The CFA Team saw the information gathered as a means of supporting community-led approaches to increasing the amount of food grown and consumed locally in a manner that is accessible to all citizens. While there are significant barriers to the production, distribution and marketing of locally grown food, the findings detailed in this report serve as a starting point for residents to work together to create a more resilient local food system.

INTRODUCTION

The manner in which our food is grown and consumed has changed dramatically over the last 60 years. As a result of these epic changes, most of us have become disconnected from the source of our food and no longer understand how it makes its way onto our tables.

In spite of making great strides to address on-farm efficiency and worldwide hunger, our industrialized and mostly anonymous food system externalizes the environmental and social costs of modernization.¹ For example, the so-called “Dead Zone,” an area in the Gulf of Mexico affected by effluent from farms in the Mississippi River Basin, is one of 146 areas in the world where high-productivity agriculture has had a deleterious effect on aquatic systems.² At the same time, the evolving modern agriculture results in a level of farm consolidation that contributes to a loss of rural jobs and the outmigration of rural residents who must look to urban areas for economic opportunity.³

Additionally, food related diseases lead to some of the nation’s most threatening public health epidemics. The Centers for Disease Control and Prevention (CDC) has determined that obesity and overweight rates have risen dramatically in the past three decades. According to the CDC, more than one-third of U.S. adults and 17% of U.S. children are obese, with obesity rates doubling for adults and tripling for children from 1980-2008.⁴

With a population of over 12 million people, Illinois spends \$48 billion each year on food.⁵ Less than 10% of this food is grown within state borders. Indeed, Illinois’ top farm products are corn (51%), soybeans (31%), and cattle and hogs (12%).⁶ Though Illinois has productive soil, most food grown for people comes from distant places like California, Florida and even other countries.

Access to fresh, healthful food has become a challenge for too many Southern Illinois adults and children. In 2011, the United States Department of Agriculture (USDA) identified 14 of the 23 southernmost counties of Illinois as having food deserts, many of them with multiple food desert tracts.⁷ According to the USDA, “the Healthy Food Financing Initiative (HFFI) Working Group considers a food desert as a *low-income census tract* where a substantial number or share of residents has *low access to a supermarket or large grocery store*”. Furthermore, according to the CDC, fruit and vegetable consumption is a key indicator for human health. And yet, in 2009, the CDC reported that 78% of people in Southern Illinois do not eat the minimum five servings of fruits and vegetables each day.

Consequently, rates of diet-related diseases are high in Southern Illinois. According to the Illinois Department of Public Health, 34% of people here have high blood pressure, 36% suffer from high cholesterol, nearly one in ten have diabetes, and 62% are obese or seriously overweight.⁸ This may be due in part to the high cost of imported fresh foods compared to the availability of cheap, processed, high carbohydrate options. This assertion seems more probable when we consider the region has a majority of the state’s lowest median income counties.⁹

Beyond the environmental, economic and health benefits, establishing a more regional food system can restore our lost connections to agriculture and the food we eat, an effort to which many Southern Illinois residents are passionately giving time and other resources.

Culturally, the region is well known for its rich history of fruit and vegetable production, including successful small farms. In recent decades, the region has seen a resurgent growth in fruit production, with an emphasis on vineyards and wineries. Through a highly organized and effective campaign, the Shawnee Hills region was designated as an American Viticulture Area in 2006.¹⁰ This establishes precedent that Southern Illinois has great potential to expand and diversify beyond the state's predominant agricultural model.

Great problems call for many small solutions. It is in this spirit that more than twenty community members from Jackson and Union counties in Illinois united in the summer of 2008 to assist in planning a Community Food Assessment, or CFA. CFAs are tools that provide a profile of a food and farming system within selected criteria.¹¹ With a CFA, a community can determine areas for improvement and identify existing assets on which to build. CFAs use a collaborative and participatory process and may involve people from educational institutions, health and agricultural agencies, and concerned citizens. A CFA can serve as the beginning of an action plan for increasing community food security, defined as “[a] condition in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice.”¹²

The CFA project coordinators chose *What's Cooking in Your Food System? A Guide to Community Food Assessment*, produced by the Community Food Security Coalition, as primary guidance for the CFA process. Those at the planning table included farmers, local grocery store managers and local food systems advocates. These citizens gave invaluable input into the research process before the project was underway. As a result of these meetings, a list of primary goals related to establishing a local food system in the region was created. The resulting list inspired the direction of the assessment. Following the planning phase, a group of nine people remained active and led the way in conducting the assessment and organizing data collection (see Appendix B: Biographies).

The assessment process began with the selection of Jackson and Union counties as the geographical scope of the study. Due to limitations on time and resources, the Team chose to focus on these counties rather than all of the counties in Southern Illinois. The team outlined five goals to guide the assessment:

- increase the quantity of food that is locally grown and consumed
- compile a local resource directory that will increase consumer awareness of the benefits of local food systems
- facilitate Farm to School Programs within Jackson and Union counties
- provide greater access to healthful, fresh, local food for emergency food agencies (food banks, soup kitchens), Supplemental Nutrition Assistance Program (SNAP) recipients, and Women, Infant and Children (WIC) programs
- ensure that the local food system prevents waste and promotes environmental sensitivity

In order to address as many of these goals as possible given our limited resources, the CFA Team focused on three primary components of the food system: consumption, infrastructure and production. From there, three independent research projects were created:

- a consumer survey conducted at grocery stores in Jackson and Union counties
- a survey by mail of grocery store managers
- a printed survey and focus group interviews of local farmers

The CFA Team adopted many roles throughout the process. They determined the purpose of the study and related goals; conducted research among consumer, grocery store, and farmer groups; compiled data and helped interpret results; and assisted with dissemination of the information. The CFA project was coordinated by the staff of Food Works, a non-profit organization based in Carbondale, Illinois, with a mission of local and sustainable food systems development for the Southern Illinois region. Two graduate students in the Department of Sociology at Southern Illinois University Carbondale (SIUC) were recruited to collaborate in this participatory action research (PAR) project. PAR is characterized by three traits: “the active participation of researchers and participants in the co-construction of knowledge; the promotion of self- and critical awareness that leads to individual, collective, and/or social change; and the building of alliances between researchers and participants in the planning, implementation, and dissemination of the research process.”¹³

In the following pages we report the results of the Jackson and Union County Community Food Assessment. We begin with the results of the Consumer Access Survey, including an overview of retail food sources in Jackson and Union counties. Next, we report the results of the Grocery Store Manager Survey, including the process by which local farmers can get their products into a grocery store. The Producer Survey and Focus Group results are discussed in the third section. In addition to providing the results of the research projects, each section includes recommendations for future work from the CFA Team. The paper concludes with a brief synthesis and summary of the results.

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1. Zimdahl, Robert L. 2006. *Agriculture's Ethical Horizon*. Burlington, MA:Elsevier.
 2. Postel, Sandra. 2005. *Liquid Assets: The Critical Need to Safeguard Freshwater Ecosystems*.
 3. Baltensperger, Bradley H. 2011. “Farm Consolidation” in *Encyclopedia of the Great Plains*. Edited by Wishart, David J. University of Nebraska-Lincoln. (<http://plainshumanities.unl.edu/encyclopedia/doc/egp.ag.032>)
 4. National Center for Chronic Disease Prevention and Health Promotion. 2011. “Obesity: Halting the Epidemic by Making Health Easier, At a Glance 2011.” (<http://www.cdc.gov/chronicdisease/resources/publications/AAG/obesity.htm>)
 5. Illinois Local and Organic Food and Farm Task Force. 2009. “Local Food, Farms & Jobs: Growing the Illinois Economy.” (<http://foodfarmsjobs.org/wp-content/uploads/2011/08/2009-task-force-report1.pdf>)
 6. USDA Economic Research Service, 2010.
 7. USDA Economic Research Service. 2012 “Documentation” *Food Desert Locator*. (<http://www.ers.usda.gov/data-products/food-desert-locator/go-to-the-locator.aspx>)
 8. Illinois Department of Public Health. Illinois Behavioral Risk Factor Surveillance System. (<http://app.idph.state.il.us/brfss/countydata.asp>)
 9. Flint, Courtney and Stephen Gasteyer. 2007. *Southern Illinois Regional Assessment Project*. (<http://www.aces.uiuc.edu/Research.html/SIRAP/>)
 10. Federal Register. (<http://www.gpo.gov/fdsys/pkg/FR-2006-11-27/pdf/E6-20023.pdf>)
 11. Pothukuchi, Kami et al, *What's Cooking in Your Food System*. Community Food Security Coalition, 2002.
 12. Hamm, M. and A. Bellows. 2002. *Journal of Nutrition Education and Behavior* 35(1), 37–43. Pp.37
 13. McIntyre, Alice. 2008. *Participatory action research*. London: Sage Publications. Pp. ix.

CONSUMPTION AND LOCAL FOOD ACCESS

Introduction

The CFA team focused on four areas in exploring the actions and ideas of Jackson and Union county residents regarding food. These areas included the barriers to consumer access to locally grown foods in Southern Illinois; ways in which Southern Illinois communities respond to the needs of underserved populations to ensure equitable access to fresh food; opportunities to expand local food systems based on a greater understanding of the community's interests; and ways to improve dietary and environmental health through the facilitation of increased consumption of locally and ecologically grown food.

In Jackson and Union counties, supermarkets and department stores are found in high traffic locations in the larger towns of Carbondale, Murphysboro, Anna and Jonesboro. Residents in Cobden, Alto Pass, Grand Tower, Wolf Lake, Ava and other rural towns have no nearby supermarket. As mentioned previously, fourteen of the twenty-three counties making up the Southern Illinois region are identified as having “food deserts.” Many of these have multiple food desert tracts¹ (see Map 1). Residents without automobiles rely on other means such as walking, bicycling, limited bus transportation, taxi service, or family and friends to purchase their groceries at supermarkets.

Methods

In this part of the study, the CFA team focused on assessing consumers' current food access practices and their interest in purchasing more local food. The team began by identifying stores in the two-county area where residents can purchase groceries. These stores included convenience stores, specialty stores, supermarkets and department stores, such as Walmart Superstores (see Table 1).

The CFA team designed, administered and analyzed surveys of a convenience sample of consumers at participating grocery stores in Jackson and Union counties in order to gather information about residents' interest in and current access to locally grown foods. The team concentrated on stores that could offer a complete shopping experience for customers. The survey was guided by the CFA Team's goals to identify the level of demand for local food and highlight current strengths and challenges to creating and ensuring a successful, locally based food system.

The team identified 22 grocery stores in the two-county region. To reduce bias, grocery stores invited to participate represented a mix of supermarkets, independent cooperatives and specialty stores. Store managers were contacted by phone. For this initial project, convenience stores were not included in the sample. Of the stores invited, 11 stores allowed surveys to be administered in front of their businesses (see Map 2). Thirty-five trained volunteers administered the surveys on a Saturday morning during prime shopping hours. The volunteers included students from Southern Illinois University Carbondale, community members and the CFA Team. All were trained by the CFA project's research advisors. At each store, volunteers used the same script to recruit participants and all customers entering the store were counted to obtain an accurate response rate.

Convenience Stores	Specialty Stores	Supermarkets	Department Stores
23 Corner Stores and Gas Station Convenience Stores	Aldi Arnold's Market Ava Food and Family Center BJ Foods Dona Camilla Farm Fresh (2) Fresh Foods Grammer's Market Hans Market International Market La Mexicana Neighborhood Co-op Grocery Town Square Market	Schnuck's Kroger (2) Sav-A-Lot	Walmart Superstore (3)

Store	Completed Surveys	People Entering	City	County
Dona Camilla	11	32	Carbondale	Jackson
Farm Fresh	42	139	Murphysboro	Jackson
Sav-A-Lot	67	190	Carbondale	Jackson
Neighborhood Co-op Grocery	102	336	Carbondale	Jackson
Walmart	80	436	Carbondale	Jackson
Town Square Market	13	23	Carbondale	Jackson
Walmart	60	317	Murphysboro	Jackson
BJ Foods	21	75	Dongola	Union
Grammer's Market	17	38	Alto Pass	Union
Sav-A-Lot	43	142	Jonesboro	Union
Walmart	121	1,026	Anna	Union
Total	577	2,754		

The Jackson County sample consists of 375 participants with Union County at 202 (see Table 2). Of the 2,754 customers counted entering the stores at the time of survey administration, 577 surveys were completed - a response rate of 21%. Table 3 represents survey demographic results by county. The majority of Union and Jackson County participants surveyed are aged 30-49, Caucasian females, with at least some college and a monthly household income of \$1,001-2,000. The average household size of survey participants consists of two adults with no children. There are slight differences between each county, such as the variation in education, race and family size.

Table 3: Consumer Participant Demographics		
	Jackson County (%)	Union County (%)
Gender		
Male	45.3	32.3
Female	45.3	60.2
Age		
18-29	22.7	36
30-49	38.8	32.8
50-64	24.6	12.9
65-74	5.4	8.6
75+	2.5	4.8
Race		
Black/African American	16.7	1.6
Asian/Pacific Islander	4.8	0.5
White/Caucasian	64.6	90.3
Hispanic/Latino(a)	5.4	1.1
American Indian	0.6	0.5
Bi-racial/Multiracial	1.4	1.1
Other	6.5	4.8
Education		
High School or Less	14.2	25.8
Some College	29.2	44.1
Bachelor's Degree	21.8	16.7
Graduate Degree	28.3	8.6
Monthly Household Income		
\$1000 or less	12.5	10.2
\$1001-\$2000	18.4	21
\$2001-\$3000	11.9	13.4
\$3001-\$4000	11.3	12.9
\$4001-\$5000	7.9	5.9
\$5001-\$6000	4.8	3.2
\$6001-\$7000	2.5	3.2
Household Size (Adults)		
1	19.3	16.7
2	63.7	65.6
3	9.3	11.3
4	2.5	4.3
5	1.7	---
6	0.6	---
Children		
0	62.9	58.1
1	13.9	13.4
2	12.2	11.3
3	4.8	9.1
4	3.7	3.2
5	0.8	1.6
7	0	1.1
9	0.6	0
12	0	0.5

Results

The CFA Team used the four themes outlined in the introduction to explore the data. The emerging themes from the coding process include sources of household diet, travel and shopping frequency, food assistance programs, food choices, labels, purchasing locally and organically produced food, concerns people had about their food, community food programs and projects of interest, and composting. These findings are addressed below.

Sources of Household Diet

Survey participants were asked to select which sources they used to obtain food for their households. The survey data collected gives a general idea of how much food is coming from each source. While this is a crude estimate of sources of household diet, it does depict trends and reveal useful information for future research.

Over 75% of survey participants obtain the majority of their food from grocery stores. Roughly half of consumers supplement their household diet by procuring foods from farmers markets (50%) and/or dining out (40%). A greater number of Union County survey participants (48%) shop for food at farm stands than Jackson County participants (31%). This difference may be because Union County is more rural and has more food producers.

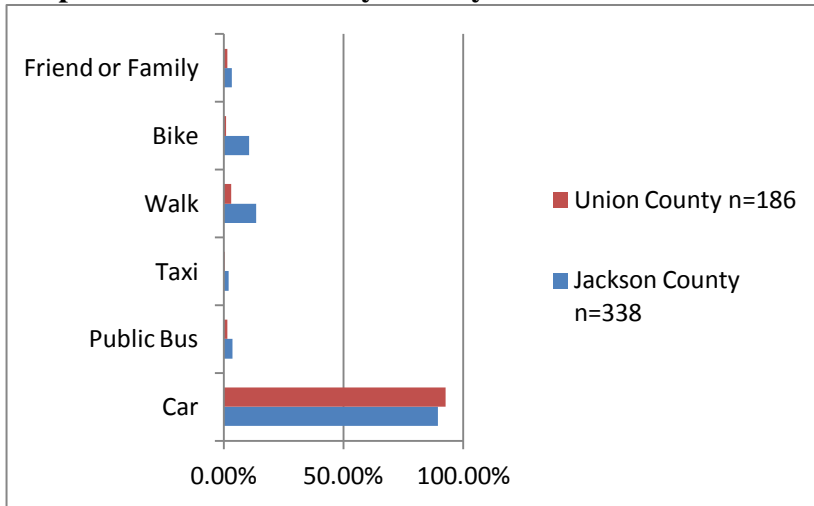
About 18% of Jackson and 24% of Union County participants access *some* of their household diet from convenience stores. Convenience stores typically sell limited high-convenience items such as bread, milk, snacks and beverages. They are often open late and tend to be located in the most populated rural and urban areas. While this data does not give us enough information to determine limitations to food access related to convenience store purchases, it gives us a general idea of how many people use convenience stores to purchase food.

Very few of the consumers surveyed rely on senior meal programs, soup kitchens or food pantries for their household diets. Only 13% of households receive *some* food from school food services. A few participants indicated that they also get their food from a Community Supported Agriculture farm.

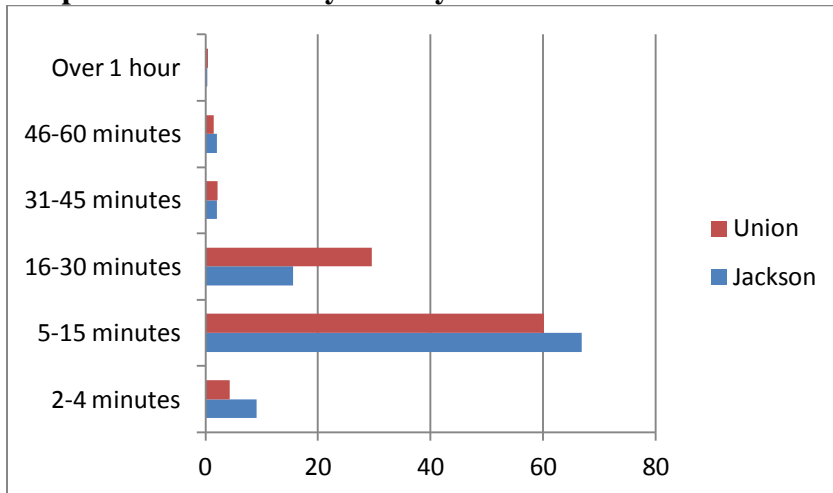
Travel and Shopping Frequency

The means of transportation, travel time and frequency of shopping provide insights into possible barriers to acquiring food. As illustrated in Graph 1 through Graph 3, most respondents travel by car to shop for food. Still, a number of consumers walk and bike to shop for food. Walking and biking are used more by Jackson County shoppers. Compared to Union County, Jackson County is considered more urban.

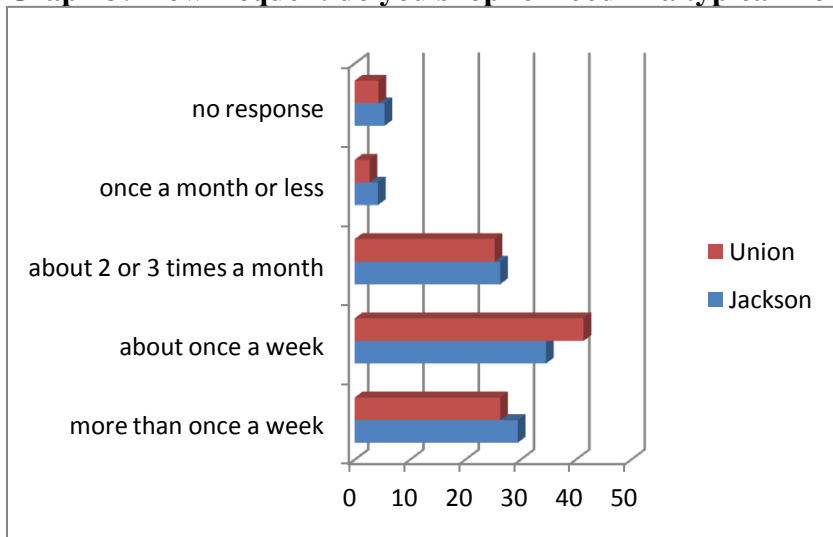
Graph 1: Form of travel by County



Graph 2: Travel time by County



Graph 3: How frequent do you shop for food in a typical month?

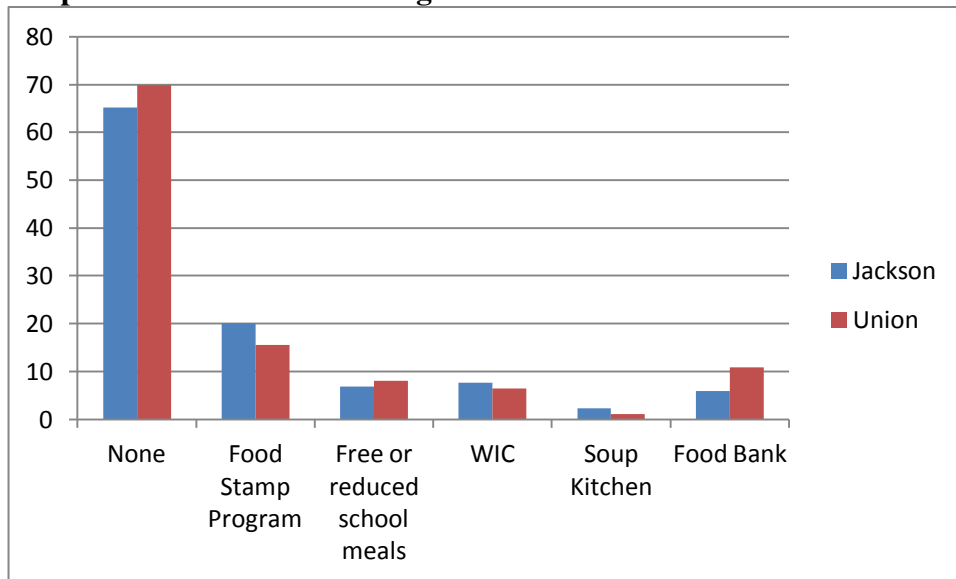


Another factor assessed was travel time. According to a 2009 USDA report, “people living in low-income areas with limited access spend significantly more time (19.5 minutes) traveling to a grocery store than the national average (15 minutes).”² Over 60% of shoppers surveyed travel less than 15 minutes for food. About 16% of Jackson County and 30% of Union county participants travel between 16-30 minutes. In regard to the frequency of shopping trips per month, the responses in each county are fairly similar (see Graph 3). Most people shop about once a week in a typical month. About 25% from both Union and Jackson counties shop about two or three times a month. Fewer than 5% shop only once a month or less.

Food Assistance Programs

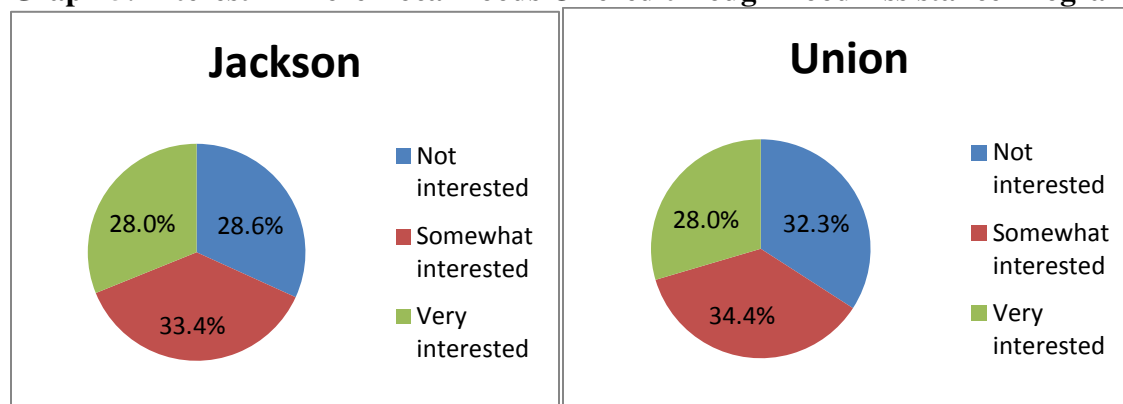
Exploring the food assistance programs used by local consumers provides insights into the level of food insecurity. Government initiatives such as the Illinois Women, Infants and Children (WIC) program and Senior Farmers Market voucher program promote the health benefits of fresh fruits and vegetables while expanding the use and awareness of Farmers Markets.³ The CFA Team wanted to know which food assistance programs were used by shoppers in the past year. Shoppers were also asked if they would be interested in having more local food offered through these programs.

Graph 4: Food Assistance Programs Used in the Last Year



Of the food assistance programs used by consumers, the Illinois Food Stamp Program (LINK) is used most frequently (see Graph 4). Use of other programs varies across each county. Over 65% of consumers surveyed do not receive food assistance. Only about 6% of Jackson County respondents use food banks, but Union County results indicated 11% of consumers acquire some of their food from these emergency sources. As Graph 5 illustrates, 28% of participants are very interested in more local food being offered through food assistance programs and at least 33% are somewhat interested.

Graph 5: Interest in More Local Foods Offered through Food Assistance Programs



Food Choices

Determining food preferences of Jackson and Union County residents, as well as their values and interests related to food purchases, may help support local food system market development.

Survey respondents were asked to indicate which factors were important to them when choosing food. Ninety-three percent of participants consider safety as a factor when considering their food choices. This was followed by taste (91%), nutrition (81%) and price (63%). Convenience is also fairly important to 51% of consumers surveyed. Thirty-eight percent consider locally grown food as a very important factor when making their food choices, and 23% consider organically grown food very important.

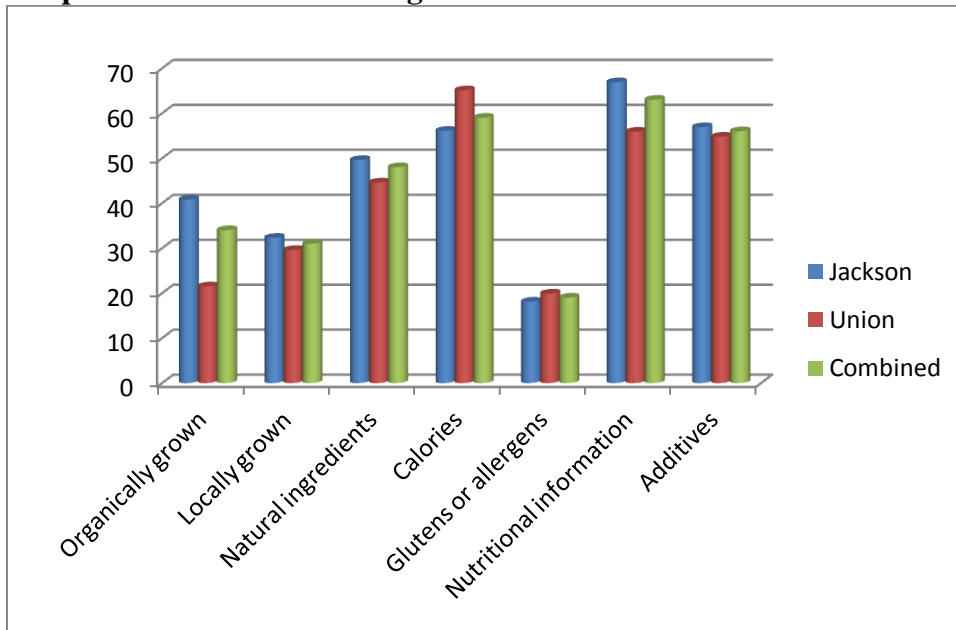
County residents exhibited some interesting differences in their responses to their food choices. Sixty-four percent of Union County participants compared to 50% of Jackson County participants indicated knowing the farmer is an important factor. In addition, organically grown food is slightly less important to shoppers in Union County (65%), compared to Jackson County (73%).

Labels

The CFA Team was interested in understanding what respondents look for on labels when they shop for food. When reading labels, 63% consider nutritional information, 59% calories and 56% additives (see Graph 6). A comment section invited participants to list additional concerns; these included vegetarian/vegan, preservatives, salts, expiration date, country of origin, brand, hydrogenated oils, rBGH, GMO's, dyes, lactose, nuts, corn products, fiber and sugars.

When reading food labels, nutritional information is notably consulted most. This information varies and can include caloric or fat content. The majority of consumers responding read food labels to determine nutrition and natural ingredients. It is interesting to note that about the same number of shoppers look for local and organic labels combined as do for nutritional information.

Graph 6: Reasons for Reading Food Labels



Purchasing Locally and Organically Produced Food

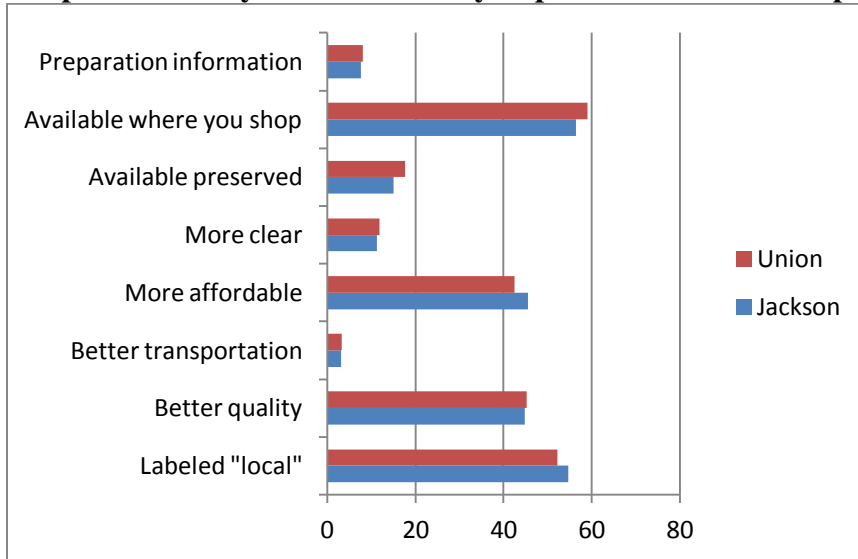
Shoppers were also asked to select which factors would influence their willingness to purchase local and organic foods (see Graphs 7 and 8). Over 50% of those surveyed indicate they would be more likely to purchase locally produced foods if they were more available and labeled “local.” Affordability and quality also have significance in the willingness to buy local.

Most shoppers did not indicate that the availability of local food in a preserved state, preparation information, or better transportation would influence their decision. A common theme in participants’ comments, however, stressed the availability of locally produced foods year-round and availability in a preserved state. Other comments were constructive, such as which farm or farmer was the source and if the products were fresh and had an expiration date.

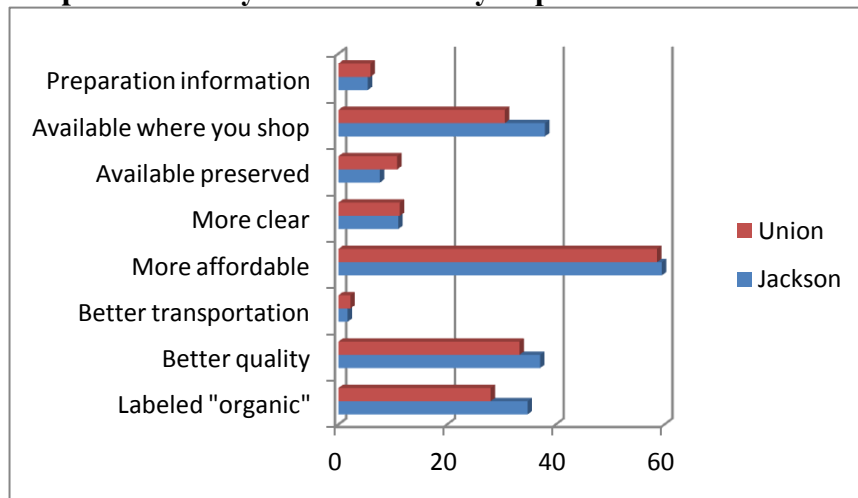
Organic foods are generally more expensive than conventionally produced foods. In Jackson and Union Counties, 59% of respondents would purchase more organically produced foods if they were more affordable. Over 28% would be more likely to purchase organically produced foods if they were labeled. Other factors differ slightly in rank by county. A few people shopping in Union County commented that they do not buy or care for organic products. Others mentioned they would purchase organic products if “[t]hey were available in a preserved state in winter. Although, [this is] not as much [of] a problem as local.” Another comment was related to the distance organic food is traveling: “They mostly come from far away, if they didn’t I would buy them.”

Shoppers were asked to indicate which factors were more likely to influence them to purchase locally produced foods. If locally produced foods were available where they shop, are labeled local, more affordable, and of better quality they would be more likely to make the purchase. Based on the responses, it is clear that consumers will be *more likely* to purchase local foods if they became more available (see Graph 7). Many shoppers would appreciate the convenience of purchasing local foods at their favorite shopping locations.

Graph 7: Would you be more likely to purchase LOCALLY produced foods if...



Graph 8: Would you be more likely to purchase ORGANICALLY produced foods if...

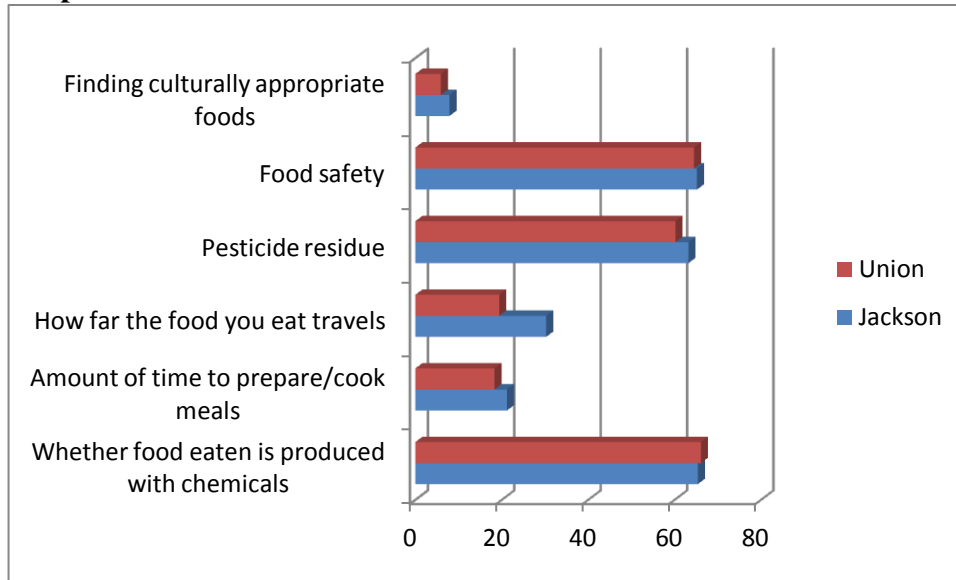


Concerns

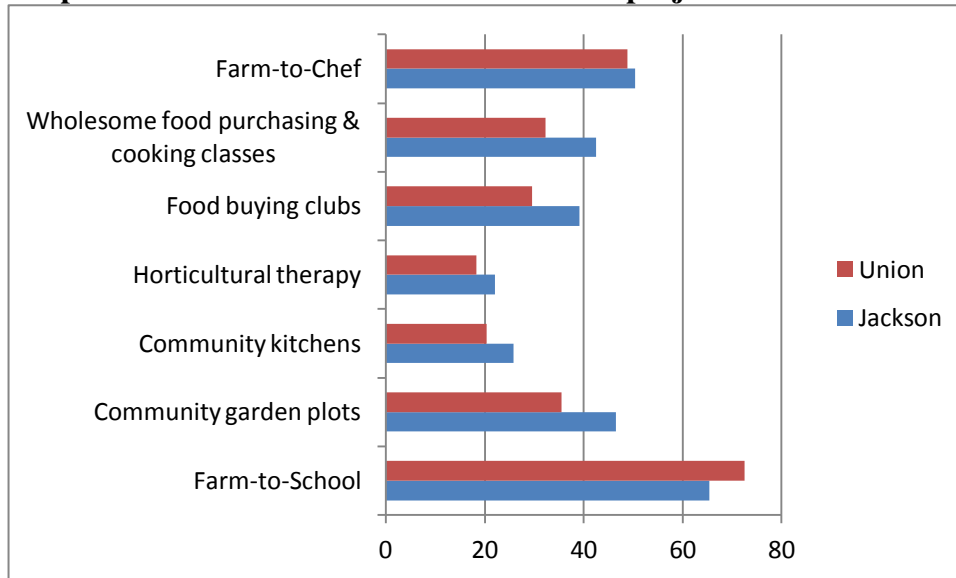
Over 60% of respondents are concerned with food safety and residue from pesticides and agricultural chemicals. Thirty percent of Jackson County and 19% of Union County respondents are concerned with the distance food travels from its original source. Finding culturally appropriate foods concerns only about 6% of respondents (see Graph 9).

Consumers in both counties indicate that they are very concerned about food safety. Pesticide residue and agricultural chemicals are other significant concerns shoppers have about the food they eat. This is an interesting disconnect; it is possible people may be concerned about these issues but do not support organic because of cost and availability barriers. There could also be a lack of information about organically produced foods. While many respondents seem concerned about whether or not synthetic pesticides and other chemicals are being used, there is less support for organic foods than local foods. There is also overwhelming support for local foods, yet 71% of respondents did not indicate concern about the distance their food has to travel.

Graph 9: Concerns about the Food You Eat



Graph 10: Consumer interest in food-related projects



Community Food Programs and Projects of Interest

Survey respondents indicated which food programs they would like to see in their community. Shoppers express a strong interest in seeing farm-to-school, farm-to-chef, and community garden programs (see Graph 10). There was less interest in community kitchens and horticultural therapy programs.

Composting

Waste cycling is an integral part of the food web. Shoppers were asked whether or not they compost at home. Over 20% of all survey respondents compost at home. The results unearth an opportunity to find out more about those who do not compost. For example, future research could explore the type of education about composting residents would like or if barriers to composting exist in urban areas.

Conclusions

Based on the results of this study, the following areas offer opportunities to increase consumer access to healthy, affordable, locally grown foods:

- greater access to local food through food assistance programs
- research on health benefits of local foods
- increased alternative forms of markets for greater access
- increased food literacy and outreach
- improved local and organic labeling
- investment in community food programs

The CFA Team found that residents of Jackson and Union counties access food from a variety of sources. Some residents get food directly from growers through farmers markets, community supported agriculture (CSA) farms, and roadside stands. A small amount of food comes from public aid, cost-free or emergency sources, such as food banks, food assistance programs, home gardens, or friends and family. However, most residents get their food from retail markets which often do not have local products abundantly available, if at all. This is an area of demand with limited supply.

Information about household diet sources, ways consumers travel to access food and which food assistance programs are being used can help determine market opportunities, transportation barriers and lack of access to non-emergency food sources.

With the apparent consumer interest in buying local foods if they were more available, adding value to extend sales beyond the growing season should be considered, thereby extending the market for producers. Grocery stores and other markets may benefit by providing a greater selection of locally and organically produced and processed foods, as this appeals to shoppers who are looking for the convenience of shopping for these items at their favorite grocery stores.

Consumers also get a significant portion of their food from restaurants, convenience stores, farm stands and farmers markets. Restaurants offering local ingredients in menu items could create new market opportunities for farmers and bring more consumer choice when dining out. Similarly, local produce at convenience stores would alleviate the pressures of “food deserts.” Farmers markets and food stands are a great way to get healthy, affordable, fresh food directly to consumers. They offer a unique shopping experience: shoppers know exactly where their food comes from, often get to meet the farmer, are offered more variety, and increase their agricultural awareness. Furthermore, these direct marketing approaches present solutions for community and economic development.

Another source of food for consumers was through food assistance programs, with the Food Stamp Program used the most. Thirty-one percent of people surveyed have a monthly household income under \$2,000. With 20% of Union County and 29% of Jackson County residents living in poverty,⁴ government food assistance programs can play an essential role in improving food security. In addition, greater access to local foods through these programs would be ideal.

Labeling food is another topic related to access. Illinois has launched the Illinois Product Logo Program,⁵ but local means different meanings to different people. Some consider local products to be those sourced within 100 miles or less. Accordingly, labels may need to indicate geographical areas smaller than the entire state. Zepeda and Li commented, “State labels are not a good proxy for local food, particularly given that many of the state campaigns are targeted to consumers in other states.”⁶ Regional branding or even labeling the farm source may be better marketing alternatives for promoting local foods. When purchasing local, shoppers need a clear label in order to know where and to whom their food dollars are going.

Farm-to-school, farm-to-chef and community garden programs are the top programs respondents would like to see in their communities. There is also interest in food buying programs. At Southern Illinois University Carbondale, University Housing Chef Bill Connors has made a lot of progress implementing a farm-to-university program. Institutions can have a great deal of leverage with local food system development as the population allows for a greater impact to educate and engage residents while supporting local farmers.

Though a few restaurants in Jackson County offer locally produced food on their menus, more work is needed to improve access through restaurants. Some solutions involve marketing strategies, such as the *Buy Fresh Buy Local* regional branding initiative offered by the Food Routes Network.⁷ This program, which has dozens of chapters in several states (including one in Illinois), helps consumers identify sources of locally produced foods where they live. Farm dinners have made great strides in promoting farm-to-chef initiatives. Community garden initiatives require considerable city and community support, but are notable solutions to food insecurity as people want to grow their own food but are limited by inexperience and/or lack of growing space. Allocating space and offering gardening workshops are essential to these programs.

Different cultural, economic and geographic influences throughout communities call for a variety of approaches to consumer access barriers. Each community has different solutions to connect local food production to local markets. Niche markets – those that meet a special need for a particular population – along with programs that expand community food systems can increase the availability of local food items and encourage consumers to make healthier food choices. Advocacy, research and policy will help communities plan and employ salient programs to solve barriers to food access. The high population of elderly in Southern Illinois may present the need for analysis of local food access and how the transportation infrastructure impacts older residents.

This assessment has also indicated potential areas of need for education. As mentioned earlier, consumers find that quality is a barrier to buying local and organic food. Small-scale farmers see this as a barrier to selling their products. This may point to an opportunity for consumer education on *food literacy*, encompassing a level of understanding of the issues in order to advance a cultural shift toward greater knowledge of local food and farming. In addition,

nutrition information for both organic and locally grown foods could be an area of future research to provide greater consumer food literacy.

Food quality is a subjective matter; the perception of quality of locally produced foods varies from one person to another.⁸ It can involve a variety of issues, such as food safety, appearance, origin, and aroma. According to the survey results, shoppers would be more likely to buy locally produced foods if they perceived better quality. This could be related to predominant food system standards, whereby produce is uniform in shape and size, has no blemishes, and is neatly packaged. This is a potential area of future research that may bring better understanding of consumers in a particular locale.

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1. USDA Economic Research Service. 2012 “Documentation” Food Desert Locator. (<http://www.ers.usda.gov/data-products/food-desert-locator/go-to-the-locator.aspx>)
 2. Ver Ploeg, Michele, et al. 2009. “Access to Affordable and Nutritious Food: Measuring and Understanding Food Deserts and Their Consequences. Report to Congress.” USDA, Economic Research Service. (<http://www.ers.usda.gov/publications/ap-administrative-publication/ap-036.aspx>)
 3. Illinois Department of Health Services, 2011. (<http://www.idph.state.il.us/>)
 4. U.S. Census Bureau Poverty Estimates, 2009. (<http://www.census.gov/hhes/povmeas/data/nas/tables/2009/index.html>)
 5. Illinois Product Logo Program (<http://www.agr.state.il.us/marketing/ilprodlogo/>)
 6. Zepeda, Lydia and Jinghan Li. 2006. “Who Buys Local Food?” *Journal of Food Distribution Research*, 37:1-11. Pp. 2
 7. Food Routes Network (foodroutes.org)
 8. Kamendiou, Irene et al. 2003. “Young Consumers’ Perception of Food Quality: An Illustration from Greece.” *Cahiers Options Méditerranéennes*, 61:191-199.

Infrastructure and Retail Marketing Opportunities

Introduction

Consumers access food from many different sources, but they purchase the majority of their food from grocery stores. For this reason, the CFA Team decided to examine the process by which local produce and food products make their way onto grocery store shelves. To accomplish this, the team chose to survey the store buyers for local grocery stores. The results of this survey are reported in the following pages.

Methods

The CFA Team identified 22 grocery stores in Jackson and Union Counties. They contacted each store to identify who made the store's purchasing decisions and obtain permission to send a survey in the mail. For the supermarkets where decisions were made at a central home office, we requested that the local store manager complete the survey; thus, this gave the team a better idea of what was happening in the local store. At the same time, the Team asked the store manager for permission to conduct the consumer survey in front of the store.

The survey was designed to evaluate how receptive grocery store managers or buyers are to carrying locally grown fruits and vegetables and locally processed products such as jams, jellies, pickles, salsas, cider, etc. The CFA Team also wanted to identify the procedures and conditions that local grocers expect from local farmers and food processors. Of the 22 surveys mailed, 10 were completed, a response rate of 48%. The responses received were from a variety of stores, including large department stores and small independent grocers. (A copy of the grocery store survey is presented in Appendix D.)

Results

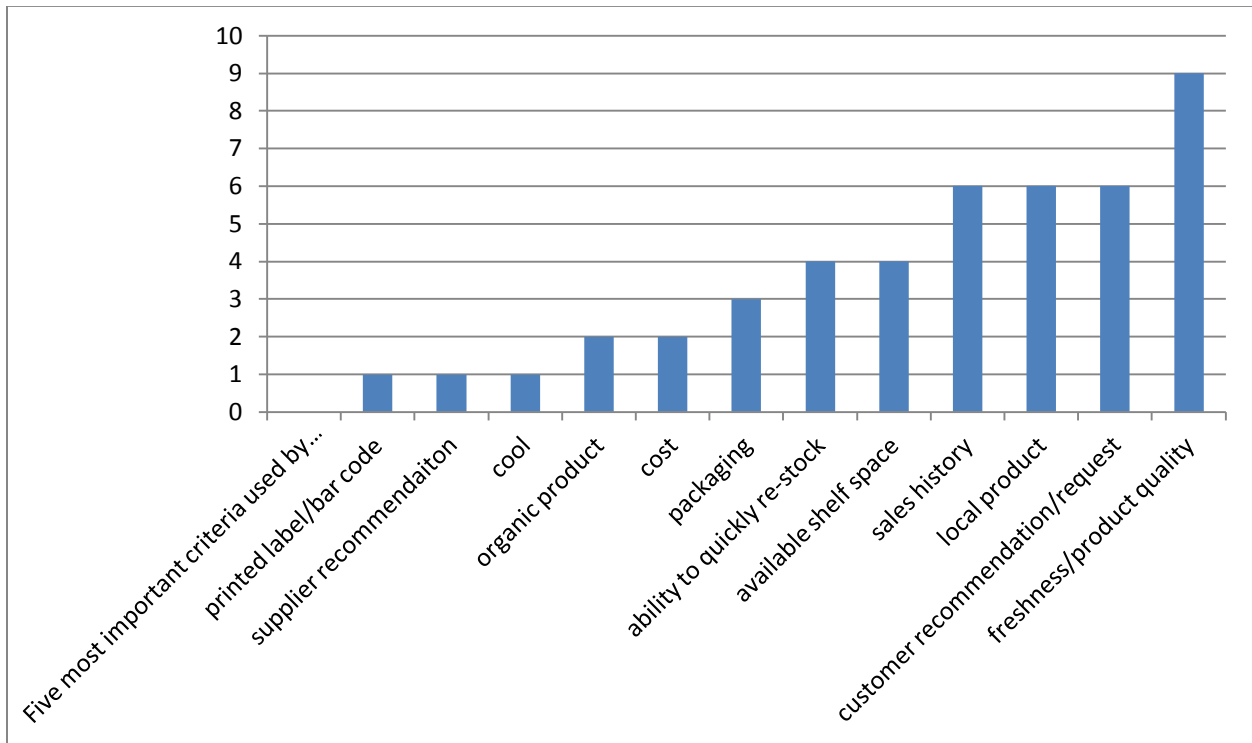
In general, the feedback from the ten participants indicates they would consider purchasing locally produced foods. Out of the 10 store managers/buyers, nine state that they identify "locally grown produce items" in their stores. Over half (n=6) purchase up to 10% of the fresh produce in their stores directly from small local food producers or farmers. Only one buyer acquires 30% of the fresh produce from local producers and another acquires 90% of their fresh produce. The two remaining store managers note that decisions made about their fresh produce come from a central office.

Chain supermarkets are often limited in their ability to purchase locally produced food. Instead, decisions are made by a home office or chain headquarters. Nevertheless, these stores ranked "local produce" 4 out of 5 in terms of most important criteria to decide which fresh produce items were on their shelves.

The buyers were asked to identify the criteria they use to decide which produce items would be placed on the shelves in their stores. Participants often list "local product" in their top five most important criteria for fresh produce, however, it is never ranked above a three. "Freshness/product quality" and "sales history" are predominantly ranked first and second. Participants also indicate the importance of consumer recommendations and requests in making their purchasing decisions (see Graph 11).

Store managers were also asked about their interest in the Illinois Product Logo Program, which identifies Illinois food products for wholesale or retail purchase.¹ Less than a quarter (n=2) were familiar with the branding program. While half of the participants believe that the use of this logo would increase sales of Illinois products, only a third (n=3) indicate that they would be *more* willing to carry products with this label.

Graph 11: Five most important criteria used by market managers to decide which fresh produce items would be placed on the shelves in their stores



Process for Local Producers and Processors

Store managers were asked about their preferred way to receive solicitations from local growers and producers to market their products. None of the store buyers expressed opposition to considering local products, but each outlined barriers to this inclusion. One-third of participants (n=3) note that decisions are made by a central office rather than by the individual store managers. The remaining two-thirds (n=7) specified their procedures, beginning with individual producers setting up a store visit with samples of their products. If the grocery store buyers are interested in these products, the next steps the local producer or processor could expect include (in no particular order): agreeing on quality and quantity (which includes the appearance of the products), arranging and following through on a delivery schedule, discussing duration of availability of the products, and negotiating a return policy. Graphs 12 and 13 show the respondents preferences and requirements.

Donation and Composting Programs

In addition to assessing buyers' interest in purchasing and selling local products, the CFA Team also asked participants about their interest in donating post-dated foods before they spoiled and composting spoiled produce. Only two participants have a program for composting spoiled

produce; however, over half (n=5) of the remaining buyers without an existing program specify they would consider it. Only half of the participants (n=5) answered the question about donating post-dated foods. Of these, four have a donation program in place and one is not interested in considering such a program.

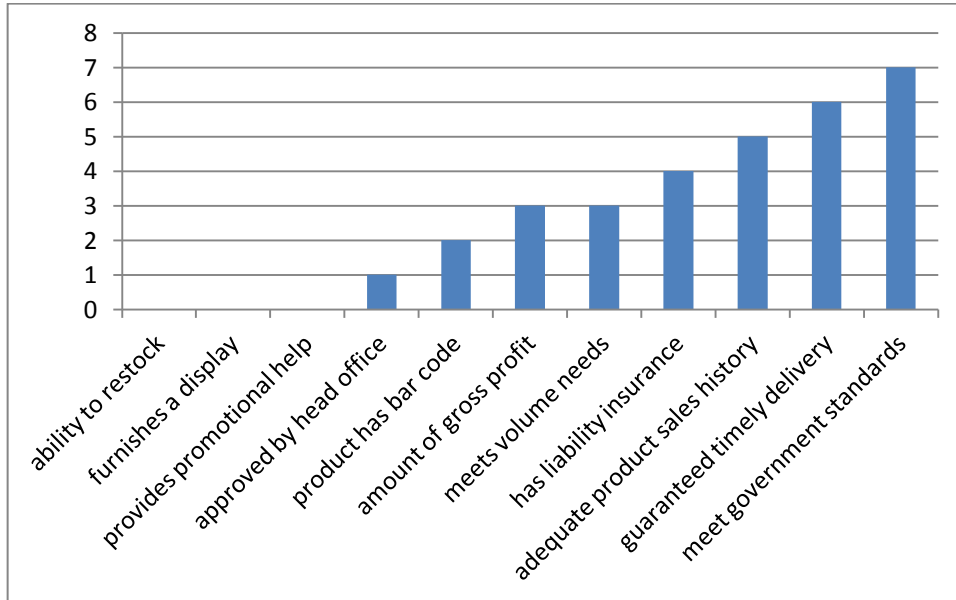
Conclusion

This survey allowed us to gain insight into the process by which locally grown produce and locally processed foods can make their way onto grocery store shelves. All ten of the responding grocery store buyers or managers indicate a willingness to purchase local foods. Though the process was delineated by some managers of independent stores, future research needs to confer with purchasing decision makers at national or regional offices to better understand how chain store decisions are made. In addition, chain supermarkets manage their own distribution facilities, which allow them considerable power over wholesale costs, product quality and market price. This can have an inhibiting effect on local food producers by limiting their access to wholesale markets and establishing low prices that can drive out smaller stores.

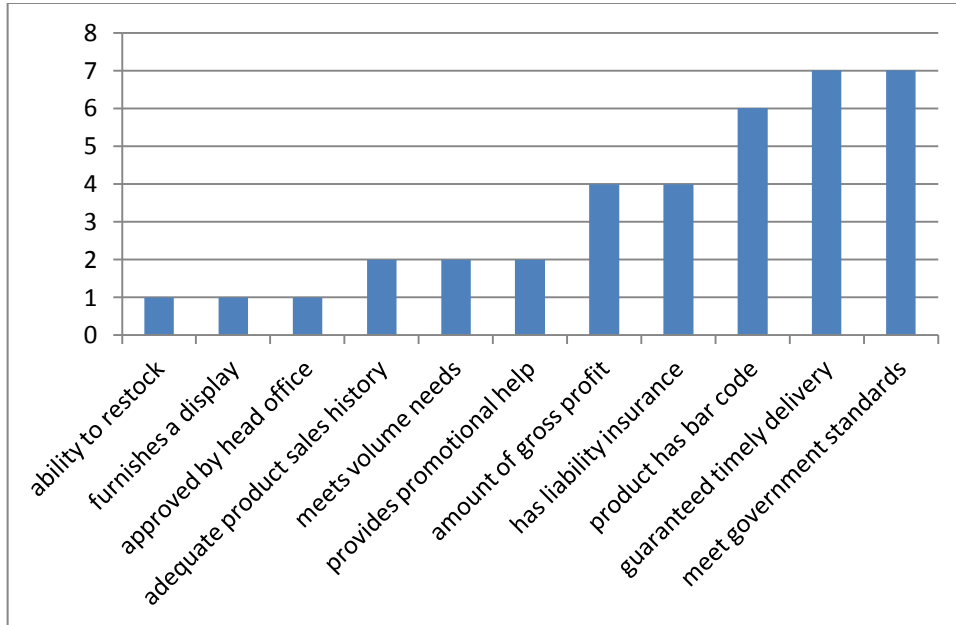
Furthermore, our focus was on grocery stores rather than convenience and corner stores. Given the high number of corner and convenience stores in the two counties, as well as consumers' limited access to larger markets in rural areas, an examination of the types of fresh produce available in these smaller markets is important. Finally, it is important to note that one of the key criteria used to decide which items appear in stores was consumer recommendations and requests. This indicates that consumer demand for more local foods could have a significant influence on the availability of local foods in local grocery stores.

1. Illinois Product Logo Program (<http://www.agr.state.il.us/marketing/ilprodlogo/>)

Graph 12: Market requirements of Producer of fresh produce to be eligible for store sales



Graph 13: Market requirements of Producer for locally processed products (jams, jellies, pickles, salsa, cider, ect.) to be eligible for store sales



Production and Marketing of Local Food

Introduction

Having explored interest in local foods and barriers to access from the perspective of the consumer and grocery store manager, below we describe the practices of local producers and the challenges they face. This section discusses the experiences of local farmers as they grow and market their products while coping with technical and educational dilemmas. Preliminary research by the CFA Team indicated some potential problem areas facing producers. According to the US Department of Agriculture's 2007 Census, "New farms tend to be smaller and have younger operators who also work off the farm."¹ In both Jackson and Union counties, the number of farms with 50 or more acres decreased between 2002 and 2007, while the number of farms with less than 49 acres increased (the one exception to this was a slight increase in farms with more than 1,000 acres in Jackson county). With this change comes a decrease in the number of farmers who indicate that farming is their primary occupation. Smaller farmers need increased access to markets to succeed; this may be in terms of direct marketing to consumers, such as farmers markets and farm stands, or relationships with local and regional businesses and institutions where products can be sold wholesale, such as grocery stores, hospitals, prisons and schools.

Methods

To collect primary data on food production and marketing, the Team employed a mixed-method approach, gathering both qualitative and quantitative data. Local growers were identified using a list from a local grocery store that purchases from local growers and also by using Team members' contacts. These farmers were then invited to participate in one of three focus groups based on the number of acres farmed. In addition to participating in the focus groups, the farmers were also asked to complete a detailed survey regarding their farming practices (see Appendix E). The focus groups were led by a professional facilitator and recorded by a note-taker. Team members then coded the interviews and identified prominent themes which are elaborated on in the following section. Data from the paper surveys were recorded and used to supplement the focus group data.

Results

Prominent themes emerged during the coding process that include issues of an aging producer population; an increase in regional, national, and global competition; support and research for agricultural leaders; availability and cost of farm labor; the importance of consumer education; and the need to link lower-income communities to fresh, nutritious, and local foods. Based on the information gathered from farmers, we offer recommendations for further research and development opportunities.

Aging Producer Population

In three focus groups conducted on behalf of the CFA Team, local food producers indicated key threats to production, including the aging farming population. For instance, one producer mentioned that he is "*43 years old, and at meetings with other farmers, I'm the youngest.*" The national average age of principal farm operators has steadily increased and now is 56.2 years old as of 2007.² The USDA notes that farmers 65 and older are the fastest growing group; nationally, farmers 65 and older have increased 18% from 2002 to 2007. As with the rest of the nation, the

number of farms in Jackson and Union counties is decreasing and the aging population of contemporary farmers remains a threat.

Table 4: Farmer Participant Demographics			
	Count	%	
Gender			
Male	4	44.4%	
Female	5	55.6%	
Age			
18-29	0	0.0%	
30-49	5	55.6%	
50-64	4	44.4%	
65-74	0	0.0%	
75+	0	0.0%	
Race			
Black/African American	0	0.0%	
Asian/Pacific Islander	0	0.0%	
White/Caucasian	9	100.0%	
Hispanic/Latino(a)	0	0.0%	
American Indian	0	0.0%	
Bi-racial/Multiracial	0	0.0%	
Other	0	0.0%	
County			
Jackson	4	44.4%	
Union	5	55.6%	
Annual Farming Income			
less than \$20,000	5	55.6%	
\$20,000-39,000	2	22.2%	
\$40,000-59,000	1	11.1%	
no answer	1	11.1%	

Regional, National, and Global Competition

The growth of national and global economic competition limits local markets. Producers interviewed note a shift in recent decades from neighborhood markets to larger corporations. According to one producer, “[We] can no longer compete against WalMart’s buying power or the profitability isn’t there.” For many of the smaller producers, it is not as profitable to sell wholesale to larger corporations.

According to interviewees, selling to large chain grocery stores, such as *Schnucks* or *Kroger*, presents unique challenges. Farmers find it difficult to secure “face-to-face” time with buyers. Often they are referred to a regional or national buyer. In addition, the amount paid to the farmer is low. “They wanted to pay less than a third of what I get [marketing retail]. I can’t deal with the larger market. There is no way to compete.” Another participant indicated, “The USDA has a price sheet for the terminal market... there is one in St. Louis and it will tell you what you can pay for peppers on the market.” According to the producers, wholesale buyers base their prices on these federal pricing guidelines.

Chain stores often use distribution centers that create a number of barriers for small farmers. For example, distribution centers often demand more produce than one farmer can offer. As one producer notes, *“The big chain stores want a constant supply of fruit, so the size of your production could be a limitation on some of the wholesale accounts.”* In addition, the availability of produce cannot always be guaranteed to wholesale buyers. *“We as farmers can’t guarantee that we’ll have a continual crop. The [chain stores] don’t know what they’ll get every week.”* Other challenges to local food producers include the often inconsistent quality of locally grown produce, such as unevenly ripened fruit, and the responsibility for transporting produce to distant distribution centers.

Several of the focus group participants indicate that chain stores want farmers to obtain third party certification and conduct audits to assure compliance with Good Agricultural Practices (GAPs) food safety guidelines. GAPs certification may present an additional hurdle for small farmers who do not already have these practices incorporated into their production and marketing plans.

Support and Research for Agricultural Leaders

The CFA Team identified four ways to support the production and distribution of local foods in Jackson and Union counties: innovative marketing strategies; technical education and innovation for local producers; assistance with government aid and policies/procedures; and access to local markets.

Innovative Marketing: Barriers to direct marketing by producers include lack of time and lack of access, as well as lack of knowledge. *“I think we have a lot of local food and not enough ways to get it to consumers.”* One form of marketing and increasing profits from their products is through value-added processing. On-farm resources for value-added processing are limited. For example, one grower notes, *“Time - the season is tough. We don’t have enough time to process. Some fruits can be stored until November. Then there’s time to process.”* In addition, although marketing resources exist for farmers (one producer mentioned using the University of Illinois Market Maker website), most participants are unaware of these resources.

Agri-tourism is one marketing strategy that not only benefits small farms, but contributes to the local economy. Jackson and Union counties currently benefit from agri-tourism through the wine industry.³ *“The wine industry is a big help to us because it brings a lot of tourism to the area. We are on the wine trail. In the last couple years they have been accepting other businesses to include on the brochures. You have to pay to be a part of this.”* We recommend exploring collaborations and providing financial support for small farmers to increase their opportunities for joining existing marketing efforts.

Building on existing agri-tourism programs to include small and mid-sized local farms is a possible start. Focus group participants made a number of suggestions, including a farm stand brochure and other promotional materials that list businesses which support local foods, such as restaurants, grocery stores, and farmers markets. Another suggestion was to encourage synergistic relationships with local businesses, such as bed and breakfasts, that could distribute the materials and recommend local foods to tourists. Some farmers already accommodate tours of their farms, yet have limited means of outreach to prospective tourists. Some farmers already accommodate tours of their farms, yet have limited means of outreach to prospective tourists. For

example, one producer noted, *“I ran into some people at the [farmers] market who have asked to come and see the farm, schools are involved that way.”* Producers seemed interested in being more involved and connected with agri-tourism, but did not have existing connections to develop relationships.

Another innovative marketing strategy to provide locally produced foods is Community Supported Agriculture (CSA) farms. CSAs are a marketing model in which the consumer purchases a share of the farm harvest at the beginning of the season, sharing in the successes and failures of the farm. Some farmers indicate a willingness to deliver foods directly to the consumer. Initiatives to subsidize lower-income consumer access to CSAs, along with assistance to farmers to directly deliver produce might help overcome the access barriers of lower-income residents to fresh, nutritious and local foods.

Technical Education and Innovation: Focus group participants address the need for education on season extension and pest control. One producer suggests that growing year round is beneficial for three reasons. First, he *“feel[s] better”* eating his *“own food.”* Second, growing year round would provide and income throughout the year, rather than for one season. Finally, he argues this is a *“better deal for the local environment, not moving the food so far away.”* Another participant indicates that learning to extend the season is a lot of *“trial and error,”* suggesting that this may be a potential area for producer education. For instance, on the surveys, farmers note their use of hoop houses and single row season extenders as key production methods; however, several participants mention learning about these on their own.

The local food system would benefit from regional support for the creation of a Southern Illinois growers association. This association could potentially assist farmers with technical education and innovation. As one producer notes, this association would assist in *“getting farmers together to discuss how we can help each other, starting farms, and how do you get more people involved in getting the word out.”* Although several producers mention the benefits of the University of Illinois Extension, they note that they only help *“with production but not with sales,”* and added, *“it is difficult to get through and talk to someone. They are short on resources. They don’t have specialists locally.”* Since the time of these interviews, Food Works has worked with local growers to establish the Southern Illinois Farming Network, an education and support program providing on-farm learning and networking opportunities for beginning and experienced growers in the region.

Assistance with Government Aid and Policies/Procedures: Smaller producers feel frustrated by government policies and procedures, and several were unaware of some of the new programs currently available. As one grower put it, *“For example, the apple cider we make, the FDA says we can’t sell it outside of the farm because it is not pasteurized. So government regulations are a challenge. Pasteurizers start at maybe \$50,000.”* The cost of equipment necessary to meet FDA standards is a key theme.

According to participants, there is a USDA cost share program for high tunnel construction and production. However, as one respondent notes, this results in a participant becoming a *“citizen researcher,”* keeping extensive data for the USDA to receive funds. While this would assist with season extension and the possibility of rounding out their income, participants seem wary of the amount of time this requires. While education about newer programs would assist local growers,

it is clear that particularly small local producers would benefit from assistance in acquiring necessary equipment and participating in these programs.

Organically grown foods are another topic of discussion for producers. First, many felt rural county residents are less interested in organic foods than the transient population of students and professors from nearby SIUC. *“The [transient population] does not understand this climate, which is very insect friendly.”* Many of the participants mention that they did not believe they lost customers because they were not organic. According to producers not using organic practices, *“We have a concern about going organic because of the e. coli food safety issue. The technology is much better and safe. The pesticides are totally different than what they were 30 some odd years ago. Now if we find bugs we don’t immediately spray, we calculate first.”* Second, farmers interested in growing organically say that the cost and requirements of government certification are major barriers. *“I’ve been growing 30 years organically, but it is cost prohibitive to maintain the organic label, they want \$1,000.”* For instance, several participants indicate they use drip irrigation which *“can be hooked up to your house.”* *“If you’re organic you have to have your water source tested for irrigation.”* In response to these challenges, producers find creative ways to market themselves: *“You get a reputation. You can say it’s organic, but you can’t say it’s certified.”* While producers are divisive in their interest or ability to grow organically, smaller producers interested in growing organically seem to find it a greater challenge.

Access to Local Markets: Participants suggest that a key means to access local markets, whether they are restaurants, grocery stores or institutions, is often based on personal connections. While some mention that they receive support from local businesses because of personal relationships, this seems to vary by city or town. *“The significance of personal relationships extends to farmers markets. “The loyalty of the following keeps the [farmers] market going. Farmers provide food to people they have relationships with.”* The challenge for participants is finding ways to make these connections.

Farmers markets provide significant access to local consumers. Growth and consumer support of a local farmers market can significantly affect whether or not farmers choose to participate. *“We dropped that market [Town Square Farmers’ Market] because in St. Louis we can make ten times more... We get more for what we sell there and more people are buying.”* In part, producers selling directly to consumers believe their success in St. Louis is due to two things: a larger population who attend and buy, and being known and recognized by the local residents. *“[We] have a following at the St. Louis Market.”* One producer suggests that if Southern Illinois expands the existing local farmers markets by adding *“diversity in products, more products, beans, eggs, and grains,”* it will be more viable.

Several participating producers also suggest that the City of Carbondale create and sponsor a pavilion, with one participant suggesting the site of the old police station. *“A pavilion, people play music, a park for kids, cooking classes....The Carbondale Farmers Market is not big enough....The market needs to be bigger: there are so many people coming that [the market needs] to grow.”* A majority of the producers interviewed share their frustration about the Carbondale Farmers Market, which operates much like a farmer cooperative. One concern is that this market is closed to new producers; *“other growers don’t get to sell at all.”* While access to

the market is limited for producers, they appreciate that the market carefully monitors sellers to ensure produce comes from the local farms.

In addition to direct markets, producers mention the opportunities to build relationships with local institutions. Jackson and Union Counties are bordered by Perry, Johnson, and Williamson Counties. Within these five counties are two federal and four state penal institutions housing roughly 6,000 inmates (see Map 4). There are also many educational institutions, as well as a number of hospitals. These institutions serve as a key source of income by providing much needed employment opportunities to rural areas.⁴ In addition, since they require a significant amount of food products, they offer a potential large market for local producers. In 2009, Governor Pat Quinn signed legislation to allow state institutions to voluntarily purchase up to 20% of their food products from growers within Illinois by the year 2020.⁵ However, few participating producers knew about this initiative or how to use it. Furthermore, producers familiar with the Governor's initiative address the major challenges for endeavoring to sell to schools, universities, hospitals, prisons, and other institutions. These included the institutional approval process, vendor insurance, delivery of products, and institutional payment policies.

According to participants, institutional approval processes, especially for prisons, can be a time-consuming and intimidating challenge for individual farmers. To be considered for approval, producers are obligated to have vendor's insurance. During the focus groups, growers expressed little knowledge about insurance costs and regulations. If institutionally approved, the delivery of produce is another key challenge to farmers. In particular, many producers cannot afford the refrigerated trucks and storage facilities required for perishable products.

One alternative for individual producers selling to institutions is to sell to local distributors who serve as "middle folks." They collect products directly from the producer, then sell and deliver them to the institutions. This is functionally beneficial since each individual producer does not need to go through the institutional approval process. However, as one producer notes, "*The most money a farmer can make is through direct sales to a customer [retail]. The more times a product is resaled [sic], the less money the farmer makes.*" Thus, while this process alleviates some of the barriers, it further cuts into the profits for producers, making it less financially feasible.

The final barrier for producers to developing relationships with institutions is their payment policies. Several participants describe the barriers they had encountered. "*Schools are not geared toward small and local food purchasing.*" Producers mention two problems in particular: delayed payments and the amount institutions are willing to pay. "*It takes a while to get paid through the system,*" said one participant. "*Another local grower sold to SIU Carbondale and was told they can't continue to pay the grower's price.*" The infrastructure for purchasing local food is different than that required for broader distribution.

Furthermore, participants feel strongly that the people with influence in the region, such as administrators at Southern Illinois University Carbondale (SIUC), need to play a greater role in moving things forward. To highlight this, many mention Bill Connors, known as "Chef Bill" to many in the Southern Illinois region. Chef Bill works at SIUC and was appointed by Governor Pat Quinn in 2010 to serve on the Illinois Local Food, Farms and Jobs Council. Chef Bill, through the SIUC residence hall dining, established a strong and positive relationship with local

producers, surpassing his goal of ensuring that SIUC Residence Hall Dining use a minimum of 20% of locally produced food; he has now upped the goal for a minimum of 40%.⁶ During the interviews, some producers say that SIUC is leading the way in using local foods; in contrast, others express concern about the challenges posed by SIUC's purchasing policies noted above. Participants outline two past connections with SIUC: an SIUC-sponsored tour of local farms that grow without using chemicals, and a policy that SIUC once had of offering compost to farmers in the area. *"Our farm lost its source of manure from SIU for composting because SIU was audited and afterward they were not allowed to give away any 'property'."* As a result, SIUC now internally distributes their horse manure rather than giving it to local producers

The mission of SIUC indicates "[dedication] to effective social and economic initiatives in community, regional, and statewide contexts."⁷ In addition to aligning with their mission, the community of local food growers will benefit greatly if SIUC reopens lines of communication with them, resumes local farm tours, and amends its local food purchasing process to streamline local food procurement for residence dining halls. Reciprocally, producers would benefit from being educated about institutional buying policies and procedures.

Personal connections are a key factor influencing farmer's access to local markets. Small producers do not necessarily have the means to develop these relationships on their own. Opportunities through local institutions and business could be potentially beneficial to all involved.

Farm Labor

Availability and cost of labor is another significant theme for many small farmers. For instance, one concern of many of the respondents is the difficulty in harvesting produce, because harvesting is hard work and pays little. *"My place is so small, I could use a couple hands at a time, but I can't pay a decent, fair wage, so I just haven't expanded more than I have."* Small farms depend heavily on producers' family members and sometimes volunteers, and some struggle to hire dependable labor. Producers with larger farms indicate they can afford *"decent wages,"* but struggle to recruit individuals who are willing and able to do the work. *"The job is too hard for people. They can't handle the physical demands.... We have money to pay, but we need someone who is able and willing."* In response, these producers rely heavily on family members and volunteers, but some depend on migrant workers, particularly *"the Hispanic population."* One creative approach by a local producer is the use of volunteer labor and internships through WWOOFing.⁸ This serves as a reciprocal relationship with farmer's benefiting from the labor and volunteers learning how to farm; in addition, one producer highlights the opportunities for developing community through this program.

Consumer Education

The customer's perception of nutrition is one notable discussion among focus group participants. *"People are a lot pickier; now if there is a spot or blemish on the fruit, they don't want it, it has to look better than it tastes."* Producers suggest that consumers are often unaware of the nutritional benefits of local produce, and that some consumers equate quality of appearance with nutritional value.

Participants offer several suggestions and concerns about educating consumers on the personal health, environmental health and economic benefits of purchasing local foods. They all engage in

food production education with consumers, including where produce comes from (e.g., “a peach comes from a tree”), selecting the type of produce (“which apple they should use to make this or that”), handling the produce (“don’t put [fruit] in the trunk of your car when it’s 90 degrees”), and preparing or cooking the food. Initiatives that educate consumers about the nutritional benefits of locally grown food and how to prepare the various local produce would be beneficial.

Linking lower-income communities to fresh, nutritious, and local foods

Some farmers markets are difficult to access for consumers without an automobile. For example, participants remark that the Carbondale Farmers Market is located at the far west end of town, miles from some of Carbondale’s lower-income communities, which historically lay on the east side. The Town Square Farmers Market, no longer active, was located on the east side of the railroad tracks, literally in the downtown square. “I see it as a social justice issue,” said one seller. “That’s why I was happy to sell in the Town Square Market, to get something on the other side of the tracks. I didn’t see any big differences in shopping patterns. [Town Square Market] made WIC vouchers easy to use.” Focus group participants who sold at this market believe there was a difference in the socio-economic class of consumers and that the central location made it more accessible to those with limited transportation. Other producers who sold at Town Square Farmers Market also remark on how easy it is to accept WIC vouchers and seniors’ coupons. However, they knew little about how to accept electronic benefit transfer (EBT) cards, such as those used for the state food assistance program known as LINK. Initiatives to expand LINK card use at farmers markets may offer more opportunities for lower-income people to access fresh, nutritious, local foods.

Conclusion

With farms becoming smaller, farmers getting older, and the increased need for secondary work for many producers, success has come to be defined by access to markets. Moreover, new forms of competition resulting in a shift from local neighborhood markets to corporations have created difficulties for new small farmers. This section explored how these themes impact the producer and offered potential solutions to promoting success for the new and existing farmers.

The CFA Team found four aspects of local production that would support farmers in the region. These ideas include development of new market strategies, technical education for producers, assistance with government policies, regulations, and funding, and further research. Farmers could benefit from the development of networks between producers and activists in the region as well as connecting the local food system to agri-tourism trends already in place. Knowledge about season extension, government policies and market trends were expressed as a need. Other issues that surfaced in the focus group interviews dealt with organic certification cost versus value, ideas about consumer education on health and economic benefits of local buying, as well as the challenges to market access, particularly institutional access. Lastly, producers mentioned a desire to expand their sales to lower-income residents in their communities.

In summary, the CFA Team recommends that many of the concerns and challenges of producers in Jackson and Union counties can begin to be addressed by increased networking among farmers and markets. Tapping into already established markets, like agri-tourism, can create stronger connections. Furthermore, we recommend initiatives to educate and assist small producers with labor recruitment, including labor laws, intern guidelines and farm labor

management. Research on how other small farm communities have successfully employed labor would be helpful in developing this. In addition, consumer education, whether about food quality, benefits of local foods, or preparing foods, is deemed as a high priority by many producers. Several already engage in direct consumer education but suggest that a broader means of educating residents is needed.

Finally, the CFA Team recommends further research to identify economic opportunities for the production and distribution of food by local growers. We suggest exploring the implementation and results of local food marketing in other rural communities, as well as the feasibility for food aggregation for Jackson and Union counties. The lack of infrastructure for local food distribution significantly limits the availability of fresh produce in Jackson and Union Counties.

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1. Statistics from the 2002 and 2007 USDA Census of Agriculture, retrieved from (http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_2_County_Level/Illinois/ilv1.pdf)
 2. *ibid.*
 3. Smith, S., Davis, N., & Pike, J. (2010). Rural Tourism Development: A Case Study of the Shawnee Hills Wine Trail in Southern Illinois. *Journal of Extension*, 48(5), 1-11.
 4. Beale, Calvin. (1996). Rural Prisons: An Update. *Rural Development Perspectives*, 11(2), 25-27.
 5. A Report to the Illinois General Assembly By The Illinois Local and Organic Food and Farm Task Force. March 2009. "Local Food, Farms & Jobs: Growing the Illinois Economy." Retrieved January 19, 2012 (<http://web.extension.illinois.edu/smallfarm/pdf/A%20Report%20to%20the%20Illinois%20General%20Assembly%20By%20the%20Illinois%20Local%20and%20Organic%20Food%20and%20Farm%20Task%20Force.pdf>)
 6. Mathis, Christi. March 1, 2010. "Chef Bill named to Food, Farms and Jobs Council." SIUC: The Saluki Times. Retrieved January 19, 2012 (<http://news.siu.edu/news/March10/030110cjm10058.html>)
 7. SIUC. Mission and Scope of Southern Illinois University Carbondale. (<http://policies.siu.edu/policies/misscarb.html>).
 8. World Wide Opportunities on Organic Farms (<http://www.woof.org/>)

SYNTHESIS AND SUMMARY OF FINDINGS

The central goal of the Community Food Assessment Team was to provide a profile of the food and farming system in Jackson and Union Counties in order to determine areas for improvement and identify existing assets from which to build. The Team focused on three primary components of the food system: consumption, infrastructure and production. These components are multidimensional, complex and interrelated. Though it is not within the scope of this project to explore the food system in its complexity, this assessment does provide useful information about the consumers, producers and retail marketing opportunities in the two-county area and highlights potential research and development opportunities.

One noteworthy finding is that 75% of consumers surveyed get most of their food from grocery stores, yet there are major barriers to local, small-scale farmers accessing local markets. Some of the producers interviewed expressed difficulty connecting with grocery store buyers. Growers selling directly to consumers had difficulty making a profit when selling their products at wholesale prices. Most of the chain grocery stores in the two counties stock their shelves using distant distribution centers. Some chain store managers indicated that purchasing decisions are not handled at a local level.

More information is needed about ways local growers can get their products into stores at an affordable price for consumers and at an acceptable profit for both grocers and producers. This is a substantial barrier to getting local food to residents. Grocers noted that consumer demand was a significant factor in getting products into their stores, indicating a considerable opportunity for consumers to be educated about the power of their food dollars and in-store requests.

Many local residents access a portion of their food from farm stands and farmers markets, and local produce available for sale directly to consumers seems plentiful. However, some of the producers interviewed found it difficult to find ways to sell to consumers directly. For example, some producers encountered barriers to selling their food at the Carbondale Farmers Market, the largest market in the study area. This indicates a need for more or expanded direct marketing opportunities.

There are many opportunities for the wholesale marketing of local products. For example, growers can establish a relationship with local enterprises such as area wineries and vintner associations to establish regional branding that can profit both parties. At the same time, year-round production would extend the growing season, ensuring a more consistent supply of products. An increase in value-added processing can also increase access and income potential for growers through off-season sales.

Farm-to-institution programs in the area can be showcased to leverage more wholesale purchases from local growers. For example, Chef Bill Connors and his colleagues at SIUC are training school food service directors to prepare cafeteria meals using local, whole products. This hugely

successful farm-to-school program can be used to demonstrate how barriers between institutional buyers and growers can be bridged.

Residents access a portion of their food from restaurants and schools, and many have expressed the desire to see more local produce in these places. Large institutions such as hospitals and prisons offer another opportunity to increase local food distribution. Research that examines the food supply chain across the region and within institutions that serve large numbers of people is needed to understand and address the barriers that institutional decision makers face and streamline the supply process.

Farmers stated that one of the primary barriers to increasing the amount of locally produced and consumed food is the ability to aggregate products for wholesale ordering by restaurants and institutions. Farmer-driven cooperative efforts such as on-farm collection points for neighboring growers can increase the amount of local food available for order. As wholesale buyers and local growers build these relationships, more growers can consider these wholesale markets and plan for production accordingly. Research into examples of successful aggregation and regional distribution models will facilitate the planning of aggregation facilities in the Southern Illinois region.

Consumers are overwhelmingly concerned about food safety, pesticides, and chemical residues on their foods and would benefit from education about where their food is coming from and how it is grown and produced. In addition, food labeling can be improved to provide consumers with the information needed to make food choices that are right for them.

Consumers are also concerned about affordable food and are more likely to purchase local and organic foods if they are available *and* affordable. If local growers sell more products through wholesale markets, they will need larger areas of land to grow enough food to make up the difference of selling through a distributor. Growers can benefit from a branding program that adds value to their locally raised products and highlights sustainable or organic production practices. The price advantage of such a branding program can encourage conventional growers to pursue sustainable and organic production practices. Area grocers will benefit by identifying local products and those grown with sustainable or organic methods so that customers can identify them more readily.

The USDA has identified parts of Jackson and Union Counties as food deserts, meaning that healthy, affordable food is difficult to obtain. Many people in these areas may get some of their food from convenience stores and gas stations. Making local produce and value-added products available in food deserts will enable residents to get healthy local food and expand markets for producers.

A food system that promotes equitable access to fresh, nutritious, healthful produce must ensure that these foods are available to all consumers, including those with low incomes. One way of doing this is to provide greater access through assistance programs, such as accepting LINK

cards at farmers markets and increasing the availability of local food in mainstream grocery stores. Residents in Jackson and Union Counties are already using food assistance programs. Donation programs in which growers provide food to food banks and soup kitchens will give patrons access to fresh, local food.

Only about 20% of consumers and grocers surveyed compost food waste. The considerable amount of food currently being placed in landfills can be composted to provide natural fertilizer to nourish the soil. One way to achieve this is with city-wide composting, particularly in the larger towns within the two counties where large amounts of food waste can be collected economically.

Limitations

One of the limitations of this CFA was the lack of outreach to those using and providing emergency food care. We do not know the needs of these groups or what barriers they perceive. We do not know why growers believe the Town Square Farmers Market provided better service to low-income consumers. More research must be done to understand these providers' and markets' needs and perceived barriers. Research is also needed to determine the information that farmers need to encourage them to accept WIC and senior farmers' market vouchers and provide EBT machines for LINK cards.

The CFA Team did not obtain a random sample of consumers for the survey, which means that these results cannot be generalized to the population as a whole. These data are still important and informative, but future research is needed to assess the interests and behaviors of a wider range of residents. In addition, the Team was only able to identify a small number of producers in the area. Although the nine producers interviewed provided valuable information, more information from growers is needed to develop marketing, education, and support programming.

Conclusion

Building a local food system is a challenging and exciting endeavor. Our current food system has resulted in a disconnect between consumers and the source of their food. It requires many people working together to get the food our local farmers raise onto the plates of their neighbors. The benefits are numerous.

While there is much more work to be done to develop the local food system in the Southern Illinois region, great strides have been made since 2008 when this CFA was initiated. In particular, two programs were established to educate and support new and experienced local growers:

- The Southern Illinois Farming Network was formed to meet the educational and support needs of small- to mid-sized farm businesses. Initial funding came from Farm Aid and the Illinois Department of Agriculture, with support from the University of Illinois Extension. The network, facilitated by the regional non-profit organization Food Works, currently has over 80 members and continues to grow.

- To address the need for small farms business and production education, Food Works established the Southern Illinois Farm Beginnings® program, serving the region and the adjacent states of Indiana, Kentucky and Missouri. The year-long program pairs beginning farmers with farming mentors, provides on-farm education through field days and workshops, and facilitates 48 hours of business and marketing planning seminars.

By identifying the barriers to local food production and distribution, as well as opportunities for their expansion, the Jackson and Union County Community Food Assessment has provided the initial information needed to increase the quantity of food that is grown and consumed by the people who live here.

APPENDIX A: ACKNOWLEDGEMENTS

The Southern Illinois Community Food Assessment was a grassroots effort on the part of many contributors who dedicated significant time and resources.

The people comprising the Jackson and Union County CFA Team are dedicated to bringing about positive change in their communities. They shared their ideas and beliefs and committed their time and resources with one common goal: to improve the local food system. Their collaboration is a testimony to the power of working together.

It takes a powerful motivational force to initiate change and guide others with similar concerns to establish a coalition that can work together to transform ideals into reality. Dayna Conner, with her vision of bringing the community together to improve the local food system in Southern Illinois, provided the motivation to initiate this project and drive it to completion.

The expert leadership of key researchers Kylan Mattias de Vries and Danielle Estes were invaluable. They advised the rest of the CFA Team throughout the research process, and their expertise was notably instructive and inspirational. Their significant commitment to the project demonstrated genuine leadership.

Though the majority of the work that went into this report was unfunded, production and website access was funded through a grant from the American Sociological Association's Sydney S. Spivack Program in Applied Social Research and Social Policy Community Action Research Award.

Data collection could not have been achieved without our devoted volunteers. Their contributions added an essential unifying dynamic to the CFA. In addition, nearly two dozen community members were involved with the initial project launch, donating a great deal of time and advisement to steer the research. Most importantly, each person who took the time to fill out the consumer access surveys, each farmer who set aside time for the farmer focus group, and every grocery store manager who responded to the market surveys provided essential input to the research.

Finally, there were a number of individuals and organizations whose help was invaluable. The Science Center, Neighborhood Co-op Grocery, and Carbondale Main Street provided space for committees to meet. CFA team members, community members, local businesses and SIUC contributed in numerous ways to this project. Amanda Pankau skillfully created the maps used throughout. The creative capacity of our editor, Rick Piel, ensured a refined final report. Last but not least, special thanks to Dr. Michelle Hughes Miller, whose knowledge and support was instrumental in the research process.

APPENDIX B: BIOGRAPHIES

The Jackson and Union County Community Food Assessment was authored by:

Dayna Conner, CFA Project Organizer, is the founder and executive director of Food Works. Dayna has worked in the field of community food systems since 1998.

Kylan Mattias de Vries, Ph.D., CFA Project Co-Principal Investigator, worked with the CFA steering committee implementing each phase of research.

Danielle Estes, PhD student, Southern Illinois University Carbondale, Project Co-Principal Investigator, worked with the CFA steering committee implementing each phase of research. She played a strong instructor role during the editing phase.

Aimee Lemrise, is a former President of Food Works' board of directors. Aimee's Master Thesis, entitled "Geographical Assessment of Farmers Market Consumers in Southern Illinois," explored consumers' interest in local foods.

The other members of the CFA team included:

Jerry Bradley – Owner Services Coordinator for the Neighborhood Co-op Grocery in Carbondale and former communications director of Food Works.

Devin Brown – Organic farmer in Johnson County. Devin has grown organic vegetables for Southern Illinois markets since 2007.

Josh Brown – Owner and grower at Farmer Brown's Production Company, a USDA Certified Organic farm in Pomona.

Sorrel Kunath – BS in Forestry Resource Management and owner of Ecological Consulting Services, a green residential and commercial consulting practice.

Dawn Morningstar – BS in Plant Biology, amateur ethnobotanist and member of the Choctaw Nation of Oklahoma.

Kristin Pass – A concerned resident interested in advocating for local food production and consumption.

Michael Wagner – Researcher at Regional Ecologic Economic Forecasting Group. Michael has been actively involved with community food systems since 1975.

APPENDIX C: CONSUMER SURVEY

Local Food System Consumer Survey

Purpose: The surveyors wish to learn about the interests of Jackson and Union County residents in purchasing locally grown and processed food.

Administered by:
Southern Illinois University/
Jackson & Union County
Community Food Assessment Team

1. Please indicate how important each factor listed below is to you when considering your food choices.

Price	<input type="checkbox"/> Very Important	<input type="checkbox"/> Somewhat Important	<input type="checkbox"/> Not at All Important
Locally grown	<input type="checkbox"/> Very Important	<input type="checkbox"/> Somewhat Important	<input type="checkbox"/> Not at All Important
Organically grown	<input type="checkbox"/> Very Important	<input type="checkbox"/> Somewhat Important	<input type="checkbox"/> Not at All Important
Nutritious	<input type="checkbox"/> Very Important	<input type="checkbox"/> Somewhat Important	<input type="checkbox"/> Not at All Important
Convenience	<input type="checkbox"/> Very Important	<input type="checkbox"/> Somewhat Important	<input type="checkbox"/> Not at All Important
Taste	<input type="checkbox"/> Very Important	<input type="checkbox"/> Somewhat Important	<input type="checkbox"/> Not at All Important
Know the farmer	<input type="checkbox"/> Very Important	<input type="checkbox"/> Somewhat Important	<input type="checkbox"/> Not at All Important
Safe	<input type="checkbox"/> Very Important	<input type="checkbox"/> Somewhat Important	<input type="checkbox"/> Not at All Important
Brand	<input type="checkbox"/> Very Important	<input type="checkbox"/> Somewhat Important	<input type="checkbox"/> Not at All Important

2. Do you read food labels to determine: *(check all that apply)*

- | | | |
|--|--|--|
| <input type="checkbox"/> Organically grown | <input type="checkbox"/> Locally grown | <input type="checkbox"/> Natural ingredients |
| <input type="checkbox"/> Calories | <input type="checkbox"/> Gluten or allergens | <input type="checkbox"/> Nutritional information |
| <input type="checkbox"/> Additives | <input type="checkbox"/> Other _____ | |

3. On average, about how much of the food you eat is produced locally? *(check one)*

- None
 Very Little
 Some
 Most
 Almost All
 Don't Know

4. How many people are there in your household?

_____ adults _____ children

5. About what portion of your household diet comes from:

Grocery stores	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	None	Very Little	Some	Most	Almost All	Don't Know
Dining out	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	None	Very Little	Some	Most	Almost All	Don't Know
Your garden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	None	Very Little	Some	Most	Almost All	Don't Know
Farmers' Markets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	None	Very Little	Some	Most	Almost All	Don't Know
Convenience stores	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	None	Very Little	Some	Most	Almost All	Don't Know
Farmstands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	None	Very Little	Some	Most	Almost All	Don't Know
Family or friends (gardens, farm, pond, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	None	Very Little	Some	Most	Almost All	Don't Know
Senior meal program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	None	Very Little	Some	Most	Almost All	Don't Know
Food pantry or soup kitchen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	None	Very Little	Some	Most	Almost All	Don't Know
School food service (school lunch or breakfast, dorm food, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	None	Very Little	Some	Most	Almost All	Don't Know
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	None	Very Little	Some	Most	Almost All	Don't Know

6. How frequently do you shop for food in a typical month?

- More than once a week About 2 or 3 times a month
 About once a week Once a month or less

7. How do you travel to shop for food? (check all that apply)

- Car Walk Other: _____
 Public bus/van Bicycle
 Taxi Friend or relative drives

8. How much time does it typically take you to get to there?

_____ minutes

9. Would you be more likely to purchase locally produced foods if ... (Please check all that apply)

- They're labeled "local" They were more affordable they were available where you shop
 Their quality is better The labels are more clear They came with preparation info
 You had better transportation They were available in a preserved state (frozen, canned, etc.)
 Other: _____

10. Would you be more likely to purchase organically produced foods if ...

(Please check all that apply)

- They're labeled "organic"
- They were more affordable
- They were available where you shop
- Their quality is better
- The labels are more clear
- They came with preparation info
- You had better transportation
- They were available in a preserved state (frozen, canned, etc.)
- Other: _____

11. Do you have any of the following concerns about the food you eat?

- Whether the food you eat is produced with chemicals
- Pesticide residue
- The amount of time it takes to prepare/cook meals
- Food safety
- How far the food you eat travels
- Finding culturally appropriate foods
- Other: _____

12. Do you make compost at home?

- Yes
- No

13. Which Food Assistance Programs have you or your family used in the past year?

(check all that apply)

- None
- Food Stamp Program
- Free or reduced school meals
- WIC
- Soup Kitchen
- Food Bank
- Other: _____

14. Would you be interested in more local food being offered through Food Assistance Programs?

- Not interested
- Somewhat interested
- Very interested

15. Which of the following food programs would you like to see in our community?

(check all that apply)

- Farm-to-School: local schools serving fresh, local produce
- Community garden plots: affordable growing spaces for all community members
- Community kitchens: affordable kitchen space for all community members
- Horticultural therapy: working with plants as a form of therapy
- Food buying clubs: groups of people who pool their resources to save money on food
- Wholesome food purchasing & cooking classes
- Farm-to-chef: local restaurants receiving fresh, local produce through a grower-run distribution system
- Other: _____

Demographic Information

Your zip code _____

You are: male female student

Your age group is:

- 18-29
- 30-49
- 50-64
- 65-74
- 75+

Please indicate your race/ethnicity:

- Black/African American
- Asian/Pacific Islander
- White/Caucasian
- Hispanic/Latino(a)
- American Indian
- Bi-racial/Multi-racial (specify) _____
- Other _____

What is the highest level of education you've completed?

- High school or less
- Some College
- Bachelor's Degree
- Graduate degree

Your monthly household income level from all sources is:

- | | |
|---|---|
| <input type="checkbox"/> \$1,000 or less | <input type="checkbox"/> \$4,001- \$5,000 |
| <input type="checkbox"/> \$1,001- \$2,000 | <input type="checkbox"/> \$5,001- \$6,000 |
| <input type="checkbox"/> \$2,001- \$3,000 | <input type="checkbox"/> \$6,001- \$7,000 |
| <input type="checkbox"/> \$3,001- \$4,000 | <input type="checkbox"/> \$7,001 or greater |

Comments _____

Thank you for your time spent taking this survey!

If you're interested in learning more about this study and/or local food systems work in the area, please inform the administrator when you've completed this survey.

APPENDIX D: GROCERY STORE MANAGER SURVEY

Identifying Grocery Store Market Access Opportunities for Locally Produced Products

A survey conducted by the Southern Illinois Community Food Assessment group

The purpose of this study is to 1) evaluate how receptive grocery stores are to carrying locally grown (100 mile radius) fruits and vegetables and their processed products (jams, jellies, pickles, salsa's, cider, etc.) and 2) to identify the primary steps, procedures and conditions that local farmers and food processors must consider to best target local grocers. Your answers to the questions in this survey will not be disclosed; only aggregated responses will be used in summarizing the study.

As the person who makes the purchasing decisions for your store, please answer each question according to your knowledge and understanding of the situation presented.

1. Which of the following sources do you currently use to acquire **fresh produce** (fruit and vegetable) items for your store? (Please check all that apply)
 - decision made at headquarters
 - a food wholesaler
 - a produce broker
 - a direct store delivery vendor (DSD)
 - directly from small local food producers or local farmers

2. What percentage of the **fresh produce** items in your store is supplied by the sources you marked in question 1 above?
 - % decision made at headquarters
 - % supplied by a food wholesaler
 - % supplied by a produce broker
 - % supplied by a direct store delivery vendor (DSD)
 - % supplied by a small local food producer/ local farmers

3. Which of the following are the five most important criteria used to decide which **fresh produce** items will be placed on the shelves in your store? (Please rank your choices 1-5, 1 being most important.)

<input type="checkbox"/> freshness /product quality	<input type="checkbox"/> printed label /bar code
<input type="checkbox"/> organic product	<input type="checkbox"/> customer recommendation/request
<input type="checkbox"/> sales history	<input type="checkbox"/> supplier recommendation
<input type="checkbox"/> local product	<input type="checkbox"/> packaging
<input type="checkbox"/> ability to quickly re-stock	<input type="checkbox"/> option of consignment sales
<input type="checkbox"/> available shelf space	<input type="checkbox"/> promotional help
<input type="checkbox"/> other (please list) _____	

Which of the following are requirements that **fresh produce** items must meet to be eligible to be sold in your store? (Only check things that are required and please check all that apply.)

- evidence of product's previous sales
- evidence that the product meets all government standards
- supplier must guarantee that a specific delivery schedule can be met
- evidence of delivery volume capabilities or a minimum amount of inventory
- supplier must be responsible for restocking
- product must have a bar code
- supplier must have liability insurance
- amount of gross profit
- supplier must agree to furnish a display
- promotional help
- other (list) _____

Please describe the most preferred way for **local farmers** to pitch a product to you (such as a store visit, phone call, direct letter, product sample). _____

- a. Now, assume that a local farmer has pitched a produce item you are interested in carrying in your store. Describe the process of getting the item on your shelves that the local producer should expect.

- b. If you do not obtain any fresh produce directly from local farmers, would you consider doing so in the future? Yes: _____ No: _____

- c. If No, please explain: _____

4. Do you identify **locally grown produce items** in your store in some way?

___ Yes ___ No

- a. If yes, what method do you use to identify locally grown produce items?
_____ a specific section in the store. Please specify

- _____ individual identification. Please specify

If no, would you consider identifying locally grown items?

Yes: _____ No: _____

Are you familiar with the "Illinois Products" logo program?

Yes: _____ No: _____

Do you feel the use of this logo increases the sale of Illinois products?

Yes: _____ No: _____

How does the inclusion of the "Illinois Products" logo on a product label affect your willingness to carry the product?

_____ more willing _____ no change _____ less willing

5. Which of the following are requirements that **locally processed products** (*jams, jellies, pickles, salsa's, cider, etc.*) must meet to be eligible to be sold in your store? (Only check things that are required and please check all that apply.)

- _____ evidence of product's previous sales
- _____ evidence that the product meets all government standards
- _____ supplier must guarantee that a specific delivery schedule can be met
- _____ evidence of delivery volume capabilities or a minimum amount of inventory
- _____ supplier must be responsible for restocking
- _____ product must have a bar code
- _____ supplier must have liability insurance
- _____ amount of gross profit
- _____ supplier must agree to furnish a display
- _____ supplier must furnish promotional help
- _____ other (list) _____

Please describe the most preferred way for **local food processors** to pitch a product (**jams, jellies, pickles, salsa's, cider, etc.**) to you (such as a store visit, phone call, direct letter, product sample).

a. Now, assume that a **local food processor** has pitched an item you are interested in carrying in your store. Please describe the process of getting the item on your shelves that the local producer should expect.

b. If you do not obtain any **locally processed products** (**jams, jellies, pickles, salsa's, cider, etc.**) , would you consider doing so in the future? Yes: _____ No: _____

c. If No, please explain: _____

6. Do you have a program for recycling spoiled produce (composting)?

Yes: _____ No: _____

If not, would you consider it? Yes: _____ No: _____

7. Do you have a giving program for post date foods (Food Banks, etc.)?

Yes: _____ No: _____

If not, would you consider it? Yes: _____ No: _____

8. Please provide the following demographic information:

a. Which of the following best describes your position/role in the store?

____ store owner ____ store manager ____ department manager

____ other: _____

d. What is your gender? ____ Female ____ Male

e. How long have you been employed in your present position at the store? _____

f. What is your race?

____ White

____ Black or African American

____ American Indian

____ Asian

____ Hawaiian/Pacific Islander

____ Hispanic or Latino

____ Other _____

(please specify)

***Thank you for taking time to complete this survey.
Please return the survey in the stamped envelope provided.***

APPENDIX E: PRODUCER SURVEY

Union and Jackson County Producer Survey

The purpose of this survey is gain a clearer picture of the small-scale vegetable farmer in Union and Jackson Counties. Please answer the following questions to help with our Community Food Assessment. Completion and return of this survey indicates voluntary consent to participate in this study.

Producer Profile

Your age group is: 18-29 30-49 50-64 65-74 75+

You are: male female

Your race/ethnic group is: Caucasian African American Asian American
 Hispanic Multi-ethnic/racial (specify) _____ Other _____

What county is your farm located within? Jackson Union

How long have you been farming in Jackson or Union County? _____

How many generations of your family have farmed? _____

Your annual household income level from farming is:

Less than \$20,000 \$20,000 to \$39,999 \$40,000 to \$59,999
 \$60,000 to \$79,999 \$80,000 or greater

What varieties of vegetables or herbs do you produce commercially?

Tell us about your workforce? How many of each of the following categories do you have:

Full time employees _____ (hrs./week on avg.) _____

Part time employees _____ (hrs./week on avg.) _____

Volunteers _____ (hrs./week on avg.) _____

Family members _____ (hrs./week on avg.) _____

Do you use migrant labor? Yes No Occasionally

Farming Practices

What type of farming method do you practice? Please check all that apply to your farming operation.

Bio-Dynamic Plasticulture
 Bio-Intensive Deep Bed Method Raised Beds
 Conventional Row Cropping USDA Certified Organic
 Ecological/Chemical Free Transitional
 Permaculture Other, please explain _____

Do you use season extension structures? Please check all that apply.

Cold Frames Hoop-houses
 Greenhouses Row Covers
 High Tunnels Other, please explain _____

How do you start your crops? Check all that apply

Direct seeding Seedling transplants (from elsewhere)
 Seedling transplants (self-started)

What type of fertilizer inputs do you use? Check all that apply

- | | | |
|--|--|--|
| <input type="checkbox"/> Anhydrous Ammonia | <input type="checkbox"/> Fish Emulsion | <input type="checkbox"/> Phosphate (Polyphosphate, Orthophosphate) |
| <input type="checkbox"/> Bat Guano | <input type="checkbox"/> Granite Meal | <input type="checkbox"/> Potash (KCI) |
| <input type="checkbox"/> Blood Meal | <input type="checkbox"/> Green Sand | <input type="checkbox"/> Potassium Sulphate |
| <input type="checkbox"/> Bone Meal | <input type="checkbox"/> Gypsum | <input type="checkbox"/> Rock Phosphate |
| <input type="checkbox"/> Compost | <input type="checkbox"/> Inorganic chemicals | <input type="checkbox"/> Sewage Sludge |
| <input type="checkbox"/> Cottonseed Meal | <input type="checkbox"/> Kelp Meal | <input type="checkbox"/> Wood Ash |
| <input type="checkbox"/> Crab Shell Meal | <input type="checkbox"/> Lime | <input type="checkbox"/> Worm Castings |
| <input type="checkbox"/> Elemental Sulfur | <input type="checkbox"/> Manure | <input type="checkbox"/> Other, please list _____ |

What do you use for pest control? Check all that apply

- | | | |
|--|--|-------------------------------------|
| <input type="checkbox"/> Atrazine | <input type="checkbox"/> Crop Rotation | <input type="checkbox"/> Neem Oil |
| <input type="checkbox"/> Beneficial Insects | <input type="checkbox"/> Diatomaceous Earth | <input type="checkbox"/> Nematodes |
| <input type="checkbox"/> BT (bacillus thuringiensis) | <input type="checkbox"/> Hand Picking | <input type="checkbox"/> Pyrethrine |
| <input type="checkbox"/> Cayenne Pepper | <input type="checkbox"/> High Tunnel/Green House | <input type="checkbox"/> Rotenone |
| <input type="checkbox"/> Companion Planting | <input type="checkbox"/> Insecticidal Soap | <input type="checkbox"/> Row Cover |
| <input type="checkbox"/> Compost Tea | <input type="checkbox"/> Lime | <input type="checkbox"/> Sabadilla |
| <input type="checkbox"/> Copper Sulphate | <input type="checkbox"/> Methyl Bromide | <input type="checkbox"/> Sevin Dust |
| <input type="checkbox"/> Cover Crops | <input type="checkbox"/> Milky Spore | <input type="checkbox"/> Spinosad |
| <input type="checkbox"/> Other, please list _____ | | |

What do you use for weed control? Check all that apply

- | | | |
|--|---------------------------------------|------------------------------------|
| <input type="checkbox"/> Cultivation (tractor, tiller) | <input type="checkbox"/> Hand Tool | <input type="checkbox"/> Plastic |
| <input type="checkbox"/> Chemical Herbicides | <input type="checkbox"/> Hand-weeding | <input type="checkbox"/> Torch |
| <input type="checkbox"/> Green Mulch (ground cover plants) | <input type="checkbox"/> Mulching | <input type="checkbox"/> Wheel Hoe |
| <input type="checkbox"/> Other, please list _____ | | |

Do you compost? Yes No

Do you use cover crops? Yes No

If you answered yes, why? Check all that apply

- | | | |
|---|---|---|
| <input type="checkbox"/> pest management | <input type="checkbox"/> pollinator habitat | <input type="checkbox"/> soil fertility |
| <input type="checkbox"/> weed suppression | <input type="checkbox"/> Other _____ | |

Markets

What are the % of crops marketed through each local markets:

- | | | |
|------------------------------------|----------------------|-----------------|
| _____ CSA | _____ Grocery store | _____ U-pick |
| _____ Farmers market | _____ Roadside stand | _____ Wholesale |
| _____ Other, please explain: _____ | | |

What is the average distance to the markets your products serve? _____

Do you produce Value-Added products, such as canned or frozen products? Yes No

Are you involved in Agri-tourism? Yes No

If you answered yes, please describe how.

Comments _____

Thank you for your time spent taking this survey!

APPENDIX F: PRODUCER FOCUS GROUP QUESTIONS

1. Ice breaker: Let's start with introductions, and include what you produce and the means by which you market your products.
2. Now let's list all the local food processors and distributors in the community.
 - a. More: Which are in Jackson and Union counties?
 - b. If you're using processors or distributors outside Jackson or Union counties, why?
3. In what ways are you involved in the local food system?
 - a. Probes: what do you produce, market, transport, or process for value-added (covered in part on #1).
4. Have there been any major changes in the way food is produced (in the past 5-10 years)?
 - a. Probes: loss of farmland, farm startups, use of sustainable production, cost of land, aging farmers.
5. What types of resources exist to help make locally produced food available to the community?
 - a. Ask broadly at first.
 - b. Probe by category: marketing (direct marketing: farmer's markets, roadside stands, u-pick; wholesale: retail, restaurants, schools, institutions), production, access.
6. Who are the major community supporters of the local food system?
 - a. Probes: retail, restaurants, advocacy groups, institutions.
7. How do you view the local consumer demand?
 - a. Probe: production types like pesticide free or organic.
 - b. What types of products do consumers want from you?
 - c. How have things changed in the systems since you've been growing?
 - d. Do you anticipate any changes in consumer demands?
8. Are community residents involved in developing and running the system? How frequently do they use community food producers or markets?
9. What are the *major* barriers to making the community food system as successful as possible?
 - a. Probes: markets, economy (food prices), education, regulations, weather, pests, policy, processing.
10. Do you think there is local government support for community efforts such as farmers markets, community-supported agriculture, etc?
 - a. Especially political, economic supports
11. What changes can you suggest that would improve the local food system?
 - a. Probe: what support do growers need (government funding, grants, loans, special certification, help from Extension or Soil and Water Conservation Districts)?
 - b. More: are you familiar with USDA organic and other certifications, agritourism, value-added processing and regulations, farmer cooperatives?
12. (If there is time for this question, move it up above #11.) Are there any mechanisms in place to make these resources available to low-income residents?
 - a. Probe: CSA share subsidies, farmers markets in low-income neighborhoods.

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