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Kansas Farmers Union
Kansas Farm Bureau
Kansas Livestock Association
Lawrence Farmers Market

**FARMERS, BUYERS, SURVEY PARTICIPANTS IN NORTHEAST KANSAS**
We would like to thank all community members who provided their time and insights during this process. This study is a critical step in the process of creating a more robust regional local food system and local food economy.

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Executive Summary

Context
In the 1990’s, kitchen incubators came into being in scores of communities around the nation. The idea seemed simple enough, and really, rather compelling: Produce has a limited shelf life, and matching what you grow with what the market demands at any given moment can be difficult. Why not take the extras, or those items not quite pretty enough for market, and turn them into value added products with a long shelf life and a higher retail value? Based on this belief, many communities built a kitchen incubator, sometimes also called a shared use commercial kitchen.

Unfortunately, managing and operating such facilities turned out to be far more challenging than most people realized. The majority, in fact, proved financially unsustainable for a variety of reasons, from the cost of staffing the facilities to the challenges of keeping them filled with vendors utilizing the equipment. **Food hubs today are in a similar place to where kitchen incubators were twenty years ago**, facing many of the same or comparable challenges. Yet they are also being propelled, sometimes prematurely, as the next critical step for the local food system.

Local farmers, chefs, farmers market leaders, Cooperative Extension, the Douglas County Food Policy Council (DCFPC) and many others have helped build a vibrant local food system in Lawrence and other parts of northeast Kansas. The consultants at SCALE, Incorporated (SCALE) believe that the region’s food system stakeholders are in a position to develop a food hub that further builds markets, expands production and develops the essential infrastructure to support them. SCALE offers this advice, however, with the history of kitchen incubators in mind, and with the caveat that the food hub itself is not the goal, but a tool towards a stronger regional food system.

Overview
The Douglas County Commission established the DCFPC in 2009 with the goal of strengthening the local food system for farmers, consumers and buyers in the greater Douglas County area. Between 2009 and 2012, the DCFPC worked with key stakeholders to consider strategies to strengthen the local food system. One priority was to investigate the potential for a food hub as a means to accelerate, strengthen and expand the local food system. In October 2013, the DCFPC selected SCALE to lead this examination.

In northeast Kansas and around the nation, a critical challenge has emerged: Can the “local foods movement” enter the mainstream while maintaining its fundamental values of health, land stewardship and sustainability and economic viability for small to mid-size
farmers? With a broad base of experience in the development, management and analysis of food hubs, SCALE undertook this study understanding the pros and cons and the potential impacts of a food hub.

Both Douglas County, KS and KC Healthy Kids simultaneously initiated, feasibility studies for regional food system infrastructure. The Douglas County Food Hub Feasibility Study includes sixteen counties in northeast Kansas, while the Kansas City study encompasses a broader, 250-mile radius centered on KC. The two teams coordinated their efforts and collaborated wherever possible.

To gain a full understanding of the food system in northeast Kansas, SCALE used research, surveys, interviews, site visits and in-depth conversations with a wide range of stakeholders in order to gather both quantitative and qualitative data, and more fully understand the local food community.

### Analysis of the food system in northeast Kansas

The sixteen county region encompassed in this analysis offers a microcosm of the local food system around the nation: Lawrence and Kansas City have developed relatively mature local food systems in terms of both the farmers producing the food, and the chefs, cooperatives and individual consumers buying from them. Indeed, a strong local food culture can be said to exist there, especially in Lawrence. Most of the rest of the region is in earlier stages of development of their food system, both in terms of supply and demand. Common to all the region is a twofold challenge: Farmers struggle to find sizable, secure, well-paying markets, and the vast majority of consumers do not participate in local food transactions, whether because of awareness, cost or accessibility.

To date, much of the food system work that has taken place has helped build the demand, particularly in CSAs, farmers markets and specialty grocers. However, the region lacks both the infrastructure and the organizations and systems needed to connect local, small and mid-sized farmers to larger and more conventional markets where most people still shop.

### Market Findings

While there is no doubt that the overall demand for local food exceeds the current supply in northeast Kansas, the precise picture is more complicated. The relationship of supply to demand varies considerably across the region. This analysis focused on projected demand for local foods in six market segments believed to be compatible with the region’s farmers and the DCFPC’s goals: Small, independent retailers; mid-sized retail; restaurants; organic; institutions; CSAs. Overall sales and revenue projections for all of these demand segments in the first five years are highlighted below.
### Table 1: Overall Sales and Revenue Estimates for Whole Produce

<table>
<thead>
<tr>
<th></th>
<th>WEEKLY TOTALS</th>
<th>MAIN 12 WK. TOTALS</th>
<th>OTHER 18 WK. TOTALS</th>
<th>YEARLY TOTALS</th>
<th>GROSS REVENUE @20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>$43,750</td>
<td>$525,000</td>
<td>$262,500</td>
<td>$787,500</td>
<td>$157,500</td>
</tr>
<tr>
<td>Year 2</td>
<td>$57,375</td>
<td>$688,500</td>
<td>$344,250</td>
<td>$1,032,750</td>
<td>$206,550</td>
</tr>
<tr>
<td>Year 3</td>
<td>$71,625</td>
<td>$859,500</td>
<td>$429,750</td>
<td>$1,289,250</td>
<td>$257,850</td>
</tr>
<tr>
<td>Year 4</td>
<td>$79,025</td>
<td>$948,300</td>
<td>$474,150</td>
<td>$1,422,450</td>
<td>$284,490</td>
</tr>
<tr>
<td>Year 5</td>
<td>$130,650</td>
<td>$1,567,800</td>
<td>$783,900</td>
<td>$2,351,700</td>
<td>$470,340</td>
</tr>
</tbody>
</table>

### Producer Findings

Many local foods farmers in northeast Kansas are pioneers in the movement, having built a diverse base of markets, usually encompassing some combination of farmers markets, CSAs, restaurants, and for some, on-farm or on-line sales. The most common concern which farmers expressed about producing for a food hub was first and foremost price, followed by: risk of product not selling; delivery expectations and expenses; costs associated with scaling up; and buyers’ requirements, such as GAP certification, insurance, etc.

A small group of six to ten farmers are strongly interested in producing for a food hub on a modest but significant scale, creating the potential for a pool of anchor farmers who would make building a reliable, high quality supply more feasible. Taking likely anchor farmers and smaller farmers together, SCALE estimates an initial base of production of 60 – 100 acres of produce, distributed across 15 – 25 farms. Depending upon the crop selection, this would amount to $600,000 - $750,000 of production (at above market wholesale prices) at the outset, growing to over a million dollars in sales by the third year, from the core group of farmers.

### Infrastructure Findings

In northeast Kansas and Kansas City, several elements of food system supply chain infrastructure already exist and offer potential for collaboration with a food hub. To the degree feasible, integrating existing supply chain businesses into a food hub would likely offer a lower cost, sensible way to undertake a food hub. This is especially important during the start-up phase, when both production and markets are uncertain. There are, however, critical gaps in infrastructure, including a central site for aggregation, cooling and packing produce, along with limits in meat processing capacity.
Overall Sales and Revenue Projections

Table 2: Total Net Revenue Projections for Northeast Kansas Food Hub

<table>
<thead>
<tr>
<th></th>
<th>YEAR 1</th>
<th>YEAR 2</th>
<th>YEAR 3</th>
<th>YEAR 4</th>
<th>YEAR 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Oper. &amp; Staff Costs</td>
<td>$296,620.00</td>
<td>$320,758.00</td>
<td>$417,706.30</td>
<td>$454,220.00</td>
<td>$504,668.00</td>
</tr>
<tr>
<td>Sales</td>
<td>$785,772.00</td>
<td>$1,030,986.00</td>
<td>$1,291,536.00</td>
<td>$1,740,870.00</td>
<td>$2,381,184.00</td>
</tr>
<tr>
<td>Rev. @ 20%</td>
<td>$157,154.40</td>
<td>$206,197.20</td>
<td>$258,307.20</td>
<td>$248,174.00</td>
<td>$476,236.80</td>
</tr>
</tbody>
</table>

Net Revenue   | -$139,120.00 | -$114,208.00 | -$159,856.30 | -$169,730.00 | -$34,328.00 |

Note that these projections do not include protein sales, nor the modest additional costs that would be incurred in managing a line of meat, eggs and cheeses. It is believed that inclusion of meats in the food hub would improve net revenue projections by year 5.

Recommendations

In spite of the risks and need for subsidization for the first 4-5 years, SCALE recommends moving forward in the development of a regional food hub. SCALE believes this is the best opportunity to energize the market and grow the local food economy to the benefit of farmers and consumers in the region. The local food movement in Lawrence and other parts of Kansas, Missouri, and the Mid-west has made great strides over the past two decades. However, it runs the risk of stalling, or being absorbed by larger, non-local food corporations, unless a concerted, locally rooted initiative is launched to overcome current obstacles and build a new base of customers and supporters. SCALE believes this is possible, even plausible, given the steps already taken by the DCFPC and its partners. The following recommendations are a subset of the more extensive recommendations detailed in the body of the document, representing what SCALE believes to be the most critical steps that the DCFPC and its partners should consider.

In spite of the risks and need for subsidization for the first 4-5 years, SCALE recommends moving forward in the development of a regional food hub. SCALE believes this is the best opportunity to energize the market and grow the local food economy to the benefit of farmers and consumers in the region.
SHORT TERM RECOMMENDATIONS (JUNE, 2014 – DECEMBER, 2015)

1. Designate a Lead Organization for the first 12 – 18 months to coordinate and carry out the work described below, including development of the action plan. This should be considered an interim organization, which may or may not ultimately manage the food hub.

2. Form a Project Planning and Implementation Team to consider the findings of the feasibility study, set goals for the food system initiative, and develop a realistic action plan. The Team should be lean – no more than 10 people – yet representative, both in terms of geography and food system stakeholders. Farmers must have a strong voice on the Team. The Team should be “housed” within the Lead Organization, but will be broader in its membership.

3. Develop a draft Action Plan by the end of 2014. The plan should have clearly stated goals and objectives, with concrete steps for implementation over a 2 – 3 year period. At the same time, any plan must anticipate and allow for learning from experience, including challenges and new opportunities. It should be seen as a living document, rather than a blueprint.

4. Develop a timeline, including a target date for launching a food hub or food system initiative.

5. Research potential sites for an aggregation facility in Lawrence, Douglas County and the Topeka area, guided by the specifications outlined in the report. SCALE strongly recommends a lease rather than a purchase for the first few years.

   • Explore feasibility of shared space (and coolers/freezers) with other food system businesses, including Pines International, Hilary's Eat Well and others.

6. Work with Fresh Food Express, Hildebrand Dairy and other supply chain enterprises to develop a detailed infrastructure and logistics plan, along with cost estimates. Tim White of the Hiawatha Thriftway should be involved in this process as well.

7. Develop a funding plan that includes both capitalization and operational needs. The role of both grants and loans should be considered, the latter more likely once the hub is well established. Begin seeking funds based on the Action Plan and timeline.

8. Begin outreach to farmers, focused on those expressing strongest interest in a food hub, to determine the probable base of production once a food hub is launched. Include both produce and meat producers in this outreach, with greater initial focus on produce farmers.

   • Clearly identify and begin working with 6 – 10 “anchor farmers”

   • Organize a Producers Network in 2015 to begin building relationships among farmers, promote peer learning and facilitate demand-based production planning.

9. In 2015, begin outreach to potential buyers, including a sampling from each of the market segments described in the report leading to a detailed, realistic market plan. The objective is to identify a core of buyers willing and able to work with the
food hub, whose products, pricing and requirements are compatible with the farmers with whom you are working.

- Identify and build relationships with 3 – 5 larger employers interested in a CSA.

10. **Undertake branding research, including testing of possible brands, in concert with KDA and others with brand development experience.** Have a brand ready for use by the end of 2015.

11. **Make plans for the transition from the interim Lead Organization to a more permanent entity.**

**MEDIUM TERM RECOMMENDATIONS (2016 – 2018)**

1. Work with Cooperative Extension, the Kansas Farmers Union, the Kansas Rural Center and seasoned farmers to **develop a support system that will help farmers scale up production, improve farm management and productivity, and secure organic certification and GAP certification** as needed.

2. **Secure specific commitments from buyers** for a range of 12 – 15 core produce items, and undertake production planning in the fall and winter of 2015/2016.

3. **Launch a pilot food hub in 2016,** based on the demand projections of committed buyers and production plans of farmers. The hub should include 2 – 3 workplace CSAs.

4. **Develop a plan for supplying public schools, universities and hospitals with high quality produce “seconds”** that provide a market for farmers, while better meeting the budget limitations of institutional buyers.

5. **Begin incorporating proteins (meats, eggs, cheese) in year two of operations.**

6. Work with Kansas Department of Agriculture and regional farmers market leaders to explore how a food hub might strengthen regional farmers markets.

7. **Develop and launch an initiative to reach and foster a new tier of local food consumers,** mainly among those “vaguely concerned, sporadically motivated” in relation to local food.

**LONG TERM RECOMMENDATIONS (2019 AND BEYOND)**

1. Work with Kansas Organic Producers to **explore development of regional markets and processing for regionally produced grains, beans and other food items.**

2. **Conduct a careful review** of operations, revenues and expenses after year 3 and revise operational model accordingly.
The Douglas County Commission established the county’s Food Policy Council in 2009, with the goal of strengthening the local food system for a broad range of farmers and a diverse mix of consumers and buyers in Douglas County and the surrounding area. The Council develops policies to support the local food economy and a sustainable regional food system (www.douglas-country.com/sites/fpc). The first Food Policy Council established in Kansas, it is made up of 23 stakeholders who have deep connections with the local food community throughout the county. These members work with different groups such as producers, grocers, chefs, farmers market representatives, school food service managers, health and nutrition advocates and others to conduct research and engage the community around improvements in the local food system.

Recognizing the richness of many elements of the local food system in Lawrence and Douglas County, the Council focused its early efforts in three broad areas: Research into the Strengths, Weaknesses, Gaps and Opportunities of the existing system; developing plans and strategies to build on the strengths and address the gaps; and building a strong and diverse network of food system stakeholders, both within the Council itself and through projects and collaborations in the community.

The investigation which the DCFPC undertook in 2011, 2012 and 2013 included a mix of analytical studies (“Building a Deep-Rooted Local Food System,” conducted in 2011, http://www.douglas-county.com/depts/ad/su/docs/pdf/su_fsrbuilding.pdf; and collaborations with KU business students on the report, “Economic Impact of Local Food Purchasing in the City of Lawrence”, http://www.douglas-county.com/depts/ad/su/docs/pdf/su_kipeconomicimpactreport.pdf, released in early 2013) along with interviews and participatory meetings designed to solicit the ideas and concerns of farmers, chefs and other food system stakeholders (i.e. the “Cultivating a Healthy Local Food Economy in Douglas County” workshop in fall 2012). Taken together, these studies and gatherings enabled the Council to develop a more accurate understanding of the strengths and weaknesses of the food system, not only within Douglas County, but more broadly in the northeastern region of Kansas. Among the key findings of this initial research were:

- While rich in high quality farmland and skilled farmers, the vast majority of agriculture in the northeast Kansas region is focused on a handful of commodity crops, along with beef cattle destined for feedlots in western Kansas and other states.

- The production of fresh fruits and vegetables, along with eggs, meats and dairy products for consumption within the region has been increasing steadily for a number of years, but remains quite small, especially outside of the Lawrence area.
• The primary focus of the “local foods movement” in Lawrence and other parts of the region has heretofore been primarily on farmers markets, CSAs and other direct-to-consumer means of selling.

• There is a small and dedicated core of local foods buyers, primarily restaurants and food cooperatives, along with some more traditional retail. Many of these buyers indicated an interest in more purchasing if the quality, reliability and ease of purchasing from local farmers could be improved.

• Farmers in northeast Kansas stem from a rich agricultural heritage and have a strong understanding of working the land in the region.

• In Douglas County, the average age of farmers is over fifty eight, similar to the national average; and of the 1,040 farmers only 35% are full-time farmers.

• There is a lack of food infrastructure that can assist farmers in getting their product to larger markets, including cold storage, light processing, packaging and sufficient meat processing plants.

• There are over 10,000 residents in the greater Douglas County area that live in food deserts, according to the USDA, and lack access to healthy food options.

Most often, food hubs are launched with the primary goal of “scaling up” the local food system. While this increase in volume of sales and availability of food to consumers is laudable, there are also frequently challenges associated with food hubs, including lower prices for farmers, increased costs and requirements to access certain markets, difficulty reaching lower income and more vulnerable populations of people, and in some cases, an imbalance between the demand for local food and the available supply.

The DCFPC held a planning workshop in 2012 with community leaders and key stakeholders to consider possible strategies and activities to strengthen the food system. One of the priorities that emerged was to investigate the potential for a food hub in the region as a means to accelerate and expand the local food system, reach more and more diverse consumers and create new market opportunities for farmers. The DCFPC then conducted a six month-long research process to identify the attributes of a food hub that might strengthen their local food system. This led to the submission and securing of a grant from USDA Rural Development for a food hub feasibility study. In October 2013, SCALE, Incorporated of Abingdon, Virginia was selected to lead this study.

The idea of a food hub is relatively recent in the local foods arena, having arisen in most places as a strategy to expand the availability of local foods beyond CSAs, farmers markets and other direct markets, while helping farmers to access larger markets. USDA’s definition of a food hub – “A centrally located facility that facilitates the aggregation, storage,
processing, distribution and/or marketing of locally/regionally produced food products” – conveys the range of typical core functions that most food hubs include, to varying degrees. Most often, food hubs are launched with the primary goal of “scaling up” the local food system. While this increase in volume of sales and availability of food to consumers is laudable, there are also frequently challenges associated with food hubs, including lower prices for farmers, increased costs and requirements to access certain markets, difficulty reaching lower income and more vulnerable populations of people, and in some cases, an imbalance between the demand for local food and the available supply. With a broad base of experience in the development, management and analysis of food hubs, SCALE undertook this study with a strong understanding of both the pros and cons of the potential impacts of a food hub.

Generally speaking, the opportunities and challenges presented by the local foods movement in northeast Kansas parallel those in many other parts of the nation. In the study area and around the nation, a critical challenge has emerged: Can the “local foods movement” enter the mainstream while maintaining its fundamental values of health, land stewardship and sustainability, and economic viability for small to mid-size farmers?

Project Study Team

Based on 28 years of work in the field, SCALE, Inc.’s founder and President, Anthony Flaccavento provides a unique combination of hands-on experience – as a commercial organic farmer, a small business owner, and a non-profit director – with relevant education including a BS in Agriculture and Environmental Science and a Masters degree in Economic and Social Development. Prior to starting SCALE, Inc, Anthony founded Appalachian Sustainable Development (ASD), which, among other enterprises, launched Appalachian Harvest in 1999, one of the nation’s first community-based food hubs, linking farmers with buyers in southwestern Virginia and northeastern Tennessee. His Booklet, Healthy Food Systems: A Toolkit for Building Value Chains has been utilized by leaders of established and emerging food hubs around the country. Megan Williams, Director of Research, helps design and carry out research projects for SCALE, ranging from food hub feasibility studies, an examination of college and university food procurement practices in central Appalachia, to the relative affordability of farmers markets vis-a-vis supermarkets in 39 communities in the southeastern United States.

SCALE staff are joined on this project by Michael Shuman, author of several books, including The Small Mart Revolution and Local Dollars, Local Sense and other books on local economy, and one of the country’s most experienced writers, thinkers and analysts related to local and regional economies. Michael will be undertaking the Economic Impact Analysis for this project, in close consultation and under subcontract with SCALE staff.

SCALE, Inc.’s approach to research, analysis and design is steeped in years of hands-on experience in local food system work and broader efforts to build more sustainable, regionally based economies. This experience is broad and diverse, ranging from work in the Arkansas Delta to Iowa, New Mexico, Wisconsin, Appalachia and other communities. All of the work is infused with a commitment to help communities build healthier, more economically viable farm and food systems. It is also grounded in intimate knowledge that comes from its founder’s experience of being a farmer and having built a regional food hub from scratch.
The overarching goal of the study was to contribute to the strengthening of the local food system in the northeast Kansas region, not simply to determine whether a centralized food hub enterprise is feasible.

Approach to Study

Every consulting firm, while striving to provide objective analysis to its clients, comes with a base of experience and associated beliefs and values that color the research it undertakes. From the outset of this process, SCALE attempted to make its core beliefs – one could call them “biases” – as clear as possible to its client, the Douglas County Food Policy Council. Relevant to this project, these are:

1. **The primary lens through which a food hub is considered is that of a farmer**, as SCALE’s founder and president is a commercial organic farmer himself, and has worked with hundreds of other farmers over the past 20 years. This means substantial attention was paid to the voices of farmers, their hopes and concerns about a food hub greatly influencing the findings and analysis. Questions about price, barriers to entry, compatibility with other markets into which they sell, food safety certification and other requirements were all considered in detail.

2. **The overarching goal of the study was to contribute to the strengthening of the local food system in the northeast Kansas region**, not simply to determine whether a centralized food hub enterprise is feasible. Examination of the potential for a food hub indeed occupied the lion’s share of time and resources throughout the study period, as prescribed by the client’s request. However, from the beginning, the role of the food hub within the broader context of local food in the region was also examined, with particular attention to how such an enterprise could build on and add value to existing local foods initiatives and businesses.

3. **The potential downside of a food hub was also considered at every stage of the process**, both to determine if these outweighed potential benefits and to devise a strategy which avoided and minimized negative impacts should it be adopted.

Collaboration with New Venture Advisors and KC Healthy Kids

Both Douglas County, KS and KC Healthy Kids simultaneously received funding for, and initiated, feasibility studies for regional food system infrastructure. The Douglas County Food Hub Feasibility Study includes sixteen counties in NE Kansas (Wyandotte, Johnson, Douglas, Leavenworth, Jefferson, Atchison, Brown, Nemaha, Doniphan, Shawnee, Franklin, Osage, Miami, Jackson, Pottawatomie, and Wabaunsee). The Kansas City Food Hub Feasibility Study includes a 250 mile radius surrounding Kansas City, Missouri, and
includes the sixteen-county region targeted in the northeast Kansas study. Both studies’ completion dates targeted early summer, 2014.

In recognition of the unique opportunity this provides for collaboration, to both enhance the feasibility study research process and improve regional food system coordination, the two entities and their respective consulting firms, SCALE and New Venture Advisors, worked together to develop a set of parameters in order to avoid redundancy. These parameters included collaborations on the work plan, research tool development (including surveys and interviews), data sharing, communications through a point of contact for each group and the timeline of the study.

Methodology

To gain a full understanding of the food system in northeast Kansas, SCALE staff used a variety of methods in order to gather both quantitative and qualitative data, conduct research and immerse themselves into the local food community. These methods included:

- Surveys: one for producers and another for buyers
- Interviews: both in-person and over the phone
- On-site visits: conducted in November 2013 and February 2014
- Other research and communications
- Economic Impact Analysis

The first step in the data-gathering phase entailed the development of a survey, with the goal to gather a baseline of both quantitative and qualitative data from a wide-variety of producers and buyers. SCALE and New Venture Advisors developed the survey questions in a collaborative manner. The team then developed the survey instrument using the online survey tool, Survey Monkey, and distributed the surveys via email to lists produced through our outreach and existing lists provided by the partners collaborating on the Douglas County and Kansas City Healthy Kids studies. A total of 121 buyers responded, with 78 of those responses coming from the northeast Kansas study area. There were 196 producer survey responses and of those, 96 came from the northeast Kansas study area. Geographically, the buyer and producer respondents were predominantly located within a 50-mile radius from Lawrence, with clusters located in the Brown County and Manhattan regions in northeast Kansas (figure 1). The map below shows that many of the producer respondents have access to Interstate 70 or 35 within 50 miles, even if they are located on secondary highways. For buyers, most are located close to major transit routes already and are clustered in more metropolitan areas such as Kansas City, Lawrence and Topeka. A closer look at US Census Data reveals that the majority of buyers are also located within regions where median household income rates are higher, that is, closer to Kansas City and Lawrence.

The information collected by the survey served as one part of the base of information used by SCALE for the analysis. Of equal importance is the data collected through a series of over 50 interviews through follow-up phone conversations and in-person interviews. There were two types of interviews: Follow-up conversations with survey respondents to
Food Hub Feasibility Study
Spatial Analysis

Figure 1 - GIS Map: "Spatial Analysis Radius"
gain a deeper understanding, and interviews with key stakeholders who had not filled out the survey. SCALE also conducted interviews to gain a greater understanding of market demand and the production environment, much of which would not have been possible to glean through the survey alone.

A total of 121 buyers responded, with 78 of those responses coming from the northeast Kansas study area. There were 196 producer survey responses and of those, 96 came from the northeast Kansas study area.

SCALE also visited the study area in person twice during the assessment period. These visits, held in November 2013 and February 2014, provided the team an opportunity to engage groups of buyers and producers of a variety of backgrounds and experience with the local food system. SCALE held 17 meetings during the November visit and 17 meetings during the February visit. These meetings ranged in size with larger groups convening for producer meetings in Lawrence and stakeholder meetings in Hiawatha and Manhattan and smaller focus groups convening for meetings with specific grower-buyer groups, study partners and other key stakeholders. SCALE also conducted site visits at local farms, local farmers markets, local restaurants and institutions, and to Kansas City to meet with the Kansas City Healthy Kids Food hub team.

Another consistent feature of the methodology was a high level of communication with the Douglas County Food Policy Council representatives, particularly Eileen Horn. SCALE held conference calls with Ms. Horn on a weekly basis throughout the assessment period and this regular communication provided needed insights to happenings in the local food system in the Lawrence region and beyond. SCALE also communicated consistently with the Food Policy Council, and participated in conference calls to stay abreast of pertinent information related to the study. SCALE also reviewed various related research already conducted pertaining to the local food economy and local food environment in the northeast Kansas study area. Research included the study of a recent food hub study completed by the Hardesty Renaissance Planning group to look at the feasibility of a food hub at the Hardesty site in Kansas City. SCALE also looked at a recent Rapid Market Assessment conducted by the State of Kansas for a sampling of farmers markets statewide.

Economic Impact Analysis

As part of its study to design a “Food Hub” in Douglas County, Kansas, SCALE commissioned this analysis of the project’s economic impacts. While the study sponsors were especially interested in how the project would affect Northeast Kansas, a 16-county region where most of the Food Hub participants reside, the decision was made at the outset – for cost reasons – to focus the analysis on the state of Kansas and Douglas County. The study thus proceeds in five parts: sketching the contours of the “food economy” for Kansas and Douglas County; reviewing the data SCALE provided about the Food Hub concerning its anticipated sales and expenses over its first five years of operations; calculating the
economic impact for the entire state of Kansas; showing how much of that impact will be enjoyed by Douglas County; exploring the likely economic impacts for Northeast Kansas through interpolation and inference; and then discussing important caveats about the analysis.

The principal tool we used for our analysis is IMPLAN, the Minnesota Input-Output Model deployed extensively by economic development agencies nationwide. IMPLAN is helpful in drawing an accurate, comprehensive picture of the demand and supply sides of specific sectors of the economy.

Using IMPLAN, we found that the total “value added” for all business activity in Kansas – the regional equivalent of the Gross Domestic Product (GDP) – is about $144 billion per year. Less than 3% of that production is in Douglas County. Annual household food consumption is $7.6 billion in Kansas and $271 million in Douglas County. In both geographic areas, roughly two-thirds of local food demand is met through imports, suggesting the enormous potential of an import-substituting food business like the proposed Food Hub.

The proposed Food Hub would gather, package, and sell bulk foodstuffs from farmers in Northeastern Kansas. It would distribute produce through retailers, institutions, restaurants, and CSAs, and meat and eggs through restaurants, door-to-door delivery, and CSAs. By Year 5, its annual sales (to end distributors) would be about $2.6 million, of which 80%, about $2 million, would go to farmers as gross revenue. Some of that revenue would need to be spent on processing of meat products before they were delivered to the Food Hub. Table 3 below summarizes all the spending patterns associated with the Food Hub in Year 5.

Table 3: Year 5 Spending Associated with the Food Hub

<table>
<thead>
<tr>
<th>ECONOMIC ACTIVITY</th>
<th>ANNUAL SPENDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Hub Sales</td>
<td>$527,472</td>
</tr>
<tr>
<td><strong>Farmer Revenue</strong></td>
<td></td>
</tr>
<tr>
<td>- Vegetable Farmers</td>
<td>$1,505,088</td>
</tr>
<tr>
<td>- Fruit Farmers</td>
<td>$376,272</td>
</tr>
<tr>
<td>- Poultry &amp; Egg Farmers</td>
<td>$91,412</td>
</tr>
<tr>
<td>- Beef Farmers</td>
<td>$14,854</td>
</tr>
<tr>
<td>- Pork Farmers</td>
<td>$14,854</td>
</tr>
<tr>
<td><strong>Processor Expenses</strong></td>
<td></td>
</tr>
<tr>
<td>- Poultry Processing</td>
<td>$45,706</td>
</tr>
<tr>
<td>- Pork &amp; Beef Slaughter</td>
<td>$61,703</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$2,637,362</strong></td>
</tr>
</tbody>
</table>

The next step in our economic analysis is to enter the data in Table 3 as a “shock” to the Kansas economy. IMPLAN then models where every dollar of that spending goes, and how every dollar is in turn re-spent in the area under study. It models how a change in demand can lead not only to direct new jobs in expanded business activity, but also how the new spending by this business creates new jobs (indirect effects from businesses’ supply chains) and how the new spending by new employees in all these businesses (both expanding food businesses and supply-chain businesses) create even more new jobs (induced effects).
We then use IMPLAN to calculate the overall impact of the Food Hub on Kansas in Year 5. As shown on the following page in Table 3, we estimate that the Food Hub, in its fifth year of operation, will generate for the state of Kansas 25.3 jobs – 6.2 directly, 6.3 indirectly, and 12.8 induced. It also will stimulate $2.9 million in pay, $2.7 million in value-added for the state economy, and $156,657 in state and local taxes.

Table 4: Economic Impacts of the Food Hub for Kansas in Year 5

<table>
<thead>
<tr>
<th>JOBS</th>
<th>LABOR INCOME</th>
<th>VALUE ADDED</th>
<th>BUSINESS TAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Effect</td>
<td>6.2</td>
<td>$2,049,695</td>
<td>$1,387,153</td>
</tr>
<tr>
<td>Indirect Effect</td>
<td>6.3</td>
<td>$320,690</td>
<td>$339,728</td>
</tr>
<tr>
<td>Induced Effect</td>
<td>12.8</td>
<td>$518,717</td>
<td>$968,580</td>
</tr>
<tr>
<td>Total Effect</td>
<td>25.3</td>
<td>$2,889,102</td>
<td>$2,695,461</td>
</tr>
</tbody>
</table>

Table 5 shows our estimation of the cumulative impact of the Food Hub in Kansas over five years: $8.5 million in wages, $7.9 million in value added, and $459,478 in new state and local taxes.

Table 5: Cumulative Statewide Impacts of the Food Hub

<table>
<thead>
<tr>
<th>ANNUAL SALES</th>
<th>LABOR INCOME</th>
<th>VALUE ADDED</th>
<th>STATE &amp; LOCAL TAXES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>$787,500</td>
<td>$862,668</td>
<td>$804,848</td>
</tr>
<tr>
<td>Year 2</td>
<td>$1,190,925</td>
<td>$1,304,600</td>
<td>$1,217,160</td>
</tr>
<tr>
<td>Year 3</td>
<td>$1,472,618</td>
<td>$1,613,181</td>
<td>$1,505,058</td>
</tr>
<tr>
<td>Year 4</td>
<td>$1,647,029</td>
<td>$1,804,240</td>
<td>$1,683,312</td>
</tr>
<tr>
<td>Year 5</td>
<td>$2,637,362</td>
<td>$2,889,102</td>
<td>$2,695,461</td>
</tr>
<tr>
<td>Cumulative</td>
<td>$7,735,434</td>
<td>$8,473,792</td>
<td>$7,905,839</td>
</tr>
</tbody>
</table>

Next we analyze the economic impact of the Food Hub in Douglas County. We begin this analysis by modifying our model inputs statewide.

- **Farmer Revenue** – SCALE estimates that 18% of all farmers participating in the Food Hub would live in Douglas County. It follows, therefore, that 18% of the projected net increase revenue come to Douglas County farmers.

- **Food Hub Business** – The Food Hub would likely be located within Douglas County, so all its business spending would be focused there.

- **Processing Revenue** – All the meat processing activities associated with farmers’ direct provision of meat would occur outside Douglas County.

Under these assumptions, we used IMPLAN to calculate that the economic impacts of the Food Hub in its fifth year of operation for Douglas County. Table 5 shows that the county would gain 7.5 jobs – 3.4 directly, 1.5 indirectly, and 2.6 induced. It also would stimulate $636,271 million in additional pay, $799,400 million in addition value-added for the County economy, and $80,713 in additional state and local taxes.
Table 6: Economic Impacts of the Food Hub for Douglas County in Year 5

<table>
<thead>
<tr>
<th></th>
<th>JOBS</th>
<th>LABOR INCOME</th>
<th>VALUE ADDED</th>
<th>BUSINESS TAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Effect</td>
<td>3.4</td>
<td>$495,936</td>
<td>$517,373</td>
<td>$53,744</td>
</tr>
<tr>
<td>Indirect Effect</td>
<td>1.5</td>
<td>$60,142</td>
<td>$103,967</td>
<td>$6,763</td>
</tr>
<tr>
<td>Induced Effect</td>
<td>2.6</td>
<td>$80,193</td>
<td>$178,060</td>
<td>$20,206</td>
</tr>
<tr>
<td>Total Effect</td>
<td>7.5</td>
<td>$636,271</td>
<td>$799,400</td>
<td>$80,713</td>
</tr>
</tbody>
</table>

Even though we did not have IMPLAN data sets for the 16-county region of Northeast Kansas, we can infer that the economic impacts of the Food Hub lie somewhere between the statewide and local cases we studied. Table 7 shows the results of a linear interpolation of our economic impacts between the two areas based on population.

Table 7: Interpolation of Food Hub Impacts in Northeast Kansas in Year 5

<table>
<thead>
<tr>
<th></th>
<th>KANSAS</th>
<th>NORTHEAST KANSAS</th>
<th>DOUGLAS COUNTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>2,893,957</td>
<td>1,269,832</td>
<td>112,864</td>
</tr>
<tr>
<td>Jobs</td>
<td>25.3</td>
<td>11.6</td>
<td>7.5</td>
</tr>
<tr>
<td>Labor Income</td>
<td>$2,889,102</td>
<td>$1,319,148.3</td>
<td>$636,271</td>
</tr>
<tr>
<td>Value Added</td>
<td>$2,695,461</td>
<td>$1,230,732.9</td>
<td>$799,400</td>
</tr>
<tr>
<td>State &amp; Local Taxes</td>
<td>$156,657</td>
<td>$71,528.7</td>
<td>$80,713</td>
</tr>
</tbody>
</table>

The interpolation results are almost surely too low for Northeast Kansas. In fact, it’s likely that the region’s impacts would be just a tad smaller than for the state’s. The principal difference between the impacts in the state and in Douglas County is that, in the latter, only 18% of the Food Hub farmers worked and none of meat processing plants existed. But all of the farmers and all the meat processing plants can be found in Northeast Kansas. The only reason the impacts in Northeast Kansas will be smaller than those in state is that some of the indirect and induced effects statewide will be lost.

The study concludes by reflecting on the limitations of IMPLAN. Were these limitations correctable, the economic impacts would probably be greater. Moreover, there are many benefits of the Food Hub that are clearly positive but difficult to measure, including reduced farmer poverty, greater rural development, enhanced public fiscal soundness, lower carbon footprints, and improved public health.
Market Analysis: Current and projected demand for products from a regional food hub

“We utilize local growers to stimulate economic growth, much needed health reform, & strengthen community relations.” – small, independent grocer in northeast KS

Overall Summary of the Market

Institutions, such as schools and universities, represented the largest group of buyers completing the survey at 28% percent of the respondents. There was a wide variety of types of buyers represented otherwise including restaurants, grocery stores, distributors and government entities. Of these buyers over 70% stated that they already purchase some kind of locally produced farm product. Though the majority of buyers’ definition of “local” falls within 250 miles, the survey data reveals that there is no consistent definition as to what deems a product “local” among these buyers (figure 2).
The majority of these buyers have annual purchasing volumes under $250,000 of whole fruit and vegetables and under $250,000 for “proteins” (i.e. meats, eggs and cheese). The majority of these buyers’ annual purchasing volumes of processed fruits and vegetables do not exceed $100,000, and annual grain purchasing volumes do not exceed $50,000. Of the fruit and vegetable and protein purchases, the majority of respondents reveal that less than 20% are locally sourced. Grains prove to be the toughest product to source locally, with the majority of respondents revealing that they source between zero and ten percent locally. Thus there certainly is a demand for local food, with the majority of respondents saying they would be very likely or extremely likely to buy directly from a food hub (figure 3).
Overall summary of projected market demand

While there is no doubt that the overall demand for local food exceeds the current supply in northeast Kansas, the precise picture is more complicated. The relationship of supply to demand varies considerably across the region, with the city of Lawrence in the exceptional position where current supply of many locally raised foods meets or exceeds current demand, at least in the standard venues for local foods, i.e. farmers markets, CSAs and food cooperatives. In other parts of the region, both demand for and supply of local foods is in the early stage of development, with considerable room for growth of both.

This analysis focuses on projected demand for local foods in six market segments, each of which will be examined in light of four qualitative criteria discussed later in the text.

A note about the projected demand for produce: The projected demand figures incorporated in this report are based on the following:

- SCALE began with the total estimated weekly demand, provided by the buyers, for a range of “core items”, rather than using total purchases. This eliminated citrus and other items that cannot be produced locally, and put more emphasis on items that often have a competitive advantage when produced locally, because of appearance, flavor, freshness, uniqueness of varieties or good production conditions in the region. There are other items that can, and likely would, be produced, but the focus here is on those core items (see inset for the list of items). The exception to this rule is for CSA estimates where the list is broader.

- The estimated weekly demand for these core items was then discounted by 50% at the outset, realizing that most buyers are not going to purchase only from local sources, even if the quality, price and other characteristics are favorable. In this way SCALE is putting forward conservative numbers which could be increased over time. The intention then is that the “projected demand” is in fact a plausible demand.

- In some cases, for the food cooperatives and the farm-to-table restaurants, the demand was discounted by an additional 25% to account for their current high rates of purchasing from local farmers. With these buyers the intent is to focus on unmet current demand, along with potential increases over time, rather than replacing local farmers with a food hub.

THE CHALLENGES BUYERS FACE IN SOURCING LOCALLY RANK AS FOLLOWS:

a. Getting consistent supply and sufficient volumes
b. Seasonal limits in availability (likely inflated by high proportion of schools)
c. Price points (too high)
d. Lack of GAP, other requirements
e. Inadequate diversity of local products offered
f. Additional staff time to source locally

THE CHALLENGES BUYERS FACE IN SOURCING LOCALLY RANK AS FOLLOWS:

CORE ITEMS THAT CAN, AND LIKELY WOULD, BE PRODUCED:

- tomatoes
- cherry tomatoes
- leaf lettuce
- summer squash
- cucumbers
- chard
- sweet potatoes
- potatoes
- green bell peppers
- mixed bell peppers
- broccoli
- strawberries
- assorted berries
- eggplant
- watermelon
- cantaloupe
Market Context

The extent and maturity of markets for local foods in the sixteen county region of north-east Kansas can be characterized on three levels: Relatively Mature Markets, Emerging Markets, Undeveloped Markets.

**Relatively Mature Markets**
- Kansas City Metro
- Lawrence / Douglas County

**Emerging Markets**
- Manhattan / Riley County
- Hiawatha / Brown County

**Undeveloped Markets**
- Topeka / Shawnee County
- Small Towns and Rural Communities

In Lawrence and much of Douglas County, the local foods market is relatively mature, with well-established demand across a fairly broad spectrum of markets. Several CSAs serve the community, including at least two work place-based CSAs; the Lawrence Farmers Market is diverse and strong in product offerings and consumer demand; the Merc Cooperative grocery store has over 6,700 members, a broad array of local and/or organic foods and purchasing commitments with hundreds of producers each year; and a small but dedicated core of independent restaurants buy a substantial portion of their produce, meats and some other items from local farmers. There are also independent grocers in Lawrence, including Checkers and Hy-Vee, which purchase with some regularity from local farmers.

While the demand for local and sustainably produced foods is far stronger in Lawrence than in any other part of the region there remains room for growth, particularly among people who have not historically been “locavores”. Without this growth the demand in Lawrence is likely to soon be saturated by existing farmers, or in some cases, may already be. This saturation was described by several local farmers who cited declining sales volumes at the farmers market and for some, at the Merc, as more local growers compete for a market that has largely plateaued. Others described difficulty in growing or even maintaining CSA member numbers in comparison with prior years. *Hence, expansion of demand in Lawrence will require cultivating a new, broader base of food consumers beyond the committed locavore.*
“The issue for us is not increasing production, but finding more demand. We’re seeing more farmers competing for the same customers in Lawrence and it’s affecting our sales and prices.”
– Established local food producer, at grower meeting in February, 2014

Kansas City of course offers by far the greatest concentration of consumers, restaurants and potential buyers and, like Lawrence, has been cultivating a local food system and culture for some time now. The potential for greater sales is by far the largest in Kansas City and its encompassing suburbs, as the proportion of people and businesses buying significant amounts of local food remains small relative to the total numbers. There is also far greater competition to gain access to these markets among farmers, farmer cooperatives and food chain suppliers.

**EMERGING MARKETS**
In Manhattan and to a lesser degree, Hiawatha, the market for local foods is emerging, with recent growth in farmers markets and strong interest expressed by potentially significant local buyers, including retailers (Hiawatha Thriftway, Ray’s Apple Market), food service establishments (Casino, some local restaurants), as well as Kansas State University in Manhattan. The market for local foods in these places is growing and seems to offer significant potential, but needs cultivation and development to grow into a substantial demand. There are prominent local retailers in both locations that are poised to help build this demand, in part to make their own businesses more appealing to customers as well as more competitive.

Hiawatha, though only a town of 3300 people, provides an example of an emerging market with modest but realistic potential growth over the next several years due to the convergence of a few important factors: a local “champion” who also owns an independent mid-size grocery store that has begun purchasing from local farmers; a fledgling farmers market begun in 2013 in the parking lot of that market; a nearby casino strongly interested in local purchasing, along with a second casino in the region that could follow suit; and proximity to a considerably larger town, St Joseph, MO, which could provide opportunities for constructing a delivery route encompassing both communities.

**UNDEVELOPED MARKETS**
The third level of market for local foods, which characterizes most of the balance of the region, can be characterized as “undeveloped”, for as yet there has been little work done to build local food supply or demand. In much of the sixteen county region these are rural communities, with very small towns, low population densities, generally small employers and few if any independent grocers, restaurants or other market venues. Some of the communities do have small, independent rural grocers which do offer some potential for local buying, though the likely purchase volumes make this impractical unless other markets can be cultivated in close proximity.
In these communities the development of a stronger and more diverse supply of local foods from nearby farms could lead to creation or expansion of farmers markets, as well as “fruit stands” that offer locally raised produce, eggs and even meats. There is no question that developing strong markets in these very small communities can be very difficult, but it is not impossible. One example of this is the town of St Paul, Virginia, in the heart of the Appalachian coalfields. With only 950 residents and very high unemployment and poverty rates, St Paul was ambitious to launch its farmers market in 2010. However, it now includes 20 vendors during peak season and the “producer-only market” attracts a strong base of customers from within and nearby the town.

Topeka, the state capitol, is a different sort of “undeveloped market” for local foods, relative to its population density, household income and presence of mid-size to larger markets. Though it would take time and sustained effort, Topeka appears to offer potential as a significant market for local foods through a variety of channels including workplace-based CSA’s, farmers markets, restaurants and through independent grocers and supermarkets.

The idea here is not try to make a locavore out of everyone, but instead to target and cultivate the next tier of potential consumers, folks who might be characterized as “vaguely concerned and sporadically motivated”.

Evolving Consumer Base

In communities like Lawrence, there is a well-developed “food culture” which includes not only restaurants, food cooperatives and other market venues, but a base of consumers who seek out local, sustainably produced foods. Many of these individuals are quite dedicated to local buying – sometimes of more than food items – and as such are generally willing to pay a bit more and to frequent farmers markets, the Merc or Peoples Grocery or
other less traditional market venues. Places like Asheville, North Carolina, Minneapolis, Minnesota, and Burlington, Vermont have similarly developed food cultures.

While these consumers have been instrumental in supporting local farmers and building the local food system to its present state, increasingly there are signs that the demand they’ve created in Lawrence and elsewhere may be waning. As mentioned earlier, several farmers near Lawrence spoke of plateaus or even declines in their sales through these markets and cited over-supply as a growing concern. For these reasons, it is important to think creatively about how to build a broader base of local food shoppers, cultivating demand for these foods among people and in places where the “local” ethic has not yet taken hold. The idea here is not try to make a locavore out of everyone, but instead to target and cultivate the next tier of potential consumers, folks who might be characterized as “vaguely concerned and sporadically motivated.” While not now in the habit of shopping locally (or for organic/sustainable foods), people in this group are increasingly concerned about where their food comes from, whether out of anxiety about food safety or pesticide contamination, or because they want to improve their overall health and fitness. Some of these individuals may well have taken a stab at local buying, either at a farmers market or at the co-op, but have only done so sporadically and, for a range of reasons, have never quite cultivated this as a habit.

Underlying the market analysis and recommendations is the projection that for the local foods market to grow and remain beneficial to farmers and consumers alike, significant attention will need to be paid to reaching and cultivating this next tier, this new demographic of local food consumers.

Pros and Cons of Different Types of Markets

**INDEPENDENT RETAIL**

Independent retailers offer both advantages and challenges in the development of a strong local food system, but they nearly always play a role. In northeast Kansas, they vary in size from very small rural grocers (Gator’s Hometown Foods, Hearthside Country Store, Pendleton’s Country Market and The Depot Market) to mid-size stores (Ray’s Apple Market, Manhattan area; Checkers in Lawrence;
Hiawatha Thriftway and other Thriftway stores) to regionally based supermarkets (Hy-Vee).

Among the advantages of selling into independent retailers:

- People from across the economic spectrum shop at grocery stores and supermarkets (to varying degrees). Local food sold in such places potentially reaches a larger and more diverse base of customers than would be the case at restaurants or more specialized buyers.
- Grocery store shelves need a wide range of products, whether produce, meats or other items, and as such open the door for many different crops and products from local farms.
- Though grocers would prefer to have items year round, they do not require this and so there is not a problem of being out of sync with the growing season.
- Grocery stores and supermarkets can help develop the market for local food and build a broader base of consumers because of their convenience and longer hours, in comparison with farmers markets. A strong partnership with local grocers can also help local farmers and a food hub build their brand, connecting and steering more traditional consumers (i.e. those not generally seeking out local or sustainable foods) towards the local items.

Retailers also present certain challenges to a food hub:

- Because they typically mark the cost of items up by from 30% (less perishable) to 65% or more, finding a price point that works for the farmers and the grocer can be very challenging. Some combination of more competitive “case pricing” from farmers, along with lower margins and/or slightly higher prices for local items can be utilized to overcome this challenge to some degree.

Once a farmer or a food hub secures a space for a line of local products, including signage, farmer profiles and other in-store promotions, it is critical to keep the section full, with a consistent supply of high quality local products. There is nothing worse for developing the demand than a well branded “local farm products” section, with meager offerings or lower quality items.

COMMUNITY SUPPORTED AGRICULTURE – WORKPLACE-BASED CSAS

CSAs now offer consumers more choices of items, more flexibility about payments and commitment and generally greater convenience than was characteristic of the pioneering CSA arrangements. Among the more recent and promising innovations in this vein is the advent of “work place-based CSAs”, where customers are recruited at, and often through their employer, usually a mid-sized or larger company or public institution. These work places then become the “drop site” for the weekly basket of food, enabling CSA members to conveniently pick up their groceries without having to make a separate trip to a farm or alternate drop site.

The convenience of work place CSAs can be further augmented by employers through a variety of payment plans or health and wellness incentives for participation. The City of Lawrence is offering its employees a payroll deduction option as a means to pay for their CSA share in small increments over time, rather than having to put substantial amounts
of money down up front. Other employers have begun to partially subsidize the cost of the CSA share as an investment in employee health and wellness. These types of initiatives not only potentially increase overall participation rates, but help broaden the potential base of local food buyers to include the vaguely concerned and sporadically motivated consumer. Careful attention to the composition of the CSA share – more “everyday foods” and less kohlrabi – would also be important in building this new base.

The emerging base of experience with work place CSAs also points to several challenges that appear to be relatively common. First, the proportion of employees likely to participate is relatively small, generally under 10%, with some work place CSA enterprises considering 5% to be a success. While this percentage can be higher in smaller worksites, it points to the need for relatively large employers, and the importance of not overestimating participation rates.

Another challenge in many workplaces is finding a suitable site for distribution of the shares. While coolers are not generally necessary, the room does have to at least be cool. More significantly, the challenge can be with the location of the distribution site in relation to the overall layout of the workplace. In colleges and universities, for instance, staff are spread across many buildings across hundreds of acres of land. In these settings, it becomes quite difficult to find a single site that is sufficiently central and convenient for participants to pick up - or even remember – their food (It may be possible to overcome this by working through departments, rather than the entire university).

Another challenge has arisen with retention of CSA customers, possibly related to the lack of connection they feel with the farmer(s) who raised their food, or perhaps because the novelty simply wears off for many people, once they realize what they’ve committed to. While none of these challenges should be construed as reason not to undertake a work place based CSA, they should be seriously considered in planning for how they can be effectively launched and maintained.

RESTAURANTS AND SPECIALTY FOOD STORES
Chefs and their restaurants have been at the vanguard of the local food movement in many places, including Lawrence and Kansas City. Restaurant menus lend themselves to variability and introduction of new items, and “daily specials” allow seasonal, heirloom or unique items to be featured to the benefit of farmer, diner and restaurant. Chefs, like old fashioned cooks, can also effectively utilize trimmings, sub-primal parts of animals and even pre-consumer leftovers to keep costs down while maintaining a diverse and interesting menu. These opportunities, along with the commitment of many independent restaurants to creative, locally-oriented cuisine, has led to strong connections between farmers and the culinary scene.

POTOMAC VEGETABLE FARMS
Based in Northern Virginia, Potomac Vegetable Farms has been growing organic produce for more than two decades, selling it into markets throughout eastern Virginia and Washington, DC. Their diverse marketing strategy includes a 600 member CSA, including some work place based shareholders. While this CSA has been very successful, the experience at work sites has also been challenging, including problems building the necessary sense of “connection” between members and the farmers providing their food. This has led to difficulties with customer retention, in spite of the consistently high quality food they provide in their weekly baskets.
These opportunities, along with the commitment of many independent restaurants to creative, locally-oriented cuisine, has led to strong connections between farmers and the culinary scene.

In northeast Kansas, most of the “farm-to-table” activity has been concentrated in Lawrence and Kansas City along with a handful of restaurants in Topeka and Manhattan. Some of the chefs interviewed are purchasing 50% and more from local farmers, often including meats and other proteins along with fresh produce. While most are committed to maintaining close ties to the farmers with whom they’ve built relationships, nearly all also cited a desire for a more reliable and diverse supply of items, with less staff time required to find and procure these foods.

The main advantage of restaurants as food hub partners include:

- They help to “put a face” on local food, to elevate the status of farmers and build a sense of connection between consumers and farmers.

- They have more flexibility than either institutions or retailers in several ways: Fewer absolute requirements on standard sizes/packaging/grades (though many expressed a desire for more of this than they now get); no specific requirement for GAP certification, or for organic certification, even where “sustainably sourced” is a key criteria.

- Many have more flexibility on pricing, compared with institutional or wholesale buyers.
• While the core of chefs who’ve been dedicated to local farm products for some time is relatively small, it may be possible to increase their purchasing through a food hub, as well as to bring new, somewhat less dedicated restaurants into local procurement through convenience and reliability, along with solid branding.

• Several local restaurants emphasize the purchase of whole animals and local meats more generally. Since the price point on meats for retail and institutional buyers can be very difficult to meet, expansion of meat purchasing by local restaurants could help drive a modest but significant increase in volume for cattle, pork, lamb and poultry farmers.

The main disadvantages are twofold:

• The purchase volumes for most restaurants tend to be fairly low, ranging from under $100 per delivery to upwards of $250. This means that servicing restaurants can be expensive, unless a hub can supply several of them, and other customers, in close proximity.

• The current group of strong local buyers, much like the Merc, have spent years building relationships with dozens of local farmers, providing a significant market for many of them. While a food hub may be more convenient for the buyers, the question remains how to make it work without absorbing the business already established by local farmers.

INSTITUTIONAL BUYERS

Schools, colleges and universities, jails and hospitals are considered institutional buyers. Their food service providers are obligated to provide two to three meals per day to a large number of constituents, almost always within very tight budget constraints. Institutions in northeast Kansas are already buying local food, but in limited quantities. University of Kansas is purchasing local food through its larger contract with Sysco from Good Natured.
Family Farms. Kansas State University is using proteins from the school’s on-site animal science farm, and has relationships with a few producers in the Manhattan region. Several school districts have already initiated local buying programs and are looking to expand both the volumes and range of items they purchase, primarily focused on fruits and vegetables. However, for the most part, institutions are still mostly buying commodity items from mainline distributors, much of which comes to them processed for use.

Advantages of institutions as partners in a food hub include:

- They buy in moderately large quantities and provide a predictable demand for producers.
- Though food safety is a very high priority, some local school systems and colleges do not automatically require GAP certification.
- Some institutions are somewhat flexible in their purchasing abilities, meaning that they might have flexibility in their purchasing contracts, or relative autonomy in their authority to change purchasing patterns.
- Several have shown strong interest in purchasing good quality produce “seconds”, as these will be chopped or processed in some way before being served. Markets for seconds help improve farmers’ overall profitability, while providing produce at a more competitive price for buyers.

Disadvantages include:

- National nutrition standards and portion requirements result in menus that must meet certain guidelines and restrict creativity in supplementing with local food. For example, institutions must plan menus far in advance to make sure nutrition standards are met, and the products they receive must be similar in size so that portion size requirements can be met.
- Limited processing facilities and staff require that much of the fruits, vegetables, grains and proteins be processed before purchasing.
- Delivery to institutions can be cumbersome and complicated, especially in school districts and to institutions with multiple locations and points of operation.
- Institutions are often on strict budgets and have little room to accommodate higher prices in other ways, such as adjusting menu items for a mix of price range, buying whole products that require labor to process, or making last minute ordering changes.
- Institutions, especially public schools and universities, are not in session during the highest production season of the year. Thus, there is a constant struggle to meet their demands, which are highest during slow production times.

ORGANIC DEMAND

According to the survey data, among all buyers, the majority of buyers say that organics consist of less than ten percent of total annual purchases of whole and processed produce, as well as proteins. For grain purchasing, the majority of respondents reveal they purchase no organic grains at all. Comments from the survey reveal that for many buyers, providing local produce is more important than providing organic produce (figure 5).
This is generally consistent with trends in other places, as “local” has, at some level, supplanted “organic” as the prime differentiator of foods. Over the past few years, many consumer surveys and media reports have seemed to indicate that the demand for organic food is waning, and that consumer preference has shifted such that “local” is now more important than organic. Time magazine and others have gone so far as to suggest that “local is the new organic”. From the responses to our surveys, buyers’ priorities in northeast Kansas appear to be consistent with that larger trend, as indicated below.

Interestingly, however, the growth in demand for organic produce, meats, eggs and other foods continues to be strong both in the region and nationally. While sales of local foods are now estimated at over $5 billion annually in the US, organic sales top $40 billion. These facts provide some context for decisions about whether or not to focus on or provide organic foods as an option within the food hub.

The advantages of the organic market segment include:

• Better prices for farmers in almost all markets. While the organic “premium” varies, it is typically in the range of 20% or more compared with food that is not certified organic.

• A specific market niche: Some buyers require certified organic products (or ingredients), while others prefer it. For many mid-size and larger retailers, they maintain an organic section, which, though smaller than their other offerings, still attracts a specific customer base.

• The combination of “local” with “organic” creates a brand or product line that is not easily replaced. For buyers to source one or the other is often relatively easy, but to find produce, meats, eggs and other foods that are both local and organic is very challenging.

• While many farmers are excellent stewards of their land, the organic certification process both encourages and verifies that participating farmers are contributing to conservation and ecological stewardship.

**What percentage of your whole and processed produce purchases is organic? (all regions)**

![Bar chart showing percentage of organic produce purchases in different ranges](image)
The disadvantages of organic include:

- The costs and additional work related to organic certification, which keep many farmers from pursuing it, or have led others to drop their certification. Federal cost share funds, recently reinstated, can help overcome some of these barriers.

- Additional challenges to a food hub to carry both certified organic items along with conventional or non-certified items. This is being successfully done by other food hubs, but does require specific steps and a small increase in management.

- Were the food hub to require organic certification for all items (which is not being recommended), this would alienate most farmers and greatly reduce available supply.

**RELATIONSHIP WITH FARMERS MARKETS IN THE REGION**

Part of the reason that the farmers market is successful in building this platform for local food connections is its communal nature. More so than most other shopping venues, the farmers market is a public gathering opportunity and a social opportunity. This inherent nature of the market helps cultivate a “local food culture” more so than supermarkets: returning customers, expanding “local food audiences” and greater connections between consumer and farmer help “grow the demand.” Consumers develop relationships, become more educated about the local food movement and tend to infect others with this knowledge. Thus, the end consumer begins to seek out such foods in other places, whether at the grocery store, restaurant or at their children’s schools.

Because the farmers market plays such a key role in developing and sustaining the local food movement, we recognize that the food hub must do no harm to this role. The goal is, therefore, that if a food hub is developed it should enhance farmers markets and build off of them in a productive way, not undermine or replace them.

Farmer’s markets in the greater northeast Kansas region include markets in Lawrence, Topeka, Hiawatha, Overland Park, Olathe, Leavenworth, Manhattan, Emporia, and beyond. From SCALE’s interviews it is clear that farmers markets in northeast Kansas vary greatly in size, availability of local farm products, strength of the customer base, and prospects for growth and expansion. Well-established and larger markets include the Lawrence Downtown market, Topeka Downtown market, City of Overland Park market, and the Emporia market. The market in Manhattan is modest in size but growing steadily, and the new market in Hiawatha also appears to be taking hold among both farmers and shoppers.

The goal is, therefore, that if a food hub is developed it should enhance farmers markets and build off of them in a productive way, not undermine or replace them.
Markets: Specific Findings

In assessing the feasibility of a regional food hub, the analysis of the potential market must go beyond the aggregate demand numbers, as these can be deceptive. Instead, we will examine market potential utilizing four basic criteria:

1. **Size** of the market demand
   - What is the overall demand for local foods in (or in close proximity to) the region, and how much of that is for produce, meats and proteins, and other items?
   - How much of that total demand is accessible for a food hub, given other factors and requirements of the buyers?
   - Is the demand in addition to what specific buyers are already purchasing from local farmers, or is this likely to replace existing suppliers?
   - What do the projections for future growth of these markets look like?

2. **Geography** of the market demand
   - Where is the demand coming from, geographically, and is it generally concentrated in certain towns or communities, or broadly dispersed?
   - Can specific potential buyers be worked into cost efficient delivery routes?

3. **Quality** of the market
   - What price are different buyers likely to pay and is this sufficient for small to mid-sized producers?
   - Are weekly purchase volumes sufficient to merit delivery?
   - What diversity of products is either desired or required and do these fit with what farmers produce or can produce?
   - What is the likelihood of buyers becoming “market partners”, i.e. helping to build the demand for local products, expand the base of consumers, work with the food hub to overcome challenges and obstacles?
   - Is there demand for organic, humanely raised, “seconds” or other specific product lines?

4. Market **constraints and challenges**
   - What are the buyers’ requirements, in terms of GAP, product liability insurance, organic certification, packaging and product quality, and are these manageable for participating farmers?
   - Does the demand exist now, or does it need to be built over time?

**EASE OF ENTRY TO MARKETS**

SCALE also analyzed the different types of buyers and their ease of entry, meaning the level of ease with which a food hub might be able to work with them. SCALE looked at several barriers to entry for this analysis, including requirement or preference for organic certification, GAP certification, liability insurance and market pricing. These barriers apply to some types of buyers, but not for others, therefore allowing SCALE to rank ease of entry to markets into four tiers (figure 6).
• **Tier one** includes restaurants and CSAs, which have minimal requirements and represent a market most readily available and able to work with a food hub.

• **Tier two** consists of small, independent retail stores, which have modest requirements or require liability insurance, as is revealed in survey data. Also included in this tier are workplace CSAs. From interviews with CSAs that currently serve the workplace CSA market, it’s clear that in order to serve larger employers, CSAs would likely be required to carry liability insurance.

• **Tier three** includes organic buyers and small institutions, which have two key barriers to entry. For the organic buyer responses in the survey, it’s clear that they have a preference or requirement for organic certification and liability insurance. Small Institutions (public schools, daycare) require liability insurance and would also require market pricing to be competitive with mainline distributors.

• **Tier four** includes buyers that have three major barriers to market entry. Mid-sized retail, large distributors interested in carrying local food and large institutions (such as colleges, universities and hospitals) prove to have the highest level of barriers to entry requiring liability insurance, market pricing and also GAP certification.

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**Breakdown of Demand by Market Type**

**SMALL INDEPENDENT RETAIL STORES**

Northeast Kansas has a number of independent retail grocers including Rays Apple Market, with six stores in and around Manhattan and Riley County, Checkers in Lawrence, several Thriftway stores and a number of smaller rural grocery stores. While some of these may be too small and out-of-the-way for a food hub to feasibly service, the above listed stores, along with a number of farm stands (e.g. Pendleton’s farm store near Lawrence) constitute a significant overall demand that is not now being met. Produce is the primary item these independent retailers are likely to purchase on a regular basis, though eggs, honey, ground beef and other proteins could augment produce sales.
“We strive to strike lasting partnerships with small artisan producers, often times making up a large portion of their business revenue.” – Anonymous buyer in northeast Kansas

The overall known size of this demand for local produce is currently estimated at $14,500 per week for a range of 17 vegetables and fruits readily grown in northeast Kansas. (It is important to note that most of the buyers in this and all segments provided estimates for only some of the core items, so the actual demand is likely higher than projected). Using the discounting discussed earlier, the projected plausible first year demand is $7,250 per week (table6). Demand should grow more modestly than with other market types due to the limited nature in these small retail stores to expand in shelf space, numbers of stores and product offerings. However, demand is still expected to improve steadily as supply and product diversity improves and as branding and educational efforts gradually build the base of local foods consumers, reaching $21,250 per week by year five.

Table 6

<table>
<thead>
<tr>
<th>Year</th>
<th>Demand (Weekly)</th>
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<tbody>
<tr>
<td>Year 1 Demand</td>
<td>$7,250</td>
</tr>
<tr>
<td>Year 2 Demand (20% increase)</td>
<td>$10,750</td>
</tr>
<tr>
<td>Year 3 Demand (25% increase)</td>
<td>$13,500</td>
</tr>
<tr>
<td>Year 4 Demand (25% increase)</td>
<td>$17,000</td>
</tr>
<tr>
<td>Year 5 Demand (25% increase)</td>
<td>$21,250</td>
</tr>
</tbody>
</table>

The geography of this demand breaks down as follows:

- Manhattan/western portion of the region: $11,000 (including six Ray’s Apple Mart).
- Hiawatha, Brown county and surrounding area: $2,250 (including Hiawatha Thriftway).
- Topeka/Lawrence area: $1,250 (including Checkers and a local farm stand).

All committed to paying more for good quality local produce, though it is likely to be a modest premium of 10 – 20% above wholesale market prices depending upon quality and time of season.
The quality of this demand is generally good, as these buyers as a group are anxious to carry considerably more local foods to help cultivate their own customer base and improve their competitive position in the same way larger supermarkets do. Interviews indicated a strong interest in helping to build the brand for local produce through good signage, farmer profiles and special events. All committed to paying more for good quality local produce, though it is likely to be a modest premium of 10 – 20% above wholesale market prices depending upon quality and time of season. The diversity of products sought by these buyers is fairly broad, with more interest in good quality “homegrown” sorts of fruits and vegetables than in exotic or highly unusual items.

While some of these retailers do require GAP certification and product liability insurance, they are generally more flexible in their requirements than larger chains and express willingness to be flexible to bring more local food into their stores. Standard case sizes and packaging will be necessary along with appropriate harvesting, post-harvest handling and cooling to ensure a good shelf life for produce. With meats and eggs, the main challenges revolve around finding a price point that works for farmers yet does not price them out of this market. There is interest in trialing local eggs and meats to test the market. Product sampling and strong point of sale educational materials may be quite helpful in this regard.

MID-SIZE RETAIL

“Our mission is to meet the needs of our customers with quality, fresh products. Customers like local items, and as a large grocery retail chain we have the autonomy to work with local growers and farms in our stores local regions.” – Hy-Vee staff member in Lawrence, Kansas

The northeast Kansas region is home to a total of four Hy-Vee stores, the main mid-size supermarket in the area. These supermarkets typically encompass fifty thousand or more square feet with a wide array of produce, meats, eggs and dairy items typical of major supermarkets. Hy-Vee has a history of purchasing from local farmers and has expressed a clear interest in utilizing a food hub to expand its offerings of local produce and other items.

The location of the Hy-Vee stores in northeast Kansas are compatible with other markets as they are clustered in three areas, with nine locations in the Kansas City, Kansas metro area, three locations in Lawrence and Topeka and one location in Manhattan.
The projected overall weekly demand for produce from Hy-Vee stores in the northeast Kansas region is $13,500. Selling to the Hy-Vees in the Kansas City, Kansas metro region would increase that total by $38,750 for a total of $52,250 weekly demand in both northeast Kansas and the Kansas City, Kansas metro area. It’s likely that in the first year the plausible demand from this segment would be about one third of the total (not all stores will participate and they will have other sources from which to draw) for a weekly demand of $17,500 per week (table 7). Over a five-year period it’s expected that the demand will reach nearly $40,000 per week for all mid-sized retail, though that estimate is based entirely on selling to individual stores.

Table 7

<table>
<thead>
<tr>
<th>Year 1 Demand</th>
<th>$17,500</th>
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<tbody>
<tr>
<td>Year 2 Demand (20% increase)</td>
<td>$21,000</td>
</tr>
<tr>
<td>Year 3 Demand (25% increase)</td>
<td>$26,250</td>
</tr>
<tr>
<td>Year 4 Demand (25% increase)</td>
<td>$32,750</td>
</tr>
<tr>
<td>Year 5 Demand (20% increase)</td>
<td>$39,250</td>
</tr>
</tbody>
</table>

It is anticipated that the quality of this market would be similar to the small retailers around issues of price, willingness to partner on promotion and branding, and the diversity of products sought. Additionally, Hy-Vee offers two other potential advantages: there is a modest but not insignificant interest in certified organic produce, potentially offering an additional demand for some local farmers; and secondly, should local production grow, there is the potential to sell to over dozens of stores through one of the regional distribution centers in Iowa. This would be in later years, after demand at the local store level has been well met.
RESTAURANTS

“Our local program is part of our business plan and image... It is established by producers and (available) ingredients in all of our menus... The goal of the program is to purchase a minimum of 20% local ingredients.”
– Anonymous buyer in northeast Kansas

Excluding the Kansas City metro area, there are approximately 50 – 60 local, independent restaurants in the region with reasonable potential to purchase local produce and proteins through a food hub based on an online review of regional restaurants using Lawrence Originals and Chambers of Commerce. They are clustered in Lawrence, Topeka, and to a lesser degree, Manhattan. Fewer than half of these now purchase locally, and most that do are in Lawrence, home to some of the Midwest’s pioneer locavore chefs.

The potential market from restaurants comes in part from potential expansion of local purchasing from those already buying locally; and over the longer term, from new restaurant customers as the convenience, quality, product diversity and reliability of a food hub is likely to gradually broaden the base of restaurant partners.

The current demand estimate for whole fruits and vegetables from restaurants is modest, totaling $7,000 per week. It’s expected that in the first year a Food hub could capture at least half of this demand at $3,500. For a safe estimate, to account for strong existing relationships between restaurants and producers, the number should again be adjusted down by an additional 25%. The best conservative figure for first year demand amounts from restaurants is about $2,750 per week (table8). This figure is almost surely understated as it was based on a very small number of survey respondents and interviewees. Assuming that the number of restaurant partners expands as the hub solidifies, that weekly estimate for produce is likely to double or triple by year five.

Table 8

<table>
<thead>
<tr>
<th>Year</th>
<th>Demand ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1 Demand</td>
<td>$2,750</td>
</tr>
<tr>
<td>Year 2 Demand (20% increase)</td>
<td>$3,250</td>
</tr>
<tr>
<td>Year 3 Demand (25% increase)</td>
<td>$4,000</td>
</tr>
<tr>
<td>Year 4 Demand (30% increase)</td>
<td>$5,250</td>
</tr>
<tr>
<td>Year 5 Demand (30% increase)</td>
<td>$6,750</td>
</tr>
</tbody>
</table>

Exterior of Merchants Pub, Lawrence. Photo by Meg Williams.
The majority of the restaurants currently sourcing from local farmers focus half or more of their local purchases on meats. It is not expected that this number will grow significantly as most already purchase very high percentages of their meats from local sources. Among projected new restaurant partners it is reasonable to anticipate that one fourth to one third might include meats and proteins among their local buying adding a weekly total of $2,000 - $5,000 to the food hub’s sales.

Most of the restaurants served by a hub will almost certainly be in close proximity to other buyers as the relatively small purchase volumes, at least where meats are not involved, will necessitate that they not be significantly outside the normal delivery route.

**ON-SITE WORKPLACE CSAS**

“Having buying clubs, or CSAs where people work makes it much more convenient for them. This opens the door to local foods for folks who wouldn’t otherwise do much local buying.” – Food hub manager in North Carolina

Cultivating new local food consumers is essential to the long-term growth and health of the local food movement in northeast Kansas, and for that matter, most other areas of the country. Increasing the availability and visibility of local foods in small and mid-size retail outlets is one way to begin to cultivate these new local shoppers. Another is to extend opportunities for CSA membership to workplaces, and potentially, churches and other places where people regularly congregate. There is potential to build this new tier of local food consumers by making buying much more convenient and by creating new communities of local foods peers. Work is already being undertaken in this arena. Douglas County’s Workplace Wellness Coalition recently recommended that growing workplace CSAs is a priority area for its team and published a report on how to establish workplace CSAs. This toolkit will likely serve as a great tool for the Lawrence region to expand workplace CSA memberships and can be a tool for the wider northeast Kansas region to learn from as well. SCALE recommends that efforts to expand workplace CSAs reference this extensive report and partner with Douglas County and other regional workplace wellness coalitions. It must be said that while this is an exciting opportunity, it is a largely untested strategy.
For this study, SCALE’s analysis considered 21 mid-size and larger employers ranging from just under 800 employees to over 9000 with a median of 3500 employees per site. These worksites are concentrated in four parts of the region: Kansas City, with 8 of the 21, and the highest median number of employees per site at just over 4100. Topeka is next with 6 sites and a median of 2050 employees. Manhattan has four worksites, but the lowest median employee numbers at 1125, and Lawrence has three with a median of 1831.

There is potential to build this new tier of local food consumers by making buying much more convenient and by creating new communities of local foods peers.

The workplaces scanned include private for-profit businesses, public sector institutions such as hospitals and universities, as well as local and state agencies with a concentration of employees in a specific place. Based on the experiences of other workplace CSAs, the challenges associated with workplaces as potential markets is highly variable. Some employers strongly embrace the ideas to increase employee satisfaction or to encourage wellness and better eating. Others, however, focus on liability issues, or struggle with how to make it fit within corporate or personnel policies. There is no doubt that the employers considered thus far will cover this spectrum, and as a result, probably less than half are likely to partner with the hub in the first few years.

*Those employers already being served by an existing CSA or food hub were not included in this assessment.*

Using a modest average participation rate of 3% in these 21 worksites yields a total of 4126 potential new CSA members. Assuming an average weekly cost of $25 for a share that just sells whole produce, the CSA component of the food hub would generate a total of $61,883 in sales each week. Assuming that half the employers participate (eventually), the weekly
sales figure would be just over $30,000. If the CSA were an abbreviated 12 weeks the sales would total approximately $420,000 for the season. For a more typical 25 week CSA, the annual sales would amount to slightly more than $750,000. The overall market potential is therefore significant (table 9).

Through interviews with other producers and groups who offer corporate CSA shares it is clear that there are already CSAs established firmly in the Kansas City metro area. These CSAs are serving these markets well, with an average of an eight to ten percent participation rate amongst their Kansas City metro area clients. Therefore, it’s likely that any CSA activity started by a food hub should focus its efforts on working with companies in the Lawrence, Topeka and Manhattan regions first. Any efforts to serve the Kansas City market in the long run should be done so in collaboration and close coordination with the groups already serving those markets.

**Table 9: Potential Weekly Demand for CSAs**

*Estimates include a total of 21 companies (82,511 shares)*

<table>
<thead>
<tr>
<th></th>
<th>Lawrence &amp; Topeka</th>
<th>Manhattan</th>
<th>Kansas City Metro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Potential Demand (at 3% rate)</td>
<td>$23,000 (920 shares)</td>
<td>$6,750 (270 shares)</td>
<td>$31,875 (1,275 shares)</td>
</tr>
<tr>
<td>Year 1 Demand</td>
<td>$6,250 (250 shares)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 2 Demand</td>
<td>$7,500 (300 shares)</td>
<td>$1,875 (75 shares)</td>
<td></td>
</tr>
<tr>
<td>Year 3 Demand</td>
<td>$9,375 (375 shares)</td>
<td>$2,500 (100 shares)</td>
<td></td>
</tr>
<tr>
<td>Year 4 Demand</td>
<td>$11,875 (475 shares)</td>
<td>$2,500 (100 shares)</td>
<td>$2,500 (100 shares)</td>
</tr>
<tr>
<td>Year 5 Demand</td>
<td>$15,000 (600 shares)</td>
<td>$3,750 (150 shares)</td>
<td>$6,250 (250 shares)</td>
</tr>
</tbody>
</table>

These numbers of CSA shares will only result from a robust and sustained campaign of outreach to new potential consumers, strong partnerships with employers that help incentivize employee participation, creative and regular activities that encourage cooking and better eating, and a strong, consistent availability of high quality foods that people like to eat. It’s likely that the food hub would focus in year one on Topeka and Lawrence workplaces only. The typical rate of participation in CSAs is between 8-10 percent, but to be conservative, SCALE estimates that a 3% participation rate is more likely. Thus, the broader projections for this segment of the market begin very small, with 4 employers and a total of 250 - 300 shares.

However, over time, it is plausible to think that this area could grow to encompass 20 – 30% of the market share of the food hub, helping to cultivate new local food consumers and providing better overall pricing for participating farmers. If these challenges can be worked out the overall quality of the CSA market segment, in terms of price, product diversity, and potential for partnership is quite high. This market segment also is likely to have low barriers to entry with no (probable) requirements for GAP certification and with greater flexibility in packaging and grading. If these challenges can be met, and the food hub can expand beyond Lawrence and Topeka into Manhattan and Kansas City in years three through five, it’s expected that CSA shares could grow to about 1,000.
Numbers of CSA shares will only result from a robust and sustained campaign of outreach to new potential consumers, strong partnerships with employers that help incentivize employee participation, creative and regular activities that encourage cooking and better eating, and a strong, consistent availability of high quality foods that people like to eat.

The potential for sale of healthy meats, eggs, dairy products and various specialty items is also enhanced by the CSA, either as regular contributions to the weekly share, or as specials or “add-ons” which customers order separately. While these numbers vary, many CSAs around the country have found that their customers do avail themselves of these additional local food items with some frequency. Eggs are the most common of these, though free-range chicken and other poultry (Thanksgiving turkeys, for instance), and beef and pork products can also help create a more complete shopping opportunity for participants. Of equal importance these additional offerings of meat and more customizable product options would fetch a CSA share price higher than $25 each week. The price for a weekly CSA share that offers meats and options for customization is be projected to be $50 to $60 a week.

ORGANIC MARKETS

“We are a cooperative that specializes in local, sustainable and organic food since 1975. We want to make these sorts of foods available to people ... and at a reasonable price.”

– Local cooperative grocer in northeast Kansas

The vast majority of both survey respondents and interviewees prioritized “organic” below local as a key driver of their purchasing decisions. Most buyers do place considerable weight on local produce and meats being “sustainably raised”, but only a small subset translate that preference to a requirement for organic certification (almost none discussed other certifications, such as Certified Naturally Grown, or Humanely Raised for animals). Nevertheless, most of the potential retail partners did state that they have some demand for certified organic produce and that they are accustomed to paying more for that. SCALE is unable to project the size of that demand as most did not provide us with numbers.

There are on the other hand a small number of important buyers in the region who either require or strongly prefer certified organic, particularly for produce, but in some cases meats
and other items as well. Those preferring organic certification, but not requiring it, include the Merc in Lawrence and People’s Grocery in Manhattan as well as the Blissful Bite Food Truck. Those requiring organic certification include Door to Door Organics, Fresh Connect, LLC (both are larger organic buyers and located in the Kansas City, Missouri metro area), Hilary’s Eat Well, for most of her ingredients, and Natural Grocers.

Considering both the required and preferred demand for organic produce from these buyers, not including Natural Grocers, the current weekly demand for organic whole fruits and vegetables is projected at $22,500. The food hub can expect to meet about 50% of this potential demand in its first year, or approximately $11,250 per week. Discounting that demand an additional 25% to account for strong existing relationships between organic farmers and buyers yields the more realistic demand of $8,500 per week in the first year (table 10).

Annual projections, however, see a build up in these numbers to $28,500 by year five (table 10). This figure is likely to grow steadily, perhaps even rapidly, as both Hilary’s Eat Well and Door to Door are in the midst of a rapid, multi-year growth in their business, and both food cooperatives would buy substantially more local, certified organic products if available. The role which Natural Grocers might play in demand for local, certified organic items is unclear as their purchasing at present appears closely tied to national corporate decisions and suppliers.

Demand figures for Hilary’s Eat Well are not included in the projected organic demand below, only because of the requirement that the bulk of the produce she needs must be pre-cut, and it is uncertain as to whether or not the food hub would have this capability. Should that be incorporated, an additional annual demand for organic sweet potatoes, greens and other items from Hilary’s Eat Well would likely exceed $50,000.

### Table 10

<table>
<thead>
<tr>
<th>Year</th>
<th>Demand</th>
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</thead>
<tbody>
<tr>
<td>Year 1 Demand</td>
<td>$8,500</td>
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<tr>
<td>Year 2 Demand (20% increase)</td>
<td>$10,250</td>
</tr>
<tr>
<td>Year 3 Demand (25% increase)</td>
<td>$12,750</td>
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<tr>
<td>Year 4 Demand (50% increase)</td>
<td>$19,000</td>
</tr>
<tr>
<td>Year 5 Demand (50% increase)</td>
<td>$28,500</td>
</tr>
</tbody>
</table>

Figure 9. While the rate of growth of organic food sales has slowed, the market continues to strongly outpace the broader food industry, with sales increasing nearly 9% annually.
INSTITUTIONAL BUYERS: PUBLIC SCHOOLS, COLLEGES AND UNIVERSITIES AND HEALTH CARE AND HOSPITAL FACILITIES

“Our sustainability program strives to educate our students about the importance and stewardship of local and sustainable product.”
– Anonymous buyer in northeast Kansas

Public schools in the northeast Kansas region were among the most enthusiastic respondents to the survey and also readily participated in on-site meetings with the consultants. Several school districts have already initiated local buying programs and are looking to expand both the volumes and range of items they purchase, primarily focused on fruits and vegetables. This data also includes purchasing demand from five institutions located in the greater Kansas City, Missouri metro region in addition to northeast Kansas. The inclusion of this data is due to inconsistency in demand numbers from northeast Kansas’s institutional buyers. It is included so we have a more accurate picture of what institutional demand looks like region wide.

The main challenges to expanded purchases by schools have been discussed previously, including seasonal limits to fresh produce, capacity challenges for food service staff with limited time and facilities for food preparation, and of course very tight budgets available for purchases. This last challenge might be largely overcome in partnership with a food hub by focusing on good quality “seconds” as the primary source of local produce. These seconds – cucumbers with too much curve, tomatoes a bit too ripe, peppers slightly smaller than standard – can work in institutional food settings because for the most part, they will be processed in some way before the student/customer sees them. They may be chopped, sliced, quartered or cooked.

Standards would still need to be established and followed for what constitutes an acceptable “second”, but this approach offers the possibility of meeting price point challenges for schools, hospitals and other institutional buyers interested in procuring more local food. For farmers it offers the potential for sale, albeit at a reduced price, of items that often must be thrown away. According to farmers taking the survey, nearly three fourths currently have few if any markets for their seconds, while less than a third are able to sell 30% or more of these items. This constitutes a significant potential supply to help meet demand for fresh, tasty produce in institutional settings.

Assuming that the supply of seconds was sufficient to meet 50% of demand from schools, colleges and hospitals, the projected sales would be $2,250 per week largely concentrated in a 5 – 10 week block in the fall of the academic year (most closely in sync with the main
Projections for sales of seconds to meet existing institutional demand are projected to reach over $7,000 each week by year five (table 11). Of course season extension practices and freezing, or other preserving of produce items, would extend this window considerably as would the production and utilization of more storage crops including apples, sweet potatoes, Irish potatoes, carrots and similar items.

According to farmers taking the survey, nearly three fourths currently have few if any markets for their seconds, while less than a third are able to sell 30% or more of these items.

These projections are lower than expected for institutions. The low numbers are likely due to the following: quantities estimated in the survey were for a wide variety of types of produce, including many which cannot be produced in northeast Kansas; many buyers provided more details for processed produce (which is easier for school systems and universities to handle with labor and kitchen space restrictions); and several institutional buyers did not provide estimates for quantities purchased at all. SCALE anticipates that these projections will increase significantly when more complete purchasing information can be gathered.

Table 11

<table>
<thead>
<tr>
<th>WEEKLY DEMAND PROJECTIONS FOR WHOLE PRODUCE SECONDS SOLD TO INSTITUTIONS (ALL REGIONS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1 Demand</td>
</tr>
<tr>
<td>Year 2 Demand (20% increase)</td>
</tr>
<tr>
<td>Year 3 Demand (25% increase)</td>
</tr>
<tr>
<td>Year 4 Demand (50% increase)</td>
</tr>
<tr>
<td>Year 5 Demand (50% increase)</td>
</tr>
</tbody>
</table>

Overall Sales and Revenue Projections

Using the calculations in the figures above for each individual demand sector, SCALE produced overall sales and revenue projections for years one through five. To briefly explain our methodology in calculating these figures:

• These projections use the sums of the weekly demand numbers for the six market segments (restaurants, small retail, mid-size retail, institutional sales, organic sales and CSAs) to estimate a weekly “main season” average (table 12).

• These weekly average numbers are then multiplied by 12, to account for the twelve main weeks of the summer season. Note that twelve weeks is a conservative estimate for the
main growing season in northeast Kansas, and does not include the use of high tunnels and other season extension which would lengthen this period by 3 – 6 weeks.

- Sales for Spring and Fall are estimated at one third (33%) of the main season weekly average.
- Taken together, the Spring and Fall season are projected to be 18 weeks long. The lower weekly sales figure (1/3 of summer volumes) is therefore multiplied by 18.
- To get the annual sales total, the main season totals, and spring and fall numbers are added together.
- For gross revenue projections, SCALE used the 20 percent general rate that food hubs often use as a percentage to take off the top of sales. The numbers are also shown for revenues using a higher percentage, at 22 percent.

Table 12: Overall Sales and Revenue Estimates for Whole Produce

<table>
<thead>
<tr>
<th>Year</th>
<th>WEEKLY TOTALS</th>
<th>MAIN 12 WK TOTALS</th>
<th>OTHER 18 WK TOTALS</th>
<th>YEARLY TOTALS</th>
<th>GROSS REV. AT 20%</th>
<th>GROSS REV. AT 22%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>$43,750</td>
<td>$525,000</td>
<td>$262,500</td>
<td>$787,500</td>
<td>$157,500</td>
<td>$173,250</td>
</tr>
<tr>
<td>Year 2</td>
<td>$57,375</td>
<td>$688,500</td>
<td>$344,250</td>
<td>$1,032,750</td>
<td>$206,550</td>
<td>$227,205</td>
</tr>
<tr>
<td>Year 3</td>
<td>$71,625</td>
<td>$859,500</td>
<td>$429,750</td>
<td>$1,289,250</td>
<td>$257,850</td>
<td>$283,635</td>
</tr>
<tr>
<td>Year 4</td>
<td>$79,025</td>
<td>$948,300</td>
<td>$474,150</td>
<td>$1,422,450</td>
<td>$284,490</td>
<td>$312,939</td>
</tr>
<tr>
<td>Year 5</td>
<td>$130,650</td>
<td>$1,567,800</td>
<td>$783,900</td>
<td>$2,351,700</td>
<td>$470,340</td>
<td>$517,374</td>
</tr>
</tbody>
</table>

Proteins

Because the response range for the use of different types of protein was widely varied among respondents of the survey and in the interviews, SCALE focused on a narrower, “typical,” range of proteins. Additionally, SCALE chose to focus on just three entities or groups: Restaurants (including Golden Eagle Casino), Door to Door Organics and the workplace CSA. The reason for this focus is because these are purchasers that are readily seeking to satisfy their demand for proteins locally and have an easier barrier to entry to their markets.

SCALE focused on commonly purchased items and items that are raised in northeast Kansas, including poultry, pork, beef and eggs. Whole chickens are estimated to sell at $15 each (considering an average 4 pound chicken @ $3.75 per pound), eggs at $3 a dozen, pork at $4 per pound (assumed to be either whole animals or an emphasis on sausage and other less expensive cuts), ground beef at $5 per pound. In these projections, SCALE assumes that the food hub would not focus on selling meats during the first year of operations due to additional complexity and more substantial infrastructure needs. These projections begin with year two of operations.
One key opportunity for protein purchasing is with CSAs. SCALE assumes that CSA participation, (purchase of a meat share by CSA customers) begins and remains at 25 percent of all CSA customers and that the average weekly protein share costs $25. This CSA share for proteins would include one whole chicken, one pound each of ground beef and a pork sausage. Using these estimates of a CSA meat share cost of $25 per week and a 25% participation rate, the weekly estimate for year one is $2,250. This estimate would provide an annual total of $56,250.

For the restaurants and Door to Door, it’s assumed that the food hub captures 25% of projected demand for beef (ground only) and pork (all types), but 50% for eggs (because they’re easier to ramp up more quickly and have less stringent processing requirements) and 50% for whole chickens (because of Rosanna Baumann’s USDA processing facility) (table 13). Together it’s estimated that Door to Door Organics and restaurants would purchase $3,775 per week. Over the course of the year the total meat purchases (based on approximately 27 weeks) is over $100,000.

**Table 13: Weekly Estimates for Protein Demand for CSAs, Door to Door Organics & Restaurants (Year 2 of Operations, Year 1 Protein)**

<table>
<thead>
<tr>
<th></th>
<th>CSAS</th>
<th>DOOR TO DOOR ORGANICS</th>
<th>RESTAURANTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eggs</td>
<td>$500</td>
<td>$450</td>
<td>$550</td>
</tr>
<tr>
<td>Pork</td>
<td>$400</td>
<td>$100</td>
<td>$600</td>
</tr>
<tr>
<td>Ground Beef</td>
<td>$400</td>
<td>$200</td>
<td>$675</td>
</tr>
<tr>
<td>Whole Chickens</td>
<td>$950</td>
<td>$750</td>
<td>$450</td>
</tr>
<tr>
<td><strong>Weekly Totals</strong></td>
<td>$2250</td>
<td>$1,500</td>
<td>$2,275</td>
</tr>
</tbody>
</table>

Total protein sales in year two are projected to be $6,025 each week, for a total of $156,250 annually. Assuming a 10% annual growth rate for restaurants and Door to Door, and maintaining the 25% CSA participation rate, as CSA numbers grow, protein sales in years 3 – 5 are projected to rise significantly, reaching nearly $300,000 annually by year five (table 14).

**Table 14: Total Protein Demand Projections (CSAs, Door to Door and Restaurants)**

<table>
<thead>
<tr>
<th></th>
<th>WEEKLY</th>
<th>YEARLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 2</td>
<td>$6,025</td>
<td>$156,250</td>
</tr>
<tr>
<td>Year 3</td>
<td>$7,150</td>
<td>$185,000</td>
</tr>
<tr>
<td>Year 4</td>
<td>$8,800</td>
<td>$227,250</td>
</tr>
<tr>
<td>Year 5</td>
<td>$11,275</td>
<td>$289,250</td>
</tr>
</tbody>
</table>
Analysis: Farmers and Production Potential

We have kept our customer base happy with ... “years of hard work, consistent high quality produce, organic certification, promoting the farm as a way to connect to and participate in local food production.”

– Organic farmer in northeast Kansas

Over 120 farmers from northeast Kansas provided information and perspective to this study, with 98 taking the survey (out of a total of 196 producer respondents), an additional two dozen speaking with SCALE staff by phone or in-person, and approximately 50 completing the survey and participating in follow up interviews. The on-site meetings with farmers, along with the phone interviews, provided more in-depth and complex responses to the initial questions, helped raise additional questions and concerns not included in the survey, and surfaced additional names of farmers – as well as processors and buyers – not included in the initial outreach. We are confident that this expanded body of information was well worth the substantial time required to collect it and has influenced our analysis and recommendations at every level.

There are several different “types” of farmers in the region and a wide range of production practices, cropping, livestock systems and marketing strategies employed. Many farmers produce more than one type of item on their land encompassing a mix of fruits and vegetables, livestock and grains, etc., and the vast majority of respondents grow a mix of vegetables (see figure 10).
Geographic dispersal of farmers

The majority of the local foods producers that responded to the survey are located relatively close to Lawrence and Topeka regions, with a cluster also located near Kansas City. Though more widely dispersed geographically, there are also farmers in the northern and western portions of the region, as depicted by the GIS map (figure 11).

Figure 11
Furthermore, survey data also gives us a good idea of the production densities throughout the region and allow us to gain a geographic understanding of what is being produced and in what locations. Production densities and geographic dispersal of fruits and vegetables, hogs, poultry, beef cattle, lamb and laying hens can be seen in the GIS map (figure 12).

**Common hopes and concerns among producers:**

- **Concerns about price.** Whether a small, direct-market farmer thinking of scaling up or a larger farmer considering the addition of specialty crops or livestock, nearly all farmers expressed strongly the need for good prices through a food hub rather than competing with agribusiness giants at the margins. These farmers understand that selling in larger volumes will generally mean a reduction in price compared with farmers markets or other direct-to-consumer sales, but would rather grow a market more gradually, if that is what it takes, to maintain reasonable pricing.

- **Concerns about risk.** Since most farmers considering participation in a food hub would either be adding acreage/animals, upgrading equipment or farm infrastructure, or undertaking a new farm enterprise, they want to be confident that what they produce will in fact be sold by the hub. They are looking for the hub to build solid, secure markets so they can recapture investments they may need to make.

- **Concerns about labor,** especially the ability to find, and afford, the additional labor that would likely be required to scale up production.
• Concerns about **undermining existing markets**. The majority of farmers who participated in the survey and/or interviews have invested some years in building their own markets and customer base, and in some cases their own “brand”. Some of these farmers fear that a food hub would either undercut these markets or redirect consumers and buyers, including chefs, away from the business they’ve worked so hard to develop.

**Common interests among Producers:**

“**We would love the opportunity to expand.**”
– Anonymous producer from northeast Kansas

• Interest in **scaling up their production**. A smaller, but significant number of farmers expressed strong interest in scaling up their operations and are looking to a food hub to help provide the market – and possibly other forms of help – to make that feasible.

• Interest in **some degree of specialization**, increasing production of a small number of crops (3 – 10), rather than managing 40 or more crops for a CSA or farmers market.

• Interest in **reducing time spent marketing**, whether at a farmers market, in a CSA, or in making deliveries to multiple buyers. Though many farmers are happy about the relationships they’ve built with their customers and with chefs, the Merc, and other buyers, some of these are hoping that a food hub can simplify and streamline their marketing, allowing them to spend more time farming and less time selling.

**Characterization of different types of farmers operating in northeast Kansas**

According to USDA’s 2012 Census of Agriculture, the average size of farms in Kansas continues to grow, now reaching 747 acres. Thus a “typical” Kansas farm is big. However, the majority of the fruit and vegetable producers participating in the local food system are tiny by comparison, farming an average of less than 3 acres. In fact, for those raising produce, over three quarters of survey respondents revealed they farm under 10 acres (figure 13).

Many of the best and best-known local foods farmers in northeast Kansas are pioneers in the movement, having diversified their operations.
LOCAL FOOD PIONEERS

The “typical” local food producer, then, is almost entirely atypical of Kansas farmers. He or she is about the same age as the average American farmer – late fifties – and has been involved with selling direct to consumers for all or most of their career in farming. Many of the best and best-known local foods farmers in northeast Kansas are pioneers in the movement, having diversified their operations – dozens of types of produce, often accompanied by poultry, laying hens, and a handful of goats, lamb or cattle. As a group, over 50% of survey respondents say they follow organic and sustainable practices, though only about 10% are currently certified organic (figure 14 and figure 15).

Most of these veteran local foods farmers have built a diverse base of markets, usually encompassing some combination of the following: one or more farmers markets; a CSA, either their own or as part of a multi-farm CSA; the Merc, or in the western part of the region, People’s Grocery; direct sales to restaurants; and for some, on-farm or on-line sales. With the exception of some shared delivery through existing farmer networks and multi-farm CSAs like Rolling Prairie Farms and others in the Kansas City metro region, most of these producers dedicate a substantial amount of their time to building and servicing markets, and to sales and deliveries two or more times per week. For many farmers there is much satisfaction in maintaining direct connection with chefs, or seeing their meats or produce on the shelf at the Merc. But to expand their production significantly, most expressed the need to simplify and streamline marketing, sales and delivery.

To date, most of these farmers have not sold substantial amounts to wholesale accounts.

LARGER SCALE, MORE TRADITIONAL FARMERS

As the local food movement has grown and as some farmers involved have demonstrated success and reasonable profitability, interest among more traditional farmers has begun to surface, though it is still in the early stages in northeast Kansas. Conversations with several cattle ranchers, for instance, showed that while most were well aware of the local foods movement and somewhat supportive of the idea of consumers becoming more connected
to farms and farmers, there was also a general reluctance to put too much stake in the potential of the local food movement generally and a food hub specifically. Nevertheless, some of these beef producers expressed interest in learning more about the hub and possibly producing some beef for the market in the future.

SCALE was unable to identify any larger, more traditional (corn and soybean, livestock) farmers interested in producing fruit and vegetables for a food hub, as part of a farm diversification strategy. It is plausible to project that there are indeed some farmers in the region who fit this description, and who might be more readily identified, should a food hub get underway.

**POTENTIAL ANCHOR FARMERS**

An intermediate group, between the large traditional Kansas grain and livestock farmer, and the very small diversified direct-to-consumer farmer, is also emerging: a mid-size, somewhat more specialized producer interested in fewer crops and larger volume markets. In-depth interviews with six of these farmers, along with projections from survey results, has led us to conclude that a small core of “anchor farmers” now exists that could help provide a solid foundation of produce for a food hub. The numbers are not large, but they are sufficient for a solid launch of a food hub: Five farmers strongly committed to producing for a food hub, representing approximately 35 – 40 acres initially, with potential to grow to double that or more. Several other farmers have shown interest in focusing substantial production into a food hub, though they are taking more of a “wait and see” approach.

Five farmers strongly committed to producing for a food hub, representing approximately 35 – 40 acres initially, with potential to grow to double that or more.

Moon on the Meadow Farm, Lawrence. Photo by Meg Williams.
“We get product from many farmers and that’s great, but part of why we’ve been successful is that we have a smaller core of really strong, reliable growers whom we can count on!” – Food hub manager, North Carolina

ESTIMATED PRODUCTION FROM FARMERS

All of the farmers with whom SCALE spoke appeared to be both optimistic and cautious, likely estimating their level of production conservatively. It would of course be affected by several factors, most notably the price and the various requirements they’d have to meet (GAP, product liability insurance, etc.). Putting those unknowns aside, and extrapolating from the five produce farmers with whom SCALE spoke, the food hub could likely count on about 40 acres of produce production in the first year from a core of 6 – 8 anchor farmers, increasing to 60 – 75 acres within the first 3 years. Depending upon the crop selection, this would amount to $600,000 - $750,000 of production (at above market wholesale prices) at the outset, growing to over a million dollars in sales by the third or fourth year, from the core group of farmers.

Should a core of anchor farmers be built, it is likely that a number of smaller farmers would also participate, particularly if the market mix kept prices strong and other requirements were not onerous. Additionally, there is a reasonable expectation that small groups of Mennonite farmers, for example in and near Brown County, would also add significantly to this production potential.

Further identifying potential anchor farmers will be an important early step in the development of a food hub, as farmers such as these help build a reliable base of production which in turn enables the enterprise to gain markets, hold them and steadily expand. Consistent, quality supply can also improve the food hub’s chances of securing better prices, as many buyers are willing to “pay a little more” for a reliable supply of local foods.

The anchor farmers discussed above are by no means the only farmers in the region strongly considering producing for a food hub. The survey data for all regions reveals that when asked whether or not producers would be interested in devoting additional acreage to production if they could sell more products, many producers responded with high interest. Survey responses and on-site conversations point to over 25 additional farmers, most currently operating at a very small scale, who project raising additional produce of from 1 – 10 acres or more, together totaling between 100 and 300 potential acres of produce for the food hub. These numbers almost certainly include some unrealistic or overly optimistic guestimates, but they do point to the broad base of interest. This potential expansion is contingent on a number of the factors discussed above – price, buyer requirements and standards, etc. – as well as the location of the hub or drop sites.
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Taking likely anchor farmers and smaller farmers together, SCALE estimates an initial base of production of 60 – 100 acres of produce, distributed across 15 – 25 farms.

Taking likely anchor farmers and smaller farmers together, SCALE estimates an initial base of production of 60 – 100 acres of produce, distributed across 15 – 25 farms. This is sufficient to meet the projected demand estimates detailed earlier in the report.

RANCHERS AND LIVESTOCK FARMERS
Regarding meat production, the picture is less clear for a variety of reasons, beginning with the lower level of commitment to a food hub from meat producers, mostly ranchers raising cattle. It is also generally a greater challenge to find a price point that works for meats – less so for the chefs who buy whole animals – when attempting to move larger volumes. There is also limited slaughterhouse capacity at present, though this would likely not present a major bottleneck in the first few years, as existing plants have a small amount of excess capacity which should be sufficient for small to modest volumes of cattle and/or hogs. For poultry, Rosanna Baumann projects that her on-farm, USDA licensed facility could process about double the number of chickens they currently do, representing a potential increase of 40,000 birds per year.

ORGANIC FARMERS
As mentioned previously, the number of certified organic farmers is quite low, with only 14 out of 166 among the pool of respondents for that question. Interestingly, however, three of the five anchor producers interviewed are certified organic, meaning that the potential exists to offer a certified organic “product line” within the larger regional brand. This is worthy of discussion, as most of the organic buyers in the region are currently growing fast and generally are not able to find sufficient supply for their products or store shelves. Because organic products command a price premium of 10 - 20% or more, it makes sense for local producers already employing organic practices to benefit from those better prices.
Survey data gives us a better understanding of where both certified organic production and sustainable production is occurring throughout the region. The GIS map shows the geographic locations of where the certified organic producers are, as well as the percentage of their production which is certified organic (figure 16). For those that are certified organic, almost all of them respond that their production is 100% certified organic. For those that farm using sustainable, but not certified, practices, more than half of them say they use those practices for almost 100% of their farming.

A couple of other notes about the potential for increased production of certified organic produce and other farm products:
First, while many of the long-time local food producers follow organic practices fully, they have avoided or relinquished certification for a range of reasons, including the cost of certification, the extra time required for record keeping and inspection, and in some cases, skepticism about USDA and its organic program. Because these farmers have established a customer base which for the most part does not require organic certification, there has been no compelling reason to take on the added costs and time it would require. However for many of them, their land is almost certainly “certifiable” under the National Organic Program, meaning they would not have to wait three years, but could do it immediately. This suggests that some might undertake certification if the market incentives – sales volumes, price – were sufficient.

Second, conversations with one of the region’s organic certification inspectors indicated that younger, newer farmers are generally more interested in becoming certified, and that some attention and support to them could well help broaden the base of certified organic farmers. One way to do this is to help these and other farmers apply for the
USDA organic certification cost share funds, which pay three fourths of certification costs up to $750. That cost share program was expanded in the new Farm Bill.

OTHER NORTHEAST KANSAS FARM PRODUCTS

In addition to fresh produce, meats, eggs and dairy items, northeast Kansas’s farms also produce a substantial quantity of grains, including some for human consumption. The 60 member Kansas Organic Producers (KOP) raises certified organic grains for both animal feed and for processing into food products for people. Wheat, millet and milo are all grown for food consumption, along with corn and soybeans, primarily for feed. At present, nearly all of this grain is shipped out of the region, even as Hilary’s Eat Well is utilizing 250,000 pounds annually of organic millet. In an interview with one of the KOP farmer-members, it became clear that the cooperative would very much like to sell their grains locally, so long as this could be done in larger, efficient transactions. The question of whether the capacity exists to process these grains in or near the region has not yet been explored.

Another local item with potential for sale in both direct markets and for processing is sweet potatoes. These are well suited to the soils and climate of the region, and demand for sweet potatoes is growing steadily, as more people rediscover both the exceptional taste and nutritional attributes. Several local farmers have recently launched an informal promotional campaign around sweet potatoes and are planning a “Sweet Potato Celebration” in Lawrence this October, tied in with local schools and restaurants. Additionally, Hilary’s Eat Well is looking to source over 50,000 pounds of sliced, organic sweet potatoes for her food products.

SUMMARY OF PRODUCERS AND PRODUCTS

The majority of producer respondents in northeast Kansas surveyed are small to very small farmers; their product mix currently leans heavily towards more specialty and higher

Local peppers at The Merc, Lawrence. Photo by Meg Williams.
end items. While these items sell well at farmers markets and as part of a CSA, their high perishability and challenging handling requirements make them difficult to include in a food hub, particularly in the early stages. Many farmers produce meat as well as produce. While there is some opportunity here and interest in selling proteins to a food hub, the main concerns are access to adequate processing facilities and price points. In fact, half of the producers said that price was one of their main concerns in selling to a food hub.

The response to the survey and in our interviews with producers made it clear that there is broad interest in a food hub among producers. However, it’s important to note that when comparing this set of responses with those of buyers, there were certainly more reservations about participation in a food hub from farmers. Interest in a food hub, and willingness to help farmers in this effort, is also strong from producer support groups, such as Cooperative Extension, the Kansas Rural Center and the Kansas Department of Agriculture.

Despite the small size of farms, product diversity challenges, and other challenges, there are several key opportunities with farmers in northeast Kansas, and there is definitely interest among farmers worth exploring much further (figure 17).
Infrastructure and Logistics

“Don’t start too big, but not too small either”
– farmer from northeast Kansas

Overview

In the 1990’s, “kitchen Incubators” came into being in scores of communities around the nation. The idea seemed simple enough, and really, rather compelling: Produce has a limited shelf life, and matching what you grow with what the market demands at any given moment can be difficult. Why not take the extras, or those items not quite pretty enough for market, and turn them into value added products with a long shelf life and a higher retail value? Tomatoes into salsa, berries into jam, etc. Since many states required that processed foods be produced in a “certified kitchen”, the idea of a community kitchen, where farmers or food entrepreneurs could produce these products and gradually build their markets seemed like a “win-win”. As a result many communities built a kitchen incubator, sometimes also called a shared use commercial kitchen.

It turns out that it is much more challenging to manage and operate such facilities than most people realized. The majority of them, in fact, proved financially unsustainable. Finding enough farmers/food vendors to fully utilize the kitchens, staffing them adequately, purchasing and maintaining the needed processing equipment, and finding a lease rate that covered the facility’s costs yet worked for the vendors using it, were among the common problems.

Food hubs today are in a similar place to where kitchen incubators were twenty years ago. They face many of the same or comparable challenges, and yet they are also being propelled, sometimes prematurely, as the next critical step for the local food system. In looking at

Volunteers with Douglas County Master Gardeners glean unsold produce at the Lawrence Farmers Market for donation to Just Food, the local food pantry. Lawrence, KS. Photo by Rick Martin.
how to move the local food system of northeast Kansas forward, it is important that decisions about building infrastructure keep this history in mind and strive not to put the cart before the horse. Thus we give particular attention in this section to what already exists, what physical and business assets might be shared, leased or built upon such that a food hub has a strong foundation without excess burdens of debt or operational complexity.

General characteristics of Current Regional Infrastructure

Several critical infrastructure components already exist, owned by individuals strongly committed to strengthening the regional food system and to working to develop a food hub appropriate to the region. Among these are:

- Fresh Food Express, a small, independent Kansas City-based distributor with a keen interest in partnering in the development of a regional food hub. In tandem with Central Produce, they offer a well-established delivery capacity that encompasses Kansas City, Lawrence, Topeka, Manhattan and nearby areas.

- Hildebrand Dairy, whose delivery routes include more southerly portions of the sixteen-county region. They are interested in some form of shared or subcontracted delivery.

- Hiawatha Thriftway, who in addition to their role as a buyer, has offered a substantial space for sub-aggregation. This could benefit farmers in the northern part of the region and facilitate distribution of products moving to markets in that area.
Cedar Valley Farm, whose on-farm USDA-licensed poultry processing facility offers a critical opportunity to process up to 40,000 additional broilers each year for sale through a food hub.

Six meat processing facilities dispersed around the region, some of which are USDA inspected. Most of these facilities, while small, have some excess capacity if timing and other factors can be worked out. However, over the longer term, expansion would need to take place.

Potential partners in shared facility space, including Pines International and Hilary’s Eat Well, both potentially interested in cold storage and freezer space.

Additionally, farmers and farm advocates have developed and implemented certain logistical and organizational systems that provide some of the components of a food hub. Their efforts, while generally on a smaller and more localized scale, provide not only experience to examine, but also potential partnership opportunities with a regional food hub. Some of these include:

At least two multi-farm CSAs which offer considerable insights into both the challenges and opportunities related to coordinating production and organizing aggregation and deliveries of products from several farms.

The potential use of a brand that has already been developed, and in a limited way, tested: “From the Land of Kansas.”

The organizational experience and knowledge from Growing Lawrence, a regional organization made up of producers focused on coordination among local producers, connecting the consumer with local food production and partnership on local food system projects.

As a rule, utilizing existing infrastructure, sharing delivery routes and coordinating with comparable enterprises represents a lower cost, sensible way to undertake a multi-faceted business like a food hub. This may especially be true during the start-up phase, when both production and markets are uncertain. It is important to recognize however, that such an approach can require more coordination, tighter management and greater overall communication. Reliance on several other businesses or organizations can also make the food hub more vulnerable. Hence, as these options are explored it is prudent to also consider pulling the core components together under one ownership or management structure.

Warehouse space for centralized aggregation, cooling and other functions has been briefly explored but no specific or ideal space has yet been identified. Sites in and around Lawrence exist but have not been closely examined. According to local real estate professionals, warehouse space when available rents for approximately $7.00 - $7.50 per square foot per year in the Lawrence area, equivalent to $35,000 - $37,500 per year for a 5000 square foot space. Lease rates in Douglas county and neighboring areas are likely to be lower.
As a rule, utilizing existing infrastructure, sharing delivery routes and coordinating with comparable enterprises represents a lower cost, sensible way to undertake a multi-faceted business like a food hub.

With the help of Phil Pisciotta of Fresh Food Express, and local Real Estate companies, sites are currently being explored in both Lawrence and Topeka. While there is flexibility in the requirements and potential to upgrade or retrofit an existing site, the basic requirements for a central aggregation facility during the start-up phase (through year 3 or 4) include:

- 5000 square feet of total space (inclusive of cooler and freezer space, described below). This should be sufficient for up to $2 million in product annually, though a larger space would provide more flexibility. The building should be very open with few walls or partitions.

- A minimum of two loading docks, one set at a height for farm trucks (flatbeds, pick ups), the other for a standard reefer truck.

- 2000 square feet of cooler space, either as two coolers or one cooler divided into two zones, with possibility of building racks to allow for stacking of palletized cases of produce. With racks for a second level of pallets, this could accommodate 56 – 80 pallets of produce, with reasonable room for maneuvering a pallet jack or forklift. At an average of 50 cases per pallet, this would equal 2800 – 4000 boxes at any given time.
• 500 square feet of freezer space, enough to manage a modest flow of meats and to store raw wheat grass, should a partnership with Pines International come to pass. With racks for a second level, this should accommodate up to 24 pallets.

• Depending upon the “end products” of the food hub, the 2500 square feet of open warehouse space (5000 total square feet minus 2000 square feet of cooler space and 500 square feet of freezer space) would be used for receiving (from farmers), grading, packing and staging of orders before they’re loaded on the trucks. Should processing, such as a chopper be added, additional space would likely be needed.

• It is assumed that office space and a meeting area for farmers could be built into a “mezzanine” or second story. If it had to be on the ground floor, an additional 600 or so square feet would be needed.

In addition to the primary aggregation facility, two secondary “sub-aggregation” sites should be developed as feasible. One of these, the Hiawatha Thriftway is already in place and the store’s owner has indicated a strong interest in making a portion of underused space in the store available for this purpose. Details remain to be worked out regarding cost, hours of operation (ie when can farmers drop off, when will trucks be distributing to the facility), management responsibilities, etc. However these are issues that can be worked out. Having an existing facility, already open and operating as a food business represents a nearly ideal place for a sub-aggregation facility.

As the enterprise develops, a second sub-aggregation site should be explored in or near Manhattan, if possible in conjunction with a market partner in that region (with a similar arrangement to the Hiawatha Thriftway). This will enable farmers from the western part of the region to participate in the food hub.

The basic requirements for a central aggregation facility during the start-up phase (through year 3 or 4) include:
• 5000 square feet of total space that includes:
  • 2000 square feet of cooler space
  • 500 square feet of freezer space
  • 2500 square feet of space for receiving, grading, packing and staging
  • Office space (possibly built on second story)
Food hub Operational Models

“I would love to see a local food hub.” – small farmer in the greater Douglas County area

The DCFPC’s interest in a food hub stems from a more fundamental desire to strengthen the region’s food system, for farmers as well as consumers, as broadly as possible throughout the sixteen-county region. In some parts of that region, production, marketing and distribution efforts have been growing for many years. In other areas, “local foods” is still nascent or in the early stages of development. The strategies explored below provide ideas about how to adapt to those differing realities, building on existing efforts wherever feasible while addressing the critical gaps in other places.

Purpose of the Food hub

The interest DCFPC’s interest in exploring a food hub was based on certain values and priorities related to the region’s food system. These can be expressed as Core Functions of any food hub that might develop:

1. **Expand opportunities for established local food producers** in the region by opening new, well-paying but larger markets in Topeka, Manhattan, Hiawatha, Lawrence and Kansas City. This new market development will be done in partnership with existing producers wherever that is feasible.

2. **Enable new and emerging farmers to increase their chances of success** through ready access to these markets, along with sufficient TA and support from partner organizations.

3. **Expand the market for local foods by cultivating a “new tier” of local food consumers** in the region by increasing the convenience and prevalence of local food in their area.
4. **Improve reliability and ease of access to local foods for existing local food buyers**, including restaurants, retailers and institutional buyers, to help them expand their use of local farm products.

There are also important **Secondary Functions** of a food hub in northeast Kansas, desired outcomes that are a priority for the Council, but not the essential driver of the initiative:

5. **Make more healthy produce available to schools, hospitals, and vulnerable populations** by developing a line of high quality "seconds".

6. **Promote and encourage critical social and environmental outcomes**, including improved stewardship on small acreages of land in the region and increased access to and consumption of healthy food by the broader public.

7. **Facilitate broader economic impacts** by focusing on building the assets of local, independent businesses, including the participating farmers, food entrepreneurs, retailers and supply chain businesses.

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**A producer-driven model that: offers higher volume, reasonably well-paying markets to established and emerging farmers from across the region; cultivates a new and broader base of local food shoppers; makes purchasing local foods easier for committed buyers; and builds the assets of local farmers, independent businesses and other stakeholders in the food value chain.**

Given these core functions, and the secondary goals delineated above, it becomes clear that the strategy adopted should be a **producer-driven model that: offers higher volume, reasonably well-paying markets to established and emerging farmers from across the region; cultivates a new and broader base of local food shoppers; makes purchasing local foods easier for committed buyers; and builds the assets of local farmers, independent businesses and other stakeholders in the food value chain.**

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**Examples of Food Hub Operational Models Applicable to Northeast Kansas**

A brief review of existing food hubs with operational models that encompass some of these elements help further illuminate the strategy for establishing a food hub in northeast Kansas.

**Eastern Carolina Organics, Raleigh, North Carolina.** Now in its 10th year, ECO is a for-profit food hub with ownership shared between farmers and the general manager of
the business. Sales in 2013 reached $3.7 million and the business is and has been profitable since its early years. Key features:

- Highly diverse base of buyers, including buying clubs (similar to a CSA), restaurants, small retailers and larger wholesale buyers; they do not sell to many institutional buyers primarily because of pricing constraints.
- All farmers are certified organic, allowing ECO to sell into higher paying markets and to be among the largest and most reliable provider of certified organic produce in its region.
- Approximately half of the sales are within a three-hour delivery radius, the other half to larger accounts at a greater distance. The wider range of distance traveled is due to their commitment to serve certain types of buyers, those that want to purchase high quality, organic food.
- Product mix is mostly produce, though they also carry small amounts of goat cheese, specialty grains and other value added items.
- A single “signature item” – kale – represents almost 30% of all sales.
- Farmer mix is broad in size and levels of experience with 80 total farmers, a core of about 30 mid-sized, highly experienced farmers make up the foundation of production.
- ECO owns and operates a 26,000 square foot facility, of which 12,000 square feet is their packing house; the balance is sublet to other smaller businesses; it owns and operates two trucks, while also subcontracting shipping to existing firms.
- They employ 12 full time employees.
- Produce comes in ready for market, where it is sorted for buyers, cooled and shipped. There is no repacking (handling) of produce at their facility, as everything, including the CSA shares, are sent in cases.

**Good Food, Good People, Floyd, VA.** Begun in 1995, GFGP is a for-profit food hub owned and managed by the farming couple who started it. Sales are in the range of three quarters of a million dollars.

- GFGP is a “bootstrap” operation which is and has always been 100% self-financed (no loans or grants ever taken).
- Due to commitment to self-financing, growth has been slow but the business has nevertheless steadily expanded.
- Markets include a mix of CSAs, restaurants, direct retail outlets (primarily at farmers markets) and a small amount of sales to grocers and wholesalers.
- Sales are primarily produce, including both organic and conventionally raised, along with eggs, cheese, honey and other products. They do not have a certified organic line, nor are they GAP certified.
- Most of their farmers also sell at farmers markets or other outlets, though some sell the majority of what they raise through GFGP.
- Infrastructure is minimal, with a very small packing shed (under 1000 square feet) and a single small reefer truck and a small staff (under 4 full time employees).
**The Local Food hub, Charlottesville, VA.** Operating since 2009, LFH is a non-profit with annual sales of nearly $2 million.

- LFH sells a wide range of produce items, along with meats, eggs, cheeses and value added items. They operate year round, offering apples, root and storage vegetables, greens and frozen/preserved items in the winter (they do not do food processing).

- Market mix is very diverse, with over 150 buyers, including restaurants, specialty retail, Whole Foods and other larger retail, public schools, colleges, hospitals and others. Sales are focused in a five county area around Charlottesville, but also include Richmond and Washington, DC.

- About 70 farmers sell into LFH, some certified organic, some using organic methods without certification, and others utilizing IPM and similar lower-input strategies.

- Infrastructure is leased, a 3500 square foot space with coolers, loading dock, equipment, along with an 18 foot reefer truck and a small delivery van.

- In addition to the aggregation and distribution business, LFH also provides an extensive education, training and TA program to its farmers encompassing a wide range of topics related to production, farm planning and management, season extension, organic production, food safety, etc. As part of their non-profit social mission, they also provide outreach to schools and the community and work to improve food access and health.

- LFH, having a core aggregation and distribution business combined with extensive education, outreach and advocacy, is quite similar to other non-profit food hubs including Appalachian Harvest (southwestern Virginia into Tennessee), Common Market in Philadelphia and several others. In most of these examples, the aggregation business is self-supporting, or nearly so, while the education, training and community outreach work is largely or entirely supported by grants and donations. Common Market, it should be noted, began its operation by leasing an underused portion of a larger warehouse housing a monthly discount food operation, and did not acquire its own warehouse until they had a few years of experience under their belts.

**Healthy Families, Family Farms, Abingdon, VA.** Actually a part of Appalachian Harvest, Healthy Families, Family Farms launched in 2004 in an effort to develop markets for produce seconds while simultaneously providing fresh, better quality produce to families in need.

- As a by-product of sales to grocers, supermarkets and universities, good quality "seconds" are sorted, boxed and delivered to a regional food bank as part of a regular delivery route (to other customers) each week.

- Rather than farmers taking a loss on their seconds, the produce is purchased at a discount, "break even" price, improving their financial bottom line.

- Churches, civic clubs, business and individual donations provide the funds for these purchases. These groups and individuals are motivated to help feed the hungry and improve the quality and nutrition of their food options.

- Over half a million pounds of produce have been purchased and distributed through the program since its inception.
All food hubs, whatever the organizational form and ownership structure, utilize more of a business model than a traditional non-profit approach, particularly in terms of management and decision-making structures, and investment and risk.

From the experience of these and other food hubs, including those in both rural and urban communities, a number of characteristics emerge as key to benefitting farmers, improving food access, and building a self-sustaining enterprise. These include:

1. **Nearly all successful food hubs offer a wide range of products**, including a rich diversity of produce items, accompanied in most instances by eggs, value added/preserved items and in some cases, meats. The wide product range generally also correlates with a broad mix of market types, though this varies considerably.

2. While product diversity is the norm, **most hubs also have a small subset of items that comprise a large proportion of their sales** – Kale for ECO, apples, tomatoes and greens for LFH, tree fruit for Red Tomato (Boston), etc. In some cases these are intended as, or simply become “signature items” for the food hub.

3. **The market mix of different food hubs evolves over time, usually as a balance between higher volume/lower price buyers with lower volume/higher price buyers.** The exact mix is determined in part by what is practical for that food hub and its region, and by the needs of the participating farmers.

4. In most cases, the **producer base includes**:
   - A relatively large number of farmers who already have, and continue to supply other markets (farmers markets, CSAs, on-farm sales, etc.). Most of these farmers utilize the food hub as a small but important part of their overall marketing strategy, often as a means to grow a smaller array of items in larger quantities;
   - A smaller core of farmers producing larger volumes for the food hub, many of whom rely on the food hub for a larger percentage of their total sales.

5. Regarding infrastructure, **many hubs start out with leased, donated or shared space** (such as Common Market, Local Food Hub, Appalachian Harvest), and eventually build a facility of their own, only after more firmly establishing buyers, a production base and a reliable system to connect them.

6. **All of the food hubs described above, and most food hubs of any size, utilize a single brand**, rather than maintaining the individual identities of each participating farmer. This is done to give the food hub flexibility (if one farmer is out of heirloom tomatoes, another in the group will have them and the customer will still get what they ordered) and to make the system of offering available items, ordering and delivering much simpler to manage. Farmers who’ve already established their own brand usually continue to use that brand in their other markets.
7. Generally speaking, for-profit food hubs (such as ECO, Good Food, Good People) help farmers learn what they need to know to participate in the food hub, but do not otherwise offer training or TA to them, while non-profit food hubs typically arise where extensive training, TA or other forms of assistance are needed (often along with other social or environmental goals).

8. All food hubs, whatever the organizational form and ownership structure, utilize more of a business model than a traditional non-profit approach, particularly in terms of management and decision-making structures, and investment and risk.

Projected Costs and Revenues of a northeast Kansas Food Hub

For the first five years of operations, SCALE looked at the different costs associated with running a regional food hub. These include costs associated with human resources (staff and benefits), physical resources (facilities and supplies), services (delivery, maintenance), and other costs of doing business such as insurance, utilities and other charges. In the first year SCALE recommends a lean staff: a general manager, a marketer and an hourly employee who provides a variety of roles during the start up phase. By year two, the costs associated with staff and benefits are over $185,000. By year three, the food hub will likely be ready to hire a full-time facility manager to assist with daily operations at the food hub warehouse. The hiring of this additional staff and salary increases over the first five years project the total costs for staff and benefits by year five to be nearly $300,000 (table 15).

Table 15: Operational Cost Projections for Northeast Kansas Food Hub (Staff & Benefits)

<table>
<thead>
<tr>
<th></th>
<th>YEAR 1</th>
<th>YEAR 2</th>
<th>YEAR 3</th>
<th>YEAR 4</th>
<th>YEAR 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen. Mgr.</td>
<td>$70,000</td>
<td>$72,100</td>
<td>$74,265</td>
<td>$76,500</td>
<td>$80,000</td>
</tr>
<tr>
<td>Marketer</td>
<td>$60,000</td>
<td>$61,800</td>
<td>$63,650</td>
<td>$65,500</td>
<td>$68,750</td>
</tr>
<tr>
<td>Facility Mgr.</td>
<td>$0</td>
<td>$0</td>
<td>$50,000</td>
<td>$54,000</td>
<td>$55,650</td>
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<tr>
<td>Hourly Emp.</td>
<td>$16,000</td>
<td>$20,000</td>
<td>$22,500</td>
<td>$30,000</td>
<td>$40,000</td>
</tr>
<tr>
<td>Staff Subtotal</td>
<td>$146,000.00</td>
<td>$153,900.00</td>
<td>$210,415.00</td>
<td>$226,000.00</td>
<td>$244,400.00</td>
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<tr>
<td>Fringe Benefits</td>
<td>$32,120</td>
<td>$33,858</td>
<td>$46,291.30</td>
<td>$49,720.00</td>
<td>$53,768.00</td>
</tr>
<tr>
<td>Staff Sub. w/ Fringe</td>
<td>$178,120.00</td>
<td>$187,758.00</td>
<td>$256,706.30</td>
<td>$275,720.00</td>
<td>$298,168.00</td>
</tr>
</tbody>
</table>

Operational cost estimates include a lease on a facility, delivery subcontracting, insurance, utilities, maintenance fees or contracts, supplies, charges related to business operations and other miscellaneous costs that can’t be anticipated at this time. The facility lease projections are estimated using figures gleaned from conversations with local real estate agents in Douglas County. Delivery cost estimates based on rough projections from a local
food delivery company. Insurance, utilities and other estimates are based on average of utility rates and maintenance fees and other such costs to run the recommended 5,000 square foot facility. The total cost for general operations is nearly $120,000 in year one and is projected to rise to just over $205,000 by year five (table 16).

Table 16: Operational Costs Projections for Northeast Kansas Food Hub (Facilities & Operations)

<table>
<thead>
<tr>
<th></th>
<th>YEAR 1</th>
<th>YEAR 2</th>
<th>YEAR 3</th>
<th>YEAR 4</th>
<th>YEAR 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility Lease</td>
<td>$37,500</td>
<td>$37,500</td>
<td>$40,000</td>
<td>$44,000</td>
<td>$50,000</td>
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<tr>
<td>Delivery</td>
<td>$35,000</td>
<td>$45,000</td>
<td>$60,000</td>
<td>$70,000</td>
<td>$80,000</td>
</tr>
<tr>
<td>Insurance</td>
<td>$10,000</td>
<td>$12,000</td>
<td>$12,500</td>
<td>$14,000</td>
<td>$16,000</td>
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<tr>
<td>Utilities</td>
<td>$18,000</td>
<td>$19,000</td>
<td>$24,000</td>
<td>$25,000</td>
<td>$27,500</td>
</tr>
<tr>
<td>Maintenance</td>
<td>$5,000</td>
<td>$5,000</td>
<td>$7,500</td>
<td>$7,500</td>
<td>$8,000</td>
</tr>
<tr>
<td>Supplies</td>
<td>$6,000</td>
<td>$7,500</td>
<td>$8,000</td>
<td>$8,000</td>
<td>$10,000</td>
</tr>
<tr>
<td>Charges</td>
<td>$2,000</td>
<td>$2,000</td>
<td>$3,000</td>
<td>$4,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>$5,000</td>
<td>$5,000</td>
<td>$6,000</td>
<td>$6,000</td>
<td>$10,000</td>
</tr>
<tr>
<td>Oper. Subtotal</td>
<td>$118,500</td>
<td>$133,000</td>
<td>$161,000</td>
<td>$178,500</td>
<td>$206,500</td>
</tr>
</tbody>
</table>

Using overall sales and revenue estimates for whole produce, SCALE projects net revenue for the food hub in the first five years, based on a 20% margin retained by the hub. The gross revenue projections for year one are projected to be at just under $160,000, growing to over $470,000 by year five (table 17). When compared with the total operating costs, it becomes evident that over the first five years the food hub can expect to operate in the red (table 17). It’s projected that the first year’s net revenue will fall short of breaking even by over $139,000 and this number will shrink to just over $114,000 by year two. However, with increases in staffing and increases in other operational costs, year three is expected to see a hike in loss, with net revenues falling short by nearly $160,000. But by year five, increasing sales and revenue and leveling operational and staff costs can expect to even out. Projections for year five see a net revenue shortfall of about $35,000.

Note that sales estimates are based upon seasonal sales of produce rather than year round sales. The estimated weekly demand for the “main season” is projected over a modest 12 week period (the main season could be 15 weeks or longer), with spring and fall estimated sales set at just one third the weekly volume of the main season, spread out over 18 weeks total.
Table 17: Overall Sales and Revenue Estimates for Whole Produce

<table>
<thead>
<tr>
<th></th>
<th>WEEKLY TOTALS</th>
<th>MAIN 12 WK TOTALS</th>
<th>OTHER 18 WK TOTALS</th>
<th>YEARLY TOTALS</th>
<th>GROSS REV. AT 20%</th>
<th>GROSS REV. AT 22%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>$43,750</td>
<td>$525,000</td>
<td>$262,500</td>
<td>$787,500</td>
<td>$157,500</td>
<td>$173,250</td>
</tr>
<tr>
<td>Year 2</td>
<td>$57,375</td>
<td>$688,500</td>
<td>$344,250</td>
<td>$1,032,750</td>
<td>$206,550</td>
<td>$227,205</td>
</tr>
<tr>
<td>Year 3</td>
<td>$71,625</td>
<td>$859,500</td>
<td>$429,750</td>
<td>$1,289,250</td>
<td>$257,850</td>
<td>$283,635</td>
</tr>
<tr>
<td>Year 4</td>
<td>$79,025</td>
<td>$948,300</td>
<td>$474,150</td>
<td>$1,422,450</td>
<td>$284,490</td>
<td>$312,939</td>
</tr>
<tr>
<td>Year 5</td>
<td>$130,650</td>
<td>$1,567,800</td>
<td>$783,900</td>
<td>$2,351,700</td>
<td>$470,340</td>
<td>$517,374</td>
</tr>
</tbody>
</table>

Table 18: Total Net Revenue Projections for Northeast Kansas Food Hub

<table>
<thead>
<tr>
<th></th>
<th>YEAR 1</th>
<th>YEAR 2</th>
<th>YEAR 3</th>
<th>YEAR 4</th>
<th>YEAR 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Oper. &amp; Staff Costs</td>
<td>$296,620.00</td>
<td>$320,758.00</td>
<td>$417,706.30</td>
<td>$454,220.00</td>
<td>$504,668.00</td>
</tr>
<tr>
<td>Sales</td>
<td>$785,772.00</td>
<td>$1,030,986.00</td>
<td>$1,291,536.00</td>
<td>$1,740,870.00</td>
<td>$2,381,184.00</td>
</tr>
<tr>
<td>Rev. @ 20%</td>
<td>$157,154.40</td>
<td>$206,197.20</td>
<td>$258,307.20</td>
<td>$248,174.00</td>
<td>$476,236.80</td>
</tr>
<tr>
<td>Net Revenue</td>
<td>-$139,120.00</td>
<td>-$114,208.00</td>
<td>-$159,856.30</td>
<td>-$169,730.00</td>
<td>-$34,328.00</td>
</tr>
</tbody>
</table>

Note that these projections do not include protein sales, nor the modest additional costs that would be incurred in managing a line of meat, eggs and cheeses. It is believed that inclusion of meats in the food hub would improve net revenue projections by year 5.
Recommendations

“I am extremely interested in local food. I don’t have any significant personal monetary or land resources, but I do have a lot of passion, intelligence, and (other) skills.”
– small farmer in northeast Kansas

Overall Recommendation: Should the Douglas County Food Policy Council and its Partners Launch a Food hub?

The Consultants believe that a producer led, community based food hub operation is feasible, though challenging. For it to succeed, not only financially, but in meeting the client’s core goals, the organization owning and operating the food hub will almost surely need to sustain it and subsidize its operations for the first 5 – 6 years, which is the projection for how long it will take to break even. Though demand and supply projections have been deliberately modest, and SCALE has attempted to underestimate revenues and overestimate costs, the projections show a loss of between $100,000 and $150,000 per year for the first four years, dropping to a $34,000 loss in year five and likely break even the following year. All told, this would require an infusion of over $600,000 during the first five years.

Hoop Houses at Moon on the Meadow Farm, Lawrence. Photo by Meg Williams.
Moving forward to develop a regional food hub represents, we believe, the best opportunity to energize the market and grow the local food economy to the benefit of farmers and consumers in the region.

Hence the most appropriate model is likely to be an entrepreneurial, producer-driven non-profit.

In spite of the risks, the very serious challenges of meeting costs without jeopardizing your values, and the probable red ink for the first several years, moving forward to develop a regional food hub represents, we believe, the best opportunity to energize the market and grow the local food economy to the benefit of farmers and consumers in the region. The local food movement in Lawrence and other parts of Kansas, Missouri, and the Mid-west has made great strides over the past two decades. However, it runs the risk of stalling, or being absorbed by larger, non-local food corporations, unless a concerted, locally rooted initiative is launched to overcome current obstacles and build a new base of customers and supporters. We believe this is possible, even plausible, given the steps already taken by the DCFPC and its partners.

It is apparent that local farmers do not have the capital to subsidize this differential, and most for-profit enterprises are unlikely to be willing to do so, even if able, as it would still take several years more before they could recoup this investment and actually earn net profits.

*Hence the most appropriate model is likely to be an entrepreneurial, producer-driven non-profit.*
To avoid the common food hub trap of large volume but low prices for products, the market strategy must rest on building a clear and compelling market presence, including a brand that differentiates food hub products clearly, and steadily builds a new and broader base of customers. This will require working with market partners willing to use the brand and educate and galvanize their customers and clients, including helping to educate about the need to pay a fair price for the products. This is long term, incremental work but is not implausible. The steady growth in the organic food market for over two decades and the rapid expansion of “food consciousness” even into small rural communities demonstrate that people’s eating and buying habits can change, to their own advantage and that of local farmers.

Most food hubs pursue a marketing strategy based on a diversity of buyers, which makes sense in terms of spreading the risk and building a strong base of market partners who can help build demand and brand recognition. The key however is in finding a mix of markets that, while diverse, is also manageable and helps meet the needs and constraints of farmers who’ll be selling into the food hub.

The market strategy also must deal with the current market saturation for local foods in the Lawrence area, both by accessing markets outside of Lawrence and by broadening the base of local food buyers in Lawrence. The food hub should seek to build this market jointly, or at least collaboratively, with experienced farmers, multi-farm CSA networks and other innovators, rather than becoming a competitor with them.

The following core elements are recommended for the marketing strategy:

1. Build a stronger, broader customer base for local foods within existing, independent markets, such as Ray’s Apple Market (Manhattan area), the Hiawatha Thriftway, Hy-Vee, Golden Eagle Casino, and other local independents. Strong, authentic branding combined with more diverse and reliable supply of products will help reach and cultivate this broader base of customers.

2. Create a larger, more reliable supply of local foods for existing committed buyers, including the food cooperatives, restaurants, farm stores (Pendleton’s, etc.), Door to
Door Organics, etc. While all of these already purchase significantly from local farmers, nearly all indicated their purchases would increase with improvements in the supply chain and ease of purchase.

3. Expand the customer base for local foods by reaching people where they shop (traditional, independent grocers) and through on-site CSAs, particularly at workplaces, but also potentially including churches, schools, fitness centers, etc. Expanding the customer base will also entail reaching a new demographic - beyond the committed locavore – whom we have described as “vaguely concerned, sporadically motivated” in regards to food. Developing this new, broader base of local foods shoppers will require rethinking some basics, from the composition of CSA baskets to the messaging and branding used to attract customers.

4. Develop an organic product line to meet the demand for organic foods, in partnership with Door to Door, Hillary’s, People’s Grocery, the Merc and other organic buyers. Maintaining an organic product line, along with conventionally raised or non-certified items requires some additional planning and management to ensure the integrity of the organic products. However, Appalachian Harvest is currently doing this, and other food hubs are considering it.

5. Build markets for produce seconds, both to benefit farmers, but also to open doors to buyers with tighter budgets, including schools, health care and hospitals and colleges and universities. Clear standards for seconds need to be established to ensure that this becomes a highly saleable line with excellent value for the money. The processes for grading out seconds, whether that happens on-farm or at the aggregation facility, must also be developed in detail.

Branding is an important component of building a broader customer base. This model requires a regional, place-based brand that is compelling, authentic and readily identifiable in many different types of venues (retail, colleges, CSAs). The brand should be structured to emphasize the relative advantages of local products, but also allow for “sub brands” such as organic, humanely raised, etc. Appalachian Sustainable Agriculture Program’s Appalachian Grown brand and strategy provide a useful model in this regard. We recommend that the Food hub Planning Team meet with buyers and consumers to determine the essential elements of a northeast Kansas brand, and then consider work with a professional firm to develop a brand. Note: The work already done to develop the “From the Land of Kansas” brand should be considered in this process.

“Our brand is everything -- it is what gives our customers trust in our products. It show our customers know of our consistency in quality.”

– small farmer in northeast Kansas
**Product mix:** Over time, the more diverse and complete the product mix offered by the food hub under its brand, the more the food hub will be able to develop a broad customer base, both direct consumers and intermediary buyers. Initially, however, the focus would likely be on 10 – 15 different types of produce, including a few “signature items” (possibly sweet potatoes, native Kansas varieties, etc.), along with eggs. SCALE recommends waiting until the food hub is somewhat established, probably in year two, before including meats in the product offerings. Once underway, sales of meats and eggs should focus on the CSA, restaurants and a few specialty markets looking to purchase more local meats.

**Market mix:** The market mix will unfold over time as relationships are built and both products and venues tested in the marketplace. Over the first few years, *a market mix that provides good overall prices while steadily expanding volumes of orders and deliveries would be the goal.* Roughly, this would include:

- Mid-size retail: 30%
- Small, retail (Rays, Thriftway, co-ops, Pendleton’s farm stand, etc.): 20%
- On-site CSAs: 20%
- Certified organic (Door to Door, Hilary’s, co-ops, etc.): 20%
- Restaurants (including Golden Eagle Casino): 5%
- Institutions and schools (primarily high quality seconds): 5%

**Farmer and Production Recommendations**

Farmers throughout the 16 county region stand to benefit, not only from the substantial increase in sales through the food hub, but from important “spin off” opportunities as well. These range from enhanced local farmers markets, to increased farm productivity and profitability resulting from a dynamic producers network. Many farmer should see improvements in their “capitalization” over time, be that in the form of healthier soils, improved farm infrastructure, a diversified, less vulnerable business model, or ready access to community-based cooling and distribution infrastructure. This capitalization will help stabilize family farms and grow the farm economy and associated jobs.

The overall goal here is to help both established and new farmers primarily through access to good markets, but also through more systematic support and assistance. Cooperative Extension is already deeply involved in training and technical assistance around a range of subjects pertinent to local farmers. There is no need for the food hub initiative to try to create its own system. However, increasing access to and ease of participation in the training and technical assistance, particularly for newer, transitioning and limited resource farmers, may be an area where the initiative can help. Developing one or more “producer networks” may prove a useful tool in this regard (more on that below).

1. Help established local food producers increase their viability by creating new and reliable market opportunities in relatively well paying markets for specific items. To facilitate this step, and the next two below, we recommend that *a producers network be formed* (one, initially, possibly more over time) through which farmers can:

   - Jointly discuss and help develop markets that make sense for their operations and don’t undermine or excessively overlap current marketing arrangements
• Coordinate production planning to meet market demand, including discussions about price, quality, etc.; Meeting and getting to know buyers should also happen here

• Coordinate shared purchase of materials and supplies, and possible purchasing and sharing (or leasing) of equipment

• Improve farm productivity by hosting workshops, farm tours and TA, in concert with Extension; and through on-going peer learning.

2. Develop a small core of “anchor farmers” (6 – 10 initially) willing and able to provide a solid and consistent supply of 10 – 12 items, in order to build the reputation of the food hub as a reliable, high quality supplier. Building a base of anchor farmers will not only increase the enterprise’s chances of success, but should also help other farmers learn how to grow at a somewhat larger and slightly more specialized scale. Outreach to potential anchor farmers should begin the summer prior to anticipated launch of a food hub enterprise.

3. Help new and emerging farmers scale-up with reduced risk (due to solid markets) and improved profit potential. Solid, reasonably well-paying markets can significantly reduce uncertainty for new or expanding farmers, as well as for those transitioning to new crops or farm enterprises. Involving these farmers in the producers network and all that is offers will also be critical.

4. Develop low-cost sub-aggregation points to enable farmers well outside of Lawrence to participate in the food hub without undue time or expense. There are two ways to ease the burden that farmers face when having to transport their products to an aggregation site, both of which should be pursued:

• Help farmers plan their production so that they are harvesting and transporting substantial amounts of product on each trip that they make. No farmer likes to take 2 hours and drive a hundred mile round trip to reach a drop point, but if he or she is carrying $500 or more worth of product each time, it makes the time and travel more worthwhile.

• Beginning with the Hiawatha Thriftway, pilot a system with at least one sub-aggregation point, open to farmers for drop offs at specified times. There are many details to work out with the sub-aggregation points, to ensure that produce (and other items) are properly handled, tracked, cooled and stored before being taken to the main aggregation site, and to ensure that farmers get immediate feedback if they are not meeting standards. Thus, we’d recommend that the Project Planning and Implementation Team meet with Tim to develop a clear, straightforward plan. After two to three years experience with this sub-aggregation point, work to develop a second one near Manhattan.

5. Utilize on-site workplace CSAs and specialty buyers to gradually build the demand for grass-finished and other healthy meats. It is clear from the growth in demand for organic and grass-finished meats at the Co-ops, at Door to Door Organics, and in Cherie Schenker’s work place CSA, that demand is already relatively strong and increasing. To reach the next, broader tier of potential healthy meat consumers, we recommend the development of simple, compelling educational materials (as to the advantages of
(these types of meats, eggs, dairy), and the use of tastings and cooking demonstrations to build the demand from customers.

6. Encourage and enable interested farmers, both new and established, to become certified organic in order to supply the unmet demand that has emerged. This has been discussed previously, but it is clear that a large percentage of the current local foods farmers who are not certified organic likely could qualify. As you build awareness of the demand for organic produce, eggs and meats and the better prices associated with that demand, it makes sense to recruit organic farmers from among existing producers, while also cultivating new organic farmers. The Project Planning and Implementation Team could work with Extension and regional organic farming associations to host workshops on organic certification. The enterprise might also consider developing a group organic certification process, as has been done elsewhere, to save farmers money and time.

Infrastructure and Logistics Recommendations

Several critical infrastructure components already exist, owned by individuals strongly committed to strengthening the regional food system and to working to develop a food hub appropriate to the region.

A facility of 5000 square feet, including 2000 square feet of cooler space and 400 square feet of freezer space would be sufficient for the first several years of operation, allowing for both shared space with other partners and aggregation of $2 million or more in product annually.

Given the established food supply chain businesses and assets discussed earlier, and the relatively high cost of building a food aggregation facility from the ground up, it would be wise to focus instead on integrating and coordinating the existing Processing, Aggregation and Distribution (PAD) assets while filling in the needed gaps, including a central aggregation site in either Lawrence or Topeka. A facility of 5000 square feet, including 2000 square feet of cooler space and 400 square feet of freezer space would be sufficient for the first several years of operation, allowing for both shared space with other partners and aggregation of $2 million or more in product annually. Leasing of such a space would be preferable during the start-up phase (first 3 – 5 years), while markets are being developed and expanded, and the base of production expanded to meet demand. Leasing of an empty warehouse space in that size range, with addition of coolers and freezer space would also be feasible.

Depending upon the products included in the food hub, additional infrastructure priorities might include:
• A forced air cooler (similar to a hydro-cooler) to remove field heat from produce and greatly increase its shelf life.

• Freezer space, already included in the recommendation above, may need to be increased should the space be shared with other food enterprises (Hilary’s, Pines International) and the market for frozen meats grows.

• A chopper, recommended by Hilary’s, would provide a primary level of “value adding” and enable farmers’ products not only to supply Hilary’s rapidly expanding market, but potentially institutional and food service buyers with bagged products, sweet potato fries, etc. Before adding this type of equipment, which costs in the range of $50,000 - $75,000, a thorough analysis should be done of the demand and market competition for the products it would enable, and of the management and operational requirements surrounding it.

Regional Logistics Recommendations

Lawrence or Topeka should serve as the central aggregation point, including necessary cooling, frozen storage and, potentially, simple processing, should that becomes feasible. The food hub would be staffed out of this central point, including communications with producers and buyers, scheduling of deliveries, and management of the overall flow of products.

• It is strongly encouraged that to the degree possible, the hub minimize handling of most food, instead requiring (or incentivizing) farmers to pre-pack food to buyers’ specs in order to keep both labor requirements modest and fees at the food hub in the 20% range. It is plausible that the aggregation facility offer basic grading equipment to produce farmers unable to meet grading standards on their own.

• The primary function of the central hub is to sort products coming in from multiple farmers to the appropriate buyers, ensure accurate and on-time deliveries, and provide both food safety and quality control assurances to buyers. Virtually all product coming in to the facility should be pre-sold to specific buyers, with rare exceptions.

• A sub-aggregation point in Hiawatha should be integrated with the central facility, both as a point of receiving products from farmers in that area, and potentially as a staging point for some products destined for markets in the vicinity. A second sub-aggregation point in or near Manhattan should be explored once the food hub is well established.

• Deliveries should be sub-contracted to Fresh Food Express or a similar enterprise with expertise, trucks and established delivery routes. Such a partnership might go beyond delivery. Other enterprises with established delivery routes and capacity, such as Hildebrand Dairy, whose regular deliveries reach as far as Wichita, should be consulted for potential collaboration as well.
Ownership and Management Recommendations

There remain a number of possible ownership and corporate structures which could potentially accommodate the form and function described above, including:

PRODUCER-LED NON-PROFIT SOCIAL VENTURE

Structured as a 501(c)3, with a majority board of directors from among farmers and food entrepreneurs in the region, along with other stakeholders in the regional food system. A non-profit corporate structure would allow the organization to obtain a variety of public and private grants, to pursue other food system priorities not directly connected to the food hub (food access for lower income people, public education related to family farming and sustainability, etc.), and would potentially provide a longer “grace period” during which the food aggregation component could come to financial self-sufficiency. To avoid the slower and more cumbersome decision-making and management structures of a traditional non-profit, an entrepreneurial culture, management and leadership approach would need to be adopted from the outset, in order for the enterprise component to be nimble and flexible enough to operate successfully.

PRODUCER-LED FOR-PROFIT SUBSIDIARY OF A NON-PROFIT

Similar to the above, except with greater autonomy from the parent non-profit, and clearer, likely shorter-term goals for achieving financial self-sufficiency. The for-profit food hub would adhere to the social and environmental mission of the non-profit parent, but would have greater management and decision-making flexibility to respond to opportunities and problems, and to create a viable business enterprise.

PRODUCER-OWNED COOPERATIVE

This structure offers a number of advantages: it provides a high level of both financial and personal investment from the farmers who comprise the foundation of the food hub; it increases the likelihood that farmer interests around price, product mix, buyer requirements, etc. are adequately addressed; it potentially increases the assets of the farmer-members themselves; and it makes it unlikely that the business itself, should it succeed, will be sold off or suffer a major change in mission or priority. It is also important to note, however, that co-ops can sometimes be cumbersome, and that while some farmers support them, others have misgivings (however well-grounded). For many farmers, the issue is less about ownership than about the effectiveness of the food hub at selling substantial volumes of their products at good prices.

SCALE is recommending against the following model at this point:

FOR PROFIT LIMITED LIABILITY CORPORATION

This does not appear feasible at this time, given the probable modest growth rate in the first few years, the five-year (or more) period of time before hitting break even, and the need to keep the operating margin quite small. It could work if the business owners were very patient (willing to wait five or more years before seeing any profit), or if they themselves had other stakes in the enterprise (either as farmers of food entrepreneurs who benefit from various elements of the food hub).
Other Logistics Recommendations

There are several ways in which the projected losses in the first five years of operation could potentially be reduced, and therefore the amount of total subsidy needed:

1. Increase the rate of sales growth more rapidly. This is certainly possible, though the projection of over $2 million in annual sales by year five is not particularly modest, given the base of farmers and the dispersed nature of the buyers.

2. Reduce staffing associated with the operations, either by reducing some of the functions of the hub or by achieving efficiencies faster than most. The third year of cost projections, for instance, adds a full time facility manager at a total cost of over $60,000. It may be possible to delay the addition of this position until year 4 or 5. Another approach would be to combine the General Manager position with either the Facility Manager or the Marketer. Doing the latter would save almost $400,000 over the first five years and reduce the total subsidy needed during the start up period to approximately $215,000 rather than half a million dollars. On the other hand this would then require a GM with a wider range of skills and outstanding overall abilities.

3. The food hub could also retain a higher percentage of sales. An increase from 20% to 22% would increase revenues and reduce the cumulative loss over the first five years from $615,000 to $470,000; it would also put the enterprise in the black by year five. However, the overall difference is not a major one. From a farmer’s point of view, increasing the percentage retained represents a further reduction in their net profitability, so the small gain in the food hub’s bottom line may not be worth that impact.

4. The food hub could also reduce net operating costs by entering into co-leasing agreements for the facility space, for example with Pines International and/or Hilary’s Eat Well, and by operating at least part of the delivery routes in concert with Hildebrand and others who already have trucks on the road. If the facility’s lease costs and delivery costs could each be reduced by 50% through such arrangements, the cumulative cost during the start-up phase would be cut almost in half, and the enterprise would reach a solid break-even by the fifth year.
Glossary

**Aggregation:** Pooling food products from multiple farmers in a single place, and organizing and preparing these products for shipment to markets.

**Anchor Farmer:** A farmer that plays a crucial part and/or is one of the most dependable contributors to food hub production efforts. – Adapted from Merriam Webster definition of an “anchorman”

**Community Food System:** A food system in which food production, processing, distribution and consumption are integrated to enhance the environmental, economic, social and nutritional health of a particular place. – Cornell University

**Community Supported Agriculture (CSA):** Community Supported Agriculture consists of a community of individuals who pledge support to a farm operation so that the farmland becomes, either legally or spiritually, the community’s farm, with the growers and consumers providing mutual support and sharing the risks and benefits of food production. Typically, members or “share-holders” of the farm pledge in advance to cover the anticipated costs of the farm operation and farmer’s salary. In return, they receive weekly shares of food throughout the growing season. In traditional CSAs, members also share in the risks of farming, including poor harvests due to unfavorable weather or pests. This, however, has changed over time and many CSA’s no longer expect customers to share risk with farmers – Adapted from USDA

**Distribution:** The function of delivering food to specific buyers at agreed-upon places, days and times.

**Economic Impact Analysis:** An economic impact analysis attempts to measure or estimate the change in economic activity in a specified region, caused by a specific business, organization, policy, program, project, activity, or other economic event - Weisbrod, Glen; Burton Weisbrod (April 1997). “Measuring Economic Impacts of Projects and Programs”. Economic Development Research Group.

**Farmers Market:** a multi-stall market at which farmer-producers sell agricultural products directly to the general public at a central or fixed location, particularly fresh fruit and vegetables (but also meat products, dairy products, and/or grains). – USDA

**Farm Stand:** a location or structure that is designed and used for selling farm produce at retail, direct to customers, sometimes on the same site as the farm itself. The definition of a farm stand does not consider the form of the structure nor does it have to be located at the roadside, but must be separate from the farmer’s residence. Some are actual stores, but they may be as simple as a shed or table on the farm. – Adapted from Kansas Department of Health & Environment Definition
Food Hub: A centrally located facility with a business management structure facilitating the aggregation, storage, processing, distribution, and/or marketing of locally/regionally produced food products – Working definition, USDA

Food Policy Council: FPCs provide local, regional, or state governments, as well as residents, information and advice about various policies and programs that support community-based food systems. FPCs often operate as a nonprofit, quasi-governmental entity or within a government agency, and cater to both community and local government needs. Many FPCs serve more than one jurisdictional level. – Adapted from the American Planning Association

Locavore: Someone who eats locally grown foods whenever possible – Merriam Webster Dictionary

Market Demand: Demand is an economic principle that describes a consumer’s desire and willingness to pay for a good or service; market demand is the total of what everyone in the market wants; the total demand the public has for products or services (in this case, local food) – Investopedia Dictionary

Marketing: The activities that are involved in making people aware of a company’s products or services, and making sure that products are made available to be bought – Merriam Webster Dictionary

Multi-Farm CSA: A CSA program that integrates the products of two or more local farms and/or food businesses for distribution through member shares, in the same way that a single-farm CSA does. – NOFA Vermont

Organic Certification: A certification process for producers of organic food and other organic agricultural products, accredited under standards developed and managed by the National Organic Program. In general, any business directly involved in food production can be certified, including seed suppliers, farmers, food processors, retailers and restaurants – USDA

Processing: Any of a number of operations that change the form of food, including chopping, slicing, freezing, drying, cooking, bagging and canning, etc.

Seconds: Crops that are less perfect in appearance and may be graded out and processed, donated or sold at a reduced price, especially to buyers who plan to process them in some way.

Wholesale: The sale of products or commodities (in this case, local food) in quantities (usually large quantities) for resale (usually by a retail merchant) – Merriam Webster Dictionary

Workplace CSA: A CSA program that is focused on offering shares to employees of a company or employer, and coordinates pick ups/drop offs to the customers with the employer and employees. These programs are often a part of a company’s workplace wellness program, initiated to serve the purpose of increasing health and nutrition among employees.