



# Fayette County Local Food Demand Assessment

Prepared by:  
Dr. Jairus Rossi and Ms. Heather Hyden

Contributors:  
Dr. Tim Woods, Dr. Alison Davis, Ms. Lilian Brislen and Mr. James Allen IV

Community and Economic Development Initiative of Kentucky  
Department of Agricultural Economics  
The Food Connection

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# Executive Summary

This report examines the current landscape of local food demand in Lexington, Kentucky. Based on interviews with purchasers, producers, distributors, and processors, we detail how farm products travel from farm to table and consider how these relationships are growing and changing. To assess the demand for Kentucky-based farm products, we interviewed major food purchasers in Lexington and producers who sell directly to residents. We asked each purchaser to identify 1) current (2014) and expected (by 2020) expenditures on Kentucky Proud and local food items, 2) the major barriers to sourcing food locally, and 3) opportunities to strengthen the local food system.

Demand is measured in terms of total dollars spent in 2014 by Lexington-based purchasers on food products that originated on Kentucky farms. We break purchasing up into the following market channels: 1) restaurants, 2) institutions, 3) retailers, 4) hotels/event spaces, 5) direct farm to consumer sales, and 6) distributors. We also asked purchasers how much they expect their purchasing to increase or decrease over the next 5 years to gauge the growth of demand.

Based on these interviews, we estimate current purchasing of Kentucky food products by Lexington businesses to be approximately \$14.2 million. We expect this number to grow to between \$20 and 24 million by the start of 2020. When considering the resale of these products by each market channel to consumers, we estimate that end-users purchased around \$34.1 million worth of local food products in 2014. In five years, we estimate consumer purchasing to be at least \$51 million.

Because we focus on actual expenditures by businesses, our purchasing estimates represent a conservative baseline for demand. Purchasing would be higher for many institutions if adequate supplies of certain items were available at a competitive price. The overall economic impact of the local food system is beyond the scope of this investigation, but it is undoubtedly much greater than the data presented here.

We contextualize these baseline demand data with insights on the challenges and opportunities to sourcing locally as discussed by respondents. As the majority of interviewees are confident that local food demand is likely to grow rapidly in the next 5-10 years, we view the local food system as an emerging part of Lexington's economic and social well-being. In order to meet increasing consumer demand, we encourage efforts that 1) strengthen and facilitate relationships between area purchasers, distributors, and producers and 2) support the development of supply side capacity and associated infrastructures.

## Demand by Market Channel

In this study, we measure demand as the existing expenditures on food with a Kentucky farm origin by Fayette County purchasers. We selected purchasers from businesses that represented different, significant market channels for local farm product. We consider both direct sales from farm to buyer and sales mediated by distributors of meat, produce, and value-added products. In our estimates, we exclude items such as coffee, soda, wine, and personal care products which can sometimes qualify as 'Kentucky Proud,' but which are either not food or are processed in Kentucky from products sourced nationally. By restricting 'local' to





state boundaries, we emphasize relations between producers and food purveyors that keep farm products and dollars flowing within the state. As such, the 2014 column in Table 1 represents actual purchases of Kentucky-based meat, produce, and value-added items as reported by buyers. 2020 numbers are estimates based on each individual buyer's expected growth in purchasing.

**Table 1.** Purchasing by Market Channel

	<b>2014</b> <i>(millions)</i>	<b>2020</b> <i>(millions)</i>	<b>Annual Growth</b>
Restaurants	\$5.5	\$7-9	5-10%
Institutions	\$1.5	\$2.5	5-10%
Retail	\$3	\$4 - 4.5	5%
Hotels	\$1	\$1.3	5%
CSAs/Farmers Markets	\$3.2	\$5.2	5-15%
<b>Total</b>	<b>\$14.2</b>	<b>\$21.1</b>	

**Table 2.** Total Consumer Purchases from Market Channel

	<b>2014</b> <i>(millions)</i>	<b>2020</b> <i>(millions)</i>
Restaurants	\$18.3	\$26.8
Institutions	\$5	\$8.3
Retail	\$4.2	\$6.4
Hotels	\$3.2	\$4.3
CSAs/Farmers Markets	\$3.2	\$5.2
<b>Total</b>	<b>\$34.1</b>	<b>\$51</b>

In Table 2, we present the estimated consumer purchases from the interviewed buyers. We estimate that ingredient costs are 30% of the total menu price in restaurants and that 70% of the retail price for various items covers the initial purchase from the farm or distributor.



## RESTAURANTS

We interviewed restauranteurs and chefs from a total of 20 restaurants which were known to source from Kentucky farmers. These restaurants represented a variety of business models though most of these are locally-owned, independent restaurants. Some of these businesses have multiple locations – and a few are small regional chains. We identified a total of 40-45 restaurants that emphasize their use of local products which represents about 15-20% of all restaurants in Lexington. Buyers at national chains were not responsive to interview requests.

Overall, we estimate 2014 expenditures on Kentucky-based farm products by restaurants to be at least \$5.5 million dollars<sup>1</sup>. An overwhelming majority of respondents expect their demand to increase by at least 5-10% per year over the next 5 years to about \$7-9 million. As mentioned, this growth rate is conservative - many purchasers would incorporate more local sources of produce, dairy, and especially protein if the supply and quality increased, or if the price was more competitive with nationally-sourced products.

Based on interview data, restaurants are the market channel most responsible for driving, supporting, and expanding Lexington's local food system. Restauranteurs and chefs educate consumers about local cuisine and agriculture, and directly interact with and support farmers at diverse production scales. Interviewees relate rapidly increasing demand for local food products to a marked shift in consumer attitudes. The emergence of a new brand of consumer, 'the craft beer generation,' reflects a growing consumer interest in quality products, understanding artisanal processes, and creative small business entrepreneurship.

Restaurants also have very strong and direct connections with local producers. Purchasers will shop at farmers markets, buy directly from farmers, and create supply contracts prior to the growing season. In response to restaurant demand and these relationships, a few individuals have created informal small-scale distribution efforts to keep the price of local products low. These relationships encourage diverse crop production around the state and provide farmers with a reliable outlet for their products.

## INSTITUTIONS

We surveyed the 7 largest institutions in this channel which includes universities, schools, and hospitals. In 2014, institutions purchased approximately \$1.5 million worth of Kentucky food products. Based on interview responses and the structure of existing local sourcing agreements in some institutions, we estimate growth to be between 5 to 10% per year for the next 5 years. This would create an overall demand of \$2.5 million by 2020.

Considering that most respondents mention that their institutions spend less than 5% of their total food budget on Kentucky-based products, they have room for significant growth. As institutions are just beginning to integrate local food into their purchasing decisions, buyer choices will have profound effects on Central Kentucky's food system and on small and medium Kentucky farm enterprises.

Respondents in multiple channels note the potential influence of institutions on the local food system. Any type of commitment to local food sourcing should have a positive effect on demand for Kentucky-based farm products. Institutions have the potential to influence demand based on their large-scale supply requirements as well as their public visibility as large regional employers. Institutional commitments are tacit endorsements for Kentucky agriculture

<sup>1</sup>See main report for details on demand estimation.

which have symbolic and material effects on what types of food is valued. This large potential demand is both a promise and a challenge for product sourcing.

Through public commitment to Kentucky farm products, institutional buyers can mitigate some of the uncertainty for farmers wary of producing for wholesale markets that have comparatively unknown demand. Farmers can plan and potentially scale up production based on the expected demand of these institutions. However, because contracts and guarantees are extremely rare in institutional and wholesale procurement systems, care must be taken to develop and maintain trusting and transparent relationships between all parties.

Due to both scale and organizational considerations, growth of institutional buying will invoke transactional issues very different from those with direct buying. Absent formal contracts and guarantees, institutions can develop trusting relationships with producers by having strong contractual language that specifies 1) what producers are considered local and 2) which food products are eligible for inclusion. Additionally, local food economies would benefit from renewed attention to existing laws that require state-funded institutions to buy and track local products (see HB 669 – 2006<sup>2</sup> & SB 84 – 2009<sup>3</sup>).

The largest sourcing barrier for institutions is that in many cases they cannot find a sufficient supply of desired items at a price that fits their budget. Currently, institutions are 1) attempting to identify which products can be sourced within Kentucky at a certain volume and then 2) developing relationships with their food service providers and distributors to acquire these products. These initial efforts will hopefully facilitate future local sourcing for other institutional buyers.

## RETAILERS

Retailers occupy a middle ground between the restaurant and institutional channels. They face the same issues as institutions in relation to supply – they require a consistent product that is priced competitively to non-local inventories.

In 2014, retailers purchased around \$3 million in Kentucky based farm products. This demand exceeds institutional purchasing, but is considerably modest in comparison to restaurants. Much of this purchasing is due to the efforts of specialty retailers, but larger chain retailers are expanding their longstanding relationships with Kentucky producers. By developing purchasing relationships and logistical infrastructure, current efforts by retailers are crucial to the growth of Lexington's local food system. Additionally, local food advertising campaigns and in-store signage are crucial in educating consumers on sourcing issues. The impact of retailers' recent promotion of local products goes beyond simple increases in purchasing – it develops consumer awareness about local food that benefits all market channels.

Respondents generally expect their purchasing of local products to increase by around 5% per year, though the demand could increase by more if a better supply of local meats could be found at a competitive price. In 5 years, retailers will be purchasing at least \$4-4.5 million in farm products, though these projections are less clear than with the restaurants and institutions. This number may be significantly higher with the expansion of a few specialty retailers and the imminent arrival of a new local/organic retailer. Like institutions, local food currently makes up a very small portion of retailers' overall inventory. As such, any potential substitutions may have a substantial impact on purchasing. Growth can be achieved if consumers, and producers push retailers to source locally.

<sup>2</sup><http://www.lrc.ky.gov/Statrev/ACTS2006/0244.pdf>

<sup>3</sup><http://www.lrc.ky.gov/Statrev/ACTS2009RS/0037.pdf>





## HOTELS/EVENT SPACES

This market channel reflects the impact of tourism on Lexington. As the Bluegrass Region is home to the equine and bourbon industries, visitors spend time and money in Lexington for unique cultural experiences. It seems plausible that local cuisine would play a prominent role in this market channel, which includes hotels and event spaces. While local cuisine is indeed promoted, Kentucky farm products play a smaller role in hotels' menu offerings.

The demand for local products in this channel is difficult to estimate as most purchasers were not responsive to interview and survey requests. Purchasers in this channel spent an estimated \$1 million on Kentucky farm products in 2014. Those surveyed expect a 10% per year increase in local purchasing, but note that they find it difficult to maintain relationships with some producers.

Hotels will often work with larger distributors and food service providers to maintain a steady supply of food of consistent quality. At the same time, some purchasers will visit farmers' markets, create relationships with producers, and even host local food festivals to promote local cuisine and farm products.

Hotels assert that their guests are increasingly asking for local food, so the demand is growing. Again, the main issue for this channel is that they are unable to get a consistent supply of certain items which they contribute to a combination of lack of production and an inefficient distribution structure in Kentucky for local growers. At the same time, hotels (as well as institutions) have strict compliance policies which require a minimum percentage of purchases to go through dedicated suppliers. For local sourcing to increase, similar compliance policies should be developed to include Kentucky-based farm products.

## DIRECT-TO-CONSUMER SALES

There are three primary channels for direct sales in Lexington; community supported agriculture (CSAs) arrangements, farmers markets, and produce auctions. The estimated amount of farm products sold through this channel in 2014 is valued at a minimum of \$3.6 million. Most respondents in this category expect demand to grow. Some individual producers are expecting at least 10-20% increase in sales per year for the next 5 years. In 2020, direct-to-consumer sales will be at least \$5.8 million. Sales in this channel surpassed both retail (\$3 million) and institutional (\$1.5 million) purchasing in 2014.

As many farms in Kentucky are rather small (under 50 acres), CSA and farmers markets offer an attractive outlet for their produce and meats. Direct markets require smaller product volumes and offer higher premiums when compared to wholesale markets. CSAs are subscription-based services where a subscriber will pick up a box of produce and other farm products on a weekly basis. Established CSA farms mention that demand for subscriptions is growing and that each year they continue to add new shareholders and scale up production. As consumers become more aware of CSAs, and more farmers acquire the skillset needed for diversified crop production and distribution logistics, CSAs will likely grow in prominence.

While some farms produce for both direct and wholesale markets, these data indicate the existence of two types of production strategies within the local food system. The first is represented by producers that focus on smaller-scale diversified production and direct-to-consumer relationships. The second requires larger production volumes of a few specific items for wholesale. While some farmers will engage in both strategies, their production strategies are shaped by where

they find viable market demand, returns that cover production costs, and trusting relationships with buyers.

In terms of Lexington's local food system, growth is expected to be more rapid in CSAs and farmers market sales. At the same time, a number of producers currently engaged in direct markets are intrigued by the potential for financial growth offered by scaling up to serve wholesale markets - institutions, restaurants, and grocers. However, while the potential for growth in local wholesale exists, there are significant regulatory, logistic, and bureaucratic barriers that must be overcome by both producers and potential buyers. We expand on these barriers in the full report.

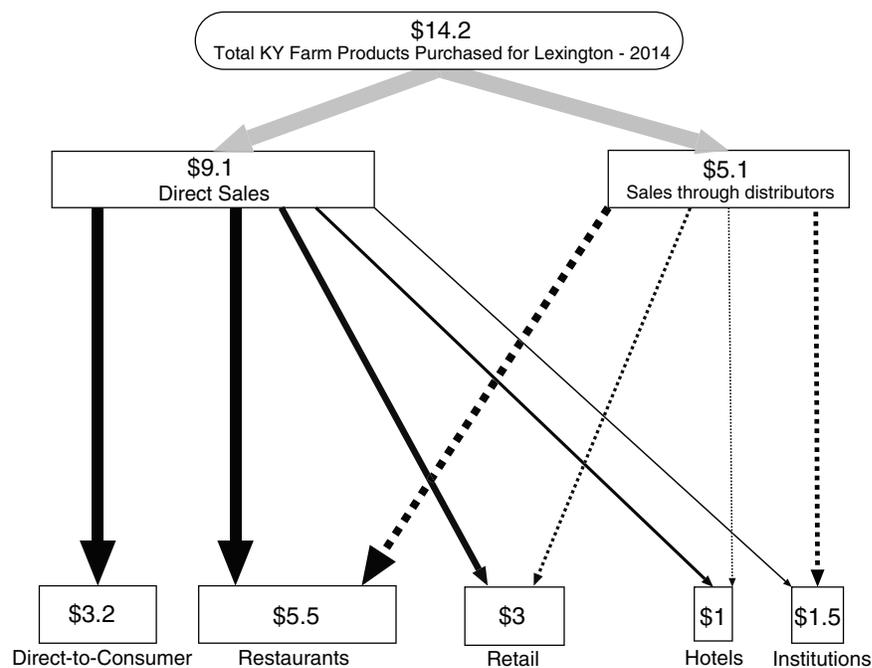


Figure 1. Purchasing by Market Channel 2014<sup>4</sup> in Millions of Dollars

## Summary of Opportunities, Challenges, & Recommendations

While producers and buyers of Kentucky farm products remain optimistic about the growing demand for local food in multiple channels, they identified issues that facilitate or inhibit further growth. Interviewees identified four key areas of the local food system which require increased attention to encourage further growth in sourcing Kentucky farm products. These include: production planning and season extension, consumer education, communication between farmers and purchasers, and food system infrastructures. In this section, we detail these major themes and provide a few recommendations for research or outreach that might address each. In the main report, we delve deeper into these issues on a channel-by-channel basis.

<sup>4</sup>Figures are based on purchasing data reported to the research team by interviewed buyers.

## PRODUCTION PLANNING AND SEASON EXTENSION

Interview participants across buyer categories pointed to a ‘feast or famine’ phenomenon within the local produce supply as a barrier to increasing regular local food procurement. Buyers expressed frustration with the fact that a limited number of produce items (e.g. tomatoes, peppers, sweet corn) are over-represented during peak season, but completely unavailable during the rest of the year. Thoughtful production planning to ensure off-peak availability and greater diversity of available produce could go a long way to mitigating this barrier. Other potential strategies include investment in on-farm season extension production methods and technologies, as well as off-farm infrastructure that would minimally process and package vegetables to make them available beyond harvest time.

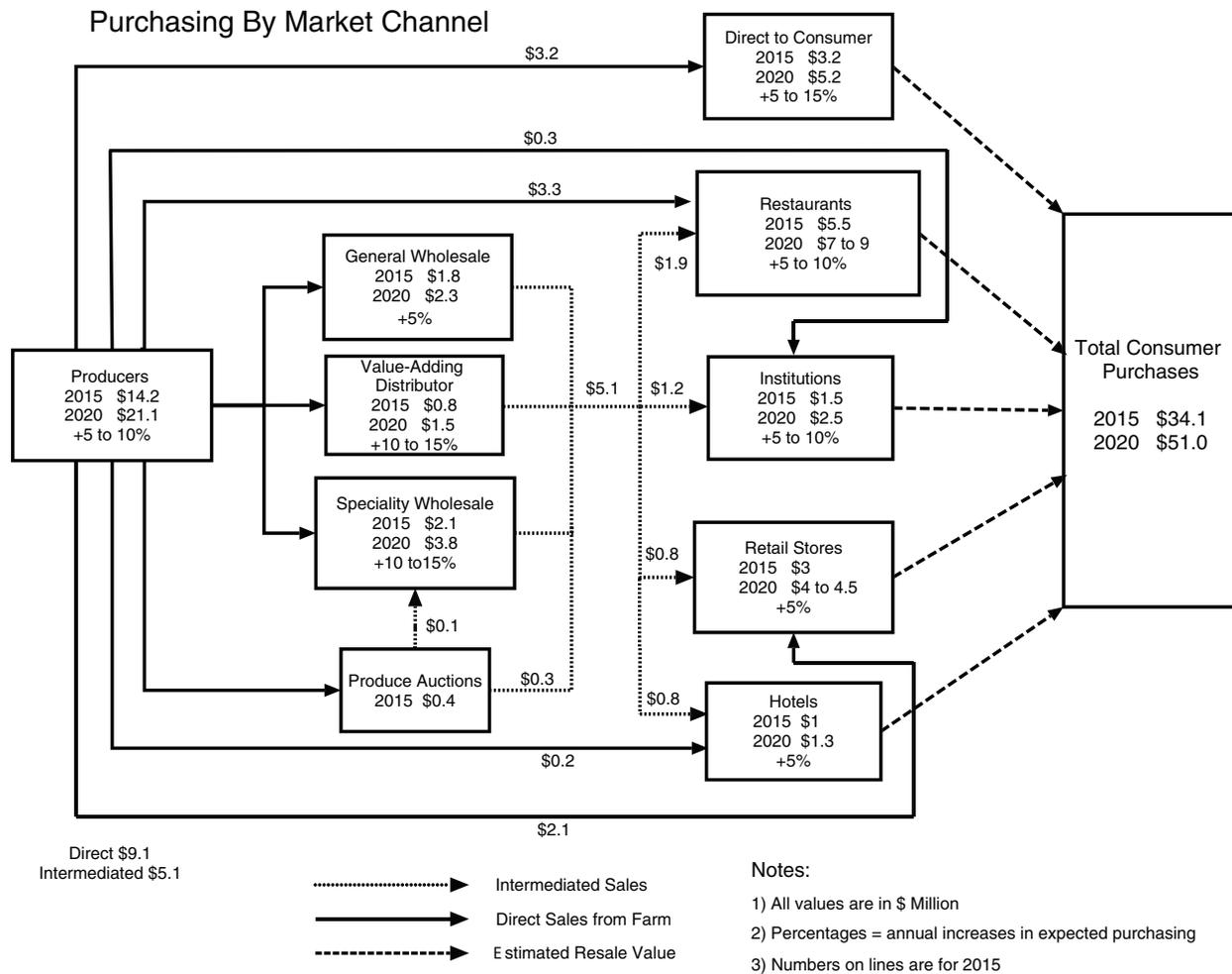
Interview participants interested in purchasing Kentucky-raised proteins note that 1) they cannot find a reliable quantity of their desired meats or cuts, 2) when a local source is available, the cuts are too expensive, or 3) the quality of accessible Kentucky meats is below their standard. Similarly, many retailers mentioned that there is enormous unmet demand for farm direct sources of milk, butter, and yogurt.

We recommend that more research be done to identify 1) appropriate season extension and minimal processing technologies for KY producers, 2) strategies for scaling-up production for local markets, and 3) market demand for specific local products.

## CONSUMER EDUCATION

Many respondents express concern that general consumers do not understand the impacts of seasonality and geography on what can be acquired locally, even as local demand is growing. They note that consumers sometimes lack nuanced views of why meats and vegetables produced with organic or other alternative production methods carry a price premium. Finally, consumers may be unfamiliar with unique vegetable varieties and lack preparation know-how. Study participants believe that these factors and attitudes limit consumers’ willingness to buy locally produced items.





At the same time, many interviewees see consumer attitudes changing through the local food system’s link with the craft brewing and bourbon industries. By educating consumers on craft processes, local microbrewers and distillers have given value to products that have a cultural connection to the Bluegrass Region and that emphasize local labor and economic development. As such, consumer willingness to pay a bit extra for a local craft product, including food items, is seen as likely to increase.

To increase demand for local products, and achieve a broader understanding of cost differences between local and conventional agricultural products, we recommend consumer education programs that explain seasonality in Kentucky agriculture, differences in costs of production, and diverse production methods. These programs could appear in the form of food festivals, increased presence of local vendors at other festivals, public school curriculum changes, student projects and field trips, university internships, extension research, or a new branding initiative focused on direct farm impact.

## COMMUNICATION BETWEEN FARMERS & PURCHASERS

In order to grow a vibrant market for local produce and protein in the Bluegrass, there is a need for greater understanding and transparency between producers and buyers on expectations in quality, price, quantity, and product presentation. While all players in the value chain have the best intentions, there is a lot of learning to do on all sides so that mutually beneficial relationships can be built and maintained.

Producers simultaneously navigate uncertainty and risk on many fronts of their enterprise; new or greatly expanded production systems, weather events, pests and predators, market fluctuations, and labor shortages. On the other side, purchasers are concerned with finding stable sources of products that meet their internal specifications as well as their end users' expectations all within the context of a highly competitive marketplace and a warehouse full of perishable produce. Buyers expect farmers to be savvy marketers willing to conform to their company's particular standards, while producers seek to work with buyers who understand the unique value and vulnerabilities of local, seasonal food production. Translating between these distinct worlds is a complex challenge for both sides.

Retailers in particular note that misunderstandings between producer and purchaser may be reduced through producer education on 1) wholesale market trends are desired by wholesale markets, 2) food safety expectations and techniques, 3) insurance requirements, 4) developing business plans, 5) packaging products attractively, and 6) building product representation and branding. As there are many educational materials available on these topics through Cooperative Extension agents and publications and State Agencies, producers and buyers would benefit from increased awareness of and access to these resources.

Some producers are already savvy enough to meet these requirements and articulate a different set of concerns. Many find that expectations of many distributors and retailers are 1) not clearly articulated when initially agreeing to supply certain products, 2) require redundant paperwork for different retail outlets, 3) diverge tremendously by purchaser, or 4) not informed by an understanding of value-added production practices, such as organic methods. Additionally, a few respondents noted that certain state and buyer safety regulations and process certifications are confusing, inapplicable to their scale of operations, antiquated, or prohibitively expensive for smaller producers.

Local food coordinators are uniquely positioned to mediate these tricky relationships. Both buyers and producers in our study noted the high value service provided by existing coordinators, and suggest that continued and increased support should be given to those programs. Local food coordinators serve as neutral third-party mediators in navigating complicated market relationships, and translate common goals across the diverse needs of different actors in the local food system. We recommend continued and expanded support for coordinators and others who mediate relationships between producers and purchasers.

Finally, we recommend the creation of education initiatives for retail and institutional purchasers that better foreground 1) the benefits of Kentucky food products and 2) the inherent differences in quality, appearance, and preparation between locally/organically products and larger-scale conventional products.

## **PROCESSING, AGGREGATION, & DISTRIBUTION INFRASTRUCTURES**

Price disparities between local and non-local products continue to be a major barrier for increasing local food procurement. As mentioned above, buyers across all channels are unable to access local food products at their desired balance of quality, quantity, consistent availability, and price.

Existing local production systems can at times be price competitive with industrial produce or protein enterprises. In general, however, locally raised products offered through distributors are perceived as prohibitively expensive by many interviewed buyers. For example, in respect to proteins, processors are operating



below capacity despite the fact that Kentucky is the largest cattle producing state east of the Mississippi. Conventional production models result in the vast majority of Kentucky's cattle being sent out of state to be finished and processed in very large scale feed lots. Consequently, because of a relative lack of supply, local beef-processing enterprises struggle to achieve the efficiencies and economies of scale necessary to compete with commodity beef markets.

Further research is needed to determine where in the supply chain the extra costs for local products are being incurred. For example, are high prices due to a lack of economies of scale on the part of producers, or do producers need assistance in calculating a true cost of production for their wholesale crops? Alternatively, are local distributors' higher premiums resulting from inefficiencies associated with a reliance on traditional supply chains? Finally, are buyers engaging in sufficient marketing and education of their customers that take full advantage of the high demand and potential premium that can come from featuring local products?

To that end, some buyers, especially restaurants and some retailers, suggest that the existence of distributors that specialize in local products would be more effective getting higher premiums for farmers producing a smaller volume. Many respondents (excluding existing suppliers and processors) indicated that expanded or restructured processing, packing, and distributing infrastructures in Kentucky would benefit local producers and buyers. Investment in technologies that would freeze, can, or minimally process local products to make them available throughout the year.

While many respondents mentioned that changes must happen to the existing processing and distribution infrastructures, most were unable to articulate specific gaps in the infrastructure. We recommend research that identifies these gaps and formulates diverse strategies to facilitate stronger relationships between producers, buyers, and distributors.



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# Fayette County Local Food Demand Assessment

## Full Report

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## Introduction

Local foods represent an emerging area of consumer demand in Lexington. Across the U.S., local foods are increasingly associated with creative urban entrepreneurship and cultural industries. Visitors and residents to cities are becoming more interested in experiences that are grounded in a unique sense of place and history. As regional cuisines are the historical result of local agricultural norms and social relationships, food is integral to distinguishing a place in a globally-connected world.

Lexington and Louisville are both developing creative local food economies that emphasize the unique cultural properties of the Bluegrass. In addition to the well-regarded bourbon, equine, and music traditions, the Bluegrass Region represents a confluence of unique regional influences. Southern, Appalachian, and Midwestern food traditions merge to form a distinct Kentucky cuisine. This cuisine is experiencing innovation from its encounter with international food traditions and creative chefs.

Kentucky culture, food, and products are well-regarded by residents. This pride in place is illustrated by the creation of the Kentucky Proud label. Simultaneously celebrating state agriculture, entrepreneurship, labor, and culture, this label has become quite popular with consumers, producers, and food purveyors. Criteria for being labeled Kentucky Proud are very inclusive – it allows a broad array of producers, manufacturers, and processors to claim an economic impact in the region.

While we detail the complex effects this label has on local food sourcing later in this report, it is clear that Kentuckians have an interest in emphasizing their state's unique agrarian history. Kentucky's small- and medium-sized farms have had diverse purposes since the state's establishment. In addition to consumable products – tobacco, produce, meat, and poultry – Kentucky farmers have put tremendous energy developing the equine industry. Including bourbon in this equation, the Bluegrass Region and its cities are culturally indebted to the efforts of agricultural production.

Kentucky has great potential for developing diversified agricultural production. Environmentally, it has an adequate growing season, fertile soils, and plentiful rainfall. These conditions allow for many diverse crops to be cultivated – and smaller farm size, a remnant of tobacco production, has led to the emergence of innovative small farms which flexibly produce numerous vegetable varieties.

Lexington, then, is in an opportunistic position to tie local food more closely to its more well-known cultural industries. While there are barriers to increased purchasing of Kentucky farm products, such as supply, seasonality, and high production costs, we have identified a growing demand for local food items, much of which is currently unmet.

In this report, we detail the current demand for local foods by measuring total purchases by Fayette County businesses from Kentucky producers. For 2014, demand was estimated to be at least 14.2 million dollars. Purchasers expect their own local sourcing to increase over the next 5 years by 5-10% annually - resulting in 20-24 million dollars in purchasing by 2020. Additionally, when considering the resale of these items by retailers, restaurants, and other channels, consumers spent approximately \$34 million on local farm products in 2014 which will increase to more than \$50 million by 2020. To contextualize these

demand numbers, asked farmers, distributors, and food purchasers to articulate what barriers they face when attempting to source locally and to identify the opportunities to expand sourcing.

In general, most respondents expected the local food scene to grow, especially if certain logistical, infrastructural, and supply issues could be addressed. In this report, we detail these trends and identify recommendations for growing this market. It should be noted that Lexington has many individuals who are very dedicated to helping Kentucky producers by growing local food demand. These individuals can be found in all market channels as well as civic and state organizations. In the course of researching this demand, we found that the strongest indication of the growth in local foods is the passionate efforts of these individuals to making local food systems work.

## About this Study

A small team of researchers in the Community and Economic Development Initiative of Kentucky (CEDIK) collaborated with the University of Kentucky's Food Connection and Bluegrass Farm to Table to assess the current and future demand of Kentucky-based farm products in the Lexington market. Key members in the local food system were interviewed to provide insights into the challenges and opportunities for the growth of sourcing local food to Lexington businesses.

## Assessment Team

This assessment is the work of numerous individuals. Dr. Jairus Rossi, postdoctoral scholar in CEDIK, and Heather Hyden, a M.S. candidate in Community and Leadership Development, carried out the qualitative analysis, demand assessment, and writing of this report. Dr. Ashton Potter Wright (Bluegrass Farm to Table), Dr. Scott Smith & Lilian Brislen, M.S. (The Food Connection), Dr. Tim Woods, Dr. Alison Davis, and James Allen IV, M.S. (UK Department of Agricultural Economics & CEDIK) served as an advisory committee in project design, editing, and logistics.

## Defining local

In the course of interviews, we asked each respondent to define how they conceptualize 'local' for their purchasing efforts. While we observed a variety of responses – from 'inside Fayette County' to 'sourced within 300-500 miles' – many buyers focus on the Kentucky Proud brand. Any food product grown, produced, manufactured, or processed in Kentucky can apply to be included in the Kentucky Proud program.

Because this definition of local would include many products that have no farm origin in Kentucky, we asked respondents to consider local to be 'any product originating from items grown or raised on Kentucky farms and processed in-state'. We wanted to capture the direct farm impact of Lexington-area purchasers on Kentucky's agricultural economy. This approach was chosen because even though most purchasers account for local through the Kentucky Proud designation, most are able to remove any item that originated out of state, but was processed or packaged in Kentucky, relatively easily.

## Methodology

This report combines purchasers' local food sales perspectives with qualitative analysis of respondents' assessment of opportunities and challenges in the local food system.

### *Respondent selection*

To gain a comprehensive picture of local food demand, we targeted key buyers in the local food system in the following market channels: 1) restaurants, 2) institutions, 3) retail outlets, and 4) hotels/event spaces. In addition to buyers of local products, we surveyed producers and farmers markets responsible for selling farm products directly to consumers. We refer to this as the 5) direct-to-consumer channel. Finally, to detail the indirect pathways taken by local foods, we interviewed major 6) food distributors.

There are over 250 restaurants in Fayette County. We narrowed this potential interviewee pool down to 40 restaurants which are either registered as serving Kentucky Proud products through the Kentucky Department of Agriculture's 'Restaurant Rewards Program' or known by the research team to source locally. To get a wide variety of perspectives, we chose 20 of these restaurants to represent a variety of dining themes and business models.

In the institutional channel, we interviewed 7 buyers which represented most of the major educational institutions and all hospitals. For retail, we interviewed all of the specialty, local-food oriented retailers, a major national retailer, and a few local businesses. The 6 buyers interviewed represent the overwhelming majority of retailers buying local products in the Bluegrass Region. In the hotel category, we identified the 4 largest hotels with significant food service operations, 2 event spaces, and 2 caterers. We were only able to speak with a quarter of these buyers.

In the direct-to-consumer channel, we identified 4 farms with prominent Community Supported Agriculture (CSA) operations that serve Lexington markets and both major farmers markets. In combination with the data from Lexington's farmers markets and a local produce auction, our CSA selections capture most of the current direct purchasing in the Lexington market. Finally, to compare direct purchasing with intermediated purchasing, we interviewed 9 distributors integral to the movement of food products into Lexington. These distributors were classified as general wholesale, specialty wholesale (i.e. focused on either produce or meats), and value-added processing/manufacturing.

### *Estimating demand*

We estimated local food demand by asking buyers in the identified market channels the amount of local food (measured in US dollars) purchased from Kentucky-based producers in 2014. We also asked them to estimate, from their perspective, how this dollar amount is expected to grow over the next 5 years. Additionally, we requested that interviewees break up purchasing data by product category (i.e. vegetable/fruit, meat, dairy, value-added product, and beverages). Where applicable, respondents provided information on what percentage of their overall inventory was locally sourced.

For the institutional, retail, and distributor channels, we surveyed most of the purchasers involved in the local food system. Demand for these channels was determined by adding the purchasing figures from 2014 as given by interviewees. We did the same for the major CSA farms and the farmers markets. For hotels, we were only able to interview 2 out of the top 8 food purchasers. For this channel, demand numbers were determined by estimating similar amounts of local sourcing for each hotel even as some of the unsurveyed hotels serve larger numbers of customers each day.

We surveyed 20 purchasers at restaurants. We then matched dollar figures of these interviewees to the 20 unsurveyed restaurants based on customer size and concept in order to estimate aggregate local food purchases from all 40 restaurants.

For growth estimates, we estimated 5 year increases in local purchasing using each interviewee's 2014 purchasing figures and their expected annual growth percentage. In other words, we calculated increases individually and then aggregated them by market channel. We present the overall estimated growth of the market channel by weighting the purchasing of each individual by their expected growth.

Finally, we estimated the consumer value of resold items to capture the broader value-added impact of local food purchasing. Based on conversations with restaurateurs, we considered that the ingredient cost is 30% of the total menu price of an item at a restaurant. Thus, to estimate what consumers paid for local food purchased at a restaurant, we divided the purchasing figures of restaurants, institutions, and hotel restaurants by .30. Similarly, retailers note that the price paid to the farmer is generally around 70% of the item's retail price. Thus, for retail institutions, we divided the purchasing data by .7 to estimate consumer purchasing.

As our demand calculations rely on current purchasing data, the financial figures are rather conservative. In speaking with buyers, many noted that they would buy local more often if an adequate supply was available. To quantify this large unmet demand would be rather speculative, so what we measure is the demand that is currently being met at a competitive price by available supply and distribution infrastructures.

### *Qualitative Data Analysis*

To contextualize financial data, we asked interviewees to detail the challenges and barriers they face when attempting to source local farm products. We also invited them to present potential solutions or innovations that would increase their ability to buy from local farmers. These questions were contrasted with insights on specific attributes of the Bluegrass Region which present opportunities for current and futures sourcing of local food. These questions allowed us to identify areas in the local food system that would benefit from future interventions and further research.

We also asked each purchaser to detail their relationships with producers. Questions included insights into how they form relationships, how these have changed over time, and what relational networks are involved in bringing food from farm to buyer. These questions attempt to delineate more specific pathways of the local food system to identify what types of relationships, market channels, and sourcing strategies are crucial to Kentucky-based producers and purchasers.

Each interview lasted between 20 and 60 minutes and follow-up inquiries were made via email and phone. Analysis consisted of writing up interview notes and then coding each transcript for recurring themes and ideas.

## Market Channel Analysis

### Restaurants

Restaurants contribute most to the overall demand for local food in the Fayette area. At an estimated 5.5 million dollars of purchasing from Kentucky farmers in 2014, restaurants have been the leading edge of the local food movement in Lexington for the past 20 years.

Historically, restaurateurs and chefs have played a large role in 1) the creation of the Kentucky Proud labelling campaign, 2) educating consumers about local cuisine and agriculture, and 3) directly interacting with and supporting farmers at various production scales. All interviewees in this market channel expect a county-wide increase in demand for local products. They point to a diverse convergence of events to support this claim. We detail a few key trends.

#### *Rapid Growth of the Local Food Scene*

Many respondents across market channels have noted the recent explosion of local-food oriented restaurants in Lexington. Since January 2015, at least 5 restaurants incorporating local food as part of their concept have opened in Lexington. A few more are in the planning stages. As such, our numeric estimate of current market demand for 2014 does not include these new venues and should be viewed as a general baseline.

In addition to emphasizing KY-based farm products, many of these restaurants tie their image to historic Lexington properties. Developments in the James Pepper Distillery Campus, Jefferson St. corridor, and along North Limestone reinvent factories, distilleries, and tobacco warehouses. These properties selectively emphasize parts of Lexington and Kentucky's agrarian and industrial past while valorizing current efforts to diversify agricultural production.

These new developments are part of a broader trend to reestablish Lexington's urban center as an inviting and aesthetically interesting location for citizens and visitors. The proposed daylighting of the Town Branch in downtown Lexington is emblematic of this transformation. By bringing forth historical environmental landmarks, and then incorporating them into a marketable aesthetic, this development project works by distinguishing Lexington from other places. Regional cuisine and spirits are crucial to this vision. Bourbon is an obvious draw, but Kentucky's food culture figures to play prominently in the cultural marketing of the city.

Many of these local food restaurants are intricately tied to the arrival of microbreweries. A few food trucks became prominent – and eventually created brick and mortar establishments - through their

association with breweries that lacked kitchens. Increasingly, though, restaurants are locating near taprooms to take advantage of Lexington's new-found love of craft beer. Microbreweries in Lexington appear to be spurring an agglomeration economy centered on local and craft-based businesses. Additionally, microbreweries and local food oriented restaurants align with a burgeoning entrepreneurial spirit in Lexington - creating innovative industries that incorporate historical spaces and localized cultural identity.

### *The Craft Beer Generation*

Multiple respondents pointed to the simultaneous emergence of the local food scene and the 'craft beer' generation. The development of local microbreweries has revealed the arrival of a new brand of consumer. These consumers are distinguished by their interest in quality products developed by individuals whom they might interact with on a daily basis. They are interested both in the process of fermentation and in the components of that process. They are likely to spend more on a product that they consider higher quality. As consumers educate themselves on how products are made, producers have more opportunities for distinguishing their products from others based not only on the quality of ingredients, but the labor involved in the production.

For Lexington, the craft beer crowd is an extension of a regional interest and understanding of bourbon. In both consumer segments, appreciation of place is quite important. Just as bourbon lovers wax lyrical about how Kentucky's particular landscapes and environments are critical to the production of superior spirit, the craft beer generation valorizes products made by Kentuckians from Kentucky products.

This craft ethic extends beyond fermented offerings into the food scene. In the past 5 years, there has been an explosion of new restaurants at diverse price points that emphasize Kentucky Proud or local food as part of their restaurant concept. The local food movement in Lexington extends back 25 years to the pioneering efforts of a few chefs and restauranteurs. These individuals, some of whom came from farming backgrounds, wanted to support local growers and producers. Yet initially, with a few notable exceptions, restaurants specializing in local food tended to be relatively high-end.

In recent years, this equation has changed. Many respondents discussed the creativity of many restaurant enterprises to provide local food to different consumers at diverse income levels. Some of these restaurants began as or remain food trucks, others at areas where rent was cheap, and a few actually grow or raise a portion of what they prepare on-site or at a nearby farm. These different strategies have created a wide variety of dining options where consumers can purchase local produce and meat. Notable exceptions to this rule are national chains which tend to have supply chain structures and compliance contracts which inhibit the acquisition of local products.

Additionally, some restaurants emphasize and explain their production processes in addition to providing food. For restaurant visitors, the experience of eating a meal becomes educational. For instance, at the Breadbox complex in the Jefferson St. corridor, visitors can get a tour of the brewing process while drinking a beer and then get an education on closed chain aquaculture production at Food Chain. They then might have a tilapia sandwich at Smithtown Seafood which contains both fish and greens produced on site. In other locations, visitors may learn about the seasonality of production,

heirloom tomatoes, or sustainable agriculture. At Middle Fork in the James E. Pepper Distiller Campus, food preparation and cooking are the center of the dining experience – visitors watch their food being meticulously prepared. Indeed, the emphasis on craft process is an important reason why local food demand is growing – consumers are learning to differentiate foods and their sources in a novel way.

As mentioned before, the Breadbox complex as well as the Pepper Distillery both attempt to re-inhabit unoccupied industrial spaces and emphasize part of Lexington’s postbellum economic history – and to distinguish these properties from conventional chain restaurants that have little consideration of local sourcing. Additionally, these areas are both tied to microbreweries and other craft-oriented businesses. This connection between local food and urban small business entrepreneurship indicates that interest and current growth in local food is more than a fad.

### *Relationship with Farmers*

Restaurants in Lexington have strong relationships with local farmers. Many are willing to source produce and meat directly from individual farmers - though this requires intense time investments. At a certain scale, this type of arrangement is unworkable. Local food restaurants in Lexington are quite diverse and thus have developed many different strategies for acquiring needed products.

Some of the larger restaurants create direct agreements with farmers for set amounts of produce or meat each year. While these are not generally contractual obligations, farms are provided with a stable demand for their product and can thus plant multiple acres in one crop to guarantee a return.

In other cases, restauranteurs actually have a farmer provide a certain amount of meat or produce to that restaurant. In these cases, the producer has a much closer relationship with the restaurant and its expectations. The restaurant will also modify their menu based on seasonal variations in production.

A few restaurants will allow producers to show up at their doors to sell products and then modify their menus accordingly. In this arrangement, the restauranteur generally has a working relationship with the producers. Each side has a general sense of expectations – which fluidly change to accommodate challenges on both sides. These restaurants generally have more flexible chefs, higher priced entrees, and smaller capacity.

At all scales, restaurants usually have relationships with 3<sup>rd</sup> party food service providers which source food locally, nationally, and globally. Many chefs and restauranteurs mentioned that local producers will often ask them what products they are looking for during a season. They are generally reluctant to specify certain crops for fear that they would put the producer in an adverse situation if the crop fails – they don’t want to control what the farmers do. For the most part, they want the producers to do whatever they do well and then purchase what these farmers offer.

When they aren’t sourcing produce and meat directly from farmers, chefs sometimes visit the farmers markets to augment their supplies. Additionally, this gives them an opportunity to meet with potential suppliers and to determine which products are most available at certain times.

Local products are often more expensive than what can be acquired from distributors which have national or global supply chains. As such, a few restaurateurs described the Kentucky Department of Agriculture's Restaurant Rewards program as a critical incentive to help make local foods more competitive with those produced on a larger scale in places like California's Central Valley. The Restaurant Rewards program offers a rebate for a portion of local produce, dairy, and meat purchased from Kentucky Proud vendors that have direct farm impact. Some restaurateurs mentioned that the Restaurant Rewards program changes their thought process to consider more local sources even when the local is still more expensive. Incentive programs that make local food more competitively priced have a noticeable effect on restaurants' willingness to buy local.

### *Emergence of Ad hoc distribution efforts*

According to interviewees, the most common barrier to sourcing locally for restaurants is the distribution infrastructure. Restaurateurs that use local food are constantly experimenting with different strategies for sourcing products. While some will work directly with producers, most must source products directly from an intermediary due to time constraints and unpredictability in the supply of individual farms. When working with larger regional or national distribution companies, purchasing agents for restaurants sometimes find local products to be prohibitively expensive.

Because these distribution companies have the logistical expertise and relationships with many local growers, they provide a convenient and reliable supply of particular products. They simplify delivery - 20 farmers aren't knocking at the chef's door every day - and they also process vegetables and meats to some degree. At the same time, many restaurants noted that distributors' role as a middleman in the supply chain increases the price of local too high - making certain products too expensive to source from Kentucky farmers. So while these companies are still used by restaurants, many individuals identify a need for distribution networks that focus on local products, especially meat.

Two separate micronetworks have emerged to fill these gaps. Sometimes enterprising farmers or retailers will aggregate products from nearby farms and then offers these products to restaurants at a very minimal markup. In these networks, the farmer/retailer/distributor strengthens the local food system by giving small producers higher than wholesale prices and keeping middleman fees down for the restaurants. These emerging networks, whereby the distributor takes a smaller cut to just meet expenditures, illustrate some restaurants' desire for a different distribution model. These informal distributors see an opportunity within the distribution structure, whereby existing distributors that have local food operations are priced too high for some restaurants and/or require unfulfillable volume from smaller producers.

At the same time, existing distributors note that many of their businesses started by focusing on and working with local farmers. Despite their growth, many still maintain this emphasis, even though local foods represent a smaller proportion of their total inventory. As this issue is rather complex, we recommend more research on the specific gaps in the distribution infrastructure.

## *Overall Demand*

While many individual restaurants have a ceiling for sourcing local food, due to limitations of dining space, new establishments portend a constant increase in demand. Individually, most restaurants which haven't reached their ceiling for local sourcing mentioned that they expected growth of at least 10% local food purchasing over the next 5 years based on the increasing consumer tastes for local food in Lexington. Some restaurants expect purchasing of KY-based farm products to increase by at least 50%. Based on restaurants' individual projections, we expect purchasing to increase to at least \$7-9 million by 2020.

These figures would increase if local meats, especially beef, were more available at a competitive price. Demand increase for restaurants then is generally agreed to increase and is limited only by purchasers' ability to find meat and vegetable supply at a lower price point and acceptable quality. According to interviewees, this shift could occur if 1) more of Kentucky's smaller producers were brought into some type of distribution system that focused on lower volume buyers such as restaurants and 2) existing protein producers developed the capacity to 'finish' animals in-state instead of shipping them to the Midwest for growth and processing. For these strategies to work, producers must be convinced that there is high local demand that may command an acceptable price premium.

## **Institutions**

### *Overview*

Respondents across all market channels articulate the importance of institutions to growing local food demand and reshaping Lexington's local food system. While restaurants have played the largest role in generating demand initially and educating consumers on Kentucky farm products, institutions have the potential to create a large and stable demand for a broad variety of products.

In this study, institutions comprise a broad market channel that includes schools, universities, hospitals, and public institutions. As institutions are just beginning to explore ways to efficiently incorporate KY-based meat and produce into their offerings, this channel represents an important area for the potential growth of the local food system. Respondents in multiple channels attribute this observation to the scale and influence of these institutions. As institutions generally provide daily food service to numerous individuals, any type of commitment to local food sourcing dramatically increases demand for farm products. This large potential demand is both a promise and a challenge for product sourcing.

In terms of promise, institutions that commit a certain percentage or dollar amount of their budget to KY-based purchases define the outlines of market demand to farmers in the region. These contracts or commitments allow producers to gauge market demand in advance. This somewhat known demand allows already existing producers to potentially 1) make informed decisions on what to produce each year based on expected institutional demand and 2) rescale and transition production to diverse in-demand crops.

One prominent example of the impact of a local sourcing commitment or contract is the current agreement between the University of Kentucky and Aramark to provide on-campus dining services. Formed in 2014, this contract included metrics for 'local' and Kentucky Proud purchasing, with significant financial penalties included for failing to meet these metrics. While this contract remains a topic of public discussion and debate, especially in relation to its measurable impact on Kentucky farmers, some respondents in this study commented that this contract has increased interest and attention to the role of institutions in the local food economy.

Currently, most institutions, with a few notable exceptions, do not have a contractual or internal commitment to buying Kentucky based products even though Kentucky has a few existing laws that require institutions which receive state money to source their food locally<sup>1</sup>. Where local sourcing commitments do exist, 1) local producers have encountered significant barriers to supplying these markets and 2) commitments lack clear and contractual definitions regarding what is considered 'local food'. Current institutional commitments consider globally-sourced food products that are processed or bottled in Kentucky by multinational corporations as local. If these commitments are to have direct farm impact, they must have stricter parameters for what items and businesses are considered local, as well as a more defined emphasis on products that originate on Kentucky farms. This tightening of language and requirements would clarify market opportunities for local farmers.

Clear institutional commitments to local sourcing are crucial to realizing the potential increase in demand. As producers observe successful collaborations between Kentucky farms and institutions, they can identify farm products that would fit institutional needs. According to multiple respondents in retail, institutional, and producer channels, producers are highly interested in becoming suppliers to institutions that make local sourcing a priority. Producers' high expectations, however, have not yet been met due to confusion about where they fit in institutions' visions and definitions of local food.

If institutions reshape their local sourcing definitions and strategies to guarantee room for Kentucky producers, this defined demand may also encourage new generations to view farming as a more viable profession since there will be more demand for a wider variety of farm products. Institutional buyers feel that producers would benefit by scaling up production in undersupplied items and differentiating their products from others through crop diversification, value-added production methods (i.e. organic), or by focusing on developing minimally processed commodities that can be used in the winter and spring.

In 2014, institutions purchased approximately 1.5 million dollars worth of Kentucky farm products. While respondents generally agreed that they will source larger amounts of local food in the next 5 years, their growth estimations were varied. Some institutions expect a 5% growth per year while others expect their purchasing to increase by 10% or more. Only the smaller institutions with currently high percentages of local food sourcing indicated that they would not increase purchasing in the future.

In most institutions, local food makes up less than 3% of their total food purchasing. Based on the current demand in this channel, small substitutions of local product for those generally sourced from

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<sup>1</sup> HB 669 (2006) <http://www.lrc.ky.gov/Statrev/ACTS2006/0244.pdf> & SB 84 (2009) - <http://www.lrc.ky.gov/Statrev/ACTS2009RS/0037.pdf>

global supply chains could have a tremendous impact on Kentucky farmers. At the same time, even when expected purchasing increases are considered, institutions will still be sourcing a very small portion of their food from Kentucky farmers by 2020. Significant opportunities exist for increasing sourcing in the long term – we identify key issues that must be addressed to realize demand increase.

### *Challenges to sourcing to institutions*

#### *Quality, Convenience, and Scale*

Due to the size of most institutions, especially hospitals and universities, chefs and kitchen staff have numerous challenges in providing diverse dining options on a daily basis. While some institutions have direct relationships with farmers, most work with large food service providers because they can provide numerous different products of uniform quality at regular intervals. These providers and distributors can draw from national and global producers to maintain a steady supply of sufficient and expected quality and quantity.

In contrast, local foods tend to vary in quality, are seasonally available, and are delivered with minimal processing. In order to meet institutions' demand from local sources, a local food system must have 1) producers creating a scalable and consistent product, 2) an efficient distribution and processing infrastructure to bring these products to the end user, 3) a set of incentives (contractual, legislative, or market-based) for producers to scale up to wholesale levels, and 4) reliable information on institutional demand.

Many institutional respondents mention that quantity is the most pressing issue. They find that they cannot get enough of a certain product throughout the year and thus turn to larger supply chains to fill this shortfall. Additionally, distributors mention that many smaller Kentucky farmers tend toward a community supported agriculture model which requires a large diversity of production at the expense of streamlining production into 2 or 3 crops. This diversification, they argue, is not conducive to scaling up production of certain products to a quantity that can be sold at wholesale prices and at different points throughout the growing season.

Some producers disagree with that assertion – instead they say the supply exists but that certain structural issues exist that block their entrance into the market. Producers and some respondents in other channels suggest that institutions are not willing to pay premiums for certain production methods, such as organic techniques, that should add value to these products. Even when the supply potentially exists, it does not fall to a price point acceptable to these larger institutions. Many times, though, local products are just more expensive, even without organic certification, because Kentucky farms are too small to produce at a quantity to compete with farms that can take advantage of greater economies of scale in places like Central California or the Midwest.

Some distributors are sensitive to this issue, but argue that institutions and other wholesale buyers are not willing to buy local products if they are more than a few dollars more expensive per box. Additionally, distributors and institutional buyers mention that local foods vary tremendously in quality – to become a supplier to these buyers, a producer must really focus on providing a standard

commodity. As such, it is difficult to convince an institution that local products are worth a larger premium, since they've grown accustomed to commodities of a uniform quality and price.

Producers mention other problems beyond price and quantity that inhibits their working relationships with institutions. Some find that institutions and their partnering food service providers will not accept their product, even after agreeing to 'take whatever they have' because it differs from their expectations in terms of quality or uniformity. Producers also contend that 'lack of supply' is only applicable on an individual farm basis. They suggest that institutions would find more supply if there were aggregators, commercial or non-profit, that would combine products from many smaller farms. Distributors though say that this is exactly what they are doing and making up local shortfalls with supplies from diverse national and global food sources. Finally, producers say that many institutions argue that they cannot get farm products during the winter months and use this as a justification for not considering local produce – even though there are many fall crops that remain fresh for months in cold storage.

### Logistics and Liability

Institutions are highly reliant on and contractually linked to distributors and food service providers. These intermediaries operate many of the processes required to bring food from farm to plate. As Kentucky has many smaller farmers, distributors need to play a crucial role in aggregating the products of many farms. Institutional chefs have limited time to work directly with farmers - it is unfeasible to have producers show up at their delivery door at various times throughout the day. Distributors employ logistical expertise to remove uncertainties for the process. Additionally, in order to serve food to hundreds of people per day, chefs have limited time to, for example, peel potatoes, wash the soil off carrots, and remove the strings from green beans. Distributors offer some degree of processing food products, locally and externally sourced, so that chefs can meet their narrow serving windows each day.

Many institutions express reluctance to work with local farmers directly due to liability issues. Distributors and processors act as a firewall between the producer and institution. They provide many services. First, distributors and processors assure that farmers meet certain production and post-harvest handling standards. They have the ability to inspect farms and examine the specifics of a farm's production methods. They may also require producers to be Good Agricultural Practices (GAP) Certified or hold other certifications that assure particular on-farm safety practices are met.

Distributors and processors guarantee food safety standards for their buyers. If there is any form of contamination in a certain crop or meat product, distributors have detailed logistical data that allows institutions and other buyers to quickly identify which products should be removed from their shelves. As hospitals fall within this market channel and often deal with immunocompromised patients, food safety is a critical concern. As such, with hospitals in particular, this can result in the acquisition of highly processed foods which are far removed from their farm origins. To deal with the risks of a contamination event, distributors verify or require that farms have certain levels of insurance. They attempt to buffer themselves and the farms from the potentially catastrophic impact of food contamination.

Generally, distributor and producer relationships require the latter to adjust and clearly define their production and business goals to meet the supply and quality needs of an institution. In general, the relationship between institution and distributor is crucial to shaping production, but it can also limit how much local food can be brought into the system. For instance, achieving GAP certification in a timely manner can be difficult for certain farms since this certification requires a real-time demonstration of planting, maintenance, harvesting, and post-harvest processes. Even if a farm meets and surpasses these standards, the certification (at least in the first year) may come too late for the farmer to receive an offer to buy that product from the distributor.

For smaller farms that generally deal with direct-to-consumer sales (i.e. farmers markets and CSAs), it can be difficult to scale up to a wholesale level for certain crops due to lack of knowledge about what products an institution is willing to buy. This challenge is one of communication. Even when institutions discuss the purchase of potential products directly with a farmer, producer, or small-scale processor, these producers must then work with the food service provider and distributor to source these products.

Because distributors mediate the relationship between farm and institution, farmers must navigate an extra layer of complexity. Even when a farmer has some expectation that an institution would be interested in a product at a certain quality, quantity, and price point, they must work through distributor to arrange for the acquisition of this product. If for some reason the distributor or institution is no longer interested in that product, farmers must then find a different outlet. In this way, what appears to be a guaranteed market for a farmer becomes a bit more tenuous.

It is important to note that institutional buyers and distributors (as well as many – though not all – buyers in other market channels) rarely promise in advance or contract to buy a certain product from a farm. Most buyers are concerned about shaping specific choices to grow or produce by farmers – they do not want to force farmers to produce a lot of one product only to reject it later. Instead, they give the farmer a list of criteria they would need to meet in order to supply that buyer. Here continuous communication between buyer and producer is critical to managing mutual expectations – though in our interviews both buyers and producers detail instances where communication has broken down or expectations were mismatched. Again, local food coordinators and other mediators are necessary to help facilitate better communication.

Finally, many institutional buyers are interested in supporting local farmers. If they recognize a good product possibility, they will facilitate the relationship between the producer and distributor. At the same time, some purchasers are totally removed from face-to-face purchasing. They use digital systems created by food service providers to quickly identify what products are currently available at a certain price point. Single-click purchasing is quite easy and can be preferred by purchasers and chefs that are quite busy. This separation of the institutional buyer from the producer can greatly challenge both; neither understanding or even being aware of changes either one may need to accept to make these marketing channels feasible.

For local producers to access these institutions, distributors should make local purchasing options more visible. By making buyers more aware of what local products the distributor is already carrying or supplying, distributors could strengthen demand for Kentucky farm products. By growing awareness and consumer demand, distributors might generate the conditions for a niche local product line that would command a 'source-identified' or 'local' premium.

### Seasonality

Many cultivated products, such as greens, have a short harvesting window in Kentucky. As salads and greens play large roles in the wellness efforts of institutions, especially hospitals, purchasers argue that they have little choice but to source products from afar. Other vegetables such as tomatoes and squash are overabundant during peak harvest times, but not available outside of the 1 or 2 months they grow. Additionally, as many vegetable farms are smaller, cultivating less than 20 acres, they lack the space and resources to stagger plantings of the same vegetable over time, or growing produce in high tunnels. Larger farms are able to employ these techniques and extend the season for some products.

Schools and universities are either not in session or have reduced food service capacity when most vegetables are being produced and harvested. This mismatch of season to demand requires food purchasers to be very creative if they want to find local sources of many items. Many institutions explained that local produce is simply not available. Nevertheless, many vegetables growing in Kentucky are conducive to long-term storage and available outside the peak growing season. Institutions and their distributors, however, are less familiar with how to work with producers to market and sell these items.

Some processors and farmers are attempting to address this shortcoming. Local vegetable farmers are building season extension facilities, greenhouses and high tunnels, to lengthen their ability to supply interested parties with local food. Some producers are choosing to grow vegetable varieties that are conducive to cold storage during the winter. Processors are working to create technologies that minimally process grown goods to make them available during times outside peak harvest. These processors will take local ingredients and make sauces or soup bases that can be stored and which save institutional chefs time when putting together meals. Processors are also figuring out ways to can, freeze, and otherwise preserve vegetable with minimal modification of the vegetable.

Despite these innovations, processors and producers dedicated to season extension and minimal processing as a form of local product aggregation are rather limited. Kentucky does not currently have the infrastructure in place to facilitate the aggregation and processing of many vegetable products. Yet, many respondents indicate that the development of these infrastructures would allow local products to be more easily integrated into large institutional settings. These infrastructures would help farmers find an outlet for perfectly good vegetables that by appearances are not acceptable for farmers markets or CSAs. They would also pool the vegetables of many smaller producers into a quantity large enough to meet institutional demand. Finally, they would encourage farmers to scale up production since they would be presented with more options for using their harvest and a broader time scale for demand for their products.

Again, research into potential processing and season extension technologies should be undertaken – with a focus on 1) developing products that institutions are demanding, but cannot find locally in sufficient quantities, and 2) identifying processing techniques which might aid in aggregating and adding value to local product. Additionally, local food advocates might consider buyer education regarding the availability of fall and winter crops that have long shelf lives.

### *Compliance Agreements versus Local Sourcing Agreements*

Compliance with existing food service providers and distributors represent a final barrier to local sourcing in institutions. A few institutions have created contracts or agreements to source a particular quantity, percentage, or dollar amount of local products. As these agreements act as a stable market for Kentucky producers, they create an incentive for farmers to reorient their production toward the provision of items demanded by these institutions. In other words, large institutions can have an immediate effect on how producers approach their work. Yet, most institutions have not made a commitment to this type of sourcing, even though each respondent in this channel stated that supporting local farmers is important to their institution.

Even when commitments are made, they are contingent on their ability to find an adequate supply of certain products – and buyers must be creative when planning yearly purchasing goals. Additionally, since institutions generally work through 3<sup>rd</sup> parties to acquire food products, area producers must adhere to the standards and rules of that distributor or food service provider. Some respondents mentioned that food service providers for institutions have compliance agreements with other distributors, food service providers, and producers which must be fulfilled each year. Respondents in various channels mentioned that these agreements are contractual obligations and thus food service providers prioritize these relationships at the expense of local sourcing. In other words, local producers are competing with a separate set of supply chain obligations when attempting to break into the institutional market channel.

### *Overall Demand*

The outlook for demand in institutions is complicated. Due to certain agreements, especially between UK and Aramark, annual demand is expected to increase by at least 5-10% for the market channel – yet some institutional buyers note difficulties in finding an adequate supply for their current demand. At the same time, producers are likely to rescale their operations to gain access to this large demand only if institutions communicate product needs and producer requirements more clearly.

While there are absolute supply limitations in Kentucky - especially in terms of diversified crop production due to the commonwealth's agricultural history - other issues complicate the ability of producers to source to institutions. These issues include 1) Kentucky's lack of minimal processing infrastructure that would efficiently aggregate and extend the life of vegetable harvests, 2) the inability of some smaller producers to meet the requirements of distributors contracted by institutions, 3) the inability of local producers to compete with national and global supply chains that can take advantage of economies of scale, 4) the unfamiliarity of some buyers with fall/winter vegetables, 5) producer

uncertainty about how to work with institutional buyers, and 6) the unwillingness of buyers to pay a premium for a source-identified product.

Additionally, many respondents expressed frustration that meat was not available at price points acceptable to institutional buyers, even as most processors are operating below capacity and there are many farmers raising livestock. Research must be done to identify production methods that would meet supply and price expectations without sacrificing quality. Finally, local food advocates, processors, and producers must make a concerted effort to educate buyers and consumers on how different beef production methods used by certain local producers lead to a higher quality product (and higher price). More work must be done to differentiate local products in order to justify price premiums.

Overall, the demand in this channel must be created by institutions' willingness to take on the challenge of solving tricky sourcing issues. Some purchasers are taking the risks of figuring out how to work through the complexities of this process. By extension, they are laying the foundations for expanded relations between producers and institutions. At the same time, most institutions have not made explicit or clear commitments to integrating Kentucky based farm products into their offerings. Perhaps the work of those currently attempting to bring local producers into the fold will result in a set of infrastructures that would allow other institutions to easily find local solutions to their existing food product requirements. In all cases, the willingness of institutions to source locally will have a substantial impact on what the local food system looks like in 5-10 years.

## **Retail**

The retail channel is another area where growth in local food sourcing has great potential. For growth to occur, buyers and producers must solve challenges similar to those in institutions. As such, any increased sourcing in institutions will facilitate retail sourcing, and vice versa, since these two channels share similar distributors and wholesale pricing models. At the same time, this market channel is quite diverse and some specialty retailers provide more flexibility in terms of pricing and supply for smaller producers.

We interviewed 6 different retailers ranging from large national retailers to local foods oriented specialty retailers. Estimated purchasing for these retailers was \$3 million for 2014. Based on interviewee's assessments, purchasing will increase by 5% for the next 5 years (\$4-4.5 million). These estimates are conservative – purchasing will likely be higher since 1) specialty retailers are expanding their stores, 2) a small national chain retailer focused on local and organic food has plans to open in Lexington, 3) large national retailers are making local food a broader marketing priority.

With this increase in demand, producers will find more options for selling to retailers. As these retail operations have diverse target markets, producers will find outlets for a wide range of products. Retail purchasing, then, will increase alongside product diversification since a producer might find equally viable markets for diverse items such as high-end specialty meats and high-volume organic kale. Despite this promise, interviewees identified a number of pressing issues to realizing this demand.

## *Challenges to sourcing to retailers*

### General Issues

As with institutional sourcing, larger retail buyers find it difficult to acquire an adequate quantity of meat and vegetables at a price point that would allow them to meet acceptable margins. They also have issues with product consistency - most produce is limited by seasonality and varies within that season. Smaller and more niche retailers are less limited by supply shortages, but issues of seasonality and quality remain. With meats, retailers mention inconsistency in the size, appearance, fat content, and availability for similar cuts. Retailers require meat to display certain criteria in terms of appearance based on the perceptions of their typical customer.

Finally, retailers often have very specific safety and insurance requirements, though these can vary by business. Producers note that these divergent requirements, associated paperwork, and bureaucracy limit their interest in working with retailers. Becoming an accepted supplier to retailers can be a time-consuming process that may not work out in the end.

### Packaging, Marketing, and Product Differentiation

Buyers expressed the importance of attractive packaging to increased sales of local products. Producers who spend time building their brand and product representation generally have success. While quality products can stand on their own, if they are haphazardly presented, consumers are less likely to purchase these items. Retailers note that local producers often do not focus enough on this aspect of their work. By developing an interesting logo and label, producers can differentiate their items and build brand loyalty.

In addition to product appearance, retailers emphasize that the success of local products hinges on a producer's willingness to personally market their products. They mention that producers who attend public gatherings (i.e. farmers markets) or store-sponsored events to promote their products form a more tangible relationship to consumers. By getting their brand into the consumer consciousness and differentiating their product, they benefit in the long run.

At the same time, retailers play a crucial role in educating customers. While in-store signage promoting the idea of 'local' and telling the story of certain farmers are effective strategies for increasing consumer awareness of local products, they are less effective in communicating production and quality differences that may be reflected in higher prices. Retailers have the opportunity to provide more information through taste-tests, handouts, and meet-the-producer events. These events help explain why local products, especially proteins, may have differences in appearance, taste, and cost compared to conventional products.

## Producer Business Training

Buyers often mention that many producers seem to have minimal business training. Retailers are often approached with an interesting concept, but the producer cannot articulate a business and marketing plan, or is not aware of place-specific insurance or liability requirements. Some of these issues are mitigated when the retailer requires producers to work through a third-party distributor, but some retailers work directly with producers. A few retailers mentioned that they wish that farmers had easy access to training on these issues. As these resources, such as the Market Ready training<sup>2</sup>, have been developed by Extension agents, retailers and other mediators would benefit from directing new producers to these helpful resources.

A related issue is that retailers complain that many producers often offer the same types of products. This is especially true for value-added products – for example there is an overabundance of beer cheese and salsa from Kentucky producers. For retailers, when a producer offers a unique product, they tend to find a receptive audience. Retailers point to cheese and ice cream offer instructive examples – the first local producers of these items have become really popular and sell out quickly. If producers can develop an innovative product, they are likely to find a niche in the market.

As such, retailers emphasize that producers should do research on 1) items that have no local option in stores, 2) which items are trendy and would command a higher premium for being local, and 3) comparative pricing on conventional products with which the producer must compete. In the case of vegetable production, they should also be aware that local premiums are not much higher than nationally/globally sourced conventional equivalents, unless they are organic.

By understanding these market outlines, they will better be able to identify how much they can expect to receive from a set amount of their product. Again, state Extension agents have some of this information on general commodity prices<sup>3</sup>, so making producers aware of these resources is crucial. At the same time, some research on market trends and in-demand products is not readily available, so more research could be done by public, private, and university personnel to understand and communicate potential niche markets for producers.

## *Overall Demand*

Purchasing is expected to increase by at least 5% per year for the next 5 years, though this increase could be higher if many of the above challenges are met. This demand increase is dependent on more producers scaling to wholesale production, developing innovative products, and finding new market niches. While these changes are associated with producers becoming more sophisticated in their marketing and business approaches, retail operators in Lexington are diverse and offer different opportunities to producers at various scales.

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<sup>2</sup> <http://www.uky.edu/fsic/marketready/>

<sup>3</sup> <http://www.uky.edu/Ag/CCD/>

One benefit of growing this market channel is the possibility of embedding Kentucky products in regional markets. If a producer creates an innovative or high-quality product, many retail buyers can move these products into surrounding states. Retailers hold the potential to make local products nationally relevant – so it can be worth the risk for producers to take wholesale prices if they find a consistent and broad demand for their product. In this way, the retail channel provides opportunities for broader agriculture-based economic development.

## **Hotels and Event Spaces**

This market channel reflects the impact of tourism to Lexington. As the Bluegrass Region is home to the equine industry and the bourbon trail, many foreign and out-of-town visitors come to Lexington for unique cultural experiences. Regional cuisine and products enhance this experience for some visitors and hotel purchasers note that many visitors request Kentucky-based products.

Despite this growth in demand, hotel buyers experience the similar issues to institutions and retailers. While local cuisine is indeed promoted, Kentucky farm products play a smaller role in hotels' menu offerings. They are unable to get a consistent supply of certain items. Part of this issue is related to the turnover of kitchen staff. When a chef is in charge of procurement, constant turnover leads to uncertainty in hotels' ability to find necessary items. When new chefs are hired, they either bring with them different relationships with producers than their predecessors, or their previous training did not emphasize the acquisition and use of local and seasonal food products. Different chefs may not have the ability to work with certain cuts of meat, seasonal produce, and products that have varying consistency. To meet local supply shortfalls, hotels rely on distributors and food service providers.

The demand for local products in this channel is difficult to estimate as most purchasers were not responsive to interview and survey requests. Purchasers in this channel spent an estimated \$1 million on Kentucky farm products in 2014. Those surveyed expect a 10% per year increase in local purchasing, but note that their relationships with producers constantly shift. They express frustration in working with farmers individually even when they are committed to acquiring local products. Like respondents in other channels, they feel that farmers are sometimes not reliable in terms of supply, quality, and delivery consistency.

At the same time, some purchasers in this market channel are attempting to meet customers demand for regional cuisine and products. They will visit farmers markets, create relationships with producers, and even host local food festivals to promote local cuisine and farm products. While these purchasers will sometimes work more directly with producers, they mention that a more efficient distribution structure for local farmers would make sourcing easier. They also recognize that absolute supply for many seasonal items and for proteins is inadequate across Kentucky.

## Direct-to-Consumer Sales: CSAs, Farmers Markets, and Produce Auctions

Direct-to-consumer (DTC) sales models are becoming attractive to Kentucky's smaller producers as they create a somewhat stable market for their goods and give the producer more control over pricing. DTC sales and marketing approaches require a different set of farming practices than production for wholesaling to distributors, retailers, and institutions. In particular, farmers generally must have a diversity of products to sell throughout the growing season. In comparison, production for retailers and institutions requires scaled-up production of a few crops or items. While DTC producers sometimes sell directly to restaurants and retailers, this market channel only considers sales to end users through Community Supported Agriculture Programs (CSAs), farmers markets, and produce auctions.

The estimated amount of farm products sold through this channel in 2014 is valued at a minimum of \$3.6 million. Most respondents in this category expect demand to grow due to increased consumer interest and education in CSAs. Some individual producers are expecting at least 10-20% increase in sales per year for the next 5 years. By 2020, direct-to-consumer sales should reach or exceed \$5.2 million.

Growth in this channel is seemingly related to increased consumer education and appreciation of production processes. Similar to the restaurant channel, the craft-oriented consumer is concerned with the relationship between place, culture, production process, and food. DTC purchasing arrangements allows for consumers and producers to have personal interaction. The buyer can learn about the producer's farming philosophy and approach, and the producers are given the opportunity to educate consumers. These personal relationships put a face on agriculture and potentially form long-lasting relationships that strengthen food systems and local economies.

### *Key Issues for Producers*

#### Risk Mitigation

Farms that choose DTC approaches are often motivated by mitigating economic uncertainties. For instance, CSAs employ a subscription payment plan to define an initial market demand prior to the growing season. Subscribers provide upfront payments for the weekly or bi-weekly receipt of a box of farm products. These boxes usually contain produce, but some farms will include meat, eggs, and value-added products as options. This gives the producer a chance to create lasting relationships with their subscriber. The subscriber also learns that the size of the weekly delivery is contingent upon variable weather conditions. In this way, subscribers share the risk of crop diversification with the farmer and the farmer can plan for the growing season based on a known and stable demand.

In farmers markets, producers are able to set their own prices on their products and specify premiums for particular production methods (i.e. organics) that might not be valued as highly by wholesale buyers. If they plan carefully they may also gain higher returns on their products by handling marketing and distribution logistics.

## Supply Limitations

When asked about barriers to expanding these DTC models, many CSA farmers mentioned that they see demand continuing to grow; many are selling out their yearly shares without much marketing. Once established, these CSAs grow by word-of-mouth if they provide a quality shareholder experience. Each CSA mentioned that there is probably a share number at which they'd be unwilling to exceed due to production or logistical constraints, but none would commit to placing a number on this. With each year they develop new strategies for production and distribution.

In this sales model, the current demand exceeds the supply. CSAs serve less than 800 shareholders in Lexington in the year 2015. Yet, based on a separate research project in UK's Department of Agricultural Economics, we expect that demand for CSAs may be much higher, and is only limited by available supply and lack of consumer awareness of CSAs. In this study, we provided information about local CSAs to participants in the University's Health and Wellness program. Approximately 1 in 4 individuals contacted (300 out of 1300) expressed interest in participating as a shareholder. As we limited participation to those with no experience in a CSA, the percentage of interested individuals is actually higher than 1 in 4. Many of these individuals were unaware of CSAs in general, and intrigued by the purchasing model.

We do not claim that any farm employing a CSA model will work well – successful producers generally start small and build up the necessary distribution and marketing skill. They must also be able to cultivate and raise a large variety of products in a seasonally strategic manner. We simply note that CSAs can be a viable complementary strategy for small/medium-sized farms that already produce for farmers markets, direct sales, and wholesale markets. And while CSAs are not right for every consumer, they will become more desirable through consumer knowledge and any incentives that make share more affordable for lower income individuals.

## Farm Size and Wholesale Markets

Despite the prominence of the DTC channel in Lexington, area farmers are also attempting to access wholesale markets. As Kentucky farms are relatively small and have a limited output, producers must be strategic in their approach. Many of the small and medium-sized farms surveyed focus on only scaling up a few crops for wholesaling. They mention that this strategy feels more risky than DTC approaches and involves compliance with a tremendous array of buyer-specific requirements (see sections on institutional and retail channels). Nevertheless, DTC channels such as CSAs and Farmers Markets provide a steady financial base with which producers can engage with larger scale production.

Again, many producers are small to medium in size in Kentucky, so access to wholesale markets is rather limited unless producers make a significant commitment to growing the supply of items demanded by these markets. However, even as local producers scale up, their products are competing against producers in larger-scale production regions such as the Midwest, California's Central Valley, and Central America. Kentucky farmers are less able to take advantage of economies of scale.

The main issue then is one of cost – if producers could convince the consumers of wholesale products to pay a bit extra for local items (i.e. a local premium), then local producers would find wholesale markets

less risky. Even when producers do attempt to produce for wholesale, they will encounter situations when their presumed buyer will refuse a shipment due to differences in expected quality, appearance, or uniformity.

But many producers lack the overall supply and consistency to find a wholesale strategy a viable approach. Some buyers have suggested that aggregation infrastructures such as food hubs or smaller scale local foods distributors would provide a way to pull together the resources of smaller farms to reach wholesale markets. Yet, buyers in wholesale channels mention that the same product produced by many individual farms will exhibit a large amount of variability in quality. So for aggregation strategies to work, buyers must be willing to work with variability, aggregators must carefully control for quality, or processors could aggregate products into a form that is not as sensitive to product variability.

In each case, the crucial issue remains that there are currently few ways for producers to use products that fall below wholesale buyers' size or appearance standards, but are in all other ways perfectly edible or useful as minimally-processed or value-added products.

### *Overall Demand*

So while growth is expected in DTC arrangements, growth in wholesale for small- to medium-size farms in Kentucky is less settled. At the same time, wholesale buyers appreciate the benefits of local products. Some buyers and chefs mentioned that long-distance shipping of produce and fruit requires preservation methods that potentially damage the integrity, nutritional content, and safety of the food product. They would prefer a fresher source if possible and find that in many, but not all, have a strong desire to support Kentucky farmers and smaller family farms.

For this to happen, many respondents noted producers might be more likely to produce for wholesale if there were ways to satisfy demand requirements in non-peak harvest times. A few individuals suggested investment in minimal processing technologies that would make Kentucky tomatoes available, for instance, in a canned form during the winter months. A different suggestion was to encourage smaller farmers to concentrate on 2 or 3 different products in order to scale up their individual production – and then aggregate these products for wholesale. This strategy would require a low-cost aggregation facility and coordination between producers.

CSAs will continue to expand based on unmet market demand. The farmers markets will continue to grow as long as they continue to receive public support in the form of low-cost spaces that can continue to add new vendors. A few farmers also mentioned that more support and public awareness of winter markets could be valuable. Through both strategies, small- to medium-sized local producers have been able to grow their businesses, interact with buyers in hotels and restaurants, and to build their brand with consumers. At the same time, these DTC approaches could support and complement production increases in wholesale markets. Continued communication between producers and buyers is crucial, and mediators such as local food coordinators and Extension agents serve a vital role in facilitating productive relationships.

## Direct-to-Consumer Sales: Fresh Stops

While local food is showing up on more dinner plates at restaurants and some institutions, there is still a major gap in the system for residents with limited incomes. Households with little expendable incomes after housing costs, childcare, transportation, debt to income ratios and low wage employment simply do not have equitable access to fresh, local foods. The systemic causes are many including the inability for federal, national, and local incentives to mitigate the cost of production, distribution and processing in a way that is competitive with commodity value chains.

This issue is intensified in our region because horticulture producers are primarily small-scale operations and meat producers are predominantly calving operations, where livestock are sold to stockyards and finished at large-scale feedlots outside of Kentucky. This is evident when comparing the barriers of institutional procurement to local restaurants. Institutions have far more regulations, a larger service population and require detailed contract systems to operate while restaurateurs are limited primarily by their consumers' purchasing ability. They can follow simple rules of supply and demand for pricing, whereas institutions have to reconfigure their entire procurement systems that are tied via compliance obligations to distribution or service providers.

Institutional markets such as supermarket chains, schools, hospitals, senior centers and daycares are more prevalent points of access for limited income households where a small percentage of fresh, local products make it past the multitudes of hurdles from the gate to the plate. Low-income individuals are squeezed out of the local food system as market-based institutional sourcing strategies prioritize cost and budgets for publicly funded fresh food dwindle. To develop a more equitable system that could reach more consumers and support farm resiliency, alternative market channels should be developed, implemented, and fostered.

One community-based local food channel that is tackling this challenge is a project called "Fresh Stop Markets" in which limited income neighbors pool their money together to purchase directly from local farmers at wholesale prices. Fresh Stop Markets are supported by Louisville-based non-profit, New Roots Inc. In 2015, a new Fresh Stop Market was added on the Northside in the Castlewood neighborhood which is identified by the USDA Food Atlas as a "Food Desert". This one market with 40 shareholders is expected to contribute approximately \$10,000 to local farmers for an overall total of \$30,000 in local produce purchases for all Lexington-based Fresh Stop Markets in 2015. Farmers who supply Fresh Stop Markets are small, family owned operations located both inside Fayette County, in adjacent border counties, and Hart County. As such, increased net farm income from Fresh Stop Markets is impacting local and regional economies.

Based on a community organizing and a cooperative economics model, Fresh Stop Markets are in demand as residents from the East End neighborhoods, local hospitals, daycares and other community-based service providers have contacted organizers to explore starting new Fresh Stop Markets at their sites. Lexington residents of all income levels demand fresh, local produce and meats. This demand outweighs the current organizational capacity of Fresh Stop Markets as the establishment of new locations requires dedicated volunteers, leadership training and funding for coordinators to make a

living wage. If seen as a community service project, Fresh Stop Markets could be supported financially by local, state and federal budgets. Considering the long term economic and health impact of a small investment of resources to support Fresh Stop Market Coordinators, which could ultimately curb the costs of treating preventable diet-related diseases, it is worth exploring the impact of long-term municipal financial support to ensure the sustainability of this model.

## **Distributors**

Distributors represent a key channel for the movement of local food in our food system. While interviewees claim that local foods represent only 3-5% of their overall food purchases, they have a significant impact on the local food system. In the Lexington area, we conservatively estimate purchasing from Kentucky farmers to be \$5.1 million for 2014. Purchasing may be higher, but many of the larger distributors were unable to break sales up by production location or even the Kentucky Proud designation since their databases are not structured to take into account local food purchasing as defined by our study. Nevertheless, interviewees had a deeply nuanced and fluid conceptualization of local since they regularly deal with the movement and transformation of food products within complex networks.

Distributors serve a vital role in animating all food systems. They have unparalleled expertise in safely moving foods through local, regional, national and global networks using sophisticated logistical technologies. Understanding their approach to local food is crucial for detailing the relevant infrastructures, processes, and policies that shape how foods move within these systems.

In this report, distributors make up an extremely diverse set of businesses. We include aggregators into this category because we acknowledge the fluidity or mixed-use nature of the spaces they occupy. Some aggregators do not distribute food broadly. Instead, they may provide small scale home deliveries that contrast to the extensive multi-nodal networks of large global distributors. Additionally, we consider processors and light manufacturers as part of this category. As such, we have broken our purchasing estimates up into three categories of distribution: general wholesale (includes, but is not limited to foods), specialty wholesale (focused on a specific product category like produce or meat), and value-adding distribution (processors and manufacturers). So in actuality, we consider a distributor to be any actor that moves and transforms food from its farm origin to chef/preparer within complex networks.

### *Key Issues for Distributors*

#### *Scalar and organizational differences*

Distributors in Kentucky have diverse organization cultures and work at multiple geographic scales. A few are family owned, independent businesses which sometimes also run retail operations. Others have more regional focus, drawing food from surrounding states, the Midwest, and California. Still others have a broader national and global reach. It should be noted that even the smaller, Kentucky-based

operations have networks that extend into other states and markets, and some of the regional distributors will access broader global supply chains.

Local distributors can be at a competitive disadvantage to larger national/global companies. They cannot easily take advantage of larger economies of scale in production and aggregation associated with lower supplier prices. National/global distributors are more willing to take on risk, since they have access to a larger pool of resources, numerous suppliers, and cutting-edge logistical technologies. Because of this diverse resource pool, larger distributors are preferred by larger institutions because they guarantee supply in food and non-food items such as plates and silverware. They may also be more able to respond quicker to constantly shifting food safety regulations. According to some interview participants, food safety regulations are not attentive to scalar differences and are often approached as 'one size fits all'. Therefore, smaller operations lack resiliency to bounce back from regulatory changes. At the same time, small distribution businesses can also be advantageous to buyers as they also lack profuse overhead costs which can be restrictive to national/global companies.

Smaller and regional distributors may, however, find a profitable niche in the local foods. They may be more aware of unique Kentucky products due to long-standing relationships with producers. They may have more access to diverse varieties of produce, meats, and value-added products thereby linking up smaller producers with larger buyers. For instance, one specialty retailer has noticed a vacuum in the distribution structure regarding high-value cuts and varieties of meats. This retailer distributes high quality local products to restaurants at a price point competitive with more conventional meat sources. A few different distributors recognized a gap in the food system regarding minimally processed local meats and vegetables. They process these local items in a way that makes them less perishable, and then supply stores, restaurants, and institutions with unique products. Another distributor has made a point of only offering sustainably sourced and processed meats at a price that balances a farmers extra investment in certain types of production and consumer willingness to pay.

It is important to note that the current system does not simply reflect a 'big vs. small' contest. Just as there are agricultural producers operating in both wholesale and direct-to-consumer value chains, distributors are embedded in multiple scales. Global distributors will source some goods locally and regional distributors may source nationally/globally produced items.

### Relationships with farmers

Distributors are key mediators between producers and larger institutions, as well as many other buyers. As mentioned in the institutional and retail sections, distributors provide detailed information to many producers about what on-farm safety standards, insurance policies, and cold chain technologies are necessary to become a designated supplier. Distributors mention that they also provide producers with expectations regarding the price, quality, and quantity of different farm products in demand by different institutions. Since distributors operate between producers and buyers, they have a keen sense of what local products might fit within their clients' business models.

Many of the distributors have close working relationships with farmers. Some of these individuals are very committed to bringing Kentucky farmers into their distribution system. Even as local foods may

only make up 5% of their sales, these distributors will spend many hours each week maintaining relationships with local producers. While somewhat in conflict with their overall bottom-line, these distributors often cited family or community involvement in agriculture as a key motivation for supporting the local food economy. Several of our interviewees had grandparents who were farmers.

This narrative threaded into every distributor interview with many noting the importance of our unique physical landscape and agriculture history in growing the local food movement in the Lexington region. In fact, several distributors mentioned that their businesses were founded with local food distribution as a primary goal. Distributors cited that they have been “doing this before it was trendy” and referenced their extensive local farmer networks as an asset to their business. Increased labor time and financial investments are the material outcomes of this dedication. This stated allegiance to local farmers appears critical to some distributors’ business models. This allegiance could also be seen as a social asset to the local food system as these regional companies have an extensive history of local food procurement.

Distributors also have grounded perceptions of what has worked or not worked in local food system development over the past decade. As the middlemen, distributors hear about the challenges and successes on the farm as well as the communication and educational breakdowns experienced by their customers. In their experience, many note and appreciate the work done by local food coordinators to organize workshops that facilitate relationships between farmers and buyers. Distributors and aggregators repeatedly mentioned that the tireless work of local food coordinators motivated them to dedicate time and financial resources to local food procurement - even though profit margins are slim during this nascent stage of development.

Additionally they have mentioned resources provided by the Kentucky Department of Agriculture and the Cooperative Extension system as key resources towards the growth of the local food system. Many distributors and other buyers actively participate in UK Extension’s ‘Market Ready’ producer training that focuses on critical issues for farmers in local markets. However, distributors who have worked for many years in local procurement expressed the need for additional support from local and state governments. Specifically, interviewees cited the need for oversight and clarification of Kentucky Proud’s definition of ‘local’ and the need for city/county/state officials to hold institutions accountable for implementing local food policies.

Regarding Kentucky Proud, distributors expressed that the current definitions are too vague since the statutes also include items “processed in Kentucky”, which they felt raises two major concerns. First, they are caught in the awkward position of proving the authenticity of the local products they advertise to customers. For them, the authenticity issue weakens the brand and therefore the incentive for their buyers. Second, several distributors expressed loyalty to local producers and felt that casting a wide net in the definition of “local” diverts resources from small farmers who need as much support as possible to secure their land, make financial investments, and cover costs of production. From a different perspective, a few interviewees also felt that the political boundary of “Kentucky” was limiting the potential for a more sustainable local food system. For example, there are fringe producers in Southern Indiana and Tennessee who they buy from and sell to local institutions.

In terms of additional support from local and state governments, a few interviewees mentioned the need for accountability measures to be established for school districts and/or government agencies. One interviewee suggested that local mayors organize a forum with school board officials rather than working solely with procurement officers or nutrition services directors. There is a need to gauge the political will of those who determine the food service budgets. These interviewees argued that city officials have a lot of power and could do a better job at prioritizing local food procurement through accountability and incentive systems.

### *Relationships with buyers*

Working between producers and buyers, distributors have detailed knowledge of diversely-scaled food systems. While understanding the issues facing farmers, they also recognize that buyers often face small margins on produce and meat sales. In these situations, the distributor must manage expectations of both buyer and producer.

In terms of local food, distributors must determine what items their buyers are willing to purchase from local sources. They must understand how local food is integrated into each buyer's marketing approach. They should also consider how knowledgeable each buyer is regarding what products can be sourced locally during different seasons. These considerations influence their delivery strategies. Some companies back haul and automatically substitute local products to all of their suppliers when it is in season. Others give purchasers a detailed listed of available products each week and lets them choose. Some will respond to customers' requests for special item and seek out new producers. Their strategies vary according to their customer's needs and so are highly sensitive to consumer demands.

At the same time, some distributors described themselves as advocates for local products. Their understanding of producers' offerings allows them to inform customers about opportunities to expand their inventories with unique products. In other words, distributors can be vital in promoting awareness of different value-added processes and qualities which may inhere in local products.

For the local food system to grow, more distributors must expand their role as advocates by providing information and education to buyers about 1) what local products are currently available, 2) what products are potentially available if there were a demonstrated demand, 3) how these products are qualitatively different than global/conventional products, and 4) make a case for why certain items require price premiums based on superior production methods and source identification.

### *Barriers to local sourcing*

#### *Supply*

Regardless of operational size, there were specific barriers for local food procurement. Consistent supply and product quality again is limited due to seasonality, small farm size, and farmers employing different production strategies. Crops that are in highest demand that are currently not being supplied regularly by local producers are lettuces, spinach, carrots, onions and slicer tomatoes. Another example given is the high demand for broccoli, which conflicts with its short local growing season.

## Customer Demand

While demand for local products is growing, wholesale market channels are still dominated by nationally and globally sourced products. Buyers in institutions, retail stores, hotels, and some restaurants are more familiar with and expect a standardized commodity from their suppliers, whether these are distributors or producers. Many consumers are also accustomed to non-local brands and products. While many distributors intend to grow local sourcing as part of their overall inventories, the rate of growth will in part be determined by changes in buyer and consumer tastes.

## Labelling

Many interviewees had nuanced opinions on the Kentucky Proud designation. On one hand, they recognize that any consideration of Kentucky-based products will encourage consumer awareness. At the same time, they note that this label incorporates products that are processed or packaged in Kentucky, but do not originate or pass through any Kentucky farm. For instance, coffee, soda, and ice can be labeled Kentucky Proud if a business that handles some part of the processing is located in Kentucky. This label presents some ambiguity for all individuals involved in the local food system. A restaurant, retailer, or institution could present itself as a large supporter of Kentucky agriculture by purchasing global brands that have a packaging operation in Kentucky. Respondents in other channels also point to this ambiguity and are interested in a designation or label that strictly considers the direct farm impact of a product.

## Overall Demand

Our current estimate of 2014 purchasing is around 5.1 million dollars. Most distributors however see a large increase in spending over the next 5 years. Some expect to increase spending on Kentucky farm products by as much as 25% per year, while others expect an increase between 0 and 15%. Based on each business's future growth estimate, we expect distributors to purchase around \$8 million from Kentucky farmers by 2020 with growth in meats, vegetables, and minimally-processed items. These numbers are dependent on the success of institutions, retailers, and distributors working together to find new local sources of food products that are in demand.

## Recommendations

### **1) Support for local food coordinators**

Local food coordinators serve as brokers between farmers and buyers. According to interviewees in many different market channels, coordinators serve an important role in developing the local food system by facilitating communication between parties. As producers and buyers primarily deal with very different work environments, it is crucial for these individuals to have dedicated facilitators to troubleshoot concerns. Local food coordinators also translate language, distributor requirements, and production concerns for parties seeking to make exchanges. As each actor in the local food system has

different ways of talking about and understanding distribution, production, and sales, coordinators streamline communication and ultimately improve producer and purchaser expectations. Additionally, they provide confidence to institutional buyers who may be hesitant to test a perceived risky investment.

## **2) Easy Access to Market Resources and Information**

Many purchasers noted that when producers attempt to supply to different market channels, they lack basic awareness of market trends and requirements. As such, production strategies do not fit the designs of the purchaser in terms of quality, quantity, and product diversity. In order to encourage the growth of diversified production to meet the latent demand of many market channels, many buyers expressed the idea that producers need more market training. Additionally, they felt that producers should do research on what products are most desired by buyers in other channels.

At the same time, the KSU and UK Cooperative Extension Service has many resources and training available to producers to understand the demands of retailers, distributors, institutions, and restaurants<sup>4</sup>. We recommend that these resources are made more available to both producers and purchasers who interact directly with producers. This can be done by 1) publicizing and streamlining UK and KSU Extension's websites, 2) working with purchasers on how to direct producers to these resources, and 3) creating closer correspondence between local food advocates and Extension personnel.

Again, while there can be mismatched expectations between producer and buyer, many of these issues are addressed in market resources addressed by Extension – especially the MarketReady training. At the same time, most of this information emphasizes the need for producers to meet the specific requirements of buyers with little reciprocal consideration of producer issues. So if a producer is given a laundry list of criteria they need to meet to become a supplier to a distributor or institution, these criteria can look much different in reality when a producer attempts to complete. As such, local food coordinators and other advocates are crucial to streamlining communication and expectations between producer and buyer.

## **3) Market Research**

One of the ways farmers learn about new production techniques and marketing skills has been through the Cooperative Extension Services. In addition to these direct relationships with farmers, Extension is involved in research endeavors that provide unique information to producers and buyers. We recommend further research in a few different areas.

First, we recommend research to determine the local availability of products commonly sourced by institutions. This research would first identify which items are or could be produced locally in sufficient quantities, and then identify the price points producers would need to meet to be suppliers. This would

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<sup>4</sup> <http://www.uky.edu/Ag/CDBREC/>

require institutions to identify how much above normal wholesale price they'd be willing to pay for a local product.

Second, we recommend a consumer survey that would identify which items consumers would like to buy from Kentucky producers, but cannot find. This research would also identify the premiums consumers would be willing to pay to acquire local products. This would help inform production that could meet consumer demand without sacrificing quality.

Third, we recommend research into the potential for local producers to work with ethnic food buyers and producers. As many crops and meats have diverse and specific product needs, local producers may find new market channels for their products.

Fourth, we recommend exploratory research on the effectiveness of diverse economic models to serve resource limited families and farmers. By exploring different cost-saving or subsidy strategies, including buying clubs or cooperative CSAs, researchers and local food advocates may identify ways to meet pressing food security needs.

Finally, we recommend continued research that produces information on local and national consumer trends, commodity pricing, and production costs. In other words, Extension might provide more market information on certain agricultural items and value-added products with a consideration of how different production techniques influence returns.

#### **4) Distribution and Processing Research**

Several interviewees mentioned the need for better distribution, aggregation and processing systems, but couldn't articulate specific issues. We recommend further studies to identify specific distribution issues. These studies may include surveys or focus groups with distributors and producers separately to identify gaps in the processing and distribution system. Further studies could also explore the history of local food distribution from regional distributors' perspectives.

A few respondents mentioned that maps that would identify existing distribution, processing, and production facilities would also be helpful for distributors, farmers and buyers. This detailed visualization of local food system assets might identify gaps and underutilized opportunities. Currently, a few institutions are engaged in resource mapping projects.

#### **5) Supply Side Research**

Respondents commonly identified supply issues that limit their purchasing ability. As seasonality and farm size are major limitations in meeting demand, the local food system will require creative interventions to increase supply. We recommend research into season extension technologies to meet the temporal restrictions of Kentucky's climate. At the same time, harvests can be extended through minimal processing infrastructures – flash freezing, canning, etc. – as well as creating shelf-stable value-added products. We recommend technical and financial research into processes that may efficiently turn 'seconds' (i.e. produce that are edible but not visually appealing to wholesale buyers) into commodities usable after the harvest.

Other respondents recommended the creation of aggregation centers and systems that would allow smaller farmers to compile their individual products to reach a wholesale volume. While some researchers have documented the difficulties of operating food hubs in Kentucky<sup>5</sup>, research into how different approaches might work in Fayette County is worth consideration.

Finally, many buyers would love to buy local meats but cannot find sufficient supply of certain cuts at an acceptable price point. As this is an extremely complex issue, we recommend research on both producer and purchaser sides to determine how the supply chains of different meats in Kentucky may be changed to facilitate more local sourcing. This research would require a consideration of 1) wholesale and consumer price requirements, 2) production costs associated with localized production, and 3) overall consumer demand for local products at different price points.

## 6) Policy Evaluation

Further research should explore the role that local and state governments could play in supporting land affordability for producers. Additionally, we recommend that policymakers consider a way to distinguish products that have direct farm impact or origin in Kentucky. We also recommend research into potential policy incentives that would make the prices of local sales oriented farm products more competitive with globally-sourced commodities. Local food production has the potential to buffer against disruptions in food supply from around the world, such as the recent droughts in California.

Research into incentives that would make local food affordable and accessible to low income households is vital. Finally, we recommend a review of currently existing policies related to safety standards to see if they make sense for smaller producers. According to some respondents, many state safety policies are geared toward issues unique to large scale commodity producers and may not be relevant to smaller producers.

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<sup>5</sup> <http://www2.ca.uky.edu/agc/pubs/SR/SR108/SR108.pdf>