



Food Hub Feasibility Study

Kane County , IL

DECEMBER | 2016

Summary Report



**FOOD
HUB**





Executive Summary

Kane County Food Hub Feasibility Study

The Kane County Food Hub Feasibility Study was a recommended action by the county's 2013 Health Impact Assessment, Growing for Kane. The initial objective of the feasibility study was to determine the optimal business model for a food hub in Kane County based on the identified characteristics and needs of stakeholders across the local food value chain. The study also

assessed a regional hub's financial viability as well as its impact on health equity and economic development, and provide direction moving forward with the development and launch of the enterprise. The study was conducted from March 2015 to July 2016, and was organized into three distinct phases.

Phase 1: Market Assessment

Goal: Determine the optimal operating model for a food hub in the region

The primary and secondary research resulted in a recommendation for a physical food hub in Kane County that purchases farm products sourced from growers primarily within the county, and aggregates and sells this product to wholesale buyers in and outside of the county. The food hub will provide post-harvest handling (washing, sorting, packing) services, aggregation and storage, as well as inbound and outbound distribution.



Next Steps

Upon completion of the feasibility study, the project team will seek additional funding to transition the project from feasibility assessment to implementation and launch activities. The immediate next steps of the project will be to identify a qualified operator to manage the future enterprise and for the project team to work with that operator to develop a business plan.

Phase 2: Health Equity

Goal: Identify additional services and/or business lines to incorporate into a food hub in Kane County that are specifically focused on helping spur positive health outcomes.

Research resulted in a recommendation for the food hub to incorporate:

- ▶ Processing facility within the food hub to produce fresh cut vegetable and fruits for sales (and potentially donation) into wholesale buyers, particularly K-12 schools and hospitals.
- ▶ Fresh and local prescription program through which community members would be offered prescriptions for an affordable food hub subscription box program, paid for through SNAP benefits.

Phase 3: Business and Economic Analysis

Goal: Forecast the potential profitability of the envisioned food hub and assess its economic impact for the county.

The food hub business model developed through the previous phases would require an 8,000 square foot warehouse, and would generate \$3.4 million in sales and \$150 thousand in **cash flow**¹. The hub would generate the following impact within the community:

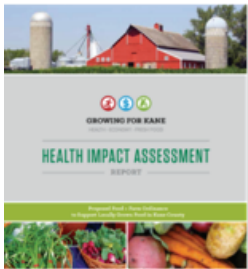
- ▶ Over \$2 million in revenue generated for agricultural producers in and around the county
- ▶ Up to 850 acres of agricultural land would be maintained
- ▶ Over 160 acres of land is newly cultivated for fruit and vegetable productions
- ▶ \$5.9 million in total economic benefit generated for the community
- ▶ 20 direct jobs, and 35 indirect jobs created, 11 of which are in agriculture

Project Overview

Background



The Kane County Food Hub Feasibility Study was a recommended action by the county’s 2013 Health Impact Assessment, Growing for Kane. The assessment was one of a series of health and food system policy initiatives recognizing the opportunity to more efficiently connect local farm production with regional markets and populations with limited healthy food choices. The Fit Kids 2020 Plan outlined a number of policy areas and strategies for reversing the trend of childhood obesity in Kane County. A section of the plan dedicated to Food Policy listed actions for leveraging the local food system to improve access to healthy foods for children. McHenry County’s Local Food Assessment recognized a regional food hub as an “integral component of a successful local food system, supporting infrastructure for processing and distribution.”



2013

HIA Report Recommendation

Recommendation	Result
Kane County should work with Northern Illinois Food Bank (NIFB) and Kane County Farm Bureau to study the feasibility of locating a food hub.	Farmers have motivation to grow more product with centralized cleaning packaging and distribution available off farm.



2011

Food Policy Strategies

- ▶ Increase access to healthy, affordable food beyond traditional grocers and restaurants.
- ▶ Determine barriers to expanding production of locally grown fruits and vegetables.
- ▶ Promote food as an economic development opportunity.
- ▶ Support efforts to provide education for the growers, processors and consumers in Kane County.

Kane County Agricultural Snapshot



Kane Co has
590 Farms

286 Acres
Average
Farm Size

46 Acres
Median
Farm Size

168,541 Acres
Total Land
in Farms

Background, Continued

In the Fall of 2014 the Kane County Development and Community Services Department formed a Steering Committee to draft a Request for Proposals and recruit a qualified consultant to lead a food hub feasibility study. The committee included representatives from the Kane County Health Department, Kane County Farm Bureau, McHenry County Planning Department, Making Kane County Fit for Kids and the Kane County Farm Bureau. By January 2015 the project Steering Committee awarded a contract for services to New Venture Advisors, a Chicago-based consulting firm with expertise in the assessment, design, launch and development of businesses in the local food and sustainable agriculture arena.

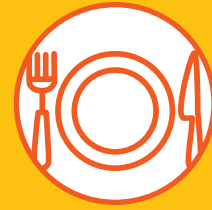
Food Hub Context

The USDA defines food hubs as entities that are actively managing the aggregation, distribution, and/or marketing of source-identified food products, primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demand.

Successful food hubs address a variety of needs. They can help agricultural producers find new markets and expand their production. They can better connect **wholesale buyers**² with the local farm products they need. They can help bring local, healthy food into underserved communities. They also bring important benefits to their communities such as the creation of jobs or occupying a vacant property.

There are over 300 food hubs across the US, and they range widely in terms of their business model and operational structure. For example, some food hubs only **aggregate**³ and sell fruits and vegetables, others focus only on meats while others move all varieties of farm products. Some food hubs never physically handle products, operating as online marketplaces where producers post and price their products, buyers make purchases, and they work together to determine the optimal fulfillment and distribution strategy. Other food hubs operate as **“packing sheds”**⁴ – purchasing and aggregating farm products in their physical warehouse, often washing, sorting and repacking items, and then storing and distributing products to their customers.

The range of food hub models and strategies is reflective of the nuances and unique needs of the local food systems in different communities nationwide. Because of this, it is critical that the development of new food hubs and related enterprises is pursued in a way that meets the specific needs and characteristics of stakeholders within their regional food system – specifically agricultural producers and buyers.



Growers

1,010 Total Acres of Supply

Buyers

\$110 Million Total Demand



100 Acres of Supply



\$10 Million Demand

Scope of Study

The objectives of the feasibility study were to first determine the optimal business model for a food hub in Kane County based on the characteristics and needs of stakeholders across the local food value chain and then to assess its financial viability as well as its impact on health equity and economic development, and agree upon if and how to move forward in the development and launch of the hub. The study was conducted from March 2015 to July 2016, and was organized into three distinct phases:

Hub Project Activity

2015

2016

2017

Phase 1: Market Analysis



Phase 2: Health Equity Strategies



Phase 3: Business & Economic Analysis



Future Phases

Operator Search



Business Plan Development



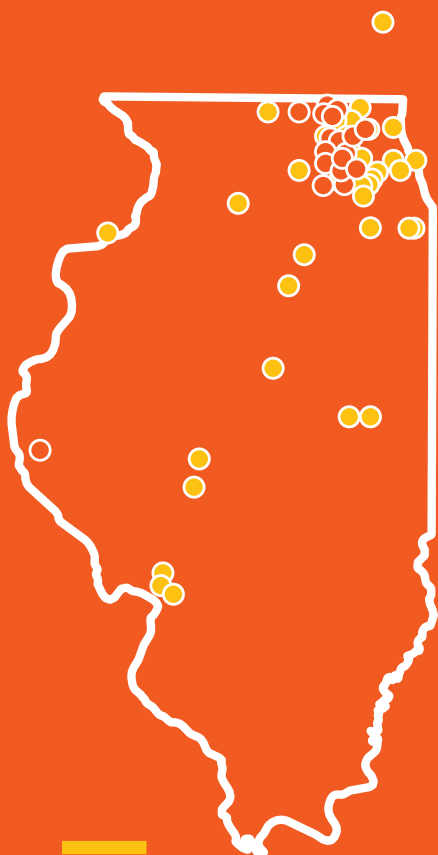
Grower and Buyer Survey

March 5 - May 12, 2015

29 producers & 51 buyers

Interviews with producers and buyers, as identified by the client team, conducted by phone in February and again in May 2015. Interviews were conducted with eight producers, five buyers and two food systems stakeholders.

Grower/Buyer event, held on June 9, 2015 that engaged 35 producers, buyers and food systems stakeholders.



- Growers
- Buyers

Phase



Market Assessment

Insights and Recommendations

Previous studies nationwide suggest that a centralized, physical food hub has the potential to be a successful, profitable venture if at least 100 acres of production and \$10 million in purchasing volume of produce is identified. This Market Assessment identified production and demand levels significantly higher than these baselines.

The study identified over 850 acres of current fruit and vegetable production and over 160 acres of potential new production among 27 growers who expressed interest in working with a food hub. Thirty-three interested buyers of fruits and vegetables were identified, a collective \$53 million in spending on fresh, whole produce and \$26 million on processed produce. In addition to these strong quantitative indicators, buyers and growers were highly engaged, enthusiastic and participatory throughout site visits and in-person meetings, underscoring the overall potential for a successful food hub to be developed in the region.

There are a number of different elements of a food hub business model to be determined as part of a market assessment. The following chart describes recommendations and supporting evidence for the main components of a food hub in Kane County.

Component	Recommendation	Supporting Market Assessment Data
Business and Revenue Model	Physical food hub that aggregates and sells farm products, generating revenue by purchasing products and selling at a markup.	<p>Likely that demand and supply are high enough to warrant physical, centrally located hub that could cash flow:</p> <p>>\$110m in identified demand</p> <p>~840 acres among somewhat to highly interested producers</p> <p>Aggregation is a critical service, given the mix of small and large farms and large buyer size.</p>
Products Moved	<p>Primarily focus on whole produce, specifically on the top items of interest among growers and buyers - sweet corn, squash, tomatoes, melons, peppers, eggplants, radishes, greens/kale, onions and potatoes.</p> <p>Consider preprocessed product and proteins (eggs and poultry) over time.</p>	<p>The majority of interested producers are vegetable growers; production of proteins and eggs is limited.</p> <p>However, buyers are interested in proteins, eggs and fresh cut / frozen produce, so supply of these items should be identified over time.</p>
Infrastructure and Services	<p>Infrastructure should be incorporated to support post-harvest⁵ and cold storage services, including (1) cooling, (2) washing, sorting, grading and packing, and (3) cold and dry storage.</p> <p>Other equipment will include forklifts, sinks, sorting tables, hydro and/or air coolers, and coolers for cold storage.</p>	<p>70% of highly interested producers are unable to do cooling, washing, sorting, packing on site and these services are required by many of the large scale buyers engaged.</p> <p>Approximately half of the growers engaged do not have cold storage capabilities, and 71% of the most interested producers do not have cold storage.</p>
Distribution	<p>The food hub will outsource inbound and outbound logistics⁶ during earlier years, working with growers, buyers and outsourced logistics. In-house distribution investments will be made when volume thresholds are met.</p> <p>Distribution will be treated as a “breakeven center”, with direct costs passed onto producers and buyers.</p>	<p>64% of buyers need delivery, and most require temperature to be controlled throughout the supply chain.</p> <p>Only four interested producers have a refrigerated truck. Only one was willing to provide shared distribution services to neighboring farms.</p>

70% of food hubs are generating enough earned income to cover their operating budget

Component	Recommendation	Supporting Market Assessment Data
Pricing and Margin Structure	<p>Price to buyers will average 20% premium above terminal market⁷. The hub will charge producers sorting and packing fees at cost.</p> <p>Revenue to producers will average 75% of case price to buyers.</p> <p>Price transparency will be maintained across supply chain.</p>	<p>Quality and consistency is more critical than price for buyers. Buyers at the grower/buyer meeting suggested that 20% premium for local is feasible.</p> <p>Producers expressed concern about the price they would receive, but were open to receiving training on the true cost of goods, to support more informed wholesale price setting.</p>
Sales and Marketing	<p>Strong focus on farm-identification branding support, rather than investing in the development of a regional brand.</p> <p>The hub will hire a dedicated sales person.</p> <p>There will be no online marketplace.</p>	<p>Farm identification important to ~70% of buyers and ~70% of growers. An online marketplace model important to only ~30% of buyers. A regional brand was important to only ~30% of buyers.</p> <p>Growers emphasized that the main value of a food hub is to reduce the time they need to spend on marketing and sales, suggesting that a dedicated sales person is critical.</p>
Other Services	<p>Preseason production and demand planning will be an important service, though the hub will not establish preseason volume or pricing contracts.</p> <p>The hub will also work with other technical assistance providers to offer their producers needed support.</p>	<p>Over 60% of producers would expand their production if demand could be better forecasted and warranted the investment.</p> <p>Buyers indicated dissatisfaction with the lack of consistency and diversity of local product available, suggesting the need for technical assistance around wholesale readiness.</p>

Additional Recommendations

Based on the research conducted to date, it was also recommended that efforts be pursued to support growers in Kane County to more successfully serve wholesale markets (including a food hub in Kane County), expand their production, and work effectively with large wholesale buyers whose purchasing and pricing standards vary drastically from direct to consumer markets. This could be addressed by connecting Kane County growers with existing training programs and developing new programs where needed.

Specific topics that have been identified as critical for producers to receive support on include:

- ▶ **Wholesale readiness and food safety:** post-harvest handling, Group **GAP**⁸/ GAP support, sorting and grading, packing according to USDA pack standards, etc.
- ▶ **Pricing:** successful price setting strategies, understanding their true, fully loaded cost of production.
- ▶ **Organic production:** transitioning to organic, paperwork.
- ▶ **Season extension:** accessing funding and infrastructure, and effective greenhouse and **hoop house**⁹ growing practices.
- ▶ **Land access support:** understand potential strategies to pursue, based on recommendations in **CMAP**¹⁰ land report.



Phase 2

Health Equity

During the second phase of the study, the project team expanded upon the findings of the Market Assessment to evaluate features and services that would help address **health equity**¹¹ disparities in the county identified by the Health Impact Assessment. The objective of the Phase II Health Equity research was **to identify two to three potential services or business lines focused on improving healthy food access, that would either be integrated into a food hub in Kane County or that would work in partnership with a food hub.**

The Health Equity research phase consisted of the following steps:

- ▶ Site visit and focus group with stakeholders in Kane County focused on health equity through their work with healthcare institutions, food banks and food pantries, and educational institutions. (Held on October 21, 2015)
- ▶ Interviews with 20 local stakeholders, representing regional organizations engaged in health equity work
- ▶ Secondary research to identify innovative strategies that food hubs are undertaking across the country
- ▶ In-person meetings with diverse group of stakeholders to share initial insights and receive feedback (Held on December 8, 2015), and to then review and finalize recommendations. (Held on January 27, 2016)



Health Equity is an expansive topic, and engaged stakeholders varied in terms of the clients their organizations served. The client types can range from **food insecure**¹² populations who are served by food pantries to K-12 students from low income communities to patients and community members being served by hospitals and their outreach programs.

At the start of this research phase, the team did not impose limitations on the types of clients that would need be served by the hub's health equity strategies.

Strategic Recommendations

The following five strategies emerged for detailed research and consideration:

- ▶ Establish a processing facility at the food hub to better serve institutional buyers like public schools, universities and hospitals
- ▶ Leverage food hub's distribution and grading capabilities to support redistribution of waste across food supply chain
- ▶ Agricultural or farmer training program
- ▶ Culinary and nutrition education
- ▶ Fresh and local foods prescription programs

Through in-depth follow-up research on analogous cases, identification of potential partners, and additional discussion with local stakeholders to further vet the strategies that emerged for initial consideration, two strategies emerged as the most critical to incorporate into a food hub in Kane County:

1. Establish a processing facility at the food hub

The food hub's processing line will focus on procuring raw inputs such as broccoli and peppers, processing them into fresh cut products, and selling these outputs to schools, hospitals and other food service entities within and outside of Kane County. By producing fresh cut vegetables (including salad-bar ready products), the hub will be better positioned to sell to institutions, including those that serve low income and low access youth and communities.

2. Fresh and local foods prescription programs

The hub food hub will develop weekly boxes of healthy, regionally grown produce that would be distributed to end customers through weekly distribution similar to a **CSA program**¹³. Subscribers would be able to pay through **SNAP benefits**¹⁴ and the hub would ideally be able to provide a match through a double bucks program. Customers would be referred to the service by healthcare providers across the county.



Phase 3

Business Analysis & Economic Impact

The business analysis and economic impact assessment was conducted to assess the financial viability and risk associated with the envisioned food hub in Kane County, and to evaluate the impact the hub would have on the local community. Phase III consisted of four steps:

- ▶ Finalize **base case**¹⁵ assumptions that will drive pro forma profit and loss statements, based on in-depth primary and secondary research.
- ▶ Develop baseline, steady state pro forma profit and loss statement. Steady state refers to a point in the future, generally 3-5 years after the launch of an enterprise, at which point the assumptions identified through primary and secondary research should hold true.
- ▶ Conduct sensitivity analysis, by testing high and low scenarios on key profitability drivers
- ▶ Assess impact on local economy and job creation.

These steps were all conducted from March to June 2016.

Financial Viability

- ▶ Using base case assumptions, the envisioned food hub would generate \$3.4 million in annual revenues, well above the median revenue of food hubs nationwide. The hub would be profitable at steady state, with an **EBITDA**¹⁶ of \$267,000 and \$165,000 in cash flow annually.

The food hub would require an initial capital investment of at least \$1.27 million (excluding non-capital startup

expenses or funds required to cover operating losses in early years). The two business lines whose focus is to support health equity goals operate at or above break even, will ensure that these can be maintained and expanded over time, without putting the business at any financial risk.

Scenario testing demonstrated that the hub's forecasted profitability is strong enough to withstand moderate fluctuations of plus or minus 15% in assumptions related to pricing, throughput and margin.

Economic Impact

The envisioned food hub would generate the following impact within the community:

- ▶ Over \$2 million in revenue generated for agricultural producers in and around the county
- ▶ Up to 850 acres of agricultural acres would be maintained
- ▶ Over 160 acres of land is newly cultivated for fruit and vegetable productions
- ▶ \$5.9 million in total economic benefit generated for the community, assuming an economic multiplier of 1.75

- ▶ 20 direct jobs, and 35 indirect jobs created, of which 11 are within agriculture

Next Steps

Upon completion of the feasibility study, the project team will seek additional funding to transition the project from feasibility assessment to implementation and launch activities. The immediate next steps of the project will be to identify a qualified operator to manage the future enterprise and for the project team to work with that operator to develop a business plan.

Operator Search: Once funding has been secured to make the transition, the project team will develop screening criteria and release a formal request for qualifications to solicit prospective operators.

Business Plan: The project team and future operator will work collaboratively to develop a complete business plan for the food hub enterprise. The plan will be comprehensive and will ensure the management team is fully aligned on how the enterprise will be established and operated. The business plan will also be a tool to attract financing from investors and other funders.

* ¹ Cash flow represents the actual cash generated by the business, after accounting for expenses such as interest on loans, principal payments on loans and depreciation. Specifically, cash flow = Net income – Principal Payments on Loans + Depreciation. Net Income = EBITDA – Interest Payments – Depreciation and Amortization – Tax Payments.

² An entity that purchases food from suppliers and then resales the food to other wholesale buyers further down the supply chain or to individual consumers; e.g. distributors, institutional food service and restaurants.

³ To bring together food products from multiple producers.

⁴ A covered structure under which farm products are aggregated together to get ready to be shipped.

⁵ The stage of crop production immediately following harvest, including cooling, cleaning, sorting and packing.

⁶ Inbound logistics refers to the transport, storage and delivery of goods coming into a business, while outbound logistics refers to the same for goods going out of a business.

⁷ A central site, often in a metropolitan area, that serves as an assembly and trading place for commodities.

⁸ Good Agricultural Practices, refer to a set of producer-based standards ensuring that food for consumers is produced, packed,

handled, and stored safely to minimize health hazards.

⁹ An unheated greenhouse used for season extension.

¹⁰ Chicago Metropolitan Agency for Planning.

¹¹ Attainment of the highest level of health for all people, regardless of socio-economic or demographic barriers.

¹² Lacking reliable access to a sufficient quantity of affordable, nutritious food.

¹³ Community Supported Agriculture, a system in which a farm operation is supported by shareholders within the community who share both the benefits and risks of food production.

¹⁴ The Supplemental Nutrition Assistance Program, is the largest USDA administered nutrition program aimed at improving participants' food security and their access to a healthy diet.

¹⁵ Base case assumptions are derived from analysis conducted and business model decisions made throughout the project, and represent conservative estimates driven by actual interest and volume among identified buyers and growers.

¹⁶ Earnings before interest, tax, depreciation and amortization.

Acknowledgments

Partners and Supporters

The Kane County Food Hub Feasibility Study was supported by numerous community and governmental agencies on multiple levels. The initial phase of the project was funded by the Kane County Farm Bureau, Fit for Kids Consortium and the Illinois Department of Agriculture. The second phase was financed by the Center for Disease Control and American Planning Association's Plan4Health Initiative. Several organizations – including the Kane County Health Department, Northern Illinois Food Bank, McHenry County Planning Department and Illinois Farm Bureau – contributed expertise and technical assistance at various stages throughout the study.

Stakeholders

This study would not have been possible without the active involvement of countless local farmers, food service organizations, and others. Their willingness to participate in meetings, surveys and interviews, provided critical guidance and expertise representing those most likely to utilize the services of a regional food hub.

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A Growing For Kane Project

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