Lessons Learned from a CA Food Hub Network Pilot
Role of UC in Nurturing Success for Food Hubs in California

Project of the UC Global Food Initiative 2015-2017

Gail Feenstra, Deputy Director, UC Sustainable Agriculture Research and Education Program (SAREP)
Gwenaël Engelskirchen, Sustainable Supply Chain Analyst, UC SAREP

PROJECT BACKGROUND

Food hubs – defined as businesses or organizations that actively manage the aggregation, distribution, and marketing of food products from local and regional producers—serve an important role in expanding market access for small and mid-size farmers. For growers, hubs hold the promise of higher returns for their source-identified local products than they can gain through traditional wholesale channels where their produce is usually not differentiated. The hubs also have access, by aggregating supplies from multiple growers, to larger buyers, including institutional buyers such as schools and college campuses. According to the USDA’s USDA Regional Food Hub Resource Guide, “food hubs are key mechanisms for creating large, consistent, reliable supplies of mostly locally or regionally produced foods”.

In 2015, UC SAREP received funding from the UC Global Food Initiative, a program of the UC Office of the President and campus chancellors, for the project Nurturing Local Food Hubs to

1 The USDA Regional Food Hub Resource Guide (2012) defines a food hub as “a business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail and institutional demand”.
Connect Small Farms to Campuses to Develop Healthy and Sustainable Eating Options for K-to-University (part of the K-12 Food Hub Collaborative Learning group). The objective of this project was to convene a network of food hubs from across California to engage in a set of activities designed to build business capacity and promote engagement with UC and other buyers. While food hubs have demonstrated their strong potential as a positive linkage in a regional, sustainable supply chain, as a relatively new type of enterprise, their impact can be strengthened by providing technical assistance and resources.

The outcomes of this project demonstrated that 1) there is interest on the part of California food hubs in a Food Hub Network and participating in organized technical assistance and shared learning experiences, however some barriers to engagement exist; and 2) there is interest on the part of UC buyers in sourcing produce from local farms, however more information is needed about how food hubs could successfully fill this gap. As a result of the activities of this project, UC SAREP identified characteristics and challenges faced by a sample of food hubs in California, confirmed interest in an initial framework for a California Food Hub Network, and identified key next steps for food hubs to serve University and other institutional buyers.

We know that around the country, the number of food hubs is on the rise. According to Economic Research Service (ERS) of the USDA, from 2007 to 2014 the number of U.S. food hubs increased by 288%, a higher growth rate than farmers’ markets. The 2013 and 2015 National Food Hub Surveys, conducted by the Michigan State University Center for Regional Food Systems and the Wallace Center, found that the number of food hubs responding increased from 107 to 151. The USDA Food Hub Directory lists 177 entries nationwide (as of April 2017) with a dozen of these located in California – though we know there are a greater number of California-based hubs than appear on this list.

There is growing interest, among consumers generally but also on college campuses and other institutions, in choosing food products that are values-based. Consumers are showing interest in food that is distinguished through production characteristics such as organic, animal welfare approved or local.2 The UC system is an innovator in the area of sustainable supply chains; UCOP has established sustainable sourcing guidelines “to procure 20% sustainable food products by the year 2020, while maintaining accessibility and affordability for all students and Medical Center foodservice patrons”3. The GFI report from the Small Growers Subcommittee, 

Facilitating Small Growers’ Ability to do Business with UC, demonstrates how a partnership with Harvest Santa Barbara, a regional food hub, allowed UC Santa Barbara Residential Dining Services to meet and exceed the UCOP sustainable purchasing goal. Food hubs show great potential to meet the growing consumer demand for local, high-quality, and sustainably-grown produce from farms recognizable by name.

WHAT WE DID
Since this was a pilot project, UC SAREP started with a group of seven hubs: six in northern California and one in southern California. The hubs were identified through the U.S. Department of Agriculture’s Food Hub Directory and the National Good Food Network’s U.S. Food Hub List. Criteria for selection were that the hub had been in operation for 1 year or more and that it fit the USDA definition of a food hub.

We structured the activities outlined in our original proposal to achieve five project objectives:
1. Provide technical assistance to food hubs to increase capacity for supplying institutional customers
2. Pilot a collaborative learning network and strengthen relationships between food hubs
3. Develop an understanding of California hub characteristics, needs and impacts
4. Develop an understanding of potential buyer needs and interest
5. Share information about our project

The activities of this project entailed the following: conducting an assessment survey (at the start and end of the project) to better understand the characteristics, needs and impacts of California food hubs; hosting two in-person gatherings (in March 2016 and in February 2017) with key managers from each of the seven food hubs, organizing a tours of established food hubs, and coordinating on-going monthly conference calls to strengthen relationships and provide opportunities for shared learning between the food hubs; conversations with University procurement staff to better understand potential buyer needs and interest in local sourcing; and bringing in outside experts to provide technical assistance intended to increase hubs’ capacity for supplying institutional buyers. (For more details about the specific activities carried out under this project, see the Summary of Objectives & Activities for the UC GFI 2015-2017 Project, Nurturing Local Food Hubs to Connect Small Farms to Campuses to Develop Healthy and Sustainable Eating Options for K-to-University.)

---

4 UC Santa Barbara’s Residential Dining Services purchased 23% of their total produce from within 150 miles of campus through Harvest Santa Barbara. (Facilitating Small Growers’ Ability to do Business with UC).
The majority of our program activities were focused on developing the pilot Food Hub Network and organizing technical assistance and shared learning opportunities for and with the hubs. We prioritized these activities for two reasons 1) in conversations with UC buyers, we discovered that the food hubs in our group did not yet have the production or business capacity to initiate successful sales relationships with UC buyers and 2) we identified other organizations active in making farm to institution connections and we wanted to find ways to compliment the work of these organizations rather than duplicate it.

**Assessment of a Sample of California Food Hubs**

In January 2016, the UC SAREP project team sent out a 33-question internet questionnaire to the seven participating California food hubs. The questionnaire collected information about food hub finances, structure, operations, markets, customers, suppliers, strengths and challenges. It was designed as an information tool for the hubs, and the results cannot be generalized more broadly. The intent was not to do research on hubs, but to provide a useful context and initial benchmarking within which the Food Hub Learning Network could make strategic and collaborative decisions.

In March 2017, at the close of our 18 month project term, we sent out a second assessment. The 46-question internet survey was sent to the same seven California food hubs, and allowed us to gather updated information about each of the hubs, as well as the impact of the UC SAREP network project for them. In aggregate, this assessment enabled us to 1) better describe the impact of food hubs on local producers and regional food systems, 2) describe the impact of our program’s activities on this group of food hubs, 3) update our understanding of the technical assistance needs for CA food hubs and how a UC-led food hub network might continue address those needs.

**Characteristics of the Food Hubs in our Pilot Cohort (2016 Sales Year)**

- Most of the hubs sell the majority of their product within a 50 miles radius and all were selling the majority of product within a 100 mile radius (distance from producers to customers).
- Hubs are sourcing from an average of 38 producers per hub (269 total producers for all 7 food hubs). 3 of the hubs work with more than 50 suppliers and 3 of the hubs work with less than 25 suppliers.
- Majority of gross annual sales comes from sale of fruits and vegetables (87% in 2016). The percentage of gross sales from vegetables and fruits declined by 6% between 2015 and 2016 (from 93% to 87%). The decrease in percentage of gross sales from vegetables...
and fruits points to a trend of diversification of product categories. 6 out of the 7 hubs increased the number of product categories offered between 2015 and 2016.

- 5 of the 7 hubs rely on some grant funding in their operating budgets (same as the previous year). For those 5 hubs, the percentage of operating budget derived from grants ranges from 100% to less than 10%. For 3 of those hubs, the percentage of operating budget coming from outside grants decreased between 2015 and 2016.

- The top three customer types that accounted for the greatest percentage of annual gross sales in 2016 were the same as in 2015; those were the following: Restaurants (33%), Grocery Stores (13%), and K-12 Food Service Providers (13%). (Percentages reflect 2016 gross annual sales on average for the 6 hubs who responded to this question.) Each of these 3 categories showed a decrease in percentage of annual gross sales between 2015 and 2016. Our cohort of food hubs showed a slight overall increase in their diversification of customer types between 2015 and 2016.

- For each of the customer types, food hubs were asked “Are you anticipating growth in this type?” The most popular categories for growth (highest number of “yes” responses out of 11 categories, plus 2 write-in) were: Restaurants, Catering Businesses, Grocery Stores, K-12 Food Service Providers and University/College Level Food Service Providers. For each of these 5 customer categories, 4 of the 6 hubs who responded said they were anticipating growth.

**STRENGTHS:**
The food hubs described their value propositions in similar terms. Consistently, they saw themselves as excelling in direct relationships between producers and consumers, product quality and freshness, source identification, responsiveness to consumer needs, and being responsible to producers.

**CHALLENGES:**
The food hubs were asked to rank a list of 14 business or operational challenges. The areas that were ranked as most challenging were: (1) Food safety compliance, (2) Increasing supply chain efficiency (3) Supplier/grower support. A different set of questions asked about business or operational challenges within different business categories. The issues for which the greatest number of hubs said this issue was their #1 priority were:

- “Having enough funds to attract/retain quality staff and/or to have enough staff”
- “Product diversity/reliable product supply” and “Lack of consistent supply”
- “Buyer awareness/education”
DEVELOPING A FOOD HUB NETWORK

This project piloted a framework for networking (learning, relationship building and formal collaborating) between the hubs. We knew from the national data that this is how food hub managers stated they learn best; we wanted to explore how this could be implemented in California.

This project demonstrated that California food hub managers were strongly interested in opportunities for networking, shared learning and potential collaboration to address their challenges and foster their business growth. Below we describe the opportunities that emerged from beginning to form this Network, and then the challenges we faced.

OPPORTUNITIES FOR A FOOD HUB NETWORK:

1. **Strengthening relationships between hubs.** At the March 2016 Convening, most of the food hub participants said “meeting other food hubs” and “discussion” had been most valuable. Throughout the project, we heard of anecdotal ways in which the network served as a launching pad for hub personnel to continue to develop relationships, such as when one hub manager put the Community Alliance with Family Farmers (CAFF) Procurement Specialist in touch with another hub manager, resulting in a significant sale of produce to a school district in Northern California, or when hub managers arranged to visit each others’ hubs outside of the project activities.

2. **Hubs learning from each other.** Most of the hub participants at the March 2016 Convening also said that hearing about each others’ knowledge and experience was one of the most valuable aspects of the gathering. While all hubs seemed to appreciate the “support group” aspect of sharing best practices and challenges, the exchange of information about how each hub is approaching their operations was particularly valuable for the newer hubs. In our end-of-program evaluation, 7 out of the 7 food hubs surveyed agreed “very much” with the statement “I learned about a new resource” and 6 agreed “very much” with the following statements: “Learning from other food hub managers was valuable to my business.” and “I gained a new business contact.”

3. **Hubs transacting with each other for mutual benefit.** The opportunity for hubs buying and selling product from each other could allow food hubs to be more competitive or reach larger markets by smoothing out fluctuations in their supply through sourcing from each other. This opportunity was identified by the hubs early on in the project as something they were interested in exploring. UC SAREP facilitated a collaborative USDA grant proposal to the Local Foods Promotion Program (LFPP) to develop cross-hub transactional sales. The proposal was to pursue coordinated inventory management and marketing
activities in order to make more sales to larger, institutional buyers who require greater diversity and a reliable supply of products. Although this proposal was not funded, it served to develop the conversation and build relationships between the hubs. As a result of the proposal process, the group further defined their priorities in working together and solidified common ground for future activities. In addition, hubs identified opportunities in developing a shared marketing/branding campaign to communicate their shared values-propositions to consumers and buyers or in investing in infrastructure that could be shared between them as a group, such as a processing facility, or cooler space.

In a post-evaluation sent to the 17 food hub staff who attended a webinar on food network models, the majority who responded felt like a food hub network would be most beneficial in helping them with “Getting access to technical assistance” and “Inherent supply limitations”. Others thought a network could help with “Infrastructure limitations (processing, storage and/or distribution)”; “Shared marketing/branding” and “Challenges accessing markets”.

**CHALLENGES FOR A FOOD HUB NETWORK:**

1. **Variation between the hubs makes it hard to identify a common purpose and/or benefit.**
   The food hubs in our pilot network are different sizes, are pursuing different market niches, have different geographies of supply, different operational models and different experience levels. This diversity across the group makes it harder to hone in on areas of mutual benefit.

2. **Transactions between the hubs may not be profitable.** If there is an added cost to the hubs doing businesses with each other (either from labor, or transportation, or shared investments), this cost would need to be off-set by profits in order to ensure that the food hubs are meeting their own margins, and maintaining equitable pricing for their farmers/suppliers.

3. **Limited time/capacity to engage in a Network.**
   Food hub managers are busy people running thin-margin enterprises. They don’t have a lot of extra time to participate in learning activities or planning conversations, even if those activities might be valuable. This can make scheduling and getting input challenging.

4. **Building trust and alignment between hubs.** Although there is a strong spirit of cooperation among the hubs in our pilot network, there is nonetheless the risk of sharing sensitive information and of individual interests that compete with those of the group. Through the activities of this project, we learned that the Colorado Food Hub Network addressed this issue in part by developing a Memorandum of Understanding among their participating food hubs.
When hub staff who participated in the food hub network models webinar were asked what concerns they had about establishing a food hub network in California, the strongest responses were “The size and characteristics of hubs in this region vary too greatly (63%) and “Adding additional cost and margin in the supply chain” (63%). (Hubs were allowed to select more than one “concern”, therefore the percentages total more than one hundred percent.) 50%, or 4 hubs out of the 8 respondents, indicated that “Limited time to engage in the activities of a network” and/or “Other” were major concerns. For those who elaborated on their “Other” selection, responses were “Lack of interest from other hubs”, “Distance between hubs and time it will take to get product” and a question about “maintaining values/branding of source hyper-local ingredients when sourcing from a broader region.” Two hubs (or 25%) were concerned that a “Network and/or other hubs will compete with me on buyers” and only one was concerned that a “Network and/or other hubs will compete with me on producers.

The hubs in our pilot group all demonstrated interest in seeing a food hub network continue. But, in moving forward, the group will also need to address the challenges identified. By strengthening capacity of individual hubs, a successful food hub network shows strong potential for increasing the amount of regional product that is both sold and consumed within a region.

**Selling to Institutional Buyers**

Through conversations with university food procurement staff, UC SAREP was able to 1) take stock of the ability of food hubs to supply institutional buyers, 2) better understand the sales to institutional buyers that food hubs were already undertaking in their own areas, and 3) start conversations with UC buyers to better understand their ability to buy from food hubs. We understood that the following are important characteristics of successful buyer-seller relationships from UC buyers’ perspectives: 1) establishing direct relationships/good rapport with the buyer, 2) having a match between supply and demand, 3) having a match between price and logistics, and 4) alignment with buyers’ sourcing requirements, such as third-party food safety audits. However, these were preliminary conversations and the limitations of this project did not allow us to address the specifics in aligning sourcing and supply requirements.

We learned from our conversations with UC buyers and with the food hubs themselves that the food hubs in our Network did not yet have the capacity to sell to the UC – they were lacking sufficient volume, adequate delivery systems and third-party food safety audits. In our proposal, we stated that we would organize meetings with the food hubs and institutional buyers, focusing on UC food service. However, instead we focused activities on developing the food hubs’ capacity to better serve institutional clients: by touring two existing food

---

Lessons Learned from a CA Food Hub Network Pilot: Role of UC in Nurturing Success for Food Hubs in California (*Project of the UC Global Food Initiative, 2015-2017*)
hubs/distributors who are successfully doing business with the UC and providing workshops to the hubs in the Network on business development and food safety.

**Lessons Learned:**
1. There is interest on the part of UC food service in increasing local sourcing, and interest in potentially working with food hubs as a means of doing this.
2. Establishing buying relationships is about making the right connections, which can take time.
3. A better understanding is needed of the specifics of buyer requirements and potential entry points for the hubs to sell to UC and other institutional buyers.

We would like to continue to understand and explore potential for both buyers and food hubs to build business relationships. We were recently awarded continued GFI funding to allow us to continue this work, specifically focusing on UC buyers.

**Significance of UC’s Contribution**
This project resulted in the University of California contributing to a nationwide conversation, along with many other land grant universities, about supporting food hubs as a component of robust regional food supply chains. The fact that food hub networks are receiving support from land grant universities and non-profits across the country demonstrates the relevance of this model of food systems development. The Michigan Food Hub Learning and Innovation Network is led by the Center for Regional Food Systems at Michigan State University, also a land grant university. Other organizations involved in supporting food hub networks include Southern Sustainable Agriculture Working Group, the Rocky Mountain Farmers Union and, on a national-scale, the National Good Food Network as a program of The Wallace Center. The UC SAREP project served to connect the University of California to a network of values-based businesses in California and beyond. Through the expertise and relationships developed in this project, we strengthened UC’s position as a resource to players in the sustainable foods landscape.

**Next Steps/Possible Future Directions**
The objective of this project was to pilot a collaborative learning network of California food hubs to provide technical assistance, build capacity and guide regional planning, especially with UC buyers. This was a stakeholder-driven project, and as such, the activities evolved in a way that was responsive to the interests and needs articulated by the food hubs. We learned from this project that there is 1) interest on the part of California food hubs in a Food Hub Network and participating in organized technical assistance and shared learning experiences; and 2) interest on the part of UC buyers in sourcing produce from local farms and food hubs, however,
requires more information about how food hubs could successfully fill this gap and opportunities for identifying shared mutual benefit.

Below are next steps we see emerging from the activities of this project.

**Next Steps: Hub Sales to Institutional Buyers**

1) Continue conversations with university buyers to better understand how to work within their pricing, ordering and logistical constraints.
2) Understand buyers’ certification requirements and leverage technical assistance to help food hubs meet those requirements.
3) Connect with other organizations working on regional sourcing for institutions to coordinate for greater impact.
4) Continue the conversation between food hubs successfully selling to the UC and those not selling to the UC. What can the newer hubs learn from the more experienced ones that might be replicated with institutions in their areas?

**Next Steps: Developing a CA Food Hub Network**

1) Broaden the network to include larger cohort of food hubs in California.
2) Define a set of goals and objectives for the Network.
3) Continue to explore the feasibility of cross-hub transactions and other opportunities for collaboration.
4) Identify and connect with outside expertise for the monthly calls and for individualized business development with the hubs.

Based on our work in this project, we were successful in securing funding from the California Department of Food and Agriculture to provide technical assistance and food safety training to farmers who supply food hubs and could potentially supply UC buyers in the future. We were also granted continued funding through the UC Global Foods Initiative to focus on better understanding of campus Dining Services’ current sourcing procedures. The project will build relationships with student groups on campus already working to increase sustainable sourcing, and foster the business growth of regional food hubs by coordinating and delivering technical assistance, thereby strengthening their capacity to provide stable market channels for small to mid-scale farms.

**Acknowledgements:** We would like to thank the University of California Office of the President and campus Chancellors for funding this project through the UC Global Foods Initiative, addressing how to sustainably and nutritiously feed a world population expected to reach eight billion by 2025. We would also like to thank Rebecca Campbell, UC Davis graduate student, and Emma Lee, UC Davis undergraduate, for their valuable and committed work on this project.