A FOOD BUSINESS INCUBATOR IN THE SACRAMENTO REGION

- FEASIBILITY STUDY OF ALCHEMY KITCHEN -

MAIN AUTHORS: KRISTIN KIESEL AND ASHLEY SPALDING, UNIVERSITY OF CALIFORNIA, DAVIS[1]

CONTRIBUTING AUTHORS: DAWN DUNLAP, JACOB SACKS, ALCHEMIST CDC

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EXECUTIVE SUMMARY

This feasibility study discusses the potential for success in the development and implementation of a food business incubator (referred to as incubator or food incubator for the remainder of the report) in the Sacramento region. Funding for this study comes from a USDA Local Food Promotion Program grant and is intended to inform Alchemist Community Development Corporation's (Alchemist CDC) planning efforts in developing a local commercial kitchen and incubator business model (Alchemy Kitchen).

The incubator addresses food insecurity within low-income neighborhoods and creates opportunities for economic growth, particularly within the Sacramento Promise Zone. Alchemy Kitchen aims to provide a shared commercial kitchen, business development classes and mentoring to assist small food business entrepreneurs and build on the comparative advantages of the region. In establishing a network and supporting potential synergies in both supply chain management and distribution, the incubator aims at increasing market access and competitiveness of small food businesses and stimulating demand for value-added locally produced foods. At the same time, it wants to create new job opportunities for low-income residents, new revenue streams for local farms, and increase community access to affordable and locally produced healthy foods. This report addresses the following objectives in determining challenges and opportunities for the proposed local food incubator:

1) Review the related research literature and successful food business incubator concepts.
2) Determine needs and barriers to success of potential users.
3) Assess potential cost savings due to synergies and economies of scale in supply chain management. In particular, investigate the potential to reduce food waste.
4) Explore potential partnerships to support direct distribution channels for small producers within the community (e.g. through Farmers' markets, Food Co-ops, and Community Supported Agriculture).
5) Estimate the potential demand and willingness to pay for locally sourced and produced food products within the community.
6) Identify potential benefits to the community in terms of job creation, increased revenue and value generation, and access to healthy foods from a local food incubator.
7) Discuss cost considerations including possible funding sources and pricing models.

The above supply and demand side considerations inform the recommendations in this report for implementing the proposed Alchemy Kitchen incubator project. This report also informs grant writers, local non-profits, food businesses, and government stakeholders about the general potential for creating a successful and sustainable food business incubator in the region.

In conclusion, the implementation of a food incubator business within the Sacramento Region has great potential. A kitchen incubator could improve the existing infrastructure and strengthen value-based supply chains for local foods, by serving as an intermediary and providing growth opportunities and market access to small local businesses or aspiring entrepreneurs. A kitchen incubator can further provide consumption gains for the entire community, as well as for underserved populations within, productivity gains and increases in asset value for local producers recruited and trained from these communities. Consumption gains can come from taking advantage of synergies and economies of scale that make products more competitive, and from an increased availability and access to foods, especially if the incubator also serves as a retail location and operates as a social enterprise business. Establishing self-sufficient local food businesses that empower entrepreneur-minded minorities with access to limited resources can strengthen their unique marketable skills, increase the revenue streams to local businesses and generate greater income for local employers overall. In short, a kitchen incubator could contribute to a more equitable local food system and economic growth in the greater Sacramento region.

However, implementing and sustainably running the proposed kitchen incubator will ultimately depend on Alchemist CDC's ability to successfully collaborate with community partners, and governmental and research institutions, to take advantage of and build on their varying expertise. The most pressing challenge is to ensure the financial feasibility and long-term profitability of this proposal. Alchemist CDC needs to identify and engage with interested investors, and establish partnerships with financial institutions to raise the significant start-up funds needed. Learning from existing successful incubators and related failed attempts, Alchemist CDC needs to creatively think about pursuing a business model that creates a sizable revenue stream while continuing to secure public and private funding for the first 3 to 5 years. Even after this initial implementation phase, it is unlikely that this project will be fully self-sustaining and able to cover all its operating costs.

BACKGROUND

As "America's Farm-to-Fork Capital", the Sacramento region has abundant and diverse food and agriculture crops. While people often think of agriculture as a predominantly rural industry, the Sacramento Area Council of Government (SACOG) found that most of the region's specialty crop jobs are actually located in urban areas. The Food and Agriculture Sector as a whole provides 32 thousand on- and off-farm jobs and contributes $6.8 billion dollars to the regional economy (SACOG, 2016).

At the same time, Sacramento is home to a federally designated Promise Zone, encompassing one of the economically hardest-hit areas in the nation. In the Sacramento Promise Zone, unemployment is stagnant at 18 percent and over 34 percent of the residents live in poverty. This area also suffers from limited access to affordable and healthy food (HUD, 2015).

Specialty Crops:

- Specialty crops are defined as "fruits and vegetables, tree nuts, dried fruits and horticulture and nursery crops, including floriculture." (USDA, Agricultural Marketing Services, 2017)
- "From rows of fresh vegetables to blooming orchards and rolling hills of wine grapes, this sector is the heart of specialty crop agriculture". (SACOG, 2016).

Alchemist CDC seeks to address these disparities by creating Alchemy Kitchen—a food business incubator. Alchemy Kitchen will support local food businesses, foster jobs and increased economic activity for low-income food entrepreneurs and local farmers. Supported by one of 19 grants awarded in 2016 by the USDA under the Local Food Promotion Program, Alchemist CDC and one of its partners on this grant—the University of California, Davis (UC Davis)—committed to the completion of this feasibility study. The study was prepared by a team of undergraduate and graduate research assistants, led by Dr. Kristin Kiesel, faculty member of the Department of Agricultural and Resource Economics at UC Davis.

As an additional grant component, Alchemist CDC is developing a business plan in collaboration with the other main partner on this grant (Capsity, Inc.). The project has received endorsement from community leaders, including Congresswoman Doris Matsui, Assemblymember Kevin McCarty, State Senator Richard Pan, and Sacramento City Council members Jay Schenirer and Steve Hansen. Diverse community organizations, among them SACOG, Valley Vision, Certified Farmers' Markets of Sacramento, Roots Creative Kitchen, International Rescue Committee Sacramento-New Roots program, Sacramento Food Policy Council, Sacramento Chinese Community Service Center, Sacramento Food Bank and Family Services, Slow Food Sacramento, WayUp Sacramento, Wellspring Women's Center, and Sacramento Housing and Redevelopment Agency also indicated their willingness to support this project and will be considered as possible collaborators moving forward.

A PROJECT DEFINITION OF 'LOCAL'

The growth of the local food movement in the United States is rooted in the environmental, community food security, and slow food movements (Guptill and Wilkins, 2002). In California, its origin is also in the trends set by Chez Panisse, and the interests of foodservice professionals at schools and hospitals in purchasing local food. Interest in local foods is further sustained by

increasing consumer concern about the sources and ways food is processed (Martinez et al 2010). Although federal and state standards have been developed for other value-added food designations like Organic, Humane, and Fair Trade, etc. there is no comprehensive definition of local food.

Value-added food products:

- Value-added food products are defined as "a change in the physical state or form of the product (such as milling wheat into flour or making strawberries into jam)."
- They can also describe the "production of a product in a manner that enhances its value, as demonstrated through a business plan (such as organic production)." (USDA, Rural Business Development, 2017)

Both local and regional food systems are referred to as place-specific clusters of agricultural producers, along with consumers and institutions engaged in producing, processing, distributing, and selling foods in existing studies. Since neither term is well defined, the distinction between local and regional food systems is unclear in the existing literature and these terms are often used interchangeably.

The *2008 Farm Act* defines local foods as those produced in "the locality or region in which the final product is marketed, so that the total distance that the product is transported is less than 400 miles from the origin of the product; or the State in which the product is produced" (Consolidated Farm and Rural Development Act of 2008). Census data availability framed the definition of locally marketed foods in the Sacramento region as those produced within the Yolo, Sacramento, Placer, and El Dorado county region that comprises the Sacramento Metropolitan Area in recent research that quantifies the economic impact of local farming (Hardesty, et al., 2016). Local food retailers often develop their own definitions of local to promote these products in their stores. The Davis Food Co-op, for instance, defines local as products grown or made within 100 miles of the Co-op[2].

To some consumers, local food is primarily defined by local ownership or by direct-to-consumer/direct-to-retailer sales. Others may define "localness" by natural, organic, and other specialty characteristics of the product (Low et al, 2015). One advantage of locally-grown designations, in that context, is that they provide profitable differentiation strategies without the upfront investment of organically-grown and similar certifications (James et al, 2009).

Informed by these varying approaches, the Alchemy Kitchen project will need to define what constitutes local food. This definition should:

[2] See http://davisfood.Co-op/sustainability/localfoodlist.

1) complement the purpose of the project;
2) be understood and valued by the target consumer population; and
3) be observable and enforceable.

Since Alchemy Kitchen will be both sourcing and processing food products, it is possible to choose two definitions, one for "locally grown" and one for "locally produced". For "locally grown," the following definition is suggested:

> Agricultural inputs whose point of harvest or origin is within the Census Bureau's four-county Sacramento Metropolitan Area, consisting of El Dorado, Placer, Sacramento and Yolo counties.

It will allow the project to incorporate estimates of the economic impact of the proposed incubator kitchen to the estimated economic impact of local food producers in the Sacramento region and utilize census data in the future. A second definition for "locally produced" should become an essential part of the incubator's branding strategy and ultimately the incubator's own label. Both branding and marketing opportunities in this regard will be discussed in detail in the business plan for this project.

THE LOCAL FOOD ECONOMY IN THE SACRAMENTO REGION

California is 1 of just 5 Mediterranean climates in the world that not only provides unique recreational opportunities, and diversity in wildlife, but also has a competitive advantage as an agricultural producer, as pointed out in *SACOGs Rural-Urban Connection Strategy* (SACOG, 2015). The Sacramento region is already a leader in a shift to farm-to-fork consumption. Their proximity to two distinct major metropolitan areas - Sacramento and the San Francisco Bay Area, uniquely positions the region's growers. It allows them to capitalize on the rapidly expanding demand for locally grown food and access growing consumer markets.

In turn, situated close to the agricultural abundance of the Central Valley, the Sacramento region has supply-chain advantages for specialty crops and in producing value-added products from these crops. The region is already growing a variety of high-value crops such as almonds, walnuts, plums, peaches, pears, grapes, kiwifruit, tomatoes and olives. In Sacramento, Yolo, Placer, and El Dorado counties in 2007, 733 farms made direct sales to consumers (representing 14 percent of farms in the region). 23.8 acres of vegetables were harvested for fresh markets per 1,000 population, placing this region in the top range for the United States (USDA, Economic Research Service, 2017). Yet, only two percent of the food consumed in the region comes from local sources. And even if products are locally sourced, much of the value of Sacramento's locally grown foods is added outside of the region, as commodities are shipped out and value-added products return to our retail stores. It therefore seems that regional farmers are not fully taking advantage of market opportunities and would benefit from expanded regional agricultural

infrastructure and direct market opportunities to help them sell the crops they grow locally. Farmers are only one element of a much larger food system. Supportive industries (such as distribution, storage, and processing facilities) further refine, enhance, and move food products to consumers; increasing marketing opportunities as an essential part of a sustainable local food system (SACOG, 2015).

One way in which local food production has been increasing is through improved market access for small home-based food businesses. Recent California legislation—the *Cottage Food Bill* that became effective in January of 2013—resulted in over 200 home-based food businesses being registered in Sacramento. While interest in these new opportunities continues to grow, this regulation also limits how much a home-based entrepreneur can expand their business. Operations are subject to a cap of $50,000 in gross sales annually. In addition, few resources are available to help interested entrepreneurs create viable businesses that potentially scale up from home production. For instance, access to commercial kitchens and related training for business development remains limited in this region.

The demand for locally grown and produced foods by more affluent and educated consumers in general is already established in the literature.[3] A study by the Sacramento County Planning and Community Development Department contrasts these findings with their conclusions regarding access to healthy foods in communities with the highest rates of poverty (Planning and Community Development Department, 2010). A number of initiatives already aim at improving access and increasing consumption of locally grown produce in the Sacramento region. These community-focused efforts include Alchemist CDC's *CalFresh at Farmers' Markets: Connecting Families to Farmers* project. Furthermore, as a result of collective efforts in the region led by Valley Vision and SACOG, two plans were developed: *The Next Economy: Workforce Development Recommendations for the Agriculture and the Food Industry Cluster* (March 2014); and *Sacramento Region Food System Action Plan* (Valley Vision, 2015). Both of these plans emphasize the need to support regional farmers and the demand for local food production spaces. Ultimately, these efforts can address limited access to healthy foods while also providing opportunities for job creation and economic viability.

The Food and Agriculture Sector as a whole currently provides 32,000 jobs and $6.8 billion dollars in revenue, creating ripple effects throughout the region's economy at large. The creation of additional jobs and revenues can then boost the economy even further. This impact can be quantified into estimated average economic multipliers. SACOG aims at quantifying this economic impact and estimates an employment multiplier of 1.82 for jobs related to specialty crops, as well as a value-added multiplier of $1.90. In other words, each of these specialty crop

[3] The section (Existing Studies: Demand and willingness to pay for local foods) summarizes the existing literature in that regard.

jobs generates another 0.82 jobs in other areas of the regional economy. In addition, each dollar these specialty crop businesses contribute to gross regional product generates an additional $0.90 across other regional industries (SACOG, 2016).

These potential economic benefits and multiplier effects might even be larger in certain geographical areas. In 2015, an area in Sacramento that runs through South Sacramento, Oak Park, downtown and up through North Highlands was federally designated as a *Promise Zone* in the second round of this initiative. A *Promise Zone* is an area with a high rate of poverty and yet, due to the community organizations, government institutions, healthcare providers, and schools, has a strong potential and capacity to address these issues. Through the *Promise Zone Initiative,* the Federal government will work strategically with local leaders to boost economic activity and job growth, improve educational opportunities, reduce crime and leverage private investment to improve the quality of life in these vulnerable areas. (U.S. Department of Housing and Human Development, 2017)

Federal Promise Zone Initiative:

- Promise Zones are high poverty communities with great potential for economic growth.
- Goals of the initiative: (1) create jobs, (2) increase economic activity, (3) improve educational opportunities, (4) improve health and wellness, and (5) facilitate neighborhood revitalization. (HUD, 2017)

The remainder of this section provides an overview of existing research regarding supply and demand determinants of local foods, with specific consideration given to regional specific aspects.

EXISTING STUDIES: SUPPLY OF LOCALLY PRODUCED FOODS

The US Food system transformed from small, pre-industrial farming systems to industrialized agriculture over the 20th century (Hardesty, et al., 2016). Local food markets account only for a small share of total U.S. agricultural sales. In 2012, 7.8 percent of U.S. farms sold food through local food marketing channels, including direct to-consumer (DTC) marketing channels (e.g., farmers' markets, roadside stands, u-pick) and intermediated marketing channels (e.g., direct to restaurants, institutions, grocery stores, food hubs) (USDA, 2015). Participation of producers in local markets is growing significantly, however. Relying on the *2012 Census of Agriculture*, the *Agricultural Resource and Management Survey (ARMS) from 2007-2011*, the *2011-12 USDA Farm to School Census* and *2006 Nielsen Homescan* data, the *Economic Research Service (ERS)*

summarizes the following trends in local and regional food systems in their report to the United States Congress: [4]

- In 2012, 163,675 farms (7.8 percent of U.S. farms) were selling foods locally, utilizing either direct-to-consumer (DTC) or intermediated marketing channels. Of these farms, 70 percent used DTC marketing channels exclusively, which include farmers' markets and community supported agriculture (CSA) arrangements. The other 30 percent used a combination of DTC and intermediated channels or solely intermediated channels.
- The number of farms with DTC sales increased by 17 percent and sales increased by 32 percent between 2002 and 2007. However, between 2007 and 2012 the number of farms with DTC sales increased 5.5 percent, with no change in DTC sales.
- Local food sales totaled an estimated $6.1 billion in 2012.
- Farms with gross cash income below $75,000 accounted for 85 percent of local food farms in 2012. In contrast, these farms are estimated to account for only 13 percent of local food sales. Local food farms with gross cash-farm income above $350,000 accounted for 67 percent of sales.
- Farms selling local food through DTC marketing channels were more likely to remain in business over 2007-12 than farms not using DTC marketing channels, despite experiencing smaller increases in sales than other farms.

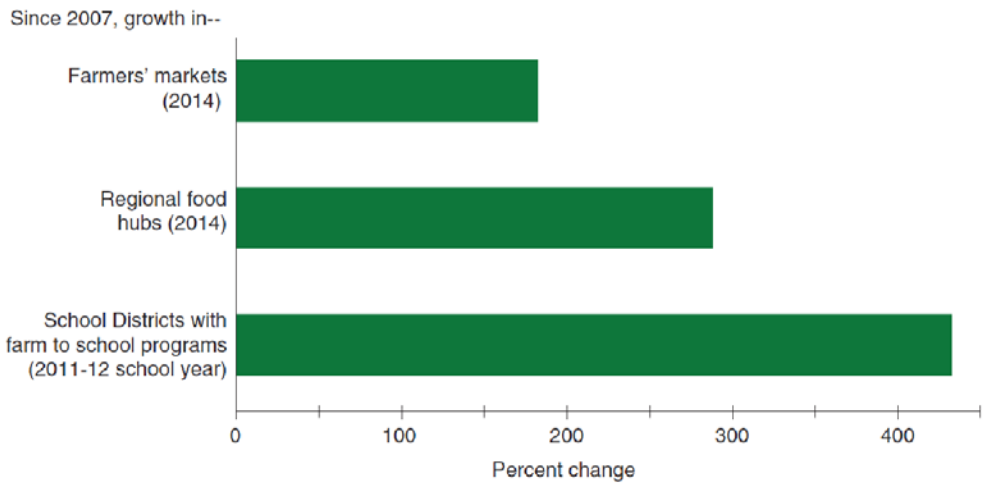
Food hubs:

- A food hub is defined as "a centrally located facility with a business management structure facilitating aggregation, storage, processing, distribution, and/or marketing of locally/regionally produced food products." (USDA, 2010)

Similar trends are reported in other studies. More specifically, producers in direct marketing tend to be smaller, more labor-intensive and source more of their inputs locally. It is worth pointing out that although volume of direct sales has been increasing, revenues from direct marketing are declining in real dollar terms (Hardesty, et al., 2016). Farmers markets continue to offer an important marketing channel, but other intermediaries such as food hubs are becoming more abundant and could play an important role in securing access to and increasing consumer demand for local foods.

[4] Please note that growth in non-direct sales and value of intermediated sales of local food is not included in the measures reported here and might account for the slowing trend observed.

Figure 1: Increase in Local & Regional Marketing Channels



Sources: USDA, Agricultural Marketing Service, Food Nutrition Service; National Farm to School Network.

The interests of foodservice professionals, reinforced by the federally designated Farm to School Program objectives that range from nutrition education to serving locally sourced food in school meals to meet mandated guidelines or voluntary commitments at the federal, state and local level, might have been important determinants of the observed growth. According to the *USDA Farm to School Census*, 4,322 school districts have farm to school programs, a 430-percent increase since 2006 (USDA ERS, 2015).

In addition, the *2012 Census of Agriculture* asked farmers to report if they sold any food for human consumption through outlets that in turn sell directly to consumers (including restaurants, grocery stores, schools, hospitals, or other businesses) drastically increasing the value of local food sales. While these numbers are not fully analyzed yet, most of the growth in sales might have occurred in this channel, and prices at DTC outlets are generally lower, on average, than prices at retail stores in all seasons (USDA, 2015).

Small farms' revenue will only grow, however, if they continue to access those markets in an entrepreneurship-friendly environment that provides assistance to develop and grow their own businesses, or supports local businesses that directly source from these farmers. Integrating these farmers, local producers and intermediaries can sustain the continued growth of local food systems and result in significant economic multiplier effects by securing additional income and creating new job opportunities in local communities. However, it is precisely the lack of infrastructure (e.g. limited production facilities, storage units and distribution channels) that is most often cited as a significant barrier to starting and/or growing a business for local small farmers and food entrepreneurs in this context (Shipman, 2009; Vogt & Kaiser, 2008; Kirby, Jackson, & Perrett, 2007; Chefs Collaborative, 2008).

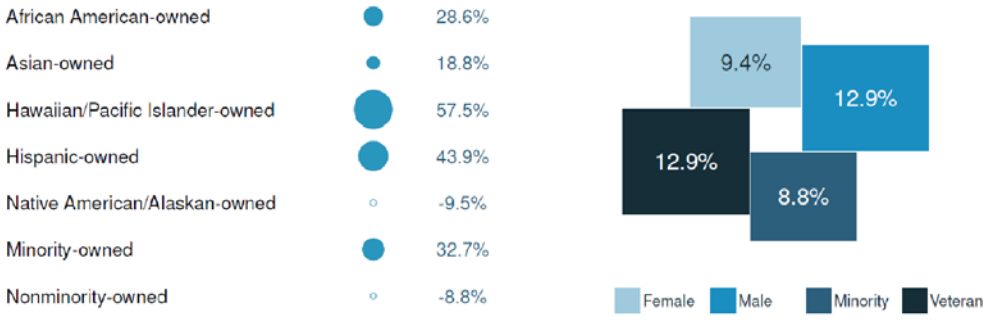
Local foods have also been the subject of federal, state, and local government policy in recent years. This might be due to the fact that they are linked to USDA priorities including: enhancing the rural economy, the environment, food access and nutrition, informing consumer demand, and strengthening agricultural producers and markets. Federal policies related to local and regional food systems were greatly expanded by the *Food, Conservation, and Energy Act of 2008*, and are further expanded in the *Agricultural Act of 2014*, which strengthened support for intermediated marketing channels. The *2011 Food Safety Modernization Act (FSMA)* also directs the FDA to implement the law in a way that is flexible, participative, consistent with CODEX standards, and sympathetic to small business issues and local production.

CODEX Alimentarius:

- The CODEX Alimentarius (latin for "Food code") is a collection of science-based international food safety, production and labeling information standards designed to prevent of economic fraud and consumer deception.
- The FDA participation ensures consistency with U.S. regulations and laws. (FDA, 2016)

Small farms and businesses have limited access to research, education, and training for marketing local food; and face uncertainties related to regulations that may affect local food production, such as food safety requirements (Martinez, et al., 2010). These barriers are especially high if the demographics of small business owners include a large percentage of minorities, or other groups with limited resources. While it is not easy to separate out small farms and food businesses in the *California Small Business Profile* (2016), the demographics reported here are suggestive of a high percentage of minorities among small food entrepreneurs targeted in this project[5]:

Figure 2: Change in Business Ownership and Self-employment by Demographic Group



[5] Businesses are broken up by industry, and farms would fall under Agriculture, Forestry, Fishing and Hunting, while food businesses could be included in a number of categories such Health Care and Social Assistance, Retail Trade, Accommodation and Food Services, Wholesale Trade, Educational Services, etc.

The left graph displays the change in ownership for each demographic group from 2007-2012 based on the *Survey of Business Owners (SBO) for California* (released in December 2015), while the right graph displays the percent of each demographic group identified as self-employed.

In addition to state initiatives, many localities are beginning to support the development of a local food system (USDA, 2015). This trend is likely to continue, and might offer institutional support and funding opportunities for this proposed project. Specific local initiatives and potential collaborators will be discussed in more detail at a later section of this report (*see* Alchemist CDC and currently Considered Potential Collaborators).

Food Hubs and Values-based Supply Chains

The idea and use of food incubators is still relatively new and not referenced frequently in the existing literature. A broader concept of food value chains is an innovative business model in which agricultural producers, manufacturers, buyers, as well as other actors along the supply chain form partnerships to try to address increasing customer demand to promote social improvement. They incorporate social or environmental values such as supporting the local economy into their product differentiation strategies. Food hubs or food hub enterprises are an important subset of food value chains and have grown in popularity in this context nationwide. They can be defined as facilities or business management structures that offer a combination of aggregation, storage, processing, distribution, and/or marketing services in a region. Since 2006-07, the number of food hubs has increased by 288 percent—as illustrated in Figure 1.

Food hubs:

- A food hub is defined as "a centrally located facility with a business management structure facilitating aggregation, storage, processing, distribution, and/or marketing of locally/regionally produced food products." (USDA, 2010)

Food hubs can provide much needed system infrastructure and network support services. They can aggregate products for distribution to markets (Cheng & Seely, 2011; Day-Farnsworth, McCown, Miller, & Pheiffer, 2009), effectively leveraging wholesale benefits for services such as packaging, distribution, marketing and branding channels, and even retailers. Finally, food hubs can significantly reduce knowledge constraints regarding regulatory practices and licensing, marketing, and distribution that are a serious barrier to entry for local food entrepreneurs. More specifically, they can provide its users with access to higher prices, access to a wider array of

markets, reduced economic uncertainty, and increased market power. Food hubs that work directly with farmers can also help them improve their farming skills and knowledge, build professional and community relationships, start a CSA, and join or establish a multi-farm CSA (Lerman, Feenstra, & Visher, 2015).

Market share of local foods:

- Only two percent of the food consumed in the Sacramento region comes from local sources, and even for those products, much of the value of locally grown foods is added outside of the region.

Food hubs have diverse business models, as they try to respond to the needs of local producers, consumers, and communities. Nearly 40 percent of food hubs provide locally sourced food commodities to consumers, while another 29 percent cater exclusively to business and institutional buyers. The remainder operate as a hybrid, catering to both businesses/institutions and consumers. Table 1 summarizes their legal status and business type.

Table 1: Summary of Food Hubs in the US

Food hubs in the U.S. by legal status and food hub type

	Food hub clients:			
Legal status	Farm to business/ institution	Farm to consumer	Hybrid: business/ institution and consumer	Totals
Cooperative	18	25	18	61
Nonprofit	23	43	21	87
Privately held business	39	41	43	123
Other*	7	10	14	31
Total	87	119	96	302

*Incorporated, publicly and privately held corporations, and informally organized.

Source: USDA, Agricultural Marketing Service, List of Food Hubs, April 28, 2014.

A discussion of local approaches to food hubs and a description of two approaches that seem most relevant to the Alchemy Kitchen project are included in a later section of this report (*see* Related Local Concepts and Lessons Already Learned).

Potential Economic Impact on the Sacramento Region

Re-localized food systems where local food is aggregated and distributed by a central entity, such as those created by food hubs, contribute to improved economic development. Empirical research suggests that such systems can reduce unemployment, increase tax revenue, stimulate rural economies, improve economic security, strengthen regional branding, foster and retain local businesses, and improve quality of life and public health, among other things (Lerman, Feenstra, & Visher, 2015). While this research supports the economic benefit of re-localized food

systems, the current literature makes it difficult to draw conclusions that are more specific to the economic impact of local foods systems. Data necessary to conduct economic impact analyses are costly to obtain, locally-produced foods are not easily identified, researchers have yet to agree on a standard way of accounting for the opportunity costs involved when local foods are produced and purchased, and a standard set of economic modeling assumptions has not emerged. Existing studies have a narrow geographic and market scope, and most of the literature seems to focus on farms.

Despite these limitations, a 2016 UC Davis' Cooperative Extension study can provide insights into how marketing of local foods can create new jobs and contribute to the economic development of this community (Hardesty, et al., 2016).

While the proposed incubator project primarily focuses on the Sacramento Promise Zone, small food businesses and the creation of value-added products, the Hardesty et al. study focuses on farm gate products. These products included a variety of vegetables, fruits and nuts, as well as dairy and meat products marketed by the farms directly to the consumer, restaurants, caterers, and sometimes independent retailers. Researchers interviewed vegetable producers, orchard producers, and livestock producers engaged in direct marketing to provide insight into how to measure the economic impact of local food marketing in the Sacramento Region (El Dorado, Placer, Sacramento and Yolo counties). The economic impact of local food marketing is determined based on the collected data and model calculations performed using IMPLAN, an economic-impact-analysis software. Three levels of economic impact related to local food marketing can be measured: *direct*, *indirect* and *induced*. Direct effects result from expenditures by those immediately involved in the economic activity of interest, which in this analysis are Sacramento Region producers who sold at least $1,000 of product direct to consumers. Ripple effects occur from these generated sales. They can be defined as indirect effects, i.e. producers purchasing inputs from other industries within the region to produce commodities or value-added products, and induced effects, i.e. households spending their income generated in the production of goods and services within the region. These expenditures can include consumption of food, clothing, health care, as well as restaurant visits, recreational activities and use of other services.

IMPLAN:

- IMPLAN is an economic-impact-analysis software using an input-output model that measures the direct, indirect and induced economic impacts of sales in one industry over a user-defined region.
- It is currently used by academia, government and industry. (IMPLAN, 2017)

Producers that marketed their products directly within the Sacramento region averaged $164,631 annually in sales, while sales for local producers who were not engaged in direct marketing in the region averaged $568,105. This large difference indicates that the majority of farms and businesses involved in the local food system are small operations. Only 30 percent of their DTC sales were generated in the Sacramento Region, however, while sixty-five percent were generated in the Bay Area, and five percent in other parts of the state or outside of California. The same picture emerges for the wholesale distribution channel. Seventy-three percent of direct marketers also sold through wholesale channels, but most of their sales activity is the Bay area. Overall, their largest revenue channel was distributors with 30 percent of total sales, followed by farmers markets (16 percent), Community Supported Agriculture (14 percent), grocers (13 percent), and farm stands (9 percent).

Interestingly, annual production and marketing expenses of producers who were engaged in regional markets averaged $155,235 in 2013. Expenses of producers, who were not, averaged $214,486. This might point to potential cost advantages from engaging in local markets. Some of those differences might be explained by the finding that eighty-nine percent of the inputs used by the region's direct marketers were purchased within the region, while only 45 percent of the inputs used by other producers were purchased within the region.

All of these differences resulted in significant differences in the regional output multiplier for the direct marketers (1.86), as compared to producers who were not involved in direct marketing (1.42). This multiplier includes $0.41 as the estimated indirect effect from the additional demand for inputs from other industry sectors that supply the Sacramento Region direct marketers. It also includes $0.45, as the induced effect, which is generated by household spending within the Sacramento Region by the direct marketers, their employees and their suppliers' owners and employees. In other words, for every dollar of sales, Sacramento Region direct marketers are generating almost twice as much economic activity within the region, as compared to producers who are not involved in direct marketing. The total output multiplier of 1.86 is relatively high as compared to other industries in the region competing for resources. These range from 1.61 for auto dealers to 1.77 for building material/garden supply retailers. In addition, the direct marketers have a job effect of 31.8, compared to 10.5 for the producers who were not involved in direct marketing. This means, that for every $1 million of output they produce, the direct marketers are generating a total of 31.8 jobs within the Sacramento Region, while producers not engaged in direct marketing only generate 10.5 jobs. The difference is partially due to the fact that hired labor expenses comprised 54 percent of the direct marketers' operating expenses, compared to only 25 percent for the other producers.

Finally, the study also created a scenario in which grocery stores in the Sacramento Region increased their purchases of produce grown by the region's direct marketers from an estimated

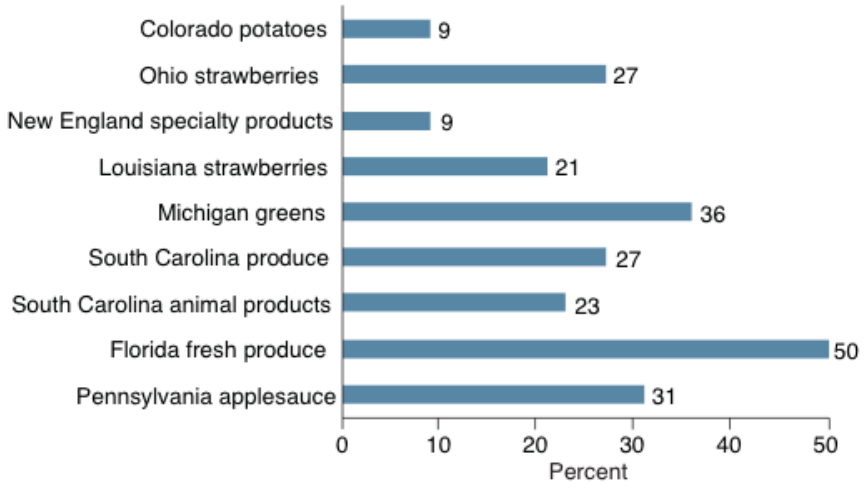
$4.6 million to $5.6 million, with a matching decrease in their purchases of produce grown by producers who are not engaged in direct marketing. Because grocers purchase produce from distributors, the region's direct marketers would increase their sales by $700,000. The resulting net economic impact is an additional $1.3 million of output within the Sacramento region, including 22.3 jobs.

EXISTING STUDIES: DEMAND AND WILLINGNESS TO PAY FOR LOCAL FOOD

Understanding who buys local food and why, is one of the foundations of this feasibility study. This information is further shaping public policies and programs aimed to support local and regional food systems. Studies of consumers' willingness to pay (WTP) for local food provide insights into whether any higher prices for local foods will provide a sufficient incentive to sell food locally, either through a DTC outlet or through an intermediary such as a grocery store.

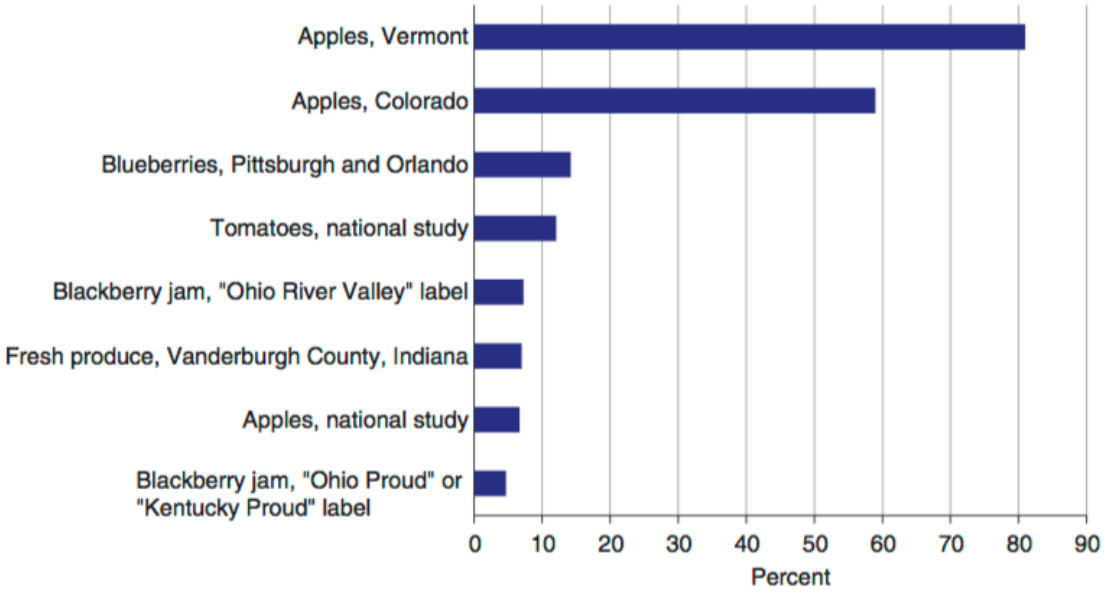
A number of studies have documented consumers' preferences and willingness to pay for locally produced food. Figures 3 and 4 display estimates from both national and regional studies of the price premiums, consumers are willing to pay for locally produced foods. These are measured as a percent of the base price consumers are willing to pay for these food items (USDA, 2015; Martinez, et al., 2010).

Figure 3: Willingness to Pay for Local Foods – Part A (Percent Premium)



Source: USDA, Economic Research Service compilation from various studies.

Figure 4: Willingness to Pay for Local Foods – Part B (Percent Premium)



Source: Willingness to pay as a percent of base price calculated from reported results from the following: Apples/ Vermont from Wang et al., 2010, averaged over respondents that had and had not purchased organic food. Apples/ Colorado from Costanigro et al., 2011. Blueberries from Shi et al., 2013. Tomatoes/national and Apples/national from Onozaka and Thilmany, 2012. Blackberry jam from Hu et al., 2012. Fresh produce/Vanderburgh County from Burnett et al., 2011.

In both graphs, estimates vary greatly, ranging from approximately five percent for Blackberry jam with the "Ohio Proud" or "Kentucky Proud" labels to over 80 percent for apples from Vermont. Even within the same product category, there can be significant variation. A national study estimated that consumers are willing to pay less than ten percent over the base price for local apples, while studies in Vermont and Colorado found consumers are willing to pay premiums of 80 and 60 percent, respectively. Such variation makes it difficult to approximate the magnitude of a potential premium with precision, though it is reasonable to conclude that consumers are likely willing to pay a higher price for locally produced foods in the Sacramento region.

In consumer surveys, the desire to support local businesses and perceptions of superior quality and freshness of local foods are cited as the main reasons consumers are willing to pay a premium for locally produced foods (Martinez, et al., 2010). Consumers who are willing to pay more placed higher importance on quality (Brown, 2003; Carpio & Isengildina-Massa, 2009), nutrition (Loureiro & Hine, 2002), the environment (Brown, 2003), and helping farmers in their state (Carpio & Isengildina-Massa, 2009). Trends in consumer preferences towards ready-to-eat and complex (processed) ingredients also imply that value-added products are likely to extract a higher WTP from consumers (Okrent & Kumcu, 2016).

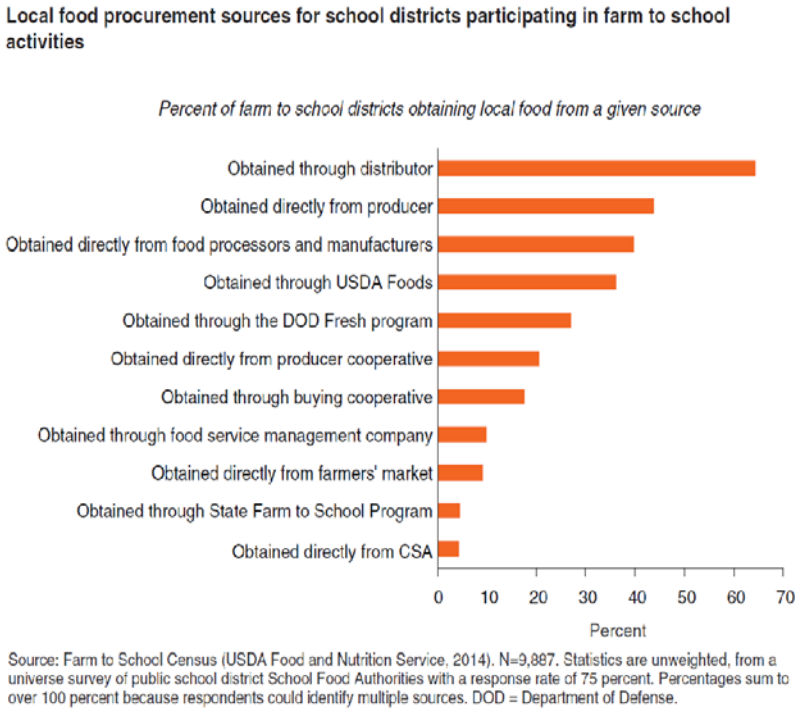
The existing literature offers mixed results on the relationship between consumer demographics and their preferences for local foods. Some studies indicate that surveyed farmers' market patrons are predominantly female (Mayes, 2013) and that buying local produce was more of a preference among white families (Racine, Mumford, & Laditka, 2013). A study of Michigan consumers finds that farmers' markets tend to be patronized by consumers that are predominately white and middle to upper-class (Colasanti, Conner, & Smalley, 2010). It is not clear how representative these studies are of overall preferences and market potential. Reported price premiums and consumer interest in local foods will vary by region. In a national study, survey respondents who live in the Northeast seem most likely to shop farm-to-consumer venues at least weekly (Blanck, Nebeling, Yaroch, & Thompson, 2011). Rural-urban differences may also exist, but are not consistently reported to trend in one direction in existing studies. Two studies in North Carolina found that local buying behavior was more pronounced in rural areas (Racine, Mumford, & Laditka, 2013)(Racine et al., 2013; McGuirt et al., 2014), partly due to price savings. On the other hand, a study conducted in Albuquerque, New Mexico, finds that consumers living in urbanized areas have stronger preferences for "non-conventional"—local or organic—produce (Holmes & Yan, 2012).

Finally, in addition to demand and purchases by the end consumer, it is important to consider institutional demand for local foods. Restaurants provide a channel for local food to reach consumers in this context. After all, restaurants like Chez Panisse and Chefs like Alice Waters contributed significantly to the current trend towards local food purchases. While small gourmet restaurants might be more inclined to purchase local foods, larger restaurants might be interested as well if barriers to increasing the prevalence of local sourcing—inadequate availability, inconvenience, and lack of knowledge about where to purchase local food or what is available locally—can be effectively addressed. Availability of local ingredients through regular food distributors may be an important consideration as a barrier within the Sacramento region. In Alabama, where 51 percent of restaurants reported sourcing local ingredients, 70 percent of those that purchased locally obtained local foods through their distributors, while about half bought from farmers' markets and 40 percent bought directly from farmers (Reynolds & Fields, 2012).

Institutions such as hospitals, colleges, and universities have expressed interest in using locally produced food in foodservice. In a national survey, roughly six percent of hospitals had a local food-buying program and other sustainability practices. Some noted that the programs were instituted in response to the American Dietetic Association's statement on sustainability (Huang, Gregoire, Tagney, & Stone, 2011). Additionally, non-profit groups, such as Health Care Without Harm, encourage hospitals to source local food to support the environment and the health of patients and staff (USDA, 2015).

School districts may contribute most significantly to the demand for local food. The Farm to School Program established by the *Healthy Hunger-free Kids Act of 2010* encourages districts to procure local foods. More than 4 in 10 public school districts surveyed by the ERS reported participating in farm to school activities during the 2011-2012 and 2012-13 school years. Of these districts, 83 percent served at least some local food in school meals during the 2011-2012 school year. Figure 5 summarizes distribution channels for locally procured foods (USDA ERS, 2015).

Figure 5: Local Food Sources for School Districts Participating in Farm to School Activities



Other Farm to School activities included the promotion of local foods through themed or branded promotions such as Harvest of the Month (42 percent), taste tests of local foods (38 percent), edible school gardens (31 percent), and field trips to farms (30 percent) (USDA, 2015). *California Thursdays*, a collaboration between the Center for Ecoliteracy and a network of public school districts, further encourages serving healthy, freshly prepared school meals within California. Collectively, the network includes 71 public school districts across the state with more than 2,900 schools, 1.85 million students, and 11,600 nutrition service staff, serving over 309 million school meals each year. In addition, provided recipes and other educational material further stimulates demand for California produce at home (Center for Ecoliteracy, 2017).

In general, the top food categories sourced locally were fruits and vegetables, cited by over three quarters of farm to school districts. Milk (37 percent), baked goods (22 percent), and other types

of dairy products (18 percent) were also among the top food categories sourced locally. Nearly two-thirds of school districts that participate in farm to school activities purchase local foods through a distributor. This might be an indication that existing distributors are increasingly able to make local foods available to districts interested in providing them in school meals. In contrast, about 4 in 10 districts that had farm to school activities (44 percent) obtained food directly from producers (USDA, 2015). Without more precise specifications of local foods and actual procurement data, it is hard to say what the current demand for local foods is in this sector, and what role cost considerations in these purchases play. It is unlikely that schools and institutions are willing to pay price premiums for local produce or locally sourced ingredients, however. This is especially true if these institutions cannot communicate any added value to their end consumers (e.g. students, hospital patients, etc.), or are not able to secure additional funding or solicit direct or indirect payments.

ADDITIONALLY COLLECTED PROJECT DATA

Building on these general findings, this study further assesses the current landscape of food businesses, demand for local foods, and needs for additional support in the Sacramento region. Surveys and in-person interviews were conducted with three potential user groups of the proposed food incubator, farmers, food truck and cottage foods operators. Relying on a recent study conducted by Argive, a Silicon Valley non-profit, regulatory challenges of Cottage Foods Operators are discussed in more detail. Finally, a collaboration with the Sacramento Natural Foods Co-op allowed accessing purchase scanner data and generating region-specific estimates of WTP for value-added local foods in two product categories at a specialty grocery store.

INTEREST AND NEED ASSESSMENT OF LOCAL FOOD BUSINESSES

Prior to reaching out to potential users, three categories of users were identified. Small local farmers that, in addition to marketing specialty crops, might also be interested in expanding into value-added products, food truck operators that want to broaden their distribution by exploring catering opportunities or access to additional marketing channels, and cottage food operators interested in expanding their production and distribution.

SURVEYS: FARMERS, FOOD TRUCK OPERATORS, COTTAGE FOOD OPERATORS

Separate surveys were designed and distributed to farmers, food-truck operators, and cottage-food business owners.[6] The surveys were designed to gauge the interest of these three stakeholders in an incubator kitchen and to determine which services and equipment they would

[6] A complete list and results for survey questions can be found in the appendix.

like the kitchen to provide. The willingness to pay for access or use of these services and equipment was further assessed in these surveys.

Farmer interviews were conducted in-person at farmers' markets and other food events. Furthermore, online resources (e.g. web searches, web pages of food truck event organizers, etc.) were employed to reach out to food truck operators. SactoMofo, a food truck event organizer, directly contacted the food trucks with whom they work on behalf of this study, and additional food trucks were contacted directly via email. Similarly, the County of Sacramento's Environmental Management department provided a contact list of cottage food operators and businesses (see Appendix A). When an email was available, stakeholders were contacted via email with a request to participate in the survey.

Overall, 88 farmers, 106 food truck operators and 90 cottage food operators were contacted. 15 farmers, 13 food truck operators and 23 cottage food operators responded to the survey. Seven of the 13 food trucks and 16 of the cottage food respondents indicated that they would like more information about the project. Stakeholders who indicated that they would like additional information to participate were invited to follow up focus group interviews.

FARMERS

Most farmers who responded to the survey have operated their farm for more than five years. Estimated average costs per year for responding farmers are $338,000. This number might be skewed, as two very large costs were reported ($1,000,000 and $1,880,000 per year). These farms would likely not be considered small farms[7] and are less likely to be interested in using the provided services. Once these two observations are omitted, estimated average annual costs reduced to $117,500. 58.3 percent reported an annual revenue greater than $75,000, and 16. 7 percent reported revenue in the $50,000-$75,000 range, leaving the remaining 25 percent with a revenue of less than $50.000.[8]

Summary Statistics

- Mode WTP/hour: $20/hour and $25/hour
- Mode weekly hours in kitchen: 4-6
- Estimated average annual costs: $338,000
- Median annual revenue: Greater than $75,000

[7] The USDA for instance defines small farms as farms with a gross annual revenue of $350,000 or less. (https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/farming-and-farm-income).

[8] The revenue brackets in the survey were based on the findings that most farms that sell directly to consumers (85 percent) are small, with a gross annual income of less than $75,000 (Low et al, 2015).

The most frequently stated willingness to pay for shared kitchen use was $20/hour or $25/hour. Most farmers further indicated that they would use the kitchen 4-6 hours per week during the months that they take up shared kitchen services. They are also more likely to use the kitchen during summer and winter months, rather than during spring and fall seasons.

The target market for farmers is direct to consumers; 90 percent of respondents indicated interest in this distribution channel. 64 percent intend to market at farmers' markets, while less than half plan to target retailers (46 percent). A significant number of the farmers surveyed further indicated interest in donating or contributing excess produce even if they might not use the kitchen for their operations.

FOOD TRUCK OPERATORS

Over two-thirds of the food-truck operators surveyed expressed some interest in shared kitchen space and services, though only a third of those who expressed interest expressed a strong interest.[9] All of those who expressed interest indicated that they would like to use the kitchen to make catered, prepared, or delivered meals, while 78 percent are also interested in using the kitchen to prepare baked goods. Walk-in coolers/refrigerators and freezer storage were the most common items food-truck operators would like to have access to for food production.

Summary Statistics

- Mode WTP/hr: $10/hr and fewer than $10/hr
- Mode weekly hours in kitchen: 0-3 and 4-6
- Estimated average annual costs: $285,000
- Median annual revenue: $25,000-$34,999

Food-truck operators identified lack of capital, access to a kitchen or facility, and licensing or permitting issues as the three main barriers to starting or growing a food business. To address these barriers, over half the operators noted that assistance with finding a commercial kitchen and equipment, and hiring and managing employees would help their food businesses.

The highest hourly rate respondents could afford to pay to rent a shared kitchen ranged from fewer than $10 per hour to $25 per hour, though the results were skewed toward the lower tail of this distribution. One-third of respondents noted that they could afford to pay at most $10 per hour, while another third indicated that they could only afford rates lower than $10 per hour.

[9]Survey respondents that answered "maybe" rather than "yes" to question: *Would you be interested in a shared kitchen space and additional services (e.g. networking, legal help, marketing, distribution)?* where classified as showing some interest as compared to a strong interest.

COTTAGE FOOD OPERATORS

The majority of cottage food operators surveyed have no prior food-business experience, with 60 percent of the cottage food operators having never worked in a food business prior to registering their current operation. Over 70 percent of the registered cottage food businesses sell baked goods, and another 27 percent sell confectionary goods. Cottage food operators use a variety of mechanisms to get their products to consumers. Over half sell their goods direct to consumers, reaching out via web presence or mail, half rely exclusively on word of mouth. Beyond that, operators make use of farmers markets and special events to sell their goods. The majority of the cottage food businesses included in the survey are small operations, with only one respondent employing additional help. Over seventy percent of respondents generated fewer than $15,000 per year in annual revenue. Nearly 80 percent of owners run their operation part-time and do not rely on it as their primary source of income. Estimated average costs for cottage food operators are $6,560 per year, while median annual revenue for a cottage food operator is under $15,000 per year.

Summary Statistics

- Mode WTP/hour: fewer than $10/hour
- Mode weekly hours in kitchen: 4-6
- Estimated average annual costs: $6,560
- Median annual revenue: Under $15,000

Over 85 percent of the respondents expressed some interest in a shared kitchen space, with 50 percent expressing a clear interest. Of those, the vast majority are interested in using the shared kitchen space to prepare baked goods, followed by wholesale packaged goods, and canned, bottled or preserved foods (e.g. jams, sauces, pickles, etc.). The respondents were also interested in catering and preparing or delivering meals. The operators indicated a wide array of equipment needed, including stainless steel tables (83.3 percent of respondents), a walk-in cooler/refrigerator (72.2 percent), a dishwasher, mixer, commercial mixer, and dry storage (all 61.1 percent).

June through September are the months in which operators are most interested in utilizing shared kitchen space, and during those months, nearly 90 percent of operators anticipate using the kitchen at least 4 hours per visit. This group had the lowest willingness to pay to use the kitchen facilities, with 50 percent of respondents willing to pay less than $10/hour.

INTERVIEWS: FARMERS, FOOD TRUCKS, COTTAGE FOOD OPERATORS

To add depth to the survey responses, additional in-person interviews with each interest group (farmers, cottage food operators, and food truck operators) were conducted. The interviews facilitate a more qualitative assessment of stakeholders' interests and needs with respect to an incubator and kitchen facility.

The site visits to a Sacramento-area farmers' market not only solicited the majority of the responses from farmers, it also allowed us to speak with farmers directly about their need for, and thoughts about, an incubator kitchen. For food truck and cottage foods operators, separate focus group interviews where scheduled and all survey respondents that signaled interest were invited.

FARMERS

Overall, the consensus among farmers is that there is a need for a commercial kitchen space in the Sacramento region. Some acknowledge the existence of small-scale commercial kitchens, but were skeptical and expressed concerns about these organizations and the prices they charge. The idea that the proposed kitchen incubator might be run by a non-profit organization appealed to many of the farmers interviewed.

Though recognizing the need for an incubator kitchen, farmers expressed that the benefits of a kitchen space will likely vary across businesses. They noted that the kitchen would be a great resource for those just starting their food businesses, but were less certain of the benefits to those with already-established businesses. They also were concerned that for potential users of these services (e.g. cottage food operators), regulations would become more stringent as a result of utilizing commercial kitchens.

Many farmers brought up the issue of food waste reduction, asking whether they could donate second grade or excess produce to the kitchen. This might open an opportunity for waste reduction and cost reduction for local sourcing for some businesses. Further, several farmers expressed a desire for additional facilities beyond just kitchen space to help promote their businesses. These included dining facilities, classrooms for cooking classes, restaurants to serve food prepared in the kitchen, and exploratory spaces for children.

FOOD TRUCKS

Seven of 13 respondents to the initial survey of food truck operators expressed interest in continuing to communicate with the project via interviews and focus groups. The focus group began with participant questions about the offerings and potential of an incubator project, as well as some insights on best days to communicate with food truck owners. Participants agreed that Mondays might be a less demanding day in their schedule and a good day for any follow up events.

Right now, the main constraint for food truck operators is that shared or otherwise available for rent commercial kitchens in the Sacramento region are fully booked far in advance. Food trucks work on a shorter time frame, however. Having a set location with both a commercial kitchen and "pods" that would allow food trucks to hook up and serve at the incubator location would

be even more accommodating and allow them to better plan their activities. Monthly rotating scheduling could allocate time equitably to food trucks who participate in the incubator and further enable advance scheduling.

Seasonality is a critical concern for food truck operators as well. April to October are busy months, while November to March was identified as their off-season. During the busy season, operators need to budget for the winter and save money for permit renewals and maintenance. In the off-season, operators may turn to second jobs or work as caterers. Year round, catering accounts for about 40 percent of food truck revenue. Timing of truck ordering and maintenance is a concern given restrictions on mechanic time and availability, as well as compliance requirements from the health department and fire marshals. Food trucks are start-up capital intensive – trucks alone can cost as much as $100,000. Participants noted, however, that food trucks are less capital intensive once operational compared to restaurants overhead costs. Additionally, it is possible to work fewer hours with a food truck than with a restaurant, although generally operators need to dedicate themselves full time to the truck during peak season. If the incubator allows food truck operators to smooth out their revenue stream over the entire year by for instance offering opportunities to cater special events in the off-season or sell their products directly at site, it could contribute to keeping food trucks in the Sacramento region. Operators shared that they talk amongst themselves about moving to places like Portland where food truck culture is part of the city identity, and demand is more consistent year round.

Other Sacramento specific challenges include repetition of food concept types among food trucks. For instance, there are six gyro trucks in Sacramento. Another related challenge arises from competition between Sacramento Mobile Foods (SactoMoFo) and Off the Grid, both organizers of food truck events that charge trucks a fee for publicizing and coordinating special food truck events. The incubator could potentially offer its own food truck events in addition to enabling food truck operators to use shared kitchen space for preparation. This option was favored by the participants, especially if it would allow for hookup and therefore create a food truck pod.[10] One participant noted that it was possible to be successful outside of the established SactoMoFo and Off the Grid networks, but it requires investments in publicity and networking to coordinate events. The incubator could help with these promotional efforts.

[10] A pod is a grouping of food trucks operated at an established location on a semi-permanent or regular basis. These pods often include a seating or dining area.

At the focus group, food truck operators noted that their priorities for an incubator facility would be:

1) Preparation and dishwashing space
2) Waste disposal,
3) Ice, water, propane filling capacity, and drainage capacity,
4) Fee-based storage space, and
5) Commercial grade refrigerators and freezers.

At present, interview participants were sourcing materials from a number of locations, including Restaurant Depot for general needs and Larry's Produce for fresh items. Some participants indicated the price was more important than the local origin when making purchasing decisions, though others noted that they try to buy local when such items are present at the big box stores. Farmers' markets are one potential source of local ingredients, but entails high time costs and often operators cannot purchase the quantities they need at the markets. Purchasing directly from farmers associated with the incubator could resolve both of these challenges. Some participants expressed concern about the possibility of food contamination with alternative methods of sourcing if only some sourcing would be local and organic for instance.

COTTAGE FOOD OPERATORS

17 of 23 respondents to the initial survey of cottage food operators expressed interest in continuing to communicate with the project via interviews and focus groups. These respondents were invited to a focus group in Sacramento after the conclusion of the survey. Concerns and interests of focus group participants fell into five major themes:

1) Sourcing,
2) Marketing and branding,
3) Distribution,
4) Business development, and
5) Equipment.

At the scale needed for cottage food operators, most suppliers do not provide a bulk discount, as discounts start at pallet scale. Thus, cottage food operators purchase their ingredients and materials at retail prices. Although operators want to support local sources, including farmers' markets and local grocers, purchasing from these sources is not perceived as cost-effective. Higher costs would imply either higher prices or lower margins for these businesses. As margins are already low, local sourcing might prove a challenge. Aggregating across incubator participants and purchasing dry goods and other staples in bulk would be of value. However, cross-contamination concerns arise when ingredients are purchased and stored together in terms of added values, but also in terms of highly specialized products, e.g. cross-contamination from

nuts, or gluten, and other allergens. Dedicated allergen free storage and preparation spaces might have to be considered in shared space design.

Focus group participants expressed interest in reducing food waste by using “seconds” and donated excess produce from farmers connected to the incubator, both as a source of low-cost ingredients and a marketing or branding opportunity. Interviewees also noted that waste disposal, while not a challenge at the individual level, could be another opportunity to create improved efficiencies in recycling and composting.

Marketing and branding opportunities for an incubator are not restricted to partnerships between farmers and processors. Focus group participants expressed interest in developing common packaging and branding to raise the profile of individual operators. This could include the use of facilities and leveraging economies of scale, developing a common brand for the users of Alchemy Kitchen, networking and workshops specifically addressing aspects of branding. One interviewee in particular was very interested in hosting special events through the incubator for exposure and awareness raising, claiming that “anonymity is the biggest killer of businesses.” At the same time, it was important to focus-group participants that individual businesses maintain their distinctiveness. Distribution challenges could also be addressed by leveraging economies of scale and networking opportunities. These opportunities could include a retail space on site, established relationships with local retailers and facilitation of online ordering of products through a shared platform.

Finally, cottage food regulations impose a number of additional barriers. Licenses require that products are labeled as made in a home kitchen. Cottage food operators would need to learn about the new and more stringent licensing requirements when taking their business to the next level utilizing the shared kitchen facilities. Regulation also prevents small home-based cottage food operators from distribution by shipping. This means that all distribution must be by delivery or pick up. Focus group participants indicated that they were not sizeable enough to afford purchasing their own delivery trucks. This places serious limitations on deliveries as they are restricted by their access to a personal vehicle and the capacity of that vehicle. Business owners must weigh tradeoffs between the demands of making deliveries and the challenge of having customers come to their location, which in many instances is their home. Not being able to ship final products to customers, further limits the potential market geographically, and the expansion into online marketing. Creating distribution channels through the incubator has potential to alleviate these concerns. For the focus group participants, the ultimate shared vision is to sell direct to middlemen and retailers by working with caterers and stores.

For all participants, the end goal was to run their food business full time. For one interviewee, this end vision involved potentially opening a storefront for her bakery. This individual believed

that customer perception of the operation changes when there is physical space for the business outside of the home – "you're not like their grandma." She perceived the incubator as a transition space from small, in-home scale to commercial scale. All focus group participants note that the revenue cap on cottage food operators is not binding but rather self-enforcing given restrictions on distribution opportunities mentioned above. Similarly, financial restrictions to operations (i.e. access to loans and capital) do not exist at the cottage food level but rather at the "next step" level. To these ends, any help the incubator could provide in accelerating businesses by providing assistance with creating a business plan, exploring funding opportunities, and providing financial literacy services, would be highly useful and valuable according to the interviewees.

Interviewees also expressed serious trepidation about hiring employees. The incubator could serve as a place to hire part-time help, and provide access to a pool of certified workers (e.g. culinary school students) connected to the incubator. Participant concerns about the incubator included the timeline for independence from the incubator, the screening mechanism for other potential participants (one suggestion was to ensure that incubator participants are "serious" or full-time business operations). Overall, the interviewees hoped that the incubator could function as a place to network, share experiences (for instance with crowdfunding and outsourcing), and provide connections to available resources and distribution channels.

REGULATORY CHALLENGES FOR COTTAGE FOOD OPERATORS

To further understand the regulatory challenges faced by cottage food operators, a study conducted by Argive (a Silicon Valley non-profit) collected public feedback on regulations challenges faced by California cottage food operators. With the goal of improving transparency and accountability in regulations affecting business owners, Argive surveyed Cottage Food Operators in Sacramento, Los Angeles, San Bernardino, San Diego, Santa Barbara, Sonoma, San Joaquin, and Orange Counties. They concluded that the three regulatory requirements that pose the biggest challenge to cottage food operators are home address labeling, third-party shipping, and approved food lists (Momand, 2017).

California requires cottage food operators to list their home address on product labels unless an operator's business name and phone number are listed in a public directory. While intended to improve transparency and facilitate contact between customers and producers, many cottage food operators feel the requirement is a violation of privacy that may put them at risk. To remain transparent while also protecting producer's privacy, operators suggested a number of alternative requirements such as: requiring only city, state, and zip be listed on labels; requiring contact information (e.g. website, email address, etc.) to be listed in lieu of addresses; and allowing local health departments to provide addresses to consumers when requested.

As noted already, cottage food operators cannot ship their products to most California counties. They must deliver goods themselves, which is time consuming and burdensome. Further, it limits business growth, as operators cannot ship wholesale products to retailers across the state. Operators suggested that the ban be lifted or at the very least local shipping within the county of operation or State of California be allowed.

Finally, operators must adhere to an "approved foods" list provided by the state of California. The list excludes many perishable goods in hopes of protecting consumers from contracting foodborne illnesses. The exclusion of cream cheese frosting from the list, an ingredient allowed in previous versions of the list, has been particularly problematic for a number of cottage-food bakers. Operators suggested expanding the list to include buttercream cheese frosting, a larger number of fruit jam/jelly flavors, dry meringue powder, and cured meats.

Renting or utilizing commercial kitchen space can circumvent some of these regulator issues, but might require producers to choose an alternative business model unless regulations are adjusted. In either case, it seems apparent that these potential users would greatly benefit from services that can help navigate the regulatory environment.

Potential Demand for Locally Produced Value-Added Products

Marketing and branding, as well as access to existing distribution channels, were some of the primary challenges identified in the analysis of potential stakeholders. Partnering with the Sacramento Natural Foods Co-op, sales data was collected to gain a better understanding of the current demand and WTP for locally produced value-added products in Sacramento.

Building primarily on the prior data analysis of cottage food operators, data was requested for two product categories currently listed under the cottage food regulations: baked goods and preserves. The data from the Co-op spans approximately a year from August 3, 2016 through August 22, 2017. For each product (identified by its Universal Product Code, UPC) and week, the data set contains the product category, base or list price, costs or wholesale price, quantity sold and dollar value of the quantity sold. Using the quantity sold and dollar value of quantity sold, the average actual or net prices (i.e. accounting for any discounts and promotions) at which items where sold in a given week were computed.[11] The included products were segmented into a large number of categories, but for the purposes of WTP analysis, the analysis was done at the category

[11] These are averages prices as discounts and promotions might target specific groups of consumers, or are redeemed by certain consumers only. This data is at the store level and not the individual transaction level. Only transaction level data would record the exact price paid by each consumer during a specific transaction.

level (e.g. baked goods and preserves). The dataset includes a total of 782 baked goods and 91 preserves.

The data also included limited information on product attributes. It contained data on the size of each product, the distance from the Co-op at which each product was produced (in miles and based on the supplier's address), and an identifier that indicates whether the product is certified organic. Using this data, an indicator variable was created to indicate whether a product was produced within 100 miles of the Co-op (Local100).[12] Table 2 includes the number of products that are certified organic and the number that were produced within 100 miles of the store.

Table 2: Number of Local and Organic Products by Category

	Number of Products
Baked Goods	
Organic	168
Local100	446
Preserves	
Organic	67
Local100	6
Total	
Organic	235
Local100	452
Observations	819

The Local100 variables equals 1 for products. Each product's organic status is included in the Co-op's sales data.

Table 3 shows the quantity sold for local and non-local goods over the year for which the data was available. 57 percent of the products in the baked goods category are locally produced. However, when looking at the overall quantities sold, they command a market share of only 27 percent. 6.5 percent of the preserve products were produced locally. These products have an even smaller market share of approximately 5.4 percent.

Table 3: Quantities Sold (8/3/16-8/22/17)

	Local	Non-local	Total
Baked Goods	131,736	355,844	487,580
Preserves	1,337	23,302	24,639
Total	133,037	379,146	512,219

[12] The Co-op confirmed that this is their current working definition of "local".

Products available at the Sacramento Natural Foods Co-op were further surveyed in the store to collect additional product information (by taking photos of all the products and their packaging on the shelves). In addition, Google image searches were conducted for products not displayed in the store, resulting in detailed product attribute data for all of the preserves and 603 of the 782 baked-goods products included in the dataset. The attributes include only those specified on the product packaging. Other than the information about local production, they do not capture any attributes that are not clearly labeled, (i.e. tortillas do not have dairy-free labels despite not usually containing dairy) as the emphasis of this analysis is on product marketing rather than product composition.

At both the product and store level, products do not seem to be promoted using a uniform or standardized local label. While the Co-op identifies local products in their data, they do not use this information for promotional purposes (e.g. shelf labels) in these product categories at this point. The products itself do not seem to consistently highlight their local production on packages either. A small number of products do indirectly indicate that they are local by featuring the city in which they were produced, and an even smaller number of products include a claims such as locally made. For the purpose of this analysis, a local label identifier was created to capture this information provided. Only 2.8 percent of the baked goods (17 products) are labeled that way, and none of the preserves are currently stating where they were produced. This stands in stark contrast to the 446 baked goods products and six preserves, or 55 percent of products that could be promoted as locally produced according to the Sacramento Food Co-op information and their definition of local production (a 100-mile radius).

In the next step of the analysis, a hedonic pricing model was estimated for each category. It allows estimation of an average marginal or additional dollar value consumers place on specific product characteristic or attributes. Such a model assumes that any product is a bundle of attributes that consumers received utility from and that the price of any given product is the summation of the valuation of each of its attributes. Sufficient product differentiation with regard to desired attributes in the products available, and sufficient competition among products would allow recovering and interpreting the coefficients in these regressions as an average marginal willingness to pay for a specific product attribute. The dependent variable specified in our regressions is price per ounce, allowing price comparisons across a variety of product sizes offered. Product attributes highlighted on the package, as well as product size are included as independent variables in these regressions.[13]

[13] While the size of all preserves in the sample is measured in ounces, the size of baked-good products in the dataset is measured in a variety of units, including ounces, each (i.e. one cookie), count, and pack. For 523 of the 728 baked-

WILLINGNESS TO PAY: PRESERVES

Five model specifications using different combinations of attributes were estimated and are summarized in Table 4 below. All regressions control for product size, potential price differences for local and non-local goods, and conventional and organic goods. Local labels were not observed in this category, therefore consumers do currently not have an easy way to determine if a product is local at point of purchase.

In all specifications of the hedonic pricing model, the number of ounces (size) is statistically significant and negative. This indicates that there are economies of scale (i.e. price per ounce decreases as the size of the product increases). Pricing model 1 includes all product attributes found on at least one product in the preserves category. Of these attributes, only the "no refined sugar" label was statistically significant. The absence of refined sugar has a negative effect on price, however, indicating that pointing out this product characteristic might not have any additional value to consumers on average. It actually reduces the price of these products once controlling for all other labeling information included here. While not promoted as such, locally produced products seem to be valued by consumers as they sell at a positive and statistically significant price premium once controlling for size and all other label information.

Pricing model 2 includes only labels that were found on at least 20 percent of the products. Under this specification, "non-GMO" and "no high fructose corn syrup" labels had statistically significant, but again negative effects on price. Model 3 only includes the attribute specifications in the sales data (organic and locally produced), rather than all additionally collected label information, and the remaining models include one or the other as additional robustness checks. In each specification that includes the Local100 variable (an indicator for products that have been produced within 100 miles of the Co-op), it has a positive and statistically significant effect on price. This indicates that locally produced products are selling at a price premium on average, ranging from $0.12 to $0.15, despite not being specifically promoted as such. Organic production does not result in a significant price premium in any of the specifications. Consumers at this specialty grocery store might expect products to be produced in a sustainable way and pay relatively less attention to these labels. This is supported by the fact that the vast majority of the preserves carried by the Co-op are organically produced.

good products, the unit of measurement for the product's size is ounces. The regression results presented here are limited to the analysis of baked goods that provide unit measurement in ounces.

Table 4: Hedonic Price Model - Preserves

	Model 1	Model 2	Model 3	Model 4	Model 5
Size	0.821***	0.767***	0.832***	0.850***	0.757***
Produced Within 100 Miles	0.146*	0.138*	0.123*	0.117**	
No Added Sugar	0.000				
No High Fructose Corn Syrup	0.006	0.130***			
Fair Trade	-0.160				
No Refined Sugar	-0.094**				
No Cholesterol	-0.111				
Vegan	0.057				
Natural	0.081				
No Artificial Colors	0.000				
No Artificial Flavors	0.000				
No preservatives	0.000	0.000			
Organic	0.137	0.101	0.055		0.037
No GMO	-0.247	-0.231*			
Kosher	0.002				
Observations	2758	2758	3389	3470	3389

Notes: Net retail price per ounce is the dependent variable in these regressions, standardized beta coefficients and heteroscedasticity robust standard errors are estimated taking into account the panel structure of the data. *, **, and *** indicate statistical significance at the 10, 5 and 1 percent significance level. *Local100* is an indicator identifying items produced within 100 miles of the Co-op. These products currently are not promoted as such and consumer may not be aware that each of these products is local. Model 1 includes attributes that appeared on at least one preserve product, while Model 2 includes attributes that appeared on at least 20 percent of preserve products. Models 3-5 focus only on the effect of organic labels, local production, and product size.

WILLINGNESS TO PAY: BAKED GOODS

A similar approach was applied to the baked good category. Results indicate once more that size negatively affects price, pointing to economies of scale for baked goods as well. For this category, models that included the Local100 indicator failed to detect an impact on price, however. Here, contrary to preserves, locally produced products do not sell at a premium even if local production isn't easily accessible by consumers at point of purchase. The regressions were then estimated replacing the local100 indicator variable with the local label indicator.[14] The presence of this type of information does not affect price significantly either at this level of analysis. These results may

[14] When the packaging includes information about local production (i.e. by including a locally made label or by featuring the city in which the product was produced on the packaging), this indicator turns to one.

be due to the limited variation in the data with regards to local labels. It might also indicate that due to the comparison of baked goods across a wide range of products, the analysis does not sufficiently account for all relevant product attributes consumers might value.

Table 5: Hedonic Price Model with Local Label – Baked Goods

	(1) AvgPrPerUnit	(2) AvgPrPerUnit	(3) AvgPrPerUnit
Size	-0.673***	-0.675***	-0.679***
Local Label	-0.021	-0.028	-0.031
Organic	-0.003	-0.022	
No GMO	-0.066		
Vegan	-0.077		
Gluten Free	-0.121**		
Dairy free	0.013		
Natural	0.086		
Observations	15325	15325	15325

Notes: Net retail price per ounce is the dependent variable in these regressions, standardized beta coefficients and heteroscedasticity robust standard errors are estimated taking into account the panel structure of the data. *, **, and *** indicate statistical significance at the 10, 5 and 1 percent significance level. *Local100* is an indicator identifying items produced within 100 miles of the Co-op. These products currently are not promoted as such and consumer may not be aware that each of these products is local. Model 1 includes attributes that appeared on at least one preserve product, while Model 2 and 3 only focus on the effect of organic labels, local production, and product size.

To summarize the results presented here, while locally produced products are not consistently promoted at the product or store level at this point, the analysis suggests that marketing local production might be a promising product differentiation and pricing strategy, especially in the preserves category. For baked goods, a statistically significant price premium was not detected at this aggregated level of analysis. A more targeted promotion might have to be pursued that highlights additional desirable attributes.

A more detailed analysis can provide a better understanding about which product attributes are important to the consumer in this highly differentiated category.[15]

[15] A more detailed analysis is currently underway. Once available, these insights will be published in academic outlets and shared with this project.

SALE PRICE AND WHOLESALE COST

The Co-op could serve as a potential existing distribution channel for businesses that utilize the incubator, even if these products are not explicitly marketed. In addition to analyzing retail demand and consumer willingness to pay, wholesale demand or the margins within which these products would need to fall to compete with existing products already sold at the Co-op, were analyzed. Wholesale cost and net price summary statistics can inform local producers about how much the Co-op and subsequently consumers are paying for similar value-added goods.

Despite finding positive price premiums for locally produced preserves once controlling for other product characteristics, on average, local goods have a lower net price per ounce on average. For local preserves, net retail price per ounce ranges from $0.12 to $0.16, while the range is $0.05 to $1.70 for preserves that are not produced locally. Wholesale prices for all preserves sold at the Co-op range from $0.08 to $0.99 per ounce with an average of $0.22 per ounce. For locally produced products, this range is only $0.09 to $0.12 per ounce. The wholesale price per ounce (or cost to the Co-op) is higher for non-locally than for locally produced preserves. While there are large price and cost ranges for non-local products, the spread of net prices and cost for local products seems much smaller. The average retail margin for this category is $.10 per ounce or about 30 percent of the net retail price.

Wholesale Price Range for Preserves

- Locally produced preserves sell at lower prices on average, both at the retail and wholesale level.
- Wholesale prices for preserves range from $0.08 to $0.99 per ounce with an average wholesale price of $0.22 per ounce.

Table 6: Average Retail and Wholesale Price Per Ounce for Local and Non-Local Preserves

	Count	Mean	Min	Max
Non-local				
(Net) Retail Price per Oz	3323	.3386385	.0565799	1.69875
Wholesale Price per Oz	3323	.2293403	.0790292	.99125
Local				
(Net) Retail Price per Oz	147	.1612177	.119399	.16625
Wholesale Price per Oz	147	.1055811	.09375	.125
All				
(Net) Price per Oz	3470	.3311224	.0565799	1.69875
Wholesale Price per Oz	3470	.2240975	.0790292	.99125
Observations	3470			

The retail margin seems slightly lower for locally produced products, but might be a result of the limited observations for locally produced product sales and more frequently used price discounts. In general, these values serve as upper and lower bounds for target costs of production, wholesale prices and possible margins for producers utilizing the proposed kitchen incubator. They indicate that local producers might be able to compete with non-local producers. They further indicate that producers might be able to justify higher costs if they offer and communicate additional value. The relatively small number of observations for locally produced preserves further indicates a potential for capturing a greater market share once these products are promoted.

Wholesale Price Range for Baked Goods

- Locally baked goods sell at lower prices on average, both at the retail and wholesale level.
- Wholesale prices for baked goods range from $0.17 to $15.00 per unit with an average wholesale price of $2.17 per ounce.

Looking at the subset of baked goods measured in ounces, similarly to the wholesale costs and net prices per ounce of local preserves, these are lower than for non-local baked products. The spread of costs and prices is much larger for all of the goods in this category in general, and for locally baked goods than for preserves, which is likely due to the wide array of differentiated products contained in the baked goods category (e.g. tortillas, cookies, bread, pie, etc.).

Locally baked products sell at net prices of $0.09 to $1.41, and have wholesale prices of $0.09 to $0.82 on average. Looking at the mean differences in both prices reported here, the retail margin is $0.12 on average or about 30 percent of the net retail price, with no significant differences for local versus non-local products.

Table 7: Average Retail and Wholesale Price Per Ounce for Local and Non-Local Baked Goods

	Count	Mean	Min	Max
Non-local				
(Net) Retail Price per Oz	10083	.4131067	.1168229	2.864286
Wholesale Price per Oz	10083	.2780548	.0991667	1.839771
Local				
(Net) Retail Price per Oz	8239	.3489496	.0876814	1.411348
Wholesale Price per Oz	8239	.2357484	.0859375	.8244681
All				
(Net) Retail Price per Oz	18322	.3842567	.0876814	2.864286
Wholesale Price per Oz	18322	.2590306	.0859375	1.839771
Observations	18322			

The baked goods category was further broken down into those items produced in-house and those produced by outside or independent businesses. The reported wholesale price or costs for the former do not include labor costs. They only account for the inputs used to produce the goods. Thus, the reported cost for in-house products represents a lower-bound for a small independent producer's target cost that want to use the incubator. The unit of measurement for the in-house products is "each", so prices and costs to other baked goods with the same unit of measurement were compared. Table 8 shows prices and costs per item for in-house, outside-produced, and all baked goods.

Table 8: Retail and Wholesale Price/Cost Per Unit for In-House (Co-op) and Independently Baked Goods

	Count	Mean	Min	Max
Independent Business				
(Net) Retail Price per Oz	2406	4.222359	.335	19.99
Wholesale Price per Oz	2406	2.753462	.25	15
In-House				
(Net) Retail Price per Oz	2338	5.574915	1.49	29.99
Wholesale Price per Oz	2338	1.579785	.17	12.96
All				
(Net) Retail Price per Oz	4741	4.888554	.335	29.99
Wholesale Price per Oz	4741	2.175329	.17	15
Observations	4741			

The cost per unit for in-house items ranges from $0.17 for a ginger cookie to $12.96 for German chocolate cake, with an average cost per unit of $1.58. This compares to a range of $0.25 for a cookie to $15.00 for a pie and an average cost per unit of $2.93 for baked goods that are not produced at the Co-op. This provides producers of baked good with a lower-bound for target cost of $0.17 (per cookie) and an upper bound of $15.00 (per whole pie or cake). The size of the range results from the wide array of goods and product sizes in this category. Looking at individual categories where possible, the wholesale price of pies ranges from $0.55 for a single slice to $8.75 for an entire pie. The wholesale price of cakes ranges from $0.55 for a slice of cake to $12.96 for an entire cake. As expected since the in-house costs do not include labor cost, these wholesale prices are significantly lower, larger retail margins are observed.

Only focusing on the independently produced goods, retail margins here again are about 30 percent of the net retail price. If small independent businesses utilizing the incubator could price their products between the in-house costs and observed wholesale prices paid to currently contracted with businesses, they should be able to compete in this market. If they additionally

market their products with a uniform label, the consumer might pay special attention to these products. They will be competing with products baked in-house however, which might make this category harder to enter as compared to preserves.

EXISTING INCUBATOR MODELS, POSSIBLE LOCAL COLLABORATIONS, AND LESSONS ALREADY LEARNED

While food incubators are a relatively new idea, they have been implemented across the US, and similar efforts are in the planning stage in the Sacramento region. To evaluate the potential for this proposed food incubator, results from a nationwide industry report are summarized in this report. In addition, three currently successful models in California (La Cocina, El Pájaro, and LA Kitchen) are described. One additional incubator model, established in New York (Hot Bread Kitchen), is included as it has been highly successful and publicized. These approaches can help inform a model or blueprint for a proposed food incubator in the Sacramento region.

Kitchen incubators:

- Kitchen or culinary incubators provide kitchen rentals and additional services such as business development training, legal aid, packaging, label printing, and distribution.

This report section further describes Alchemist CDC's current involvement in the community; a related project currently in the planning stage (The Food Factory); existing commercial kitchens within the Sacramento Region; and potential local partners. It concludes with potentially valuable lessons from two related and well-documented pilot projects: an attempt to implement a food hub in the Sacramento region (the Grower's Collaborative) and the California Food Hub Network Pilot to engage with potential institutional buyers.

EXISTING INCUBATOR MODELS

In recent years, kitchen or culinary incubators have been developed nationwide with the goal of having a significant economic and social impact on local food systems. They can be loosely defined as facilities or organizations providing kitchen rental and additional services like business development training, access to ecosystem services such as legal aid, packaging, label printing, and distribution. They are becoming a prominent tool to provide access to local food markets for small and mid-sized food entrepreneurs. The success of these kitchen incubator models depends on their management structure and the resources and programs offered to users, including, but not limited to, small-business counseling, technical assistance, accessibility to affordable capital, and providing accessible distribution channels.

US KITCHEN INCUBATOR INDUSTRY REPORT

Econsult Solutions, Inc. (ESI), along with American Communities Trust and Urbane Development conducted a survey assessing the landscape of U.S. kitchen incubators/accelerators. This report surveys 61 kitchen incubators across the nation to provide an overview of the kitchen incubator industry in the United States. It is based on surveys conducted between August 2013 and March 2016. 82 percent of incubators surveyed reported increased revenues through meeting the rising demand in food entrepreneurship needs (Econsult Solutions, Inc., 2013).

KITCHEN INCUBATOR MODELS

Roughly 52 percent of nationwide kitchen incubators are located in urban areas, with high concentrations near metropolitan areas (e.g. New York houses 12 kitchen incubators, Austin six, LA, Denver and Chicago house five each). These five metropolitan cities are the home of 15 percent of all incubators nationwide. The primary goal for a majority of the incubators is to assist businesses during their early stages and allow them to grow. They also aim at strengthening local food economies, helping low-income communities, and simply making a profit. 61 percent of kitchen incubators are characterized as for-profit, while 39 percent remain as non-profits, and roughly 20 percent of them are USDA certified. While business models for a profit or non-profit kitchen incubator differ significantly, several kitchens have proposed a mixed profit/non-profit model to create a sustainable and integrated model. Roughly 40 percent of incubators are involved in at least one partnership ranging from workforce training programs to college programs to working with food banks or supermarkets. Financial feasibility, appropriate facility options, specific operating models, and well thought out pricing schemes seem to be the primary determinants of success for the surveyed incubators.

FINANCING

70 percent of non-profit kitchen incubators rely on grant support to run their incubator and partnerships with several organizations. 40 percent of all incubators, even in mixed and for-profit models, rely on some sort of grant support. Although 82 percent have reported revenue growth, a number of kitchens have reported losses, particularly those in rural areas.

FACILITY OPTIONS

Overall size and added facilities of a kitchen incubator are an important consideration when it comes to assessing potential costs and revenues based on the number of users, overhead, and equipment. One-third of nationwide kitchen incubators are small-scale facilities that occupy less than 3,000 square feet; and 80 percent occupy less than 10,000 square feet. Large spaces may be expensive or unavailable in metropolitan areas in particular.

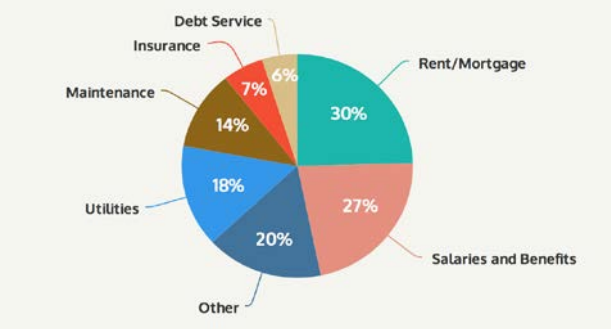
Assessing specific needs of equipment given the target users of a kitchen can be an important step in maximizing the return on investment in equipment purchased. Almost all kitchens have access to basic equipment (e.g. convection ovens, prep tables, mixers, etc.), but there is significant variation in specialized equipment (e.g. tilt kettle, rack oven). In addition to equipment, storage and packaging facilities are offered in most kitchens. Common facilities include shared cold storage, shared dry storage, shared freezer storage, packaging areas, food truck commissaries, event spaces, and classroom spaces. Additional, less common features mentioned are a shared bakery, office spaces, food retail opportunities on the premises, food testing facilities, and video production studios. Allowing users to cater to consumers' food or dietary restriction has become a common accommodation that has many important implications regarding equipment and usage models. For example, 80 percent of all kitchen incubators nationwide accommodate gluten-free products. A lesser percentage, 69 percent, accommodate products that promote vegan diets. Others include allergen-free, kosher, halal accommodations, and some spaces offer fermenting facilities.

OPERATING MODELS

Kitchen incubators are run with few full-time employees or supervisors on site, but often have a substantial number of potential users. Thus, it is important to establish a functional and trustworthy operating model to sustain the kitchen and its budgets. The main source of revenue comes from renting shared kitchen space, but most kitchens include additional streams of revenue through revenue producing activities or programs. 90 percent of all kitchen incubators have less than five full time employees, with a few employing additional part-time staff. Incubators with operating budgets of less than $100,000 make up half of all respondents in 2015, down from 61 percent in 2013. 82 percent of all incubators reported an increase in revenue over the last 2 years. However, kitchens that have budgets of $100,000 - $249,999 have shown the most promising growth in operations, growing 28 percent in 2015.

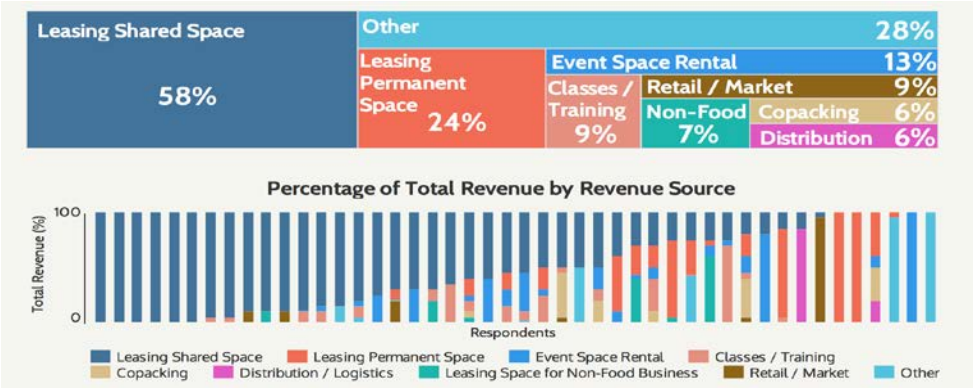
The distribution of costs is similar across operating models. The highest operating costs include rent or mortgages paid, salaries and benefits provided, utilities and maintenance costs, and insurance payments. Figure 6 summarizes these findings.

Figure 6: Average Total Operating Costs by Type



Being able to lease out facilities seems to generate an additional and very important revenue stream. It includes leasing shared spaces, permanent spaces, event spaces, teaching spaces, and retail facilities among others. Figure 7 summarizes those results.

Figure 7: Average Percent of Total Revenue by Source



A successful kitchen model has to consider a target number of tenants and what categories of products they represent. The number of users a kitchen can accommodate is dependent on the size of the facilities and the adopted scheduling model. 75 percent of tenants use the kitchen for their operations for longer than one year, with a majority staying for 1-3 years. 84 percent of the food incubators experienced an increase in tenants and even further increase in interest. Many kitchens find niche markets of users and suppliers that allow for a more successful branding campaign and community outreach. Examples include minority groups i.e. foreign-born immigrants, female entrepreneurs, and recently released prisoner populations. In addition to specialized groups, most kitchens also have income restrictions, or require previous business experience. Of the kitchen tenants nationwide, 53 percent are female, and roughly 28 percent of respondents' tenants are from minority group.

The type of products that tenants produce is an important consideration in determining operating policies. Baked goods, catering and food trucks are the most common focus of incubators currently in operation, with food truck accommodations on the rise (from 30 percent

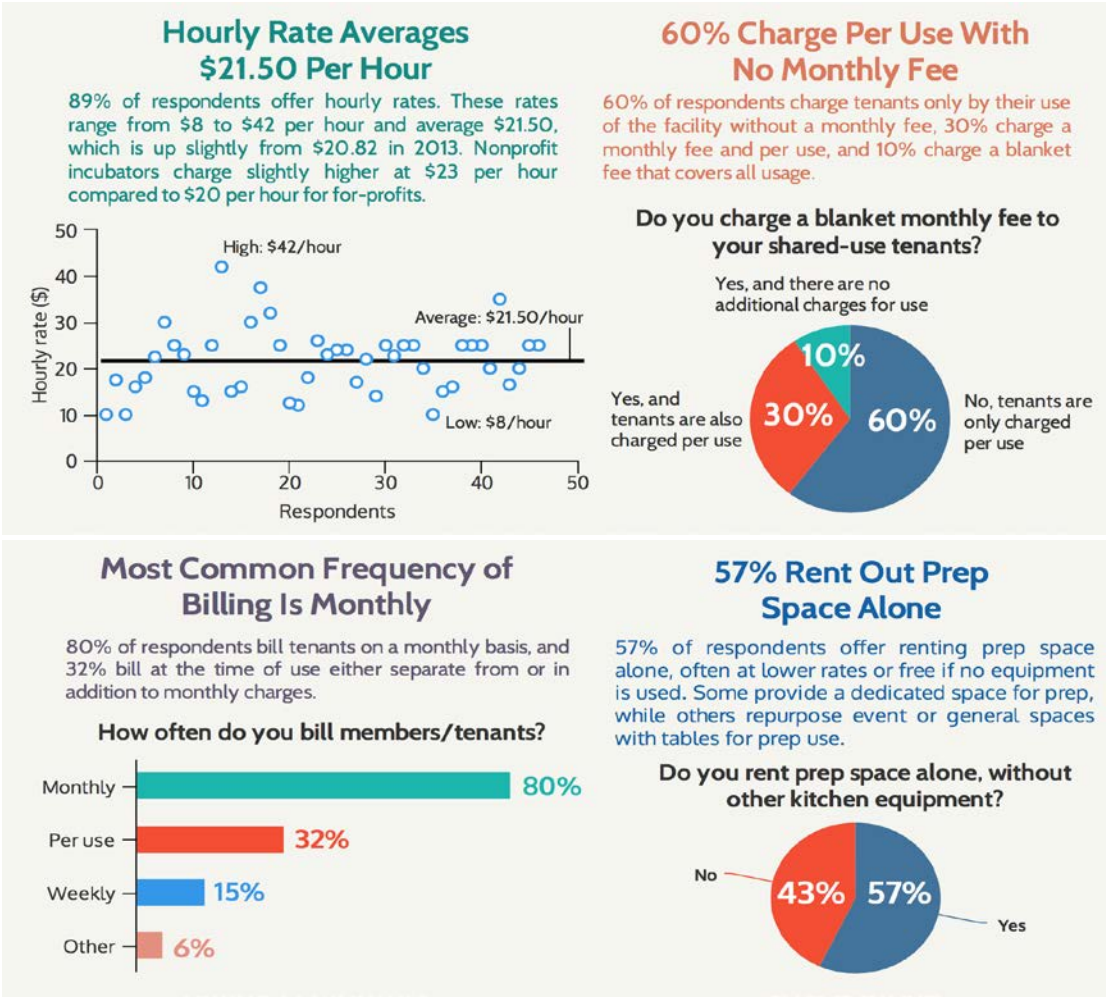
to 71 percent in 2015). Farmers markets, community events, small grocers/retailers, and online sales are the most common distribution channels utilized by tenants, and the business support that kitchen incubators offer is an essential aspect of operating models and benefit to its users. Most incubators have set up programs and supervisors to assist with licensing and certification, marketing and business planning. Some assist in monitoring job creation, product growth and revenue growth in order to better assess the needs of their emerging and growing food businesses. In addition to shared kitchen space and equipment, most incoming food entrepreneurs seek marketing opportunities, business planning assistance, access to affordable ingredients, access to capital, and help with product development. 25 percent of incubators further provide job training in the kitchen including instructions for equipment operation, higher volume production, and product development.

PRICING SCHEMES

Forecasting and determining likely fixed and variable costs, in addition to a better understanding of likely levels of use, will allow designing a feasible pricing scheme. Commonly, kitchens are rented out in blocks of 2-4 hours or 4-8 hours. Hourly rates range from $8.00 - $48.00 per hour, with an average of $21.50 per hour. Interestingly, nonprofits charge slightly higher rates while for profits charge slightly less, on average. A majority of kitchens bill members on a monthly basis, but also allow for a more limited use by offering to charge on a per use basis. 57 percent of kitchens provide food prep space alone with no equipment added for a lower rental charge. Almost all incubators charge by the hour, most charge for storage, and some charge based on time of day, equipment, or space. Figure 8 summarizes hourly rates and billing cycles.

Factors that affect rates are distinctions between regular (in-town) residents and one-time users, nonprofit and for-profit tenant, sizes and stages of their operations. Most kitchens further offer discounted rates for long-term tenants, non-prime hours, low-income tenants, or nonprofit community groups.

Figure 8: Hourly Rates and Billing Cycles



In addition to this nationwide overview of incubators in operation, three successful, yet diverse California–based models, as well as one successful incubator model located in New York are discussed below.

La Cocina

La Cocina, based in San Francisco, California, is one of the leading examples in the nonprofit incubator industry. Beginning kitchen operations in 2005, La Cocina's program predominantly serves low-asset entrepreneurs, most of whom are female immigrants or persons of color. The aim of the program is to move clients from informal "income patching" sales activities to long-term asset generation. The program currently serves 36 businesses and has propelled 15 into independent brick and mortar operations. La Cocina's stated goal is to propel and graduate its

participants into independent businesses within four years. That could, for instance, mean that entrepreneurs transition in renting restaurant space.

La Cocina's program begins with a business seminar orientation. La Cocina's Executive Director Caleb Zigas described this orientation as two hours of "Why You Don't Want to Start a Food Business and then 15 minutes of how to apply if you haven't been scared off". Mr. Zigas emphasized La Cocina's stringent application process and the importance of admitting only the most promising businesses into La Cocina's program. Otherwise, he said, they would be "incubating failure." After the business seminar orientation, La Cocina offers free office hours for applicants to craft their application and submit a business plan. Applicants are measured on the strength of their business plan, entrepreneurial spirit, strength of their product, and product viability (i.e. whether it can it be made in their kitchen and compete within a given market segment). At the end of this process, La Cocina admits two to six businesses per year into its program.

An admitted business begins in the pre-incubation phase and pays a flat rate fee for the use of La Cocina's commercial kitchen facilities. Pre-incubation involves 6-8 months of planning before the actual business incubation starts. During this time, La Cocina places the entrepreneurs in jobs, using their network in the food industry. Mr. Zigas mentioned that one goal of the pre-incubation stage is to allow entrepreneurs to reconsider if they are truly committed to turning their ideas into a full-time occupation and ultimately a sustainable businesses. In pre-incubation, La Cocina's entrepreneurial advisors deconstruct and reconstruct the business plan. This period also allows its student entrepreneurs to learn about product marketing, operation and financing. Only if the business hits 80 percent of their pre-incubation benchmarks, they move into incubation phase.

In incubation, La Cocina continues to offer access to its kitchen space, rented out per hour at a subsidized rate as compared to regular rates offered to entrepreneurs that graduated or community members. The 2,200-square foot kitchen has a variety of equipment for rent and enough space for eight businesses to simultaneously operate. La Cocina's kitchen also offers dry and cold storage for rent, as well as access to a small business office and computer access. Only about 10-percent of La Cocina's income is generated from these rental arrangements. Events and product sales make up approximately 50-percent of La Cocina's income.

La Cocina serves two types of businesses: prepared food businesses and packaged food businesses. In incubation, La Cocina brokers catering services for prepared food businesses. Over the years, they have developed a vast network of connections to successfully facilitate catering service and maintain demand. Mr. Zigas provided little detail on how the catering aspect of their model is structured.

For packaged food businesses, La Cocina has built an informal umbrella brand, which has developed a reputation and trust with retailers, allowing for easier market entry for their entrepreneurs. However, each packaged food business is in charge of making their own distribution deals. La Cocina also maintains a booth in the San Francisco Ferry Building Marketplace. There, they can promote and test products emerging from their packaged food businesses track. Food businesses also receive assistance with strategy building and access to investment capital for the next stage of their business (exiting the program) during the incubation phase.

EL PÁJARO

El Pájaro CDC is another non-profit business incubator located in Watsonville, California. While founding efforts to create equal access to economic opportunity and microenterprise development for Latino and Spanish-speaking community members go back to 1979, their Plaza Vigil retail business incubator opened in 1996. Later, they were able to purchase a former tofu factory, which now houses a 9,000-square foot shared-use commercial kitchen. The kitchen began operations in 2013, and they are currently developing a co-packing facility in this building.

There are significant differences in their operation model as compared to La Cocina. El Pájaro promotes development of low-income minority entrepreneurs who have limited resources by providing instruction, bilingual/bicultural business training, business incubation, professional consulting and coaching. El Pájaro owns their 18,000-square foot building, a significant contrast in size to La Cocina's facilities. Unlike La Cocina, El Pájaro does not have a strict application procedure. To apply, each business only needs a business plan. El Pájaro offers a 10-week business plan course in English and Spanish 2-3 times per year. This course is open to any prospective entrepreneur, regardless of whether or not they are seeking to use the commercial kitchen. If a business has a business plan and the required certifications (ServSafe Certification, Food Handlers Certificate, etc.)[16], they can use the kitchen. Businesses commit to using the kitchen for at least six months, but this is not strictly enforced. Further, unlike La Cocina, El Pájaro does not facilitate catering contracts or sell their participants' products. They do offer general business advising, however.

El Pájaro's commercial kitchen is designed to be adjustable to the needs of the businesses. Many kitchen elements are on wheels or are movable, so a business can create the space they need. There are 16 total workstations and various pieces of equipment, which are available for rent.

[16] El Pájaro will help businesses to get certified if needed.

Kitchen rental ranges from $10-$30/hour depending on the needs of the business. El Pájaro also offers dry, cold and freezer storage for rent, and they can offer an additional conference room and shared office spaces as needed as well. The kitchen space is not only rented to food businesses, but is also home to a food delivery service, a local community college for their culinary academy, and hosts other community endeavors. The majority of income for El Pájaro comes from its kitchen rentals.

L.A. KITCHEN

Started in 2013, L.A. Kitchen is a mixed model—a social enterprise business that purchases regionally grown foods, a job generator that reinvests profits back into additional workforce training program, and volunteer engagement organization providing free meals and snacks for nonprofit partners throughout the community. Its mission stems from the belief that neither food nor people should ever go to waste. Their fundamental model entails the purchase of imperfect produce, which would otherwise be going to waste, and using this to create culinary jobs for unemployed men and women to make healthy, value-added, and scratch-cooked meals for the community. Their model encourages both food, nourishment and community engagement. L.A. Kitchen is a 20,000 square foot shared-use kitchen facility located near downtown Los Angeles and offers three programs to help promote their mission and values: *Empower L.A.*, *Impact L.A.*, and *Strong Food*.

L.A. Kitchen received a $1 million start-up grant from the AARP Foundation, which allowed them to form a founding board and necessary staff to begin developing its programs and partnerships that would promote its mission.

Every 15 weeks, 20 students are admitted to receive vocational 4-week training from chefs and industry professionals, and then are placed into permanent jobs within the hospitality, culinary or healthcare industries. The focus for *Empower L.A.* is towards emancipated foster youth and older adults transitioning out of imprisonment, seeking employment and security. In addition to culinary training, this program works with social workers, nutritionists, and workforce development coordinators to help facilitate the training of incoming students.

The *Impact LA program* focuses on converting fruits and vegetables that would otherwise go to waste, into value-added products that nourish low-income and disenfranchised members of the L.A. community. They work with local farmers and wholesalers to purchase and reclaim imperfect produce before it is discarded. Community volunteers from different age groups, cultural communities and backgrounds work with the *Empower LA* program students to transform the reclaimed produce into fresh, nutritious scratch-made meals and snacks. These meals and snacks are then donated to increase the capacity of nonprofit social service agency services, including

groups that provide senior care, inner-city after school programs, drug recovery treatment, and transitional programs for the homeless.

Finally, the *Strong Food* program is LA Kitchen's primary social enterprise. It tries to achieve the role of nutrition partner for social service agencies and institutions serving aging citizens. This program's model is based on the purchase of California grown produce and providing scratch-made value-added food products to government agencies, universities, and healthcare providers. Their goal is to meet the demand of healthy and affordable foods while meeting the interests of the investors, employees, and community. *Strong Food* provides jobs for the *Empower L.A.* graduates, serves healthy meals, and invests in Southern California's farmers and local food producers. However, their 2017 Annual report starts with the word "disappointment," acknowledging that after two years of effort, they recused themselves from the senior meal contract process with the L.A. Department of Aging. The impact they have sought to make with this program was tempered due to distribution challenges, and the L.A. Department of Aging's reliance on existing multi-national caterers. Feeling that their appeals for transparency and oversight in the contract process were largely ignored, the L.A. Kitchen Board and management decided to move in another direction, creating their own senior meal system instead (L.A. Kitchen, 2017).

HOT BREAD KITCHEN/HBK INCUBATES

HBK Incubates is a shared commercial kitchen and business support program established by Hot Bread Kitchen, a 510(c)(3) nonprofit social enterprise kitchen in New York City that envisions a food system that equitably compensates talent and sustains a diverse workforce while celebrating culinary tradition and innovation. Introduced in 2011, HBK incubates allows entrepreneurs to mitigate start-up risk and grow their food ventures in a community of business owners. HBK takes a four-prong approach to supporting emerging food businesses - commercial kitchen access, business development support, culinary community and market access.

HBK Incubates uses a unique funding scheme, which uses the sale of HBK's multi-ethnic breads and rental of commercial space to fund 65 percent of HBK Incubates operating budget. In addition to using direct sales and rental income as a funding source, HBK Incubates is supported by a multitude of philanthropic organizations, predominantly from the for-profit world. These include: Barclays, Pimco Foundation, Toyota USA Foundation, Capital One Bank, New York Entrepreneurial Assistance Program, CITI, Mizuho, The New York Women's Foundation, CAF American Donor Fund, David Nathan Meyerson Foundation, Eileen Fisher, Laurie M. Tisch Illumination Fund, Maverick Capital Foundation, M&T Bank, the Patrina Foundation, and the Price Family Foundation Inc. These diverse funding streams result in a $1-$5 million budget, and the ability to employ 19 staff members.

HBK Incubates offers 24/7 access including a street level receiving bay and off-street delivery area. In addition to ten production stations in their open-floor kitchen space, they offer six walk-in cooling units totaling more than 800 square feet and over 300 square feet of dry storage. The kitchen space is equipped with a full suite of production equipment including, but not limited to: gas and induction cooktops, multiple convection ovens, deep-fryers and a large capacity tilt skillet.

Bakers in Training is an intensive, paid, on-the-job training program for women facing economic insecurity. Trainees are helped in launching careers in food manufacturing, by learning the trade of bread baking. The six-month program provides paid training in artisan bread baking along with key skills like English as a second language, bakery math and science. *Bakers in Training* work and learn alongside industry professionals while producing breads to sell. 100 percent of graduates seeking employment are hired in full-time, fair wage positions with access to benefits and opportunities for advancement.

In addition, HBK offers the following services:

- One on one growth coaching and business plan development
- Product development (packaging/labeling)
- Business plan review and guidance
- Business advisor on staff
- Access to workshops and educational resources
- Marketing opportunities including participation at highly visible events
- Subsidized rates to make their program accessible to all. 30 percent of their members are low-income and receive subsidies on kitchen rental and storage.
- Short Term Rental Opportunities: available for commercial tenant and short-term rates.
- *Entrepreneurial Assistance Program (EAP)*: For people/small businesses who are not quite ready to enter the incubator program. *EAP* is a theory-based program to provide instruction, training, technical assistance and support services to individuals who have recently started their own food or non-food-based business.

The table on the following page summarizes the four incubator models described in more detail and compares important characteristics.

Table 9: Successful Food Incubators

Name	La Cocina	El Pájaro	LA Kitchen	Hot Bread Kitchen/HBK Incubates
Location	San Francisco, California	Watsonville, California	Los Angeles, California	New York City, New York
Website	http://www.lacocinasf.org	http://www.elpajarocdc.org/en/commercial-kitchen-incubator	http://www.lakitchen.org/	http://hotbreadkitchen.org/
Year Established	2005	2013	2013	2011
Square Footage	4,400 sq. ft.	8,000	20,000	2,300 sq. ft.
Number of Stations/ Kitchens	4 prep stations/ 1 kitchen	15 workstations	n/a	2 kitchens
Cost of Membership	$22/hr + membership fee	$10-$30/hr	n/a	$500 annual fee + $17/hr
Application practices	Applicants must be: low income, be business ready, and be micro businesses (less than 5 employees)	Need business plan	n/a	http://hotbreadkitchen.org/hbk-incubator/how-to-apply
Requirements if accepted	Each business needs their own business license, insurance, business records, tax returns	Will help businesses get proper licenses and certificates	15-week course and internship. Graduates will receive food handling certificates, job placement support and continuing personal and professional support.	Business incorporation fees, food protection/handlers certification, insurance, workers compensation, licensing fees, production equipment and supplies
Assistance Programs	6-month period where program participants receive technical assistance to establish the foundations of their business in the areas of Product, Marketing, Finances, and Operations.	13-week technical assistance program	n/a	Business development support
Starting Budget	$500,000/yr	n/a	$1 Million	n/a
Current Budget	$1.7 million for 2016	n/a	n/a	$1-5 Million
Funding strategies	Cooking classes, night markets, media dinner, gift bazaar, conferences, SF Street Food Festival, private donations	n/a	Sells meals to senior homes/facilities	65 percent of their operating budget is funded through the sale of multi-ethnic breads and rental of commercial space.
Staff	9: Executive Director, Programs and Development Manager, Business Development Manager, Operations and Event Manager, Retail and Catering Manager, Culinary Manager, Administrative Office Manager, Program Coordinator, Development and Communications Associate	3 (Executive Director, Outreach and Business Development Specialist, Commercial Kitchen Manager)	n/a	19 to include ED and hiring 5 more positions (https://hotbreadkitchen.org/who-we-are/)

RELATED LOCAL CONCEPTS AND LESSONS ALREADY LEARNED

The concept of food hubs seems closely related to the goals pursued by these incubator models. Local approaches originated from the popularity of local foods in the 1990's and early 2000's and local and organic California cuisine trends started by chef Alice Waters of Chez Panisse. The two local approaches described below are primarily a result of expressed interests of foodservice professionals at schools and hospitals in purchasing local food. Individuals are increasingly able to purchase local foods at farmers' markets, join a CSA, or grow foods themselves. Institutional food service continues to face barriers to purchasing larger volumes with strict budgets, however. Focusing on the lessons already learned, the Community Alliance with Family Farmers (CAFF) seemed to have moved away from their original idea of food hubs, while *UC Sustainable Agriculture Research and Education Program* (SAREP) focuses on establishing networks across existing hubs and offering assistance. Both of these organizations, the stakeholders they represent, and their documented lessons learned add important considerations in moving forward with this project.

Food hubs:

- A food hub is defined as "a centrally located facility with a business management structure facilitating aggregation, storage, processing, distribution, and/or marketing of locally/regionally produced food products." (USDA, 2010)

THE GROWER'S COLLABORATIVE AND ONGOING EFFORTS BY THE COMMUNITY ALLIANCE WITH FAMILY FARMERS

The Grower's Collaborative (GC) operated in North–Central California from 2004-2009, and can be described as a food hub run by the Community Alliance with Family Farmers (CAFF). The Davis Joint Unified School District reached out to CAFF for assistance with local procurement in 2000, and CAFF started serving as a middleman, billing and collecting receivables from the district and paying the farmers separately. During 2003 – 2004, Ventura Unified School District and local farmers were also looking for support to build the district's *Farm to School Program*, and in collaboration with farmers involved, CAFF was able to obtain a *USDA Value-Added Producer Grant* in 2004 to conduct a feasibility study for a local produce delivery operation. As a result of this study, CAFF took an innovative approach and created a nonprofit distribution entity called the *California Growers Collaborative* (GC). It was designed as a distributor to drive its own trucks to purchase, pick up, aggregate product from family farms, then sell, and deliver product to school districts and other food service operators. It follows the USDA definition of a food hub. Its customer base grew quickly beyond the school district to include Bon Appetit, Kaiser Permanente Hospitals, and universities. Utilizing the local food bank's cooler in Ventura as a receiving and staging site, they grew to use a cooler at a grower's citrus packinghouse. When they grew even

further to operate in the Bay Area and Sacramento Valley, they applied for additional funding (*USDA Value-added Producer Grant*) to start a second GC hub in Davis. In the interim, CAFF used excess cooler space at a farm outside of Davis as a distribution point. CAFF operated GC as one of its nonprofit program areas, supported its operations through public grants, and private funds from two of GC's largest customers: the Kaiser Community Benefits Foundation and the Bon Appetit Management Company. In 2006, CAFF tried to shift GC to a for-profit LLC and began looking for private investment. As no investment was materializing, GC was run as a nonprofit. Even though gross monthly sales of the combined hubs averaged from $85,000 to over $1 million per year by 2008, these revenues still were not sufficient to cover fixed costs of operation, such as labor, truck maintenance, equipment, etc. The Growers Collaborative eventually closed in 2009.

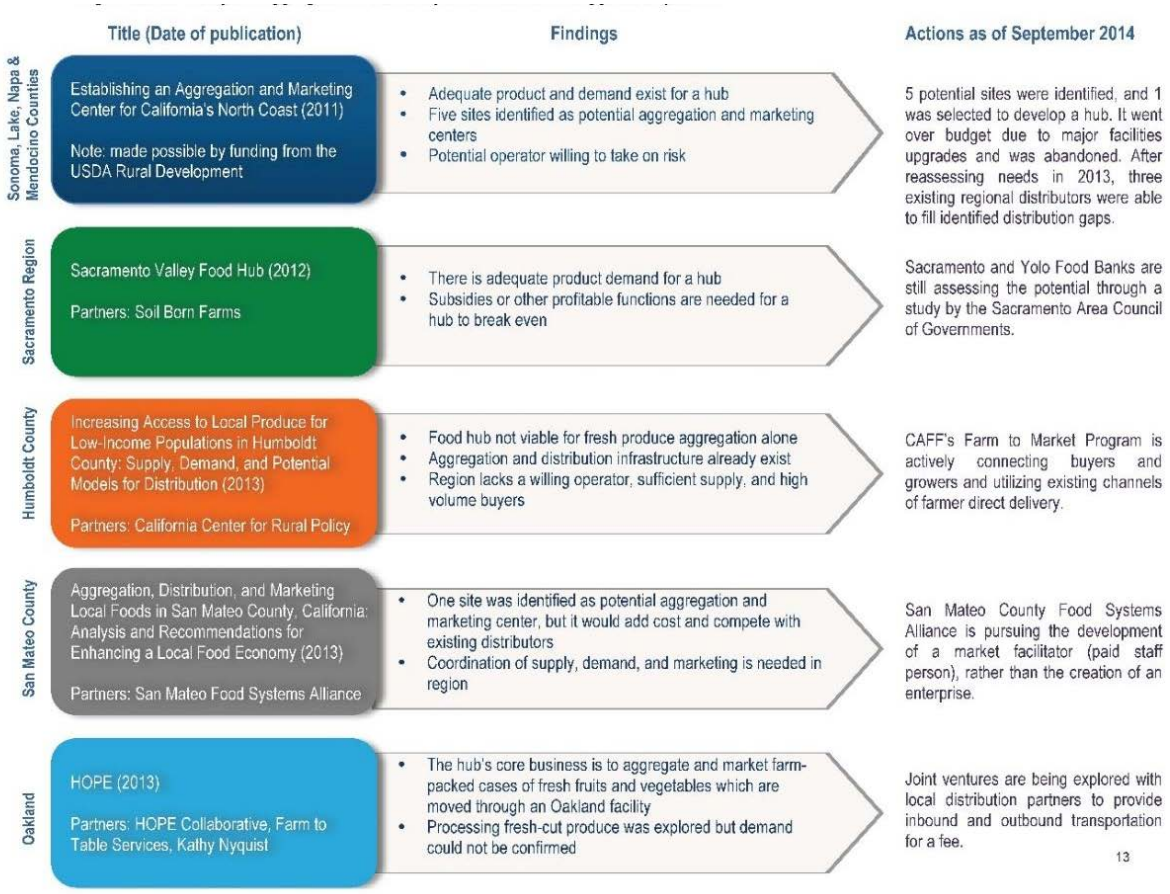
In order to continue to connect farmers who were willing to sell to a third-party hub and to serve the demand for local product from buyers, CAFF partnered with L. Cotella Produce to form *Thumbs Up, A Grower's Collaborative,* a private, family-owned business. *Thumbs Up* used their industry experience, facility, and equipment to source and aggregate local produce, offering a ready-made line of local produce, all branded under the *Buy Fresh Buy Local* (BFBL) banner.

CAFF helped negotiate deals with larger distributors, and *Thumbs Up* created sophisticated traceability systems, including a proprietary software system that enabled it to identify products from the farm to the point of consumer purchase. All local products that distributors bought could be traced back to farm and location, enabling customers to access this information.

Despite having greater expertise than CAFF in both distribution and produce handling, *Thumbs Up* faced many of the same challenges that resulted in the failure of GC, and closed its doors in 2011. In order to step into this new space, the operator shifted their business from being a distributor to being a broker. *Thumbs Up*'s margins went down, but costs, particularly the costs of distribution, stayed the same. At that time, the BFBL campaign had gained a lot of traction in Northern California through the public education arm of CAFF's work.

Important lessons can be learned from these innovative approaches, despite the fact that they were not economically viable at any stage. CAFF identified four main challenges for GC: scale, costs, readiness, appropriate equipment and experience; and have continued to engage in feasibility studies of alternative approaches.

Figure 9: Summary of Aggregation Feasibility Studies Led or Supported by CAFF



Source: CAFF (2014): Making the Invisible Visible: Looking Back at Fifteen Years of Local Food Systems Distribution Solutions, p. 13

Each study focused on a different geographical area of California, yet CAFF concluded that the solution to aggregation over regions of local and organic food supply lies in existing infrastructure and supply chain stakeholders rather than in creating a number of parallel systems that compete with existing distribution mechanisms. They also emphasized the importance of a regional marketing campaign to tie together various efforts to promote, buy and continue to build demand for local food. CAFF has moved further away from their original food hub idea and towards supporting farmers and institutional local food consumers in a multi-pronged approach, they call *Farm to Market*.

Key Lessons:

- ❖ Solution to local and organic food supply lies in existing infrastructure and supply chain stakeholders rather than in creating new distribution.
- ❖ Importance of marketing efforts to tie together various efforts to promote and continue to build demand for local food.

Ever since, CAFF has focused on and believes that a more effective strategy to local food system development is working collaboratively to improve existing infrastructure and increase supply chain values. CAFF tries to connect famers directly to institutional and large retail buyers, assist with production planning, facilitate aggregated purchasing, and ensure that products can be source identified and labeled local. CAFF also shares resources and technical assistance with farmers, food service leaders and students, and collaborative purchasing and resource sharing structures.

A California Food Hub Network Pilot to engage with potential institutional buyers

Another related project called: *Nurturing Local Food Hubs to Connect Small Farms to Campuses to Develop Healthy and Sustainable Eating Options for K-to-University* is part of the *K-12 Food Hub Collaborative Learning group* and led by the *UC Sustainable Agriculture Research and Education Program (SAREP).* It received funding from the *UC Global Food Initiative (GFI)*, a program of the UC Office of the President and campus chancellors in 2015. While CAFF seemed to have moved away from their original idea of food hubs, the number of food hubs continues to rise nationally. The *USDA Food Hub Directory*[17] lists 204 entries, 14 of which are located in California. In addition, *SAREP* knows of a greater number of food hubs located in California than appear on this list and addresses the growing interests in value-added and locally produced foods among consumers, including at UC campuses and other institutions with their project. For instance, the University of California System Administration Central Office (UCOP) established a policy of sustainable practices and states the following goal for their food services and procurement: "Each campus and Medical Center foodservice operation shall strive to procure 20 percent sustainable food products by the year 2020, while maintaining accessibility and affordability for all students and Medical Center foodservice patrons." (University of California Policy, 2017, section H, p. 11). Retail food service operations will strive to meet the same procurement goals by aggregation of purchases across retail entities under the jurisdiction of a single operational unit on location. *SAREP* further references a partnership with Harvest Santa Barbara (a regional food hub) and UC Santa Barbara Residential Dining Services that already exceeds these goals as a motivation for their project. While they define five project objectives, this report focuses on two key objectives, summarized below.

Select project objectives:

- Develop an understanding of California hub characteristics, needs, and impact
- Develop an understanding of potential buyer needs and interest

[17] Accessed January 2018 at https://www.ams.usda.gov/local-food-directories/foodhubs.

This pilot project started with a group of seven food hubs (six in northern and one in southern California) that fit within the USDA definition of food hubs and were in operation for more than a year. The study found that the food hubs selected shared the following characteristics:

- All hubs sell their product within a 100-mile radius, while most sell at an even smaller radius of 50 miles (distance from consumer to producer).
- They source from an average of 38 producers per hub (269 producers for all food hubs, combined, 3 hubs working with more than 50 suppliers, and 3 with fewer than 25 suppliers).
- Gross annual sales are dominated by fruit and vegetables sales (87 percent in 2016 declining by 6 from 2015)
- Food hubs are starting to diversify product categories (6 out of the 7 hubs increased the number of product categories offered between 2015 and 2016)
- Most rely on grant funding in their operating budgets (5 out of 7, with percentages ranging from 100 percent to less than 10 percent; 3 with decreasing trends between 2015 and 2016)
- Restaurants (33 percent), Grocery Stores (13 percent), and K-12 Food Service Providers (13 percent) were the top three customer types accounting for the greatest percentage of annual gross sales (with no changes in 2016 as compared to 2015 in the ranking, but decreasing percentages for all three categories)
- Most popular self-reported categories for growth were: Restaurants, Catering Businesses, Grocery Stores, K-12 Food Service Providers and University/College Level Food Service Providers.

All food hubs saw themselves as excelling in direct relationships between consumers and producers, catering to each of their needs, guaranteeing quality and freshness, and source identification. This is particularly important as access to distribution channels is key for farmers and small-scale producers. Food hubs have already been identified as potential mechanisms that hold the promise to secure higher returns for source-identified local products that cannot be gained through traditional wholesale channels that do not differentiate produce or value-added products according to where they are grown and produced. Food hubs also provide a consistent and reliable supply chain for locally produced foods.

However, when asked to report back on business or operational challenges, food hubs most often identified food safety compliance, increasing supply chain efficiency and supplier/grower support. Additional issues named included: “Having enough funds to attract/retain quality staff and/or to have enough staff”; “Product diversity/reliable product supply”; “Lack of consistent supply”; and “Buyer awareness/education”.

The project further piloted a framework for networking among hubs as previous research results already indicated the desire to connect and learn from the experiences of others, a preference confirmed by the managers involved. They shared a strong interest in opportunities for networking, shared learning and collaboration. Three primary opportunities arose in this context:

1) Strengthening relationships between hubs,
2) Learning from each other, and
3) Transacting with each other.

Of particular interest and potentially requiring further exploration, is the opportunity for hubs buying and selling product from each other. It could allow them to be more competitive, smooth fluctuations in supply, and reach larger markets. A related area of interest was the development of shared marketing and branding campaigns to advance and communicate their shared value propositions. However, the following challenges might hinder networking and collaborating:

- Variation in size, targeted market segments, geographies of supply, operational models and expertise make it hard to identify common purpose or benefit.
- Transactions across hubs might come at added costs (labor, transportation, and shared investments) with potentially little additional profits to ensure hubs are meeting their own target margins and maintain equitable pricing for their suppliers.
- Food hub managers have limited time and capacity to engage in networks.
- Despite a strong spirit of cooperation in this sector, hubs might compete with each other for some of the same market segments and consumers, and thus might be risk averse when it comes to sharing sensitive information.

Both, UC buyers and the food hubs themselves concluded that this network did not have the production or business capabilities yet to sustain the needs of the UC buyers. This project and *SAREP* therefore also focused on reaching out to other organizations to compliment work that has already been done, rather than duplicating efforts. It has recently been awarded continuous GFI funding to build business relationships. *SAREP* further secured 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.

Lessons Learned:

- ❖ Interest from UC buyers in sourcing locally, but more information needed on how food hubs could fill the gap.
- ❖ Interest from food hubs in organized technical assistance and shared learning experiences.

ALCHEMIST CDC AND CURRENTLY CONSIDERED POTENTIAL COLLABORATORS

Finally, in order to assess what is feasible, Alchemist CDC's previous efforts and current involvement in the targeted community are considered. Alchemist CDC already engaged in

significant outreach and continues to exchange ideas with potential collaborators moving forward. Existing partnerships and expressed interests in joint ventures will be considered in the final evaluation and recommendations moving forward.

ALCHEMIST CDC

Alchemist Community Development Corporation (Alchemist CDC) was founded in 2004. Its mission is to support Sacramento area residents in their efforts to create vibrant, equitable, healthy and diverse communities. Alchemist's work has revolved around equitable food access and community development.

Alchemist CDC's first programs involved setting up urban farm stands to bring local produce to underserved neighborhoods. After five years of operating Urban Farm Stands, Alchemist CDC evolved its program focus to make existing farmers' markets more accessible and equitable. Alchemist worked with legislative staff and advocacy organizations to provide input on the *EBT Access at Farmers' Markets* bill (AB537) that passed in late 2010. It allowed third-party entities to operate EBT processing systems at farmers' markets where the market operators are unable or unwilling to do so themselves.

In 2011, Alchemist CDC began facilitating the use of *CalFresh* (formerly known as Food Stamps) at farmers' markets in the greater Sacramento area. This remains Alchemist CDC's largest current program. By accepting *CalFresh* benefits at farmers' markets, Alchemist CDC provides low-income families with access to fresh, local, high quality produce. This program also connects local farmers to another source of revenue. Since beginning this program, Alchemist has continued to add market locations, and currently operates *CalFresh* systems at 11 markets. In each year of the program, the number of *CalFresh* transactions has grown. In 2017, over 16,000 *CalFresh* transactions were processed by Alchemist CDC, and over $250,000 of *CalFresh* were spent.

Based on its success in bringing EBT systems to farmers' markets, Alchemist CDC was invited to join the *California Market Match Consortium* and work with partners throughout the state to share best practices for implementing and promoting farmers' markets to *CalFresh* recipients. As part of their involvement with the consortium, they provide *Market Match* incentives and promotional assistance to many farmers' markets that accept *CalFresh* in Sacramento and Yolo Counties. *Market Match* provides a dollar-for-dollar match when *CalFresh* customers spend their benefits at the market. This incentive helps stretch a *CalFresh* user's tight food budget, increases access to healthy foods, and builds the habit of shopping for and eating fresh produce. Alchemist CDC currently facilitates *Market Match* programs at 19 markets and farm stands. In 2017, they distributed over $108,000 in incentives to over 2,100 households, with many households returning multiple times, becoming regular farmers' market shoppers.

Beyond farmers' market work, Alchemist CDC runs a *Building Healthy Community Retail* program, which focuses on encouraging healthy shopping through educational store tours for residents of the *Building Healthy Communities*/South Sacramento area. This program highlights existing underutilized sources of healthy foods, such as ethnic markets. Through tours and community engagement, Alchemist CDC bridges barriers and cultural divides that may exist within communities, while educating about healthy food options. This work evolved out of a *Corner Store Conversion* program, which put fresh produce in corner stores and highlighted the healthier options in these stores. Alchemist CDC also previously ran healthy food preparation demonstrations, including train-the-trainer models, where residents acted as health ambassadors for their community.

In addition to these food-focused programs, Alchemist CDC operates a *Building Blocks: Re-imagining Public Spaces* program. It aims at revitalizing blighted areas and vacant lots through community engagement. In this program, Alchemist CDC works with residents living adjacent to derelict alleys and vacant lots to develop and implement community plans to convert these spaces into community assets, fostering a revitalized neighborhood with stronger community ties.

Growing out of its work with farmers' markets, nutrition, food access and economic development, Alchemist CDC began exploring the idea of creating a food business incubator in late 2015. In 2016, Alchemist CDC was awarded a USDA planning grant to complete a feasibility study and business plan for a food business incubator in Sacramento. Alchemist CDC's strong existing connections with farmers, and its reputation in the Sacramento region as a key player in expanding food access, make this new endeavor a logical evolution for the organization.

EXISTING COMMERCIAL KITCHENS

There currently exists a small number of commercial kitchens in the Sacramento region that are available for rent. Their pricing models can provide insight into willingness to pay of some entrepreneurs in the region.

GOURMET GARAGE

Gourmet Garage is located in Loomis, CA, 25 miles northeast of Sacramento. It provides fully licensed commercial kitchen space for rent, with a stated goal of "partnering with tenant companies to provide opportunities for their growth in the food service business." The kitchen offers different tiers of service, each with a different monthly minimum charge and hourly rate. The rates, minimums, and services provided for each tier are noted in the table below. This price discrimination scheme enables them to capture a larger portion of their customers' willingness

to pay than if they had the same hourly rate for all customers. Additionally, they offer the first month free for customers who sign up for a full year of service in advance.

Table 10: Price Scheme - Gourmet Garage

	Tier I	**Tier II**	**Tier III**	**Tier IV**
Monthly Minimum	$100	$300	$500	$800
Included Kitchen Hours	0	10	20	40
Pre-pay Extra Hours	$40	$30	$25	$20
Overage hour rate	N/A	$40	$30	$25
Registration	√	√	√	√
Day Use Storage	√	√	√	√
Designated Storage Space		√	v	√
Additional Storage Rental			√	√

LULU'S KITCHEN

Lulu's Kitchen, located in downtown Sacramento, has two commercial kitchens as well as a dining room available for rent. It employs time-of-use hourly rates, i.e. there are different hourly fees and minimum rental fees during prime time (6 a.m. to 9 p.m.) and non-prime time (9 p.m. to 6 a.m.). The following table details the rental fees.

Table 11: Price Scheme – Lulu's Kitchen

Prime Time (6am - 9pm)	**Rate**
*One Kitchen	
Minimum Rental Fee	$100 for first 3 hours
Additional Time	$35
*Full Facility Rental (2 Kitchens)	
Minimum Rental Fee	$175 for first 3 hours
Additional Time	$60
Non-Prime Time (9pm - 6am)	
*One Kitchen	
Minimum Rental Fee	$85 for first 3 hours
Additional Time	$30
*Full Facility Rental (2 Kitchens)	
Minimum Rental Fee	150 for first 3 hours
Additional Time	$50
Other	
Deposit at signing	$200
Equipment Fee	$50
	*30 percent of reservation fee due at signing

OTHER COMMERCIAL SPACES FOR RENT

Four other organizations in the region currently rent, have rented in the past, or are planning to rent kitchen space in some capacity. Their pricing structures and business models were not easily accessible. All Seasons, All Reasons Catering is located in north Sacramento and rents out its kitchen to local food businesses when it is not using it. Sierra 2 Community Center, located in the Curtis Park neighborhood of Sacramento, has a kitchen available to rent for small food businesses. Fruitridge Community Collaborative is a former elementary school turned community center. It is located in south Sacramento and has a kitchen that will likely be available to rent in

the future. Finally, Preservation and Co. is a Sacramento-based business that produces handcrafted specialty goods. In the past, it rented out its kitchen to other local food business, but it is unclear if this is still the case.

THE FOOD FACTORY

The Food Factory is a project spearheaded by Sacramento entrepreneur Andrea Lepore (owner of the *Hot Italian* restaurant) and land developer Dr. Skip Rosenbloom. There is some overlap in the ideas behind this project and the food incubator proposed by Alchemist CDC. Lepore's vision is to build a sustainable and advanced shared commercial kitchen to nurture food industry entrepreneurs. *The Food Factory* is to be located at a 33,000-square foot warehouse owned by Dr. Rosenbloom in downtown Sacramento. The building is currently unused and requires significant renovation. Lepore estimates the cost of renovation at $5 million and is currently working on raising the necessary funds.

While different financing models continue to be discussed, *The Food Factory* will most likely be a privately financed for-profit endeavor. There is mention of the option of establishing a nonprofit entity as well to be eligible for grant funding during the renovation phase. Once completed, the business model favored is to lease out individual kitchens, food preparation areas and also a large shared kitchen.

"There are still a lot of moving parts," Lepore said and while she references expressed interests from chocolatiers and jam makers, to beverage companies and bakers, a completion date has not been set. Lepore does not seem to have an operation model in mind, but is open to leasing the shared kitchen space to nonprofits and allow them to bring their incubator model with them. A more integrated partnership seems unlikely however as it is unclear what role Lepore will play after the completion of the site (Anderson, 2017).

CURRENTLY CONSIDERED POTENTIAL COMMUNITY PARTNERS

Other than these specific approaches, projects and existing commercial kitchens, a number of local nonprofit and for-profit organizations are working on related issues, and might serve as potential partners moving forward.

Capsity is already a partner on this planning grant and leads the development of the business plan for this project. Capsity, Inc., a California Benefits Corporation, has forged a path of coworking since 2008. Its mission is to generate a Stewardship Economy by inspiring community across entrepreneurs. In early 2015, Capsity purchased a venerable 30-year old pizza place only four doors down from its main building. With the pizza place, Capsity is seeking to provide an amenity to its coworking community, restore an asset to the larger Sacramento community,

prove that living wage jobs are sustainable in real time, and test a canvas on which to launch other food industry concepts. In late 2017, Capsity also purchased a former Bank of America building in the Oak Park neighborhood. Capsity envisions creating a social enterprise café at this property with a small kitchen that could be part of Alchemist CDC's Incubator. In addition to this location, Capsity is exploring properties in the Del Paso area of north Sacramento in conjunction with the *Sacramento County Public Library,* who is seeking expanded space and programs. The Library recently instituted a *Library of Things* program in which they rent household items and machinery. In Capsity's conversations with the Library, they have expressed interest in a mixed multi-use library space with public-private partnerships. Ideas include anything from a café run by Incubator graduates to having an independently-run kitchen on site, which could collaborate with the *Library of Things* program.

Franklin Neighborhood Development Corporation (FNDC) is the community development wing of the Franklin Boulevard Business Association. FNDC is developing a project, which will likely house a commercial kitchen incubator. They have reached out to Alchemist CDC about potentially running this kitchen. FNDC's project would create a multi-tenant public *Mercado*. Modeled on a similar project in Portland, Oregon (known as the *Portland Mercado*), FNDC's Mercado is envisioned as an open plan market with multiple food and other businesses under one roof. In the rear of the building, the *Mercado* will house a shared commercial kitchen space. FNDC commissioned a feasibility study for their *Mercado* from a consultant who worked on the *Portland Mercado* project, and FNDC'S current Executive Director previously led the micro-enterprise development team of the *Portland Mercado*.

In addition to these organizations and already considered partnerships, there are a number of organizations who work with low-income or historically underserved populations. Many of the populations served or supported by these organizations have a passion for food and would benefit from Alchemy Kitchen's services to turn their passion into a vocation. A few are mentioned explicitly here:

The Sacramento Chinese Community Service Center (the Center) assists new immigrants, refugees and other underserved individuals in the greater Sacramento area to achieve economic self-sufficiency, social empowerment, and cultural appreciation. The Center provides quality educational, vocational, and human services and offers health programs to these individuals. The Center already regularly works with clients who have a passion for sharing their family and cultural food traditions with others. Alchemy Kitchen could potentially provide a pathway to help them turn their passion into economic self-sufficiency.

The Sacramento Food Bank & Family Services (SFBFS) is the primary food bank serving all of Sacramento County; SFBFS provides emergency food assistance to more than 140,000 low-

income, ethnically diverse, men, women and children in the area each month. It serves an additional 10,000 per month in its education, clothing, immigration and refugee programs. Many of SFBFS' clients and other community members are interested in sharing their food traditions with others, and could benefit from the services offered by Alchemy Kitchen. They could gain greater financial independence, feel empowered in being able to care for themselves and their families, improve their access to foods and health at the same time.

Wellspring Women's Center's mission is to nurture the innate goodness and personal self-esteem of women and their children, providing respite and services in an atmosphere of hospitality with dignity and love. Alchemy Kitchen could provide career opportunities for these clients as well.

The California Urban Partnership develops technology, joint venture, and policy solutions to build economic security in communities of color. They envision neighborhoods in regions where race is no barrier for people to achieve economic prosperity and have identified a food business incubator as one way to help build economic security in communities of color.

The Sacramento Area Council of Governments believes healthy rural economies provide a counterbalance, and complement to urban development and economic strategies. This helps bind the region around linked goals and objectives such as smart growth, resource conservation, enhancement of agriculture and food industries, food access and healthy eating, and recreation. These objectives are being sought by a growing collaboration of stakeholders to distinguish the region as providing high quality of life, progressive policies and strategies, and new economic opportunity for both urban and rural areas.

Valley Vision likewise believes Alchemy Kitchen could connect local growers with opportunities to which would have beneficial ripple effects throughout the region. The Alchemy Kitchen project could help leverage the partners working together to support the *Promise Zone* communities and also support the goals of the region's designation as an *Investing in Manufacturing Communities Partnership (IMCP)* through the *Central Valley Ag Plus Food and Beverage Manufacturing Consortium* managed by Valley Vision for the Sacramento region.

The Sacramento Food Policy Council is network of organizations and individuals in Sacramento County dedicated to building a more fair, green and resilient food and farming system. They also believe that a successful and prosperous food system must be developed around those that bear the burden of a system in trouble – particularly low-income people and people of color – and entrepreneurship must be part of fixing that system. The organization feels that Alchemy Kitchen would be a great asset to the Sacramento region and further the goal of a healthy, equitable and resilient food system for the people, businesses and the planet.

Slow Food Sacramento recognizes food artisans and producers from the Sacramento community with their *Snail of Approval* program and annual awards. Slow Food Sacramento's members seek out and support food products made locally and believe a food business incubator would be a great asset to Sacramento, and help further the availability of local, sustainable foods towards the goal of providing good, clean, fair food for all.

Opening Doors provides small business financing and tools for immigrants, refugees, and low-income citizens to build or grow small businesses, and gain greater control over their personal finances. Additionally, **California Capital Financial Development Corporation** provides capital and development assistance to increase economic opportunities for underserved communities and persons by offering a wide range of flexible financial products and services.

Finally, Sacramento is home to a federally designated *Promise Zone*. **Sacramento Housing and Redevelopment Agency** (SHRA) is the lead agency for the *Sacramento Promise Zone* and has determined that the Alchemy Kitchen project is consistent with the goals and objectives of the *Promise Zone*. The *Promise Zone* provides a framework for making connections, which will be ideal for the Alchemy Kitchen project to garner partners for this project and in achieving its goals.

Building on existing partnerships and reaching out to potential collaborators, Alchemist CDC envisions creating an advisory committee of successful restaurateurs and food industry experts, financial institutions, prospective participants, other incubator operators and local stakeholders. The advisory committee can provide insights and guide the project throughout. Individual members could further serve as mentors to Incubator participants.

OVERALL BENEFIT-COST EVALUATIONS AND FEASIBILITY ASSESSMENT

In summarizing and contextualizing the review of the existing literature, local approaches, and our additional data collection and analysis, a number of benefits this project can offer to the Sacramento region and, more narrowly, to the residents of the *Sacramento Promise Zone* become clear. However, despite Alchemist CDC's prior expertise supporting equitable food access, community development, and potential for partnerships, achieving cost-effectiveness and long-term financial feasibility of this proposed incubator project will be challenging. Findings from lessons learned and from the review of the existing economic research highlight those challenges. Potential benefits and costs are considered in more detail, and this study concludes by offering specific recommendations and suggestions for the business plan currently under development.

POTENTIAL BENEFITS

The increasing number of demand and willingness to pay studies for locally produced foods indicate that demand for local food is growing (by at least 9 percent annually nationwide). As the Sacramento region has already established itself a leader in the farm–to-fork movement, consumption growth rates should be even larger than these national averages. Our data analysis suggests potential price premiums, coupled with cost advantages when it comes to locally produced products. Focusing on two product categories currently covered by cottage foods regulations, it is worth noting that these price premiums exist despite the fact that the majority of products and the retailer itself are currently not engaged in promotional campaigns or branding efforts regarding local production. Specific promotional efforts for related products are likely to increase demand and widen those margins. Considering the greater Bay area as an expanded market opportunity for the products produced, it is worth highlighting that the nearly 10 million residents of these two areas consume over 3.2 million tons of fruits, nuts, and vegetables each year already, and that according to SACOG, consumers are willing to pay about 20 percent more for locally grown produce in those already established markets. Margins are generally larger for value-added local food products in this context, allowing us to conclude that the incubator kitchen can increase the supply of locally produced food products and realize potentially large direct consumer benefits.

If the incubator can successfully train and graduate members of low-income populations and contribute to small business growth, this project will likely have a significant regional economic impact. For its targeted populations, it can create sustainable self-employment activities, empowering its members and generating lasting improvements in overall wellbeing and health of these underserved communities. Creating job opportunities and increasing income will increase consumption of healthier foods, and generate economic spillover effects that benefit the community as a whole, not only from increased access to locally produced, healthier food alternatives and direct product sales, but also due to stimulating demand for these products. Using local inputs in their production will secure and create additional job opportunities, especially in the agricultural sector. Assuming that the small businesses incubated by this program mainly use local produce as inputs, they can generate indirect economic activity on the scale of at least $0.41 for every dollar of sales. Value-added products also create induced effects, such as stimulating demand for complementary products at farmers' markets and other outlets. Hardesty et al. estimate that the induced effect of direct-to-market producers for fruits and vegetables are $0.45 per dollar of sales generated, resulting in a cumulative indirect and induced effects for the Sacramento region in the order of $0.86 for every dollar of sales. These multiplier effects should be even higher for value-added products and increased local sales.

It is further difficult to predict the number of jobs created. Other than increasing the Alchemist CDC staff by at least one full-time member to manage the operations full time, job creation will depend on the organizational structure and scale of the project. Once the incubator is running sustainably and graduating alumni, this project is expected to add in the order of 10 to 20 additional jobs annually, both considering direct opportunities created in the food industry, as well as through indirect multiplier effects.

If the business plan includes a social enterprise component similar to the model pursued by L.A. Kitchen, additional full-time, part-time, volunteer and internship opportunities can be created. The food incubator could further stimulate demand for locally produced products through its operations. This could take the form of manufacturing healthy products in-house, delivering food assistance and meals directly to the community and its most vulnerable members, or working with existing institutions (such as schools, universities and hospitals) to either directly supply large buyers or connect food businesses and local farmers with these buyers.

A word of caution is in order when discussing these potential benefits. The primary goal and purpose of the incubator lies in its contribution to productivity changes and distribution of rewards from productivity increases to populations with limited resources and support systems. The significant productivity and demand increases discussed here will not likely be achieved by providing a shared kitchen space, and access to professional grade equipment alone. Real and sustainable business growth will ultimately be a result of learning by doing and learning from others (Rosenzweig, 1995) in a well-organized and managed multifaceted training program. Surveys and in depth interviews indicate sufficient interest in shared kitchen use and document specific equipment needs, but also demonstrate the demand for additional training, general and technical support, access to funding opportunities, credit markets, and existing distribution channels. Recently published results from the development economics literature seem relevant in this context. They establish that such training programs can help to transition marginalized populations with insecure and fragile sources of income into sustainable income generating activities, while at the same time increasing consumption opportunities, food security, women's empowerment and political involvement, physical and mental health and general well-being for these disadvantaged populations and their communities. These studies also acknowledge that these programs are very cost intensive, especially since they often include initial asset transfers in addition to providing technical skills training, high frequency interactions and additional support including life skills training and in some instances provision of health services. Medium- and long-term net benefits (overall benefits minus costs) are shown to be positive for these approaches, however (Banerjee, et al., 2015). Partnerships with financial institutions and governmental organizations enable the continuation of these projects and establishment of an

understanding that they serve as an effective and long-lasting policy approach to reducing poverty.

COST CONSIDERATIONS

The funds needed to develop or rent a site as well as the operating budget of the planned kitchen incubator will be considerable. For instance, estimated funds needed for the proposed renovation of *The Food Factory* amount to $5 Million and might be viewed as an upper bound for needed startup funds. *La Cocina* started with $500,000 as an initial budget, but was lucky enough to have their current space donated to them. *L.A. Kitchen* received a $1 Million start-up grant to form a founding board and hire necessary staff to develop its program.

Even without having to raise initial development costs as a result of formed strategic partnerships to utilize existing infrastructure, and assuming start-up funds can be raised through successful grant applications, the operating budget for the proposed project will likely be in the millions. If this budget cannot be secured, this project is likely to follow a similar trajectory as the *Grower's Collaborative* described earlier in this report. Even though gross monthly sales of this project averaged $85,000 to $1 million per year, their revenues did not cover fixed costs of operation. Partnering with L. Cotella Produce, a private, family-owned business with added expertise in both distribution and produce handling, could further not prevent failure due to the financial challenges faced. Hot Bread Kitchen, one of the most successful model nationwide reports an operating budget between $1-5 Million dollars annually, and *La Cocina* reported an operating budget of $1.7 Million for 2016, leading us to conclude that an annual operating budget of $2 Million is what Alchemist CDC should plan for in the first 3-5 years.

A mixed model that includes non-profit and for-profit partners working collaboratively to improve existing infrastructure and increase supply chain values seems the most feasible in this context. Rental income will likely only cover a small share of the required operating costs, especially if participation of targeted populations is subsidized. As a reference, only 10 percent of *La Cocina's* income comes from kitchen rentals and even in a nationwide assessment, including all types of incubator models, 58 percent of the revenues come from renting shared spaces alone on average. The observed willingness and ability to pay of interested parties surveyed here further falls below current rates charged by local commercial kitchens as well as rates charged by existing incubator models. Services and support offered in carefully designed training programs will therefore have to be subsidized, making other sources of revenue even more important. Including permanent spaces for rent by more established local food entrepreneurs (similar to the concept proposed by *The Food Factory*) can increase revenues (by 24 percent on average nationwide). Using the location as an event space, and offering direct retail and market opportunities on site are other strategies employed by successful models. Even if direct retail

space is not available, creating connections and prominently placing and featuring products in existing retail locations seems essential. *La Cocina's* events and product sales make up approximately 50 percent of their revenue, for instance.

The establishment of a social enterprise as part of the mixed operating model could further form the foundation and basis for long run financial viability of this project. It can contribute to revenue generation, but also improve the cost effectiveness and competitiveness of individual tenants and the incubator itself.

Purchasing imperfect produce and/or accepting available donations offered by the farmers interviewed seems a promising strategy to incorporate here. Resulting food waste reductions can be used as an additional selling point in a branding and marketing strategy for the products manufactured. If the branding and marketing is done successfully, the potential price premiums at which some products will be sold—assuming that current trends in demand for value-added products continue—can be used to pursue a model of price discrimination. The higher prices and revenues generated from sales to higher willingness to pay consumers can subsidize similar or even the same products offered at lower prices to consumers in lower income neighborhoods.

An essential aspect of financial feasibility both for the incubator itself, but also for its users is a strong connection and possible partnership with financial institutions. Securing potential investors and well as access to credit markets seems key in covering the start-up and operating costs, and providing a path to independence. Alchemist CDC, itself has limited expertise and prior experience in that regard and only one of the currently considered community partners (Opening Doors) seems to provide training and opportunities for small business finances. Collaborations or direct partnerships with the California Capital Financial Development Corporation, CoBank, as well as local credit unions might be worth considering in this context.

Active and successful grant-writing will be essential in covering the remaining operating costs and can ensure that Alchemist CDC can offer its services at low costs or for free in the incubation phase and training program. Funding to hire full-time staff with expertise in grant writing needs to be part of the operating budget. Even then, the rapidly changing national and local funding structure makes it hard to predict what percentage of the operating budget could be sustainable covered by this source. It is recommended that due to the uncertain nature of these funds, less than 50 percent of the operating budget should be covered by grants, and Alchemist CDC should strive to reduce this percentage over the years. That would mean that in addition to raising start-up and development funds, Alchemist CDC needs to identify and sustain grant funding in the order of $1 Million annually to ensure the feasibility of this project.

Finally, it is worth highlighting, that the primary challenges identified by CAFF that ultimately led to the closure of their Collaborative were costs, scale, readiness, appropriate equipment and experience. CAFF lessons and currently pursued approach suggests that rather than engaging in and creating a new model that operates in parallel to existing local supply chain models and compete with existing distribution mechanisms, a more effective strategy to local food system development is working collaboratively to improve existing infrastructure. If the renovation of the Food Factory location goes forward, it is strongly suggested that Alchemist CDC continues to reach out and discuss opportunities to collaborate. The Food Factory does not seem to have a clearly defined operating model at this point, and while the underlying ideas and proposed implementation seem to diverge, it might not be feasible or cost effective to establish two projects of that scale in the Sacramento region at the same time. CAFF is expecting that a 3-5-year timeline is necessary for any efforts to succeed and T*he Food Factory* might be the most advanced idea regarding the development of a suitable location for this project.

To summarize the findings of this study, the currently developed business plan should carefully consider and address these initial funding requirements and a sustainable operating budget, identify investors, and carefully discuss partnerships with other organizations. In order to keep costs at a minimum, it is further suggested that resources and technical assistance should be shared with farmers, food service leaders, academics and students in the area. UC Davis' continuous involvement in this regard, both in lending its expertise and building networks, like the efforts led by *SAREP*, seem crucial to ensure the short-term feasibility and long-term success of this project. Further specific recommendations to be considered for the development of the business plan are discussed in the next section.

RECOMMENDATIONS

As already highlighted above, a mixed model with both nonprofit and for-profit components, including the development of a social enterprise component is recommended.

For the nonprofit component, rather than just managing a shared kitchen space and network opportunities, a multifaceted training or incubation program needs to be developed. Alchemist CDC has already established reputation in bringing EBT systems to farmers' markets and facilitating *Market Match* programs means that they have established trust and can successfully reach out to low-income populations. Alchemist CDC could recruit participants from this marginalized group with limited access to resources, possibly focusing on residents in the Sacramento *Promise Zone*. Supporting its entrepreneurial spirited members with previous food production experience towards sustainable self-employment activities and economic stability has the potential to create sizable benefits as described above (direct, indirect, and induced). This target population could be even further segmented, depending on which community

members Alchemist CDC will partner with more closely (e.g. women, immigrants, veterans, populations recently released from the prison system).

Looking at the three groups of potential users identified, continued engagement with cottage food operators can serve as the most promising recruitment strategy. Cottage food operators will have to rethink their business model and scalability of their operations. They will need help with certifications, short-term additional staff, and start-up funds as indicated by our survey analysis and additional interviews. Providing infrastructure and services to food truck operators, even if members from this group might not participate in the training program, and services can only be offered on a seasonal or event-centered basis could be another promising strategy, this project can pursue. This stakeholder group has a slightly higher willingness to pay, most likely because they already established distribution channels for their products. Being able to not only prepare, but also sell their products on location was identified as a valuable opportunity the incubator could provide to this group of stakeholders.

The key to success of this project in addition to its financial feasibility is that the program is attentive to the needs of the participants. Therefore, the recommendation is to start small and admit no more than two to six applicants per year. More participants can be recruited and enrolled in a pre-incubation phase, and the incubator can continue to engage with community members that show interest. During this suggested pre-incubation phase, participants' ideas, intentions, and entrepreneurial potential should be critically evaluated, and assistance should be provided to translate ideas into sound business plan proposals. Selecting the proposals with the highest potential for successful execution within the duration of the training or incubation program (at least three years to graduation according to the current literature and approaches) is the suggested criteria for admission into the incubation phase. Participants that will not be able to join the cohort of incubated businesses could be offered internships and part-time job opportunities such that they can stay engaged with the incubator and re-apply during the next application cycle if they want to continue to pursue their own business ideas.

In addition to providing food production, management, and marketing training, this program might further have to include general life-skills training, health education, and potentially even offer access to health services. Important components of multifaceted training programs targeting low-income populations documented in the literature (Banerjee, et al., 2015) further include encouragement of saving behaviors aimed at improving these households' ability to cope with shocks.

It will be crucial to transfer assets to these participations. Even if the asset transfer is limited to subsidized use of kitchen space and equipment, access to credit markets and potential investors

will be key to allow graduates to stay in business and make the successful transition to sustained self-employment.

Alchemist CDC's established connections to farmers can further improve the cost effectiveness of these entrepreneurs in training. Interest in using the provided facilities and participating in training programs was relatively low for this group. However, opportunities for ordering imperfect produce at reduced prices, and a willingness to donate excess supply to this project was detected. Establishing such direct supply agreements and delivery mechanisms will help emerging businesses to produce their products at competitive prices. The social enterprise piece of this operation could further take advantage of these economies of scale, both to produce an in-house brand sold in premium markets, and to provide additional subsidized or free services to the community. A close collaboration with food banks and other organizations currently accepting donations is suggested in this context.

Alchemist CDC seems to have limited expertise and infrastructure to connect participants with access to consumer markets. Its current partnerships with farmers' markets and convenience stores can serve as starting point in this regard. It is strongly suggested that this project also reaches out to and takes advantage of existing distribution channels to provide opportunities for its participants. The reviewed literature suggests that the distribution landscape can change quickly and oftentimes new players capable of meeting the community's needs emerge in this industry sector. Alchemist CDC can establish itself as an important point of contact when these opportunities arise, and build partnerships with already well-established distribution channels. The collaboration with the Sacramento Natural Foods Co-op suggests that the Co-op might be able to serve as a potential medium-size retailer interested in promoting and marketing products produced in the incubator kitchen. UC Davis and its established networks or supply chains for local foods can further provide access to consumers and increase demand for these products. While Direct to Consumer (DTC) sales might be the primary revenue stream, opportunities to feature products in traditional retail environments can increase brand recognition and create demand for the products produced in the Alchemy Kitchen.

Establishing a for-profit component can further help create synergies. Existing food businesses can share their expertise, contacts and serve as mentors for the program participants. An initial approach to integrating and recruiting already established food businesses can rely on the provision of infrastructure (e.g. commercial production spaces available for long-term leases) as well as joint opportunities to further promote and market their products. This can take the form of including event spaces or on-site DTC retail opportunities in a site concept to be developed, but also should focus on establishing a strong brand. The development of a branding strategy and marketing plan that creates name recognition and targets the value-added foods market

segment will be key to selling products at prices that can cover operating costs and even allow re-investing in evolving businesses. The emphasis here, as described at the beginning of this study should be on local sourcing and production.

Other more technical program components such as certifications needed, food safety training, etc. also currently do not fall within the expertise of Alchemist CDC. Collaborations with existing organizations providing services in these areas and institutions offering education will not only make this multifaceted project feasible, but also improve its cost-effectiveness overall.

Finally, in order to secure funding through grant applications, it will further be beneficial to collaborate with community partners, governmental organizations, and research and educational institutions. Even though, this program can create positive net benefits in the medium to long term as outlined in the existing literature (Banerjee, et al., 2015), Alchemist CDC and its partnering organizations will not be able to capture all these benefits. Therefore, securing sustained funding from governmental and private sources, both at the national and local level will be key to successfully running the incubator long-term. Further collaborations with UC Davis should be explored in this context. They can include reaching out to departments and faculty to address specific challenges such as addressing food production and food safety concerns, developing effective branding and marketing strategies, and working with existing centers and extension specialists to address networking and supply chain management challenges. An important component is this regard is the development and careful planning for an evaluation strategy. Data collected and analyzed throughout can ensure that Alchemist CDC continues to incorporate feedback and is able to measure its impact on local food economies more closely. Careful evaluation of challenges and successes will also likely make this project more competitive when applying for continued funding.

Although the implementation of the ideas summarized here will be challenging, this project has great potential. It can improve the existing infrastructure and strengthen value-based supply chains for local foods in the region. It provides consumption gains for underserved communities while at the same time realizing productivity gains and increasing asset values for local producers recruited and trained from these communities. Establishing self-sufficient local food businesses that empower entrepreneur-minded minorities with limited resources to strengthen their unique marketable skills will increase revenue streams to local businesses. It will further create additional job opportunities and provide extra income, ultimately contributing to a more equitable local food system and economic growth in the greater Sacramento region.

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APPENDIX A: SURVEY CONTACT LISTS

FOOD TRUCKS

Name	City	Method Of Contact	Expressed Interest In Follow-Up Contact
24 Karat Grill	West Sacramento	Emailed Directly	√
A Moveable Feast		Emailed By Sactomofo	
An Honest Pie		Emailed By Sactomofo	
Annie's Sno Biz		Emailed By Sactomofo	
Azteca Street Tacos	Sacramento	Emailed Directly	
Bacon Mania	Sacramento	Emailed By Sactomofo	
Bella Bean Coffee Cart	Woodland	Emailed Directly	
Brain Freeze Shaved Ice	West Sacramento	Emailed Directly	
Buckhorn Truck	Winters	Emailed By Sactomofo	
Buckmobile Catering	Winters	Emailed Directly	
Burgess Brothers Bbq & Burgers	Sacramento	Emailed Directly	
California Love	Sacramento	Emailed Directly	
Cecil's Taste	Sacramento	Emailed By Sactomofo	
Chando's Tacos	Sacramento	Emailed Directly	√
Cichy Co	Sacramento	Emailed By Sactomofo	
Costa's Finest Kettle Corn	Lodi	Emailed By Sactomofo	
Cousins Maine Lobster	Sacramento	Emailed Directly	
Cowtown Creamery	Sacramento	Emailed By Sactomofo	
Cowtown Urban Eats	Sacramento	Emailed Directly	
Culinerdy Cruzer	Sacramento	Emailed By Sactomofo	
Curry Bowl	Rocklin	Emailed Directly	√
Dave's Dawgs	Lincoln	Emailed Directly	
Dinky Diner	Clarksburg	Emailed Directly	
Djusd Mobile Food Truck	Davis	Emailed Directly	
Dog Town Foods	Sacramento	Emailed By Sactomofo	
Dojo Burger	Lodi	Emailed Directly	
Drewski's Hot Rod Kitchen	Sacramento	Emailed By Sactomofo	
El Ajicito	Sacramento	Emailed Directly	
El Jalisquillo	Woodland	Emailed Directly	
El Matador Mobile Mex	Roseville	Emailed Directly	
El Primo Catering	Sacramento	Emailed Directly	
Espresso Rd	Davis	Emailed Directly	
Flavor Face Mobile Food & Catering	Sacramento	Emailed By Sactomofo	
Fm Star	West Sacramento	Emailed Directly	

Four Star Catering	Sacramento	Emailed Directly	
Frenchy's Waffles	Sacramento	Emailed By Sactomofo	
Fusion Fresh Café	West Sacramento	Emailed Directly	
Gaga's Rolling Diner		Emailed By Sactomofo	
Gameday	Sacramento	Emailed By Sactomofo	
Go Falafel		Emailed Directly	
Good Dog	Sacramento	Emailed Directly	
Green Papaya Food Truck	Stockton	Emailed By Sactomofo	
Gyro King	Sacramento	Emailed Directly	
Gyrostop Kebab G	Sacramento	Emailed By Sactomofo	
Hefty Gyros	Sacramento	Emailed By Sactomofo	
Hl#2	Sacramento	Emailed Directly	
It's Nacho Truck	Sacramento	Emailed By Sactomofo	
Jimboy's Tacos	Folsom	Emailed Directly	
Jp Express	Elk Grove	Emailed Directly	
Kado's Asian Grill	Sacramento	Emailed By Sactomofo	
Kona Ice Vacaville	Vacaville	Emailed Directly	
Krush Burger Truck	Sacramento	Emailed Directly	
La Botana	Woodland	Emailed Directly	
La Kora	Woodland	Emailed Directly	
La Mex Taqueria	Roseville	Emailed By Sactomofo	
Las Casuelas	Sacramento	Emailed Directly	
Las Islitas Ostionera	Woodland	Emailed Directly	
Local Kine Shave Ice	Carmichael	Emailed By Sactomofo	
Luciano's SCo-op	Sacramento	Emailed Directly	
Lunch Box Express	Sacramento	Emailed Directly	√
Ma Sarap Food Truck Llc	Sacramento	Emailed Directly	√
Manas Ranch	Esparto	Emailed Directly	
Mariscos Los Reyes	Woodland	Emailed Directly	
Miz Shirley Marie's		Emailed Directly	
Mmmmm.....Adorubowl	Concord	Emailed Directly	
New Bite Catering	Sacramento	Emailed By Sactomofo	
North Border Taco	Sacramento	Emailed Directly	
Northcal	Sacramento	Emailed Directly	
Northcal	Sacramento	Emailed Directly	
Omg Yogurt	Rocklin	Emailed By Sactomofo	
On The Fry	Sacramento	Emailed By Sactomofo	
Pizza Porch	Sacramento	Emailed Directly	
R & R Produce	Esparto	Emailed Directly	
Rich's Ice Cream Catering		Emailed Directly	

Roll'n Roadhouse		Emailed By Sactomofo	
Ronnie's Gourmet Italian Ice		Emailed Directly	
Rose Ice Cream	Woodland	Emailed Directly	
Rudy's On The Roll	Rancho Cordova	Emailed By Sactomofo	
Senior Snack Bar	Woodland	Emailed Directly	
Slightly Skewed	Sacramento	Emailed By Sactomofo	
Smokers Wild Bbq	Sacramento	Emailed By Sactomofo	
Smokin Hot Pizza	Sacramento	Emailed By Sactomofo	
Smokin Hot Pizza	Sacramento	Emailed Directly	
Smokin' Ewe Bbq		Emailed By Sactomofo	
Smoothie Patrol	Sacramento	Emailed By Sactomofo	
Sohan Lal	Woodland	Emailed Directly	
Squeeze Inn Truck	Sacramento	Emailed By Sactomofo	
Street Cravings	Sacramento	Emailed Directly	
Tacos El Jaliscience Inc	Woodland	Emailed Directly	
Tacos El Paisano	Woodland	Emailed Directly	
Tacos El Pollo	Woodland	Emailed Directly	
Tacos Jesus Maria	Esparto	Emailed Directly	
Tacos La Piedad	Woodland	Emailed Directly	
Tacos Maya's	West Sacramento	Emailed Directly	
The Hotdogger	Davis	Emailed Directly	
The Lamb & The Wolf	Loomis	Emailed Directly	
The Pasta Queen	Gold River	Emailed Directly	
The Sweet Spot Baking Co	Sacramento	Emailed By Sactomofo	
Turnt Up Tacos & Tortas	Sacramento	Emailed By Sactomofo	√
V Fresh Express	Sacramento	Emailed Directly	
Volks Waffle International	Roseville	Emailed Directly	
Voyager World Cuisine	Sacramento	Emailed Directly	
Wandering Boba	Sacramento	Emailed By Sactomofo	
Wgs Corporation	Sacramento	Emailed Directly	
Who Is Hungry?	Sacramento	Emailed Directly	√
Zhanna's & Alexanders Fruit Co.	West Sacramento	Emailed Directly	

FARMERS

Name	Method of Contact
Allspicery	Emailed Directly
Alpine Blue	Emailed Directly
Aoyama Farms/Abe-El Farms	Emailed Directly
Bakers Sustainable Farms	Emailed Directly
Barbagelata	Emailed Directly
Beals Orchard	Emailed Directly
Beber	Emailed Directly
Bonnie Jo's	Emailed Directly
Bogdanich (Sunblest)	Emailed Directly*
Busalacchi Farms	Emailed Directly
Butterfly Vegan Bakery	Emailed Directly
C&S Strawberry Patch	Emailed Directly
Capay Canyon Ranch	Emailed Directly
Capay Organic	Emailed Directly
Chavez Farm	Emailed Directly
Contreras (Cabrillo Farms)	Emailed Directly
Crazy Gringo taco Wagon Salsa Co.	Emailed Directly
El Dorado Lavender Farm	Emailed Directly
Fang Farms	Emailed Directly
Feather River Farms	Emailed Directly
Flowerstone Farm	Emailed Directly
Fruit Tree(Winters)/Artois Nut Farm/Carter	Emailed Directly
Gallardo's Organic Farm	Emailed Directly
Glashoff Farms	Emailed Directly
Gotelli Sweet Cherries	Emailed Directly
Grateful Bread	Emailed Directly
H&K Farms	Emailed Directly
Hearty Fork Farm	Emailed Directly
Hirschfelt Farm	Emailed Directly
Hooverville Orchards	Emailed Directly
Horton Family Farm	Emailed Directly
Ignacio	Emailed Directly
Islote Farms	Emailed Directly
J&J Ramos	Emailed Directly*
JAS Family Farms Organic (now Rio de Parras)	Emailed Directly
Karlonas Farms	Emailed Directly
Kelso's Black Gold	Emailed Directly
Lemos Orchard	Emailed Directly
Lindcove Ranch (John Kirkpatrick)	Emailed Directly

Lor's Vegetables and Flowers	Emailed Directly
Lost Marbles Ranch	Emailed Directly
Loving Nature	Emailed Directly
Lucky Dog Ranch Beef	Emailed Directly
M.A. Farm	Emailed Directly
Maltese Olive Oil	Emailed Directly
Morning Song Flowers	Emailed Directly
Moua Farm	Emailed Directly
Nicasio Valley Cheese Company	Emailed Directly
Patrick's Garden	Emailed Directly
Pedrozo Dairy & Cheese	Emailed Directly
Penrod	Emailed Directly
Penryn Rabbit Farm	Emailed Directly
Perez Red Shack	Emailed Directly
Perry/Garden Hwy	Emailed Directly
Peter's Seafood	Emailed Directly
Point Reyes Oyster Co./Bodega Bay Oyster	Emailed Directly
Premier Mushrooms / Allianet	Emailed Directly
Quinco Inc./Wild River Marketing Inc.	Emailed Directly
Rancho de Trinidad	Emailed Directly
RHJ Organics	Emailed Directly
Rhythm & Blueberries	Emailed Directly
Rob's Natural Produce (Montgomery's Family Farm)	Emailed Directly*
Root Cause Farm	Emailed Directly
Rosa's Bakery	Emailed Directly
S&J Mandarin Grove	Emailed Directly
Scott Family Farm	Emailed Directly
Shared Abundance	Emailed Directly
Soil Born Farms	Emailed Directly
Sola Bee Farms - Tauzer Apiaries	Emailed Directly
Springhill Cheese	Emailed Directly
Sure Shot Farms	Emailed Directly
Suyenaga Farm	Emailed Directly
T.C. Khang	Emailed Directly
Tadlock Landscapes	Emailed Directly
Tehama Blend Olive Oil	Emailed Directly
Thao's Farm	Emailed Directly
The Good Stuff	Emailed Directly
Thistle & Wren	Emailed Directly
Township Valley farm	Emailed Directly

Trowbridge Farm	Emailed Directly
Twin Peaks	Emailed Directly
Upper Crust Baking Co.	Emailed Directly
V&V Farms	Emailed Directly
Vega Farms	Emailed Directly
Wheel Lemonade	Emailed Directly
Williamson (Williamson Farms/Shoup)	Emailed Directly
Winterport Farm	Emailed Directly*
Woodsong Herbs	Emailed Directly
Yoon Chao's Farm	Emailed Directly
Zeal Komboucha	Emailed Directly

Note: *Indicates survey was taken in person at the farmers market

COTTAGE FOOD OPERATORS

Name	**Method of Contact**	**Expressed Interest in Follow-up Contact**
Souper Star	Email	
Exquisite Desserts	Email	√
Apples by Terri	Email	
Ashlee's Baking Creations	Email	
Bake My Day	Email	
Bee Heaven Farm Popovic	Email	
Benben's Hidden Tea Room	Email	
Bittner Bites	Email	
Café Milka Roasting Company	Email	
Cake Jewel Custom Cakes	Email	√
Candies by Katie	Email	
Carmen's Praline Delights	Email	
Cayla's Cakes & Bakes	Email	
Christopher Jay Strutz Farm	Email	
Claire Bel's Baked Goods	Email	√
Confectionately Yours	Email	
Cookie Mama Cookies	Email	√
Cookies & Milk	Email	
Crown Jules Cakery	Email	
Curtin's Confections	Email	
Ela's Sweet Treats	Email	
Farmers Wife	Email	
Fassica Foods	Email	

First Class Fudge	Email	
Fitness Fuel Eats	Email	
Fog Willow Farms LLC	Email	
Gail's Exquisite Desserts	Email	
HastiePop LLC	Email	
Heavenly Cookies and More, LLC	Email	
Hot Mama's Cakes	Email	√
House of Sticky Treats	Email	
I Scream for Icing	Email	
Jaynee Cakes	Email	
Just Cookies Bake Shop	Email	
Kimberley's Kitchen	Email	
Kouzouna's Kitchen	Email	
Lazu Gourmet Dessert	Email	
Liberty Coffee Company	Email	
Luv 'em Bakery	Email	
Mason's Sweet and Savory	Email	√
Merrilyn's Gourmet Fudge	Email	
My Sweets by Melinda	Email	
Nothing But Love Bakes	Email	
Once Upon a Cake	Email	
Original Pies Unlimited/A Good Day for Popcorn	Email	
Our Little Creation	Email	
Paper Heart Patisserie	Email	
Patrice's Cakes and Confections	Email	
Pop of the World	Email	
Rebel Confecktionary	Email	
Rita's Cake Designs	Email	√
Rusty's Kama'aina Coconut Candy	Email	
Sassy Oh Baking Co	Email	
916-667-8404	Email	
Shirley's Chocolate Dipped Pretzels	Email	
Simply Scrumptious by Teresa	Email	
Sprinkles & Chips	Email	√
St Rey Bakery	Email	
Sugar Bake Cupcake	Email	
Sugar Bits Custom Cakes	Email	√
Sugar Shots	Email	
Sweet Creations by Nancy	Email	
Sweet Molody's Kitchen	Email	

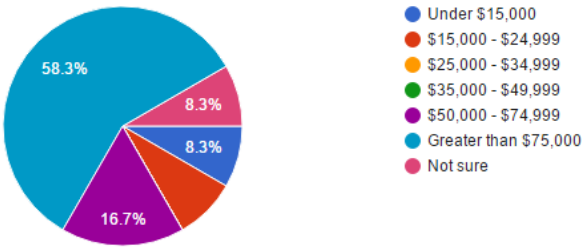
Sweet Spot	Email	
Sweet Tooth Pastries	Email	
Sweetologie	Email	
Sweets by Mee	Email	
Tea Bean Bakery	Email	
The Drunken Loaf	Email	
The Sweets Basket	Email	
The Vanilla Bean Bakehouse	Email	
The Yisrael Family Farm	Email	√
Thistle & Wren	Email	
Villa Biscotto	Email	
Wendy's Macarons	Email	
World of Honey	Email	√
CAKE COUTURE	Email	
OUTRAGEOUS RUBS	Email	
DENISE PASCOE CAKES	Email	
PUROS CHURROS	Email	
DESSERTS BY JESSICA	Email	
MEGAN'S BAKE SHOP	Email	
CAKES DONE WRIGHT	Email	
CC'S	Email	
CLAIRE'S CUPCAKERY	Email	
BLACK DOG CHOCOLATE	Email	√
BUTTERFLY VEGAN BAKERY	Email	√
ZEST FRESH PASTRY WEST	Email	
CAPAY HILLS ORCHARD	Email	
MACARONOLOGY	Email	

APPENDIX B: DETAILED SURVEY RESULTS

FARMERS

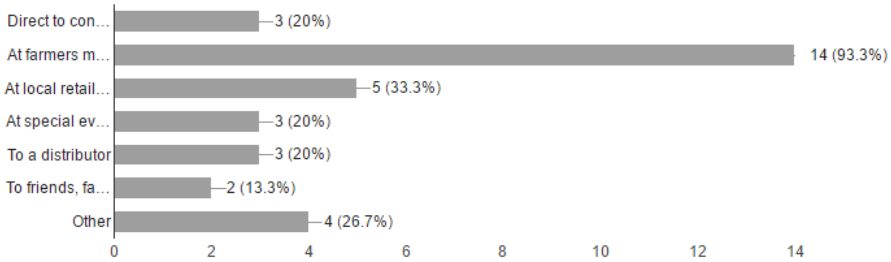
What is the annual revenue of your farm operation?

12 responses



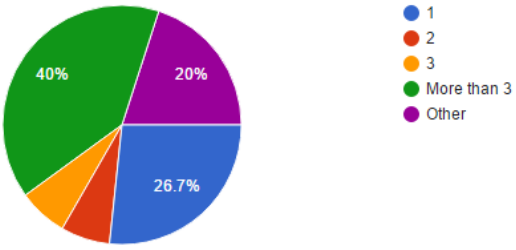
Where are you currently selling your products?

15 responses



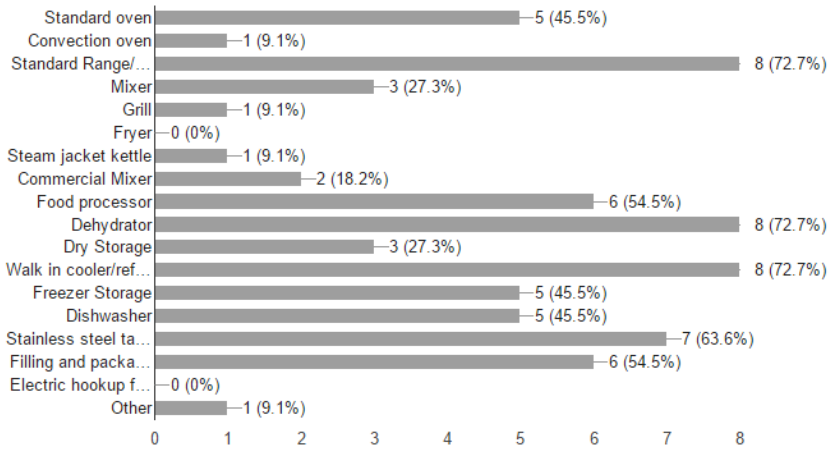
How many paid employees (not including yourself) are supporting your operation?

15 responses



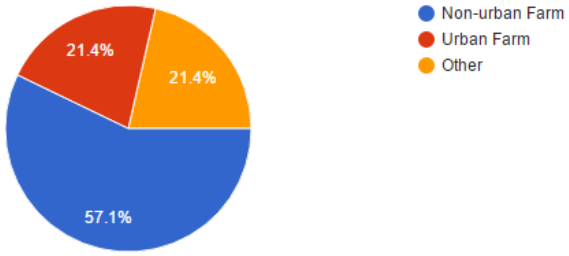
What type of equipment do you need for food production (check all that apply)?

11 responses



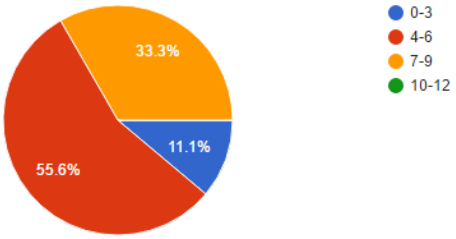
What kind of farm do you own?

14 responses



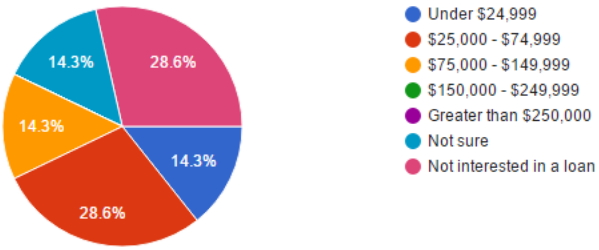
During those months, approximately how many hours would you use the kitchen per visit?

9 responses



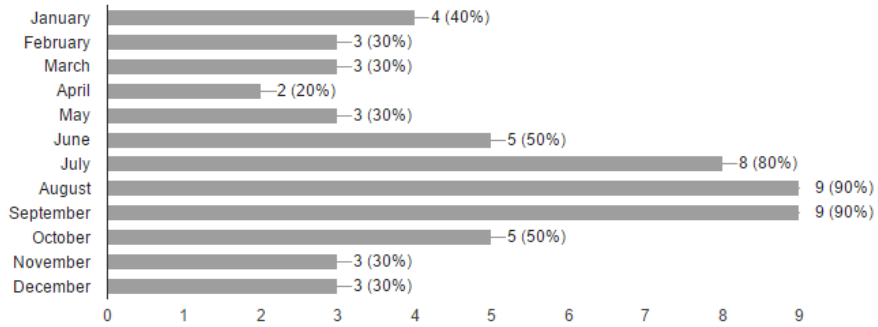
If you could access a loan for your business, how much financial support do you think you would you need?

7 responses



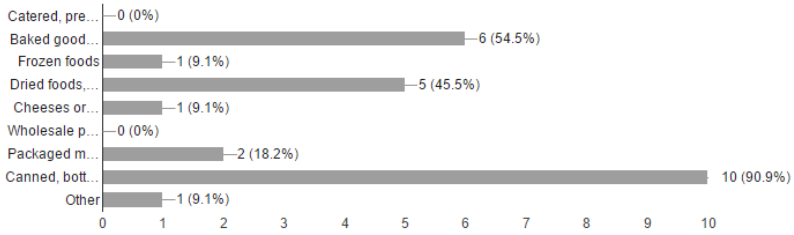
During which months would you be interested in utilizing the shared kitchen space?

10 responses



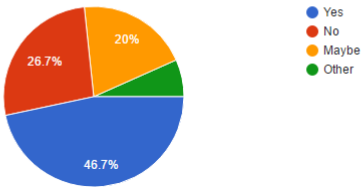
What products would you be interested in making in a shared kitchen space (choose top 3 answers)?

11 responses



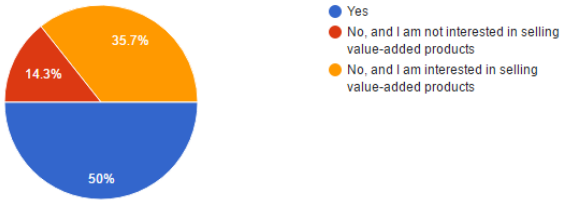
Would you be interested in a shared kitchen space and additional services (e.g. networking, legal help, marketing, distribution, etc.)?

15 responses



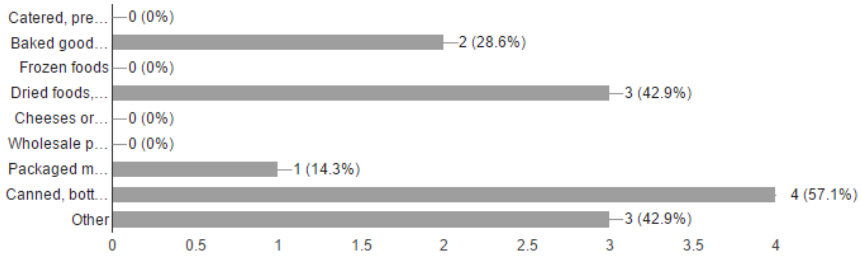
Do you currently sell value-added (processed and/or packaged) products?

14 responses



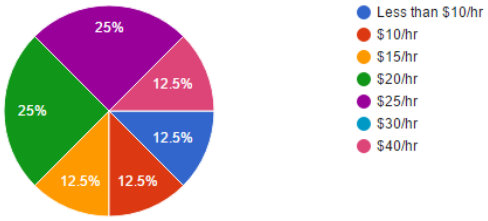
What kind of value-added products do you currently make?

7 responses



What is the highest hourly rate you think you could afford to pay to rent a shared kitchen space?

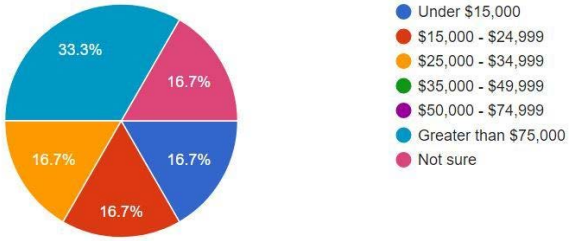
8 responses



FOOD-TRUCK OPERATORS

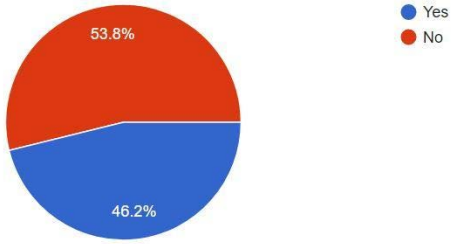
What is the annual revenue of your food truck?

6 responses



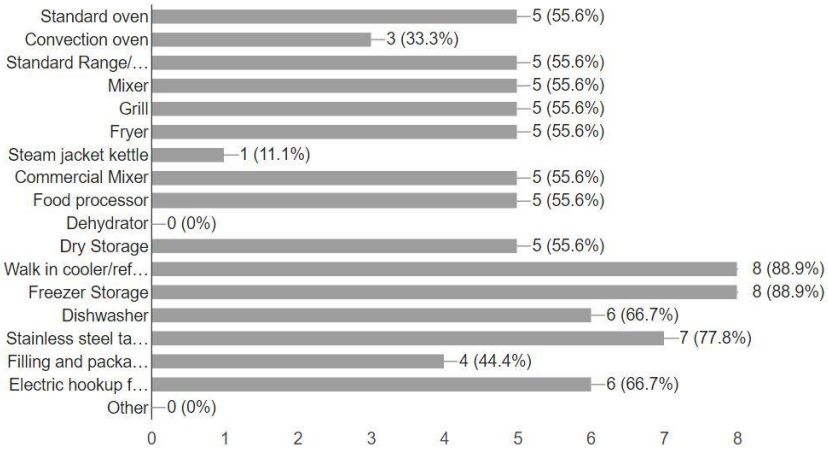
Do you currently operate a food business other than your food truck?

13 responses



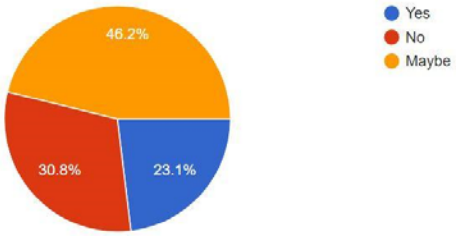
What type of equipment would you like to have access to for your food production (check all that apply)?

9 responses



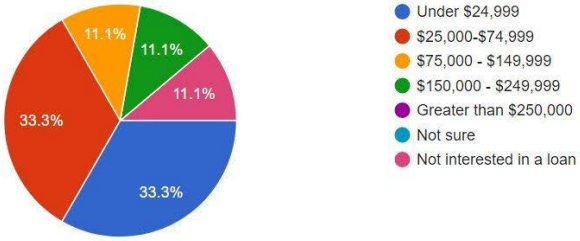
Would you be interested in shared kitchen spaces and additional services (e.g. networking, legal help, marketing, distribution, etc.)?

13 responses



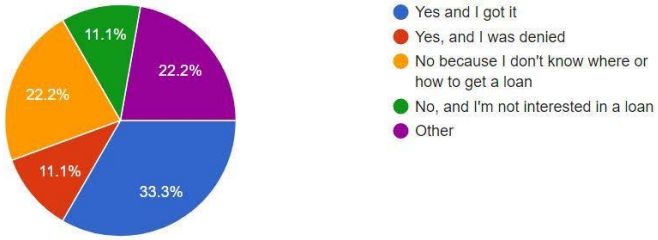
If you could access a loan for your business, how much would you need?

9 responses



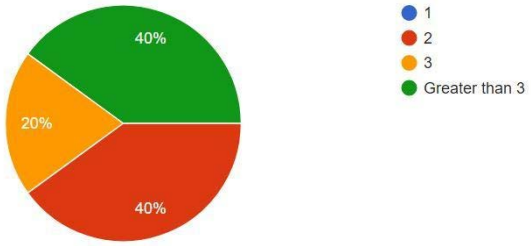
Have you tried to get a loan to start a business or run your existing business?

9 responses



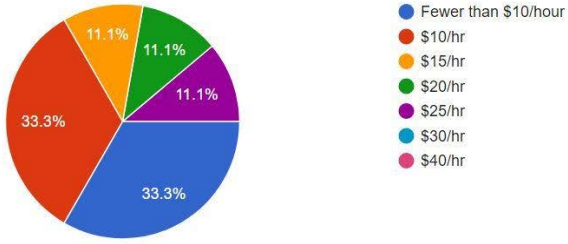
How many paid employees (not including yourself) are supporting your operation?

5 responses



What is the highest hourly rate you think you could afford to pay to rent a shared kitchen?

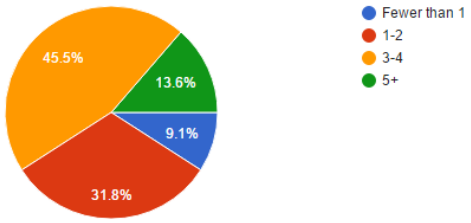
9 responses



COTTAGE FOOD OPERATORS

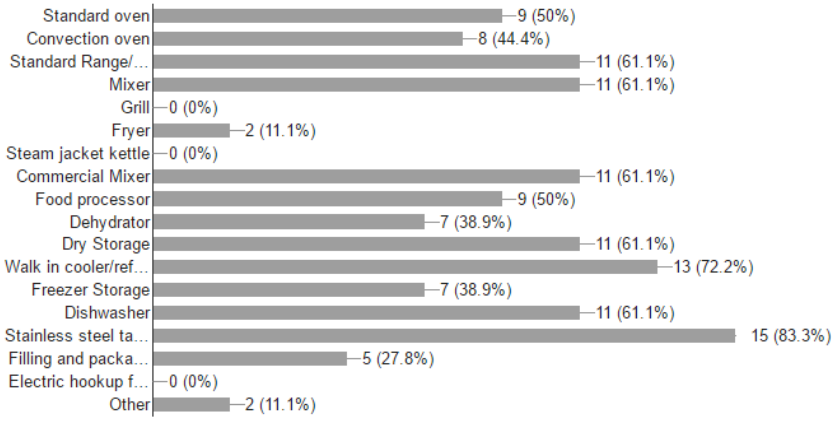
For how many years have you owned your business?

22 responses



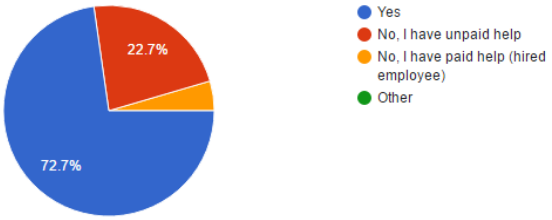
What type of equipment do you need for food production (check all that apply)?

18 responses



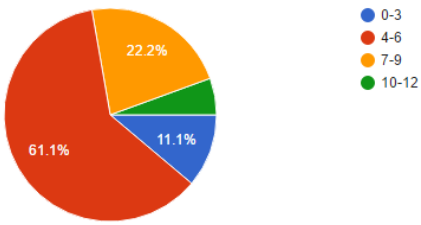
Are you currently the only person working in this operation?

22 responses



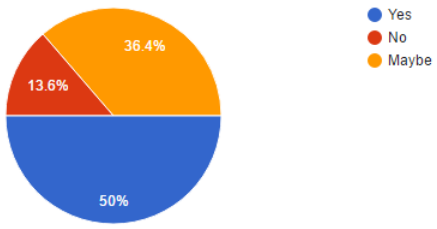
During those months, approximately how many hours would you use the kitchen per visit?

18 responses



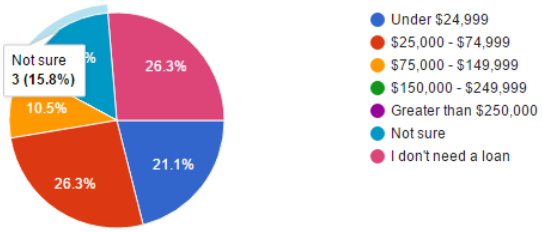
Would you be interested in shared kitchen space and additional services (e.g. networking, legal help, marketing, distribution, etc.)?

22 responses



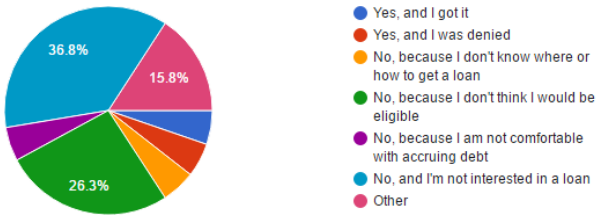
If you could access a loan for your business, how much of financial support do you think would you need?

19 responses



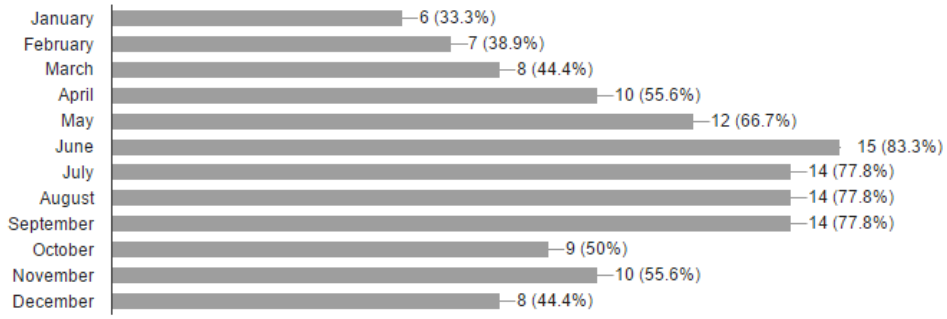
Have you tried to get a loan to start a business or run your existing business?

19 responses



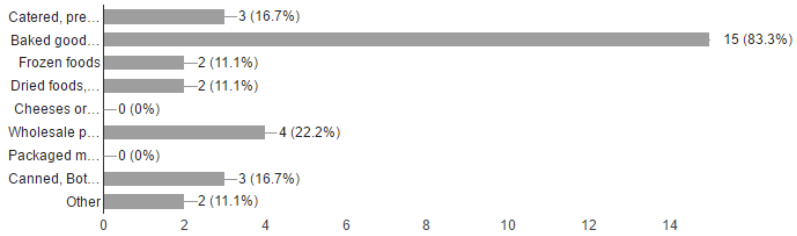
During which months would you be interested in utilizing a shared kitchen

18 responses



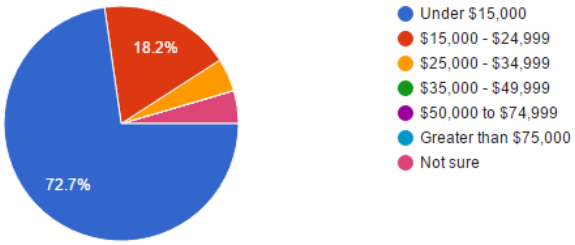
What products would you be interested in making in a shared kitchen space (choose top 3 answers)?

18 responses



What is the annual revenue from your food business?

22 responses



What is the highest hourly rate you think you could afford to pay to rent a shared kitchen space?

18 responses