

2012

Addressing the Undersupply of Local and Organic Food to Mid-Level Institutions: A Model for Successful Agricultural Cooperatives

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Addressing the Undersupply of Local and Organic Food to Mid-Level Institutions:
A Model for Successful Agricultural Cooperatives

by

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A Thesis

Presented to the Graduate and Research Committee

of Lehigh University

in Candidacy for the Degree of

Master of Arts

in

Environmental Policy Design

Lehigh University

August 17, 2012

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Thesis is accepted and approved in partial fulfillment of the requirements for the Master of Arts in Environmental Policy Design.

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ACKNOWLEDGEMENTS

This thesis project was developed out of a seminar project completed during the spring of 2012. Thank you to Breena Holland for her great insight and feedback without which this thesis would not have been possible. I would also like to thank Brent Hueth, Director of the University of Wisconsin Center for Cooperatives, and Courtney Berner, Outreach Specialist at the University of Wisconsin Center for Cooperatives; both of whom provided me with great insights about my research topic.

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ABSTRACT

. Increasing reliance on local and organic farming techniques rather than conventional agriculture can reduce the damage associated with contemporary society's negative impact on the environment and human health. While the benefits associated with purchasing local and organic foods are increasingly well-known, these benefits cannot be realized unless large-volume buyers, such as mid-level institutions, begin to purchase these foods. Alternative business structures, such as agricultural cooperatives can help eliminate the barriers preventing local and organic farmers from entering the food suppliers' market serving mid-level institutions. This research answers the following question: What strategies do successful agricultural cooperatives implement in overcoming barriers to entry in this market? To answer this question, case study analysis is used to develop a model for successful agricultural cooperatives. The model incorporates developing support systems that can adapt to cooperatives' changing needs over time, and remaining focused on the goal of benefitting cooperatives' farmer members.

I. Introduction

Increasing reliance on local and organic farming techniques rather than conventional agriculture can reduce the damage associated with contemporary society's negative impact on the environment and human health. With respect to the environment, petrochemical inputs are used in conventional agricultural production with the application of pesticides, fertilizers, and herbicides (Shiva 2000; Pirog et al. 2001). Fertilizers, pesticides, and heavy metals attach to soil particles and wash into nearby rivers and streams (U.S. EPA 2005). Agricultural activity was identified by the EPA as a source of pollution in 48% of streams and rivers in the United States (U.S. EPA 2005); this not only threatens human health by contaminating drinking water, it also harms eco-systems and aquatic life living in these waterways.

In contrast, local and organic agriculture does not depend on chemical inputs for production, but instead utilizes methods such as crop rotation and no-till farming. Furthermore, purchasing from local farms facilitates more direct relationships between consumers and producers, increases accountability among farmers, and keeps profits and jobs in the local community (Akitsu and Aminaka 2010; Horrigan et al. 2002).

Although researchers and consumers understand the benefits associated with purchasing local and organic foods, these benefits cannot be realized unless large-volume buyers, such as "mid-level" institutions, begin to purchase these foods. "Mid-level" institutions are entities that provide a public service such as education and medical care. These institutions are considered "mid-level" because they serve the local community rather than a state, nation, or the individual. Currently, these institutional food buyers choose not to purchase from local and organic farms for several reasons. First, mid-level

institutions demand a large quantity of food that small local and organic farms cannot always supply (USDA 1990). Second, mid-level institutions demand particular foods that local and organic farms cannot offer due to seasonality and lack of equipment. Third, many mid-level institutions, such as public schools, want to purchase foods at a highly subsidized price in order to sell meals at a free or reduced price (Hardesty 2008; Markley 2010; USDA/FNS 2011). Fourth, small local and organic farms lack processing and distribution equipment to wash, prepare, package, and deliver items to institutions. Fifth, related to a lack of distribution and processing equipment, small local and organic farms often have difficulty meeting the food safety standards of institutional food buyers (Markley 2010; Diamond and Barham 2012).

Forming local and organic agricultural cooperatives is one way to eliminate the barriers currently preventing local and organic farmers from doing business with mid-level institutions, and therefore, to help realize the health, economic, and environmental benefits that come from local and organic farming. There are several reasons why agricultural cooperatives can eliminate these barriers. First, by pooling the supply of produce, agricultural cooperatives can supply the amount of food demanded by mid-level institutions (USDA 1990). Second, cooperatives give farmers more control over the price of their product and can therefore bargain for a price that satisfies both the farmer and the institution (Diamond and Barham 2012). Third, cooperatives can allow members to invest in group insurance coverage to meet the insurance requirements of mid-level institutions. Fourth, cooperatives make it more feasible for farmers to pool resources and work together to purchase processing and distribution equipment (Hardesty 2008; Markley 2010).

Most existing research related to agricultural cooperatives is in the form of “how-to” documents that are meant to guide the legal structure of creating agricultural cooperatives, or is in the form of case studies that describe either successful or unsuccessful cooperatively owned businesses. The purpose of this paper, in contrast, is to use these multiple case studies to identify the components and strategies of successful local and organic agricultural cooperatives. Specifically, my aim is to create a model for how a local and organic agricultural cooperative can be established and sustained.

To develop this model, I will first lay the basis for the project by reviewing background information concerning the negative environmental impacts of conventional agriculture, the positive environmental and social impacts related to local and organic agriculture, and reports concerning the challenges facing modern-day cooperatives and how these cooperatives work to increase local and organic food purchases. Second, I will propose several hypotheses concerning the components and strategies for creating and sustaining a local and organic agricultural cooperative. Third, to test these hypotheses, I will analyze several case studies of local and organic agricultural cooperatives or cooperative-like businesses. Finally, I will then draw on this analysis to create a model that describes the components and strategies of successful local and organic agricultural cooperatives.

II. Background of Topic

Over the past decade, local and organic purchasing has grown dramatically. This increase is mainly due to the commitments of individuals, restaurants, and some grocery stores. Individual consumers and restaurants are increasingly demanding local and

organic food. According to the USDA's Agricultural Marketing Service, there were only 1,755 farmers' markets in the United States in 1994, but by 2009, this number jumped to 5,274 farmers' markets in the United States (Martinez et al. 2010). Similarly, the National Restaurant Association claimed that "locally grown food" was the top restaurant trend of 2010, and farm-to-restaurant initiatives are being established across the country (National Restaurant Association 2010). Nevertheless, the benefits of local and organic foods would be better realized if mid-level institutions such as schools, hospitals, and colleges also demanded these foods. Mid-level institutions purchase large quantities of food and could potentially provide a guaranteed source of revenue for local and organic small and mid-scale food producers. This would increase local and organic agriculture's contribution to aggregate food production and allow more of the benefits of local and organic food to be realized.

There are many environmental and social benefits associated with local and organic agriculture. With respect to environmental benefits, local and organic agriculture reduces the need for petroleum and petrochemical products on which conventional agriculture depends. Food grown on large-scale conventional farms is transported across thousands of miles before reaching its final destination. This requires large amounts of petroleum fuel and contributes to greenhouse gas emissions. Petrochemical inputs that are used in conventional agricultural production with the application of pesticides, fertilizers, and herbicides also pollute soil and groundwater. This not only damages human health by contaminating drinking water with non-point source run off, it also damages the surrounding ecosystems that these chemicals travel through (Shiva 2000;

Pirog et al. 2001). The EPA has identified agricultural activity as a source of pollution in streams and rivers throughout the county (U.S. EPA 2005).

The use of chemicals in conventional agriculture protects plants against disease and pests and provides crops with nutrients that might not otherwise be found in the soil; however conventional agriculture is not the most sustainable method of agricultural production. With the help of chemical inputs, a conventional farmer can be very efficient at mono-cropping, or the production of the same crops over the same land season after season. Although this system of farming is efficient with the use of chemical inputs, mono-cropping contradicts centuries of agricultural practices. Reliance on these chemical inputs increases the rate of soil erosion and depletes the soil of its nutrients and fertility. Years of conventional farming leaves the soil barren, making farmers dependent on fertilizers for crop production. In contrast, organic agricultural practices, such as no-till farming, aid in maintaining water and organic matter in the soil by making sure that as little soil as possible is disturbed when farming (Hoorman et al. 2009). Another organic agricultural practice, crop rotation, improves crop production by preventing the build-up of pests and pathogens and by replenishing nutrients in the soil (Nunez 2010; Sustainable Table 2012). When crop rotation is implemented, the need for fertilizers and pesticides is reduced. Both of these examples demonstrate how an organic agricultural system can avert the negative environmental impacts associated with conventional agriculture's dependence on chemicals in production processes (Horrigan et.al 2002; FAO 2012; USDA National Agricultural Library 2012).

There are also many social benefits associated with local and organic agriculture. Local and organic agriculture facilitates more direct relationships between consumers and

producers (Ernst and Brady 2005). Establishing consumer-farmer relationships supports food safety. Consumers and institutions come to identify a farmer or farm with the food that is produced there. Farmers are therefore held more accountable for the quality and safety of their products because food can be traced back to specific farms, and consumers can visit these farms to observe such things as hand-washing, growing and harvesting practices, and methods for transporting food (Akitsu and Aminaka 2010).

Perhaps most important in the present economic context, local and organic agriculture brings money into the local economy and creates job opportunities for local residents. This is evidenced by the trends in American agriculture over the last fifty years. Specifically, as large corporate farms moved into rural areas, nearby towns saw reduced economic activity. The expansions of corporate farms led to more dependence on machines and less dependence on human labor. As a result, farm workers were laid off and farm profits shifted from rural communities to the large cities in which corporate headquarters for food companies were located. At the same time, towns surrounded by family farms kept profits in the local community and local businesses continued to thrive. This generated jobs and allowed these communities to prosper (Moore 1999).

Despite these and other benefits of local and organic agriculture, mid-level institutions tend to support nonlocal and conventional systems of agriculture. Many of these conventional farms are part of a system of vertical integration, which defines a condition in which there is ownership by one corporation of all stages of the production process (Nestle 2007). These larger and specialized farms produce massive quantities of food that can supply the quantity of food demanded by mid-level institutions. In addition, vertical integration allows corporate farms and food distributors to control every

step of the supply chain. Food produced by corporate farms and food distributors is sold at relatively inexpensive prices compared to when those same foods are produced by local and organic producers. This makes food from nonlocal and conventional farms more financially appealing to mid-level institutions (Martinez et al. 2010; FAO 2012).

Even if mid-level institutions want to purchase from local farms, they face several barriers. First, as mentioned above, mid-level institutions demand a large quantity of food. A local and organic farmer will often produce far less than what is necessary to meet the food demands for even one mid-level institution. Food service managers at these institutions therefore would need to contract with multiple local farms to serve their populations. This is considered an inconvenience for many food service managers who prefer to contract with one food service provider (Hardesty 2008).

Second, mid-level institutions demand particular foods, some of which could never be locally produced on a reasonable scale. For instance, mid-level institutions currently demand some fruits or vegetables that are not suited for North American climates, such as bananas, which are a staple in many school cafeterias. Similarly, mid-level institutions demand year round availability of many foods (Hardesty 2008; Martinez et al. 2010). Unfortunately, locally grown produce is controlled by the seasonal climate and thus, not all products can be produced year round.

Third, mid-level institutions such as public schools also demand food at a highly subsidized price in order to comply with legislation such as the federal School Nutrition Program, which ensures that qualifying students receive free or reduced priced lunch (USDA/FNS 2011). Thus, another barrier to buying local and organic produce is the relatively high price of these items. Mid-level institutions often contract with a food

service company who then contracts with a produce distributor. The produce distributor can supply fruits and vegetables at a wholesale price because they contract with conventional farms who utilize economies of scale or farms subsidies to produce food at low costs. This allows these food distributors, in turn, to sell food at a low price. At the same time, small and mid-scale local producers must pay a premium for processing and/or distribution. This premium is then added to the final cost of the food. Furthermore, local producers cannot take advantage of economies of scale, or discounts made possible by producing in large quantities (Martinez et al. 2010; FAO 2012; Organic Farming Research Foundation 2012).

Fourth, local and organic producers face additional costs associated with their reliance on sustainable growing practices. Organic agriculture requires more intensive management and labor, which creates the additional production cost of paying for the wages of extra workers (Organic Farming Research Foundation 2012). The Food and Agriculture Organization of the United States cites several other factors contributing to the increased cost of organic food. First, higher costs are due to the “mandatory segregation of organic and conventional produce, especially for processing and transportation” (FAO 2012). Second, “the marketing and distribution chain for organic products is also relatively inefficient and costs are higher because of the relatively small volumes [produced and sold]” (FAO 2012).

Fourth, many smaller farms lack the processing and distribution equipment needed to package and transport food in a way that complies with food safety regulations. Distribution equipment includes trucks, food tracking software, and temperature controlled storage facilities. Vogt and Kaiser (2008) found that institutional food buyers

are interested in “regional” foods, but lacked interest in actually purchasing these foods due to these food producers’ lack of distribution and processing equipment. In order to serve mid-level institutions, farmers would need to purchase trucks and employ truck drivers. They would also need to invest in computer technology for ordering and tracking as well processing facilities to slice, cook, or package food items before they are sent to the institution (Hardesty 2008; Vogt and Kaiser 2008; Martinez et al. 2010).

Inadequate processing and distribution equipment also raises problems for compliance with food safety standards. Keeping food at an appropriate temperature during transportation is necessary for maintaining freshness. Mobile refrigeration units are expensive, but required for meeting federal food safety standards. Many small farmers simply cannot afford these vehicles. In addition, institutions often request that certain foods are pre-cooked or processed to ensure that any pathogens have been killed and that preparation time is minimized. Small local farmers lack processing kitchens and prefer to sell their products in their rawest forms. A local farmer may sell whole carrots, but an institution may demand sliced carrots. A local farmer might sell spinach, but institutions might demand spinach that has been pre-cooked and frozen (Markley 2010; Martinez et al. 2010; Diamond and Barham 2012).

Insurance is also an issue; many small farmers cannot afford liability insurance. For example, small-scale organic farmers usually purchase a policy insuring them for at most a \$1,000,000, while some institutional purchasers require coverage up to a \$5,000,000 (Markley 2010).

Related to barriers in the area of food transporting and processing equipment, in 1998 the FDA and USDA issued Good Agricultural Practices (GAP) guidelines. Most

food service managers and institutions require that food vendors abide by these guidelines. In fact, it is mandated that all growers who sell fresh produce to federal food and nutrition programs (such as the Federal School Lunch Program) must pass a federal GAP audit of 80% or higher. This means that farms must receive a score of 80% or greater when auditors monitor compliance with GAP guidelines (Markley 2010; USDA/FNS 2011). Unfortunately, farmers have difficulty understanding the GAP guidelines because they contain legal terminology and are not made accessible to farmers. In fact, some farmers are not aware that these guidelines exist (Etko 2010). To demonstrate their commitment to food safety, institutions also impose their own standards that are more stringent than GAP guidelines (Markley 2010). These standards, known as “supermetrics” are especially difficult for organic farmers to comply with because they assume that any form of wildlife used to supplement agricultural practices poses a pathogen risk; this neglects to create a place for the mutually beneficial relationships between animals and crops that are part of organic food production. For example, in organic farming, manure from livestock is used as a high quality fertilizer for crops (Etko 2010; Markley 2010).

Given these various barriers to supplying mid-level institutions with locally grown and organic produce, this research explores one way to shift agricultural production for mid-level institutions to smaller-scale and less environmentally damaging forms of production. Specifically, I will consider how agricultural cooperatives, as entities that can increase the amount of local food purchased by mid-level institutions, can be created and sustained.

Many of the barriers to increasing reliance on local and organic produce outlined above are problems associated with farm size and scale. Larger farms produce greater supply, have lower operating costs, can set lower prices, and earn enough profits to invest in processing and distribution equipment that enable easy delivery and compliance with food safety standards. This suggests that, many of these barriers could be surmounted if small local and organic producers could increase their scale of production.

The proposed research will argue that establishing agricultural cooperatives is one way to achieve this goal. An agricultural cooperative is a business arrangement that makes it possible for smaller farmers to increase the scale of production by pooling the resources of multiple small-scale producers (Volkin 1985; USDA 1990). More generally, cooperatives are businesses that follow three fundamental principles; “[1] Each member has one vote in the decision making process, regardless of financial investment. [2] The business is owned by those who use it. [3] Earnings are returned to members in proportion to how much they’ve used the cooperative” (Reynolds 1995, 1).

There are several reasons why agricultural cooperatives have the potential to eliminate barriers currently preventing small-scale local farmers from selling to mid-level institutions. First, agricultural cooperatives can supply the amount of food demanded by mid-level institutions because they pool the supply of multiple farmers (USDA 1990). Second, farmers within a cooperative have more control over the price of their product, because they own more inputs of production (technology and distribution equipment) compared to small-scale independent farmers (Diamond Barham 2012). This would address barriers related to price. Third, an agricultural cooperative can invest in group insurance coverage to meet the insurance requirements of mid-level institutions. Fourth,

farmers can pool resources to purchase necessary processing, refrigeration, and electronic record keeping equipment, or to apply for grants that would therefore enable them to make these purchases (USDA 1990; Huber and Parker 2002).

However, agricultural cooperatives cannot overcome all barriers to entry. Pooled financial resources cannot always cover the cost of distribution and processing equipment. In such cases, a local cooperative would have to become profitable before investing in distribution and processing equipment. If distribution and processing equipment is not available, food purchased from a cooperative still might be undesirable to mid-level institutions due to food safety standards concerning food temperature and preparation (Markley 2010; Martinez et.al 2010).

Barriers related to year round availability and subsidized lunches would also be difficult to overcome. Pooling resources can increase production, but it does not allow farmers to grow foods unsuited for the local climate or season (Hardesty 2008). Finally, although agricultural cooperatives can sell their products at a lower price compared to independent local farmers, their prices may remain higher than those for conventional produce (FAO 2012; Organic Farming Research Foundation 2012; FNS/USDA 2011).

Given this background information, the remainder of this paper will draw on existing case studies to evaluate several hypotheses regarding the conditions, features, and strategies of agricultural cooperatives that can successfully enter and supply the large-quantity food seller market in which mid-level institutions operate. Specifically, I will propose a model for how agricultural cooperatives can overcome the barriers to entry that currently prevent local and organic producers from successfully selling to mid-level institutions. This will be of interest to both business planners and policymakers. This

research is also relevant to those who wish to start a cooperative business because it highlights best practices for acquiring capital and gathering initial support for a cooperative business. Thus, the model identifies how policymakers can best target funding opportunities and aid that will support the formation of local and organic agricultural cooperatives. In particular, my aim is partly to provide justification for when and how policymakers should increase the funding opportunities for distribution, processing, and GAP certification assistance available to agricultural cooperatives looking to sell to local mid-level institutions.

III. Variables and Hypotheses

The advantages and barriers associated with cooperatives discussed in the previous section gives rise to the following question: *What strategies do successful agricultural cooperatives implement in overcoming barriers to entry in the food suppliers' market serving mid-level institutions?* To answer this question, this research will identify the features and conditions that make it possible for cooperatives to (1) enter the market for food in mid-level institutions, and (2) provide the quantity of food demanded at a price that is reasonable for both the farmer and the mid-level institution. Information on these features and conditions of successful cooperatives will be drawn from case studies on agricultural cooperatives and it will be used to develop a model for how agricultural cooperatives comprised of local producers can successfully enter the mid-level institutions' food supplier's market.

Several case studies demonstrate that agricultural cooperatives can successfully sell their products to proximate mid-level institutions. For example, Home Grown

Wisconsin, a local and organic wholesale cooperative in Wisconsin, is a successful supplier of produce for its local community (Lawless 2000; Hendrickson 2004).

Similarly, farmers in North Florida formed the highly successful New North Florida Cooperative, which sells produce to North Florida school districts. This cooperative markets three or four “niche” items to schools year-round that are incorporated into menu planning as side dishes and desserts (Farm to School Programs 2012).

My research assesses the forms of support, organizational features, and practices and strategies of several such successful cooperatives in order to create a model of successful cooperatives. Specifically, based on preliminary review of many different case studies, I have identified five variables important to forming a successful local and organic agricultural cooperative. These variables are support systems, organizational structures, product types sold, pricing strategies, and strategies for acquiring distribution and processing equipment

a. Variables

Support Systems

A support system is the network of people and institutions that enable an agricultural cooperative to be established and thrive as a supplier of food to mid-level institutions. Support systems might be composed of co-op development organizations, rural cooperative development centers, institutions of higher education, and government agencies.

The support systems I identify for each evaluated cooperative vary based on the number and type of organizations and institutions supporting the cooperative. For

example, there might be many research institutions and agencies that can assist in the development of a cooperative, or there might only be a few. In the latter case, the cooperative would have to depend on the business skills of its own farmers in order to make decisions about the development of the business.

To gather information on this variable, I examined the support systems of agricultural cooperatives that have successfully supplied food to mid-level institutions. Some of these agricultural cooperatives were established as part of farm-to-institution programs. The USDA's "Know Your Farmer, Know Your Food" campaign website has information about current farm-to-institution programs. The National Agricultural Library also has an annotated bibliography of farm-to-school programs with links to individual farm-to-school programs' websites. Information was also obtained through the University of Wisconsin-Madison Center for Cooperatives (UWCC) website (USDA 2012; NAL 2011; UWCC 2012).

Organizational Structure

This variable describes the leadership positions and processes for selecting cooperative management associated with successful local and organic producers. Some aspects of this variable include whether the cooperative has multiple membership groups. Cooperatives with multiple membership groups permit not only farmers, but also distributors, chefs, and food buyers to be members of the cooperative. In addition, I also examine how the cooperatives hire employees. Some cooperatives place their own farmers in management positions, while others hire contract workers to undertake administrative duties such as marketing, bookkeeping, and accounting.

For this variable, variation occurs in terms of the number of people in these positions, and in terms of whether duties are separated into multiple positions or a few people perform many tasks. Variation will also occur based on the previous experience of those employed by the cooperative.

To gather data on this variable, I used the Agricultural Marketing Resource Center (AgMRC) website, which has several case studies involving cooperatives comprised of local and/or organic growers. Information about cooperative organizational structure was also found on the University of Wisconsin-Madison Center for Cooperatives and other university-related cooperative websites (AgMRC 2012; UWCC 2012).

Product Types

This variable describes the products that can be successfully marketed and sold by a local and organic agricultural cooperative seeking to sell to mid-level institutions. Product “types” include varying types of produce, meat, dairy, and added-value products such as jams and breads. Product types vary according to whether the cooperative sells in multiple or single product categories; whether the cooperative markets one type of product or multiple types of products.

To find information on this variable, I reviewed case studies from resources such as the University of Wisconsin Center for Cooperatives, AgMRC, and farm-to-institution case studies (AgMRC 2012; UWCC 2012).

Pricing Strategies

This variable describes the pricing strategies implemented by cooperatives comprised of local and organic producers. For example, some cooperatives set prices as a group, while others allow individual farmers' to set their own prices and select the lowest of these prices for selling to consumers and institutions. There is also variation according to how the quality of a product is incorporated into the price of a product, and is relevant to answering questions such as the following; Do different members have different priced products based on quality of the product? Do different members pool different quality products separately? How do the farmers get fair compensation? How are profits distributed back to the farmers? This variable is important for understanding how a cooperative sustains itself; e.g. if prices are too high, there will be no buyers, but if prices are too low, the cooperative will not earn enough profits for its farmers.

To find information about this variable, I specifically took note of the pricing systems for the cooperatives within the cooperative case studies.

Strategies for Acquiring Distribution and Processing Equipment

This variable describes the ways in which an agricultural cooperative can acquire distribution and processing equipment both before and after establishing itself as a competitor in the suppliers' market serving mid-level institutions. The simplest system of distribution and processing occurs when a cooperative borrows one or two refrigerated trucks from a member farmer. The most complex system of distribution and processing occurs when grant funds are used to invest in processing kitchens and multiple delivery vehicles. This variable will also vary depending on the public policy support available to

cooperatives. Funding from different policies may be available based on where the cooperative is located.

To find information on this variable, I examined how agricultural cooperatives have overcome obstacles related to distribution and processing. I considered case studies provided by the University of Wisconsin-Madison Center for Cooperatives, AgMRC, state cooperative extension websites, and also reviewed a recent report published by the USDA regarding “food hubs” titled *Moving Food Along the Value Chain*. Food hubs offer production, aggregation, distribution, and marketing services to small-scale farmers. Agricultural cooperatives are classified as food hubs, but food hubs are not limited to just agricultural cooperatives (AgMRC 2012; Diamond and Barham 2012; UWCC 2012).

b. Hypotheses

Given these variables, my informal conversations with staff working at institutions that support cooperatives, and any relevant literature, several hypotheses about successful agricultural cooperatives emerge.

Support Systems

With respect to the support systems of cooperatives, my first hypothesis is that other institutions, such as nonprofit agencies, are important in assisting with the start-up of the cooperative and in performing tasks such as grant writing and market research. Many grant programs that provide start-up funds to emerging cooperatively owned businesses are only open to organizations such as nonprofits. For example, the USDA’s Rural Development Office offers Rural Cooperative Development Grants, which are

intended to improve “the economic condition of rural areas by assisting individuals or entities in the startup, expansion or operational improvement of rural cooperatives and other business entities” (USDA Rural Development 2012). To be eligible for this grant, the applicant must be a nonprofit organization or an institution of higher education.

Other USDA grant programs, such as the Rural Business Enterprise Grant program, are available only to nonprofit corporations and public entities. Thus, nonprofit agencies have the greatest opportunity to assist a new local and organic cooperative with respect to grant opportunities available to these organizations (USDA Rural Development 2012). In addition, the USDA report titled, *Moving Food Along the Value Chain*, emphasizes the role that nonprofits can play in performing market research for a local and organic agricultural cooperative. The report explains that nonprofit agencies can help identify and pursue key stakeholders and develop ground-breaking new business models (Diamond and Barham 2012).

Furthermore, nonprofit agencies, such as community development corporations, might be eager to help form a local and organic agricultural cooperative due to the positive social and economic impacts it will bring. The USDA has reported that, participation in cooperatives often inspires participation in other community level, as well as state and local projects. Specifically, “Cooperatives often provide funds for community fairs, health centers, fund drives, and the like. As a result of working together in cooperatives, members better understand how to unite in solving community problems. And leaders developed in cooperatives also become leaders in other community organizations (USDA 1990, 15).” Therefore, community-based nonprofits might be

encouraged to assist in the startup of a local and organic agricultural cooperative because it would support the mission of the agency (USDA 1990).

Organizational Structure

With respect to the organizational structure of successful cooperatives, I hypothesize that one or two leaders emerge to assume responsibility for beginning a local and organic cooperative. This is because one or two dedicated leaders would stay true to the mission of the cooperative and work hard to ensure that the cooperative is successful. For instance, both the Home Grown Wisconsin and the GROWN Locally Cooperative were initiated with the help of one or two farmer-members who spearheaded the effort (Huber and Parker 2002; Lawless 2000). As explained to me in telephone correspondence with Brent Hueth, Director of the University of Wisconsin Center for Cooperatives, there are usually one or two “drivers” of the cooperative’s development who devote much time to seeing that the cooperative is successfully established.

Product Types

For the product types sold by the cooperative, I hypothesize that successful agricultural cooperatives choose to sell in multiple products categories so they can protect themselves against shifts in demand for one item and thereby increase the likelihood that an institutional buyer will purchase from the cooperative. Research regarding the challenges facing modern-day agricultural cooperatives often refers to the role of the consumer, or in this case, the institutional food buyer, in determining the success of an agricultural cooperative (Kenkel 2012; Gray and Kraenzle 2002; USDA 2002). For

instance, a recent national project conducted by an expert panel in Washington D.C. identified various critical issues facing modern day cooperatives. Among those surveyed, 80% identified market volatility, or price fluctuations related to external circumstances rather than production costs, as a critical issue facing modern-day cooperatives (Kenkel 2012). Conventional farms quickly rebound from shifts in demand related to market volatility because they are contracted with larger corporations that have the financial capital to handle these setbacks. In contrast, local and organic agricultural cooperatives would find it difficult to recover from a dramatic decrease in demand for one niche product. In other words, it is wise for agricultural cooperatives to avoid putting “all of their eggs in one basket” and instead to diversify their selection of products.

Pricing Strategies

With respect to pricing strategies, I hypothesize that a local and organic agricultural cooperative sets prices as a group. Pricing as a group entails pooling similar products and pricing these products identically. In this context, farmers receive profits as a percentage of total sales rather than receiving profits directly from the sale of their own produce. It is hypothesized that farmer-members price products as a group because this helps institutional food buyers identify the cooperative as a uniform entity, rather than just a distribution mechanism for small local farmers. Institutional food buyers might otherwise choose not to purchase from local and organic farms in order to avoid the hassle of dealing with multiple food contracts and order forms (Hardesty 2008). If cooperatives allowed farmers to price products separately, institutional food buyers would need to keep separate accounts for every farmer who sells his/her products at a

different price. Hardesty (2008) explains that institutional food buyers do not want to do business with more than one food vendor due to difficulties relating to managing multiple order forms and contracts.

Strategies for Acquiring Distribution and Processing Equipment

With respect to strategies for acquiring distribution and processing equipment, I hypothesize that cooperatives gain access to distribution and processing equipment with the help of banks and public policy support. Public policy support in the form of grants and other types of government assistance helps new local and organic cooperatives in acquiring capital for distribution and processing. There are various grant programs offered by government organizations, particularly the USDA, which assist agricultural cooperatives in acquiring distribution and processing equipment (USDA Rural Development 2012). As stated previously, the objective of the Rural Cooperative Development Grant program is to “improve the economic condition of rural areas by assisting individuals or entities in the startup, expansion or operational improvement of rural cooperatives and other business entities” (USDA Rural Development 2012). These grants provide emerging local and organic agricultural cooperatives with large sums of money that can be used to purchase expensive distribution and processing equipment. A preliminary review of various cooperative case studies suggests that emerging cooperatives do in fact utilize these grant programs for acquiring distribution and processing equipment. For instance, the New North Florida Cooperative utilized over \$30,000 in grant assistance from the USDA in order to purchase refrigerated delivery trucks (Joshi et al. 2006).

It is also likely that agricultural cooperatives will work with local banks to get loans that can fund the purchase of trucks, processing kitchens, and other forms of equipment. As explained in telephone correspondence with Brent Hueth, Director of the University of Wisconsin Center for Cooperatives, banks can play a key role in assisting local cooperatives in acquiring capital. However, local banks must understand the needs of cooperative businesses. For instance, local banks must understand that cooperatives need loans to construct processing kitchens and warehouses when they have little equity.

IV. Case Studies

Let us now consider these variables in the context of case studies of successful and unsuccessful cooperatives or cooperative-like business entities. In order to understand how the selected case studies relate to the variables being analyzed, each case study is described below with an explanation of why it is included in my research. Although some case studies do not describe local and organic agricultural cooperatives, the information presented in each example provides insight regarding how a successful local and organic cooperative is created and sustained.

a. Home Grown Wisconsin

Home Grown Wisconsin (HGW) is a cooperative wholesale business located in South-central Wisconsin that sells its produce from member farms to restaurants in nearby cities. Home Grown Wisconsin was included among the cooperative case studies because it was created for the purpose of increasing local food consumption within its region which is a crucial step in minimizing the problems associated with conventional

agriculture. Selling to local mid-level institutions was not one of the cooperative's original goals; however, the cooperative eventually began marketing its products to mid-level institutions once it realized the potential profits of doing so (Lawless 2000; Hendrickson 2004).

b. GROWN Locally

GROWN Locally is a cooperative located in a rural area of Northeastern Iowa. The farmer-members of this cooperative initially organized a collective CSA (or "Community Supported Agriculture") called the Sunflower Fields CSA. As the CSA grew, the farmers began to research how they could sell their products to local mid-level institutions. Eventually the GROWN Locally Cooperative was established with the Acronym GROWN for "Goods Raised Only With Nature." The GROWN Locally case study was included in this research because the cooperative was created with the specific purpose of supplying local mid-level institutions with locally produced foods (Huber and Parker 2002; UW-Extension CIAS 2009).

c. The New North Florida Farm to School Cooperative

The New North Florida Cooperative was formed in 1995 with the intent of selling local produce to thirteen schools in Gadsen County, Florida. The New North Florida Cooperative case study is included in this research because it is an example of a local and organic agricultural cooperative selling niche products to a specific type of mid-level institution (schools) (AgMRC 1999; Joshi et al. 2006; Diamond and Braham 2012).

d. The North Carolina Farm to School Cooperative

The North Carolina Farm to School Cooperative was founded in 2009 with assistance from the North Carolina Department of Agriculture and Consumer Services. Like the New North Florida Farm to School Cooperative, the North Carolina Farm to School Cooperative demonstrates how cooperatively owned businesses can assist local farmers in working with schools. In addition, the cooperative exemplifies how government agencies can provide support to local and organic cooperatives (USDA Agricultural Outlook Forum 2010).

e. Fifth Season Cooperative

Fifth season is a relatively new cooperative that formed in 2010 in Viroqua, Wisconsin. The cooperative was established out of concerns for community food security. The cooperative was included in this research because it is comprised of a variety of member groups from many different parts of the food industry, which is relevant to understanding the organizational structure of a successful cooperative (Berner 2010).

f. Producers and Buyers

Producers and Buyers cooperative is unique because it is an example of an unsuccessful local and organic agricultural cooperative. The case study of Producers & Buyers outlines lessons learned by members of the failed cooperative. The case study is intended to inform future local and organic cooperatives so that they can avoid making similar mistakes (Bau 2012).

g. La Montania/Regional Food Shed Initiative

La Montania is a consumer-owned retail cooperative in Albuquerque, NM.

Although La Montanita is a retail cooperative, it provides processing, distribution, and marketing services for local farmers as part of its Regional Foodshed Initiative. The La Montanita case study is included in this research because it demonstrates how other cooperatively owned businesses can be part of the support system for local and organic cooperatives. This cooperative funded the construction of a cooperative distribution center and invited farmers into their cooperative to take advantage of this distribution facility (Diamond and Barham 2012).

h. Farmland Industries, Inc. /Farmers' Cooperative

Although not a local and organic agricultural cooperative, Farmers' Cooperative in Keota, Iowa serves as an example of how small local cooperatives can be assisted by larger nonlocal cooperatives. Farmers' Cooperative is a local farm supply and grain marketing cooperative. In the early 1990s, the management of Farmers' Cooperative realized that the hog industry in Iowa was declining. In 1991, the cooperative decided that it would become a subset of Farmland Industries (a large national cooperative), and in exchange Farmland Industries would supply feed and provide financing for production facilities. This case study has been included in this research because it demonstrates the role that other cooperatively owned businesses can play in supporting local cooperatives; however, this case study is not useful for comparing variables such as product types, organizational structure, and pricing strategies (Cropp et al. 1998).

i. Growers' Collaborative

Growers' Collaborative is a limited liability corporation (LLC), not a cooperative. Nevertheless, the corporation is very successful and it functions like a cooperative. The strategies utilized by Growers' Collaborative can be analyzed alongside the other case studies relevant to this research. Growers' Collaborative began as an initiative intended to help local farmers expand their distribution and marketing services in order to sell their products to local institutions, and it is unique because it is the only business that has a non-profit organization as its primary mechanism of institutional support (Diamond and Barham 2012).

V. Variable Analysis

Now that I have explained the variables and hypotheses of interest, and provided a brief description of the case studies used in my research, I will draw on these case studies to evaluate the significance of the variables, particularly with respect to the previously proposed hypotheses about the components of a successful agricultural cooperative. This assessment of my original hypotheses will in turn provide the basis for the model of successful agricultural cooperatives that I present in future sections.

a. Support Systems

It was originally hypothesized that other institutions, such as nonprofit agencies, would provide the support system for local and organic agricultural cooperatives by conducting market research to initially get the cooperative up and running. Specifically, a non-profit or rural development agency that specializes in community development or

sustainable food systems might have employees who are knowledgeable about cooperative business structures or about the market for local and organic food. Thus, these employees would know what variables to investigate when conducting market research, and which grant programs might offer startup funding. In this context, market research entails gathering information to analyze and identify the size, needs, and competition among local and organic food producers within the market for institutional food buyers. This market research would help farmers determine how to organize their cooperative, what products to sell, and to whom these products should be sold. Market research would ultimately help a new local and organic cooperative organize itself in a sustainable way and thereby avoid costly mistakes during the early stages of the business. Grant funding is also crucial to cooperatives' success because it provides a way to acquire capital early on in the business development cycle, perhaps to buy distribution and processing equipment, or to fund a marketing campaign for the new cooperative.

Although this hypothesis concerning the important role played by other institutions during the initial planning stages of the cooperative is correct, it is limited in its assumption that such institutions would only play a role in the initial stages of a cooperative's development. After reviewing the case studies, it appears that other institutions also play a crucial role in providing support in post-initiation stages, throughout the cooperative's lifetime. This ongoing support takes the form of assistance with managing the cooperative, grant writing and acquiring funding, and ensuring that producer supply can meet buyer demand. Managing the cooperative entails bookkeeping, marketing the cooperative and its products to potential buyers, and negotiating prices with farmer-members and buyers. Ensuring that supply can meet demand entails having

enough produce to satisfy buyers' needs and making sure that this supply is distributed to institutions in a timely manner. Because cooperatives rely on other organizations and institutions on an ongoing basis for multiple forms of support, institutions of higher education, government organizations, and other cooperative businesses are often included in a successful cooperative's support system due to these agencies' relevant expertise and resources. Thus, it is not just continual support that redefines the original hypothesis, but also various additional forms of support that other institutions can provide successful cooperatives.

Institutions of higher education and government organizations are especially important during the initial stages of cooperative development because they can conduct market research to help new local and organic agricultural cooperatives find potential farmers and buyers. For example, Greg Lawless, a representative from the University of Wisconsin Center for Cooperatives, assisted local farmers near Madison, Wisconsin by creating and administering a survey that helped determine a cooperative was needed to increase consumption of local food in the region. The survey, which was completed by over 300 local food buyers and supplemented by interviews with farmers, chefs, retailers, and food service providers, revealed that an agricultural cooperative would help local farmers sell and distribute their products to local food buyers. It was Lawless's academic background that made it possible for him to develop and administer the survey, and to analyze the survey results. Specifically, his analysis of the survey results concluded that farmers needed a centralized distribution center (Lawless 2000).

Lawless and his team from the University of Wisconsin also conducted further research to identify potential cooperative members and clients. Initial communication

with community members is something institutions of higher education and government organizations can assist new local and organic cooperatives in doing. Many of these institutions have connections with influential people and possess the marketing know-how to get the message across to others in the community. For example, Florida A&M University assisted the New North Florida Cooperative in developing marketing materials that could be distributed to institutional clients. The New North Florida Cooperative also received assistance from Glyen Holmes, an employee of the USDA's Natural Resources Conservation Service in Marianna, FL who was one of the key initiators in the organizing process for the North Florida Farm-to-School Cooperative and is now the administrator of the cooperative. The ongoing communication that occurred between Holmes and the food director for the Gadsen County School District was critical for jump-starting the cooperative's farm-to-school program (Diamond and Barham 2012).

The work of Glyen Holmes also demonstrates how government agencies and institutions of higher education help in providing support on an ongoing basis once the cooperative is off-the-ground. Glyen Holmes now serves as the administrator for the New North Florida Cooperative with Vonda Richardson from Florida A&M University as the "second in command" (Diamond and Braham 2012). For Home Grown Wisconsin, Greg Lawless applied for additional funding which allowed him to continue providing human resource support for the cooperative (Lawless 2000). The North Carolina Farm-to-School Cooperative is the most extreme example of how other institutions can offer managerial support; both the distribution and marketing division of the cooperative are run by the North Carolina Department of Agriculture and Consumer Services (USDA Agricultural Outlook Forum 2010).

The role of these institutions in seeking outside funding on an ongoing basis is especially important. Working with Home Grown Wisconsin, Greg Lawless at the University of Wisconsin Center for Cooperatives submitted a proposal to the Agricultural Development and Diversification Program (ADD) to receive funding that allowed him to conduct market research and perform human resource tasks. Likewise, as a representative from the local USDA, Glyen Holmes worked with the New North Florida Cooperative to attain USDA grant funding. Consequently, the New North Florida Cooperative received a Federal grant with cooperative agreement for \$40,000 from the USDA's Agricultural Marketing Service, which was used to purchase distribution and processing equipment. The cooperative also received a grant for \$327,000 in 2001 (six years after the cooperative was established) from the USDA's Rural Business Enterprise program with which they purchased four refrigerated delivery trucks (Joshi et al. 2006; Diamond and Barham 2012).

Like institutions of higher education and government organizations, other cooperatively owned businesses can also play an important role in supporting local and organic agricultural cooperatives, most prominently, by helping the cooperatives resolve supply chain problems. In conversation with, Courtney Berner, Outreach Specialist for the University of Wisconsin Center for Cooperatives, I learned that because cooperative businesses understand the business needs of other cooperatives, they can step in as a patron of the business.

These case studies demonstrate that a camaraderie can develop among cooperatively owned businesses as older cooperatives assist newly formed and forming local and organic agricultural cooperatives in a variety of ways both during and after the

initial stages of a cooperative's development. First, other cooperatives can act as a source of excess supply when farmers cannot meet demand. For instance, the national-level organic cooperative, Coulee Region Organic Produce Pool (CROPP/Organic Valley), offered to provide excess supply to the Home Grown Wisconsin Cooperative if its farmer-members were ever unexpectedly unable to meet demand (Lawless 2000; Hendrickson 2004). A cooperative's reputation among institutional clients is vital to running a successful cooperative. For example, Diamond and Barham (2012) explain that a key element for the success of the New North Florida Cooperative is its reputation among its buyers for providing fresh quality products.

Second, other cooperatives can play an important role in funding the purchase of distribution and processing equipment that developing cooperatives need. Farmers' Cooperative, which is a local farm supply and grain marketing cooperative in Keota, Iowa, relied on a national cooperative known as Farmland Industries, Inc. to supply feed and finance the construction of processing facilities when the Farmers' Cooperative fell into hard times. The partnership with Farmland Industries helped to revive the Farmers' Cooperative as well as the hog industry in the area and has significantly improved the economic situation of local residents (Cropp et al. 1998).

In addition to providing financial support for distribution and processing equipment, other cooperatives can also oversee all operations related to distribution. La Montanita is a retail cooperative that decided to help local farmers by creating a distribution division within their cooperative in Albuquerque, New Mexico. La Montanita has contributed over \$150,000 to this project known as the "Foodshed Initiative" (Diamond and Barham 2012). With this money La Montanita has purchased

36 refrigerated trucks and a storage warehouse; consequently, La Montanita has been able to distribute food from member farms to institutional clients across the region (Diamond and Barham 2012).

There are two exceptions that conflict with the conclusions I am drawing about the role other institutions and cooperatives can play in providing a system of support. The first is Growers' Collaborative, whose primary source of support is a nonprofit organization. Growers' Collaborative is actually a limited liability corporation. It was formed in this way so that its non-profit partner, Community Alliance for Family Farms, could have complete ownership of the business. The Growers' Collaborative also wanted access to grant funding from both public and private sources. Although the corporate structure provided a good strategy for attaining initial funding, the corporate structure does not give local farmers much control over the ownership of the business. The Growers' Collaborative therefore lacks a central feature that makes cooperatives attractive. However, the mission of Growers' Collaborative is not to hand control over to farmers, but to provide a central distribution channel for local farmers, and it has been successful in providing the latter (Diamond and Barham 2012).

The second exception, GROWN Locally Cooperative, managed to successfully get its feet off-the-ground without the help of any other institutions supporting it. However, the cooperative did use grant funds to purchase online ordering equipment, but managed to attain these funds on its own (Huber and Parker 2002).

Despite these two exceptions, most of the case studies demonstrate that institutions of higher education, government organizations, and other cooperatives play an important role in assisting local and organic cooperatives during the initial planning

stages of agricultural cooperatives' development, *and* on an ongoing basis. The best support systems, therefore, are those that can provide various forms of support throughout the lifetime of the cooperative. Institutions of higher education and government organizations should be members of a cooperative support system because they possess skilled individuals who can create both long term goals and initiatives for a new cooperative, while also assisting with short term day-to-day operations. Other cooperatively owned businesses are also essential because they understand what type of infrastructure a cooperative needs to be successful, and therefore, they can assist new cooperatives with purchasing distribution and processing equipment early on. At the time same, other cooperatives understand what needs to occur on a day-to-day basis in order to ensure that a new agricultural cooperative's reputation is preserved over the long-run for the purpose of enhancing a newly formed cooperative's reputation as a reliable supplier. For instance, other agricultural cooperatives can also play an important role in promising to provide excess supply in times of need (i.e. when newly formed cooperatives fail to meet demand).

b. Organizational Structure

It was originally hypothesized that one or two leaders would emerge to assume responsibility for creating a successful local and organic cooperative. This would increase the likelihood that those in leadership positions would take their responsibilities seriously and remain true to the mission of the cooperative. As Brent Hueth, Director of the University of Wisconsin Center for Cooperatives informed me in telephone correspondence, many cooperatives are formed with the help of a few "drivers" who

spearhead the initiative. Such drivers it seems would carry a passion for the local food movement and would be willing to volunteer their time to planning and operating the cooperative. With these leaders in place, a local and organic agricultural cooperative has the basis for creating a good organizational structure that can sustain itself. The case studies support this hypothesis. Nevertheless, they also suggest that the hypothesis is incorrect in assuming that this kind of centralized responsibility is a good leadership model for maintaining effective leadership in a new cooperative.

Instead, cooperatives should focus on a “separation of responsibilities” approach in which (a) one person does not have the majority of responsibility, (b) leadership is representative of the entire food industry, and (c) an experienced marketing manager is hired. By separating responsibilities more broadly among those with expertise in several relevant areas, important tasks are delegated to people working in all areas of the food industry. In addition, hiring an experienced marketing manager has proven to be very beneficial to the financial viability of local and organic agricultural cooperatives.

It is true that many cooperatives initially rely on one or two individuals to spearhead the cooperative project. For instance, two people, Steve Pincus and Joe Sonza-Novera, were critical to the initial success of Home Grown Wisconsin. Sonza-Novera was an employee for a local organic foods distributor and served as manager for the cooperative during its first year. Pincus was a successful farmer with twenty years of experience under his belt. However, while the work of Sonza-Novera and Pincus is commendable and helped Home Grown Wisconsin get off-the-ground, the leadership structure that Home Grown Wisconsin originally established was not sustainable because it placed too much responsibility on those two people. Specifically, by the time Home

Grown Wisconsin was ready to begin their business, Pincus, a farmer-businessman viewed by many as essential for managing farmers and buyers, could no longer work on a volunteer basis. As a result, valuable time was lost trying to make Pincus legally an employee of the cooperative (Lawless 2000).

Other cooperatives experienced similar problems when relying on only one to two key people to run the cooperative. The GROWN Locally Cooperative initially had farmer-members perform all management tasks. The cooperative soon realized that this organizational structure was not sustainable.

[T]his model can result in disorganization, leadership imbalance, and fatigue. In the beginning, GROWN Locally relied largely on one member for coordinating purchases, deliveries, sales, and infrastructure such as storage. Over time, this leadership arrangement was not sustainable because co-op responsibilities and resources were distributed unevenly among its members. (UWCC 2009, 12)

With only one or two people running the cooperative, leaders are overworked and in danger of “burn-out.” Most people cannot work this way year after year, which becomes a problem when a cooperative depends on these leaders for managing all of its planning and daily operations on an ongoing basis.

Rather than having one or two people assume responsibility, successful cooperatives divide leadership positions among multiple member groups. Both the Home Grown Wisconsin Cooperative and the GROWN Locally cooperative now include chefs and buyers in monthly leadership meetings (Lawless 2000; Huber and Parker 2002; UWCC 2009). Fifth Season Cooperative seeks out growers, chefs, buyers, and distributors to be cooperative members (Berner 2010). Including multiple member groups was overlooked in my original hypothesis, but is very important for facilitating communication and sustaining the agricultural cooperative. Multiple member groups

enable communication between farmers, chefs, and institutional food buyers. With multiple member groups, farmers can better understand the limitations of their institutional food buyers. One example of such a limitation is the lack of functional kitchen space in schools; food must be pre-washed and pre-cut before delivery to the school. As explained to me by Courtney Berner, founder of Fifth Season Cooperative and Community Outreach Specialist at the University of Wisconsin Center for Cooperatives, multiple member groups help bring all stakeholders to the table. All aspects of the food industry must be included in the organizational structure and planning if the goal of the cooperative is to increase consumption of local food. Most obviously, this is because increasing consumption affects all members of the local food systems.

Multiple member groups also help to sustain the cooperative by ensuring that the cooperative does not become the pet project of one institution. Mau (2012) outlines the mistakes and successes of a failed local and organic cooperative, and emphasizes that cooperatives should serve a variety of institutional food buyers. For instance, Producers & Buyers made the mistake of becoming the pet project of a local hospital. When the hospital began to contract with a food service company, the cooperative could not meet the liability requirement to continue working with the hospital and this was one of the main reasons for the cooperative's closure (Mau 2012).

The future of a cooperative is also uncertain if the cooperative does not have a manager who can market products and successfully network with growers and buyers. The case studies reveal that a manager who specifically performs communications and marketing tasks can reach out to the surrounding community to promote the cooperative's products. In fact, both the New North Florida and the North Carolina Farm-to-School

cooperatives have marketing divisions that are responsible for contacting growers and suppliers in the local area and designing nutrition education programs for schools served by the cooperative (AgMRC 1999; USDA Agricultural Outlook Forum 2010; Diamond and Barham 2012;). The New North Florida Cooperative claims that this marketing division is critical to its financial stability because it ensures a viable business model. The Home Grown Wisconsin Cooperative learned the value of marketing firsthand after Sonza-Novera resigned from his position as manager. Although the cooperative was challenged by the loss of such a dedicated employee, the new manager, Judy Hageman, had much experience in marketing and networking due to her previous success of selling early season crops to Chicago restaurants. Hageman was willing to push products to current and potential buyers. She was also not afraid of “cold-calling” to promote the cooperative. Thus, the cooperative went from suffering a \$3,200 loss in 1996, to reaching \$100,000 in sales in 1997 after Hageman’s first year as manager, underscoring the importance of marketing expertise to cooperatives’ success (Lawless 2000).

Overall with respect to organizational structure, the case studies demonstrate that (1) responsibilities should be divided evenly among members or managers, (2) an experienced individual or team should perform marketing and communications tasks, and (3) multiple member groups should be included in decision-making bodies of the cooperative. This organizational structure will prevent an agricultural cooperative from becoming dependent on one member, one buyer, or an insufficient support system, and this will ultimately help maintain sales/profits that help to keep the cooperative in business over time.

c. Product Types

I originally hypothesized that the primary decision for agricultural cooperatives concerning product types was whether to sell a single product category or multiple product categories. It was also hypothesized that most agricultural cooperatives would choose to sell multiple product categories to protect themselves against shifts in demand for one specific item. After reviewing the case studies, I can conclude that the hypothesis is correct in assuming that successful agricultural cooperatives choose to sell multiple product categories. However, the hypothesis is incorrect in assuming that the primary decision regarding product types is the decision to sell single or multiple product categories. Instead, the primary decision that agricultural cooperatives make concerning product types is deciding which products will be most profitable for farmer-members. Successful cooperatives seek out institutional food buyers who have interest in the products the cooperative is selling, process items to make them more suitable for institutional food buyers' needs, and sell a mix of local and nonlocal products to cover overhead costs and maintain relationships with institutional food buyers throughout the year.

When choosing product types that will be profitable for farmer-members, cooperatives might seek out institutional food buyers who have interest in the products that the cooperative is selling. This will ensure that institutional food buyers are not blindly signing-on to work with the cooperative, because buyers know what products the cooperative has to sell before agreeing to order from the cooperative. When Home Grown Wisconsin was initially getting itself off the ground, the cooperative created a product availability sheet which asked farmers what products they would like to grow.

This product availability sheet was eventually used to attract institutional food buyers. Home Grown Wisconsin's use of a product availability sheet demonstrates the dynamic relationship between providing products and soliciting institutional food buyers (Lawless 2000). The cooperative wisely provided institutional food buyers with information about the cooperative's products *before* the buyers signed-on to purchasing through the cooperative.

Another way for cooperatives to ensure the profitability of their products is to perform further processing of an item to make it more suitable for institutional food buyers. When the New North Florida Cooperative was evaluating which foods its institutional buyer--public schools in North Florida--would be willing to purchase, the cooperative realized that institutional food buyers had an interest in collard greens because of their cultural significance in the South (Diamond and Barham 2012). However, they also realized these schools demanded not just collard greens, but pre-washed, pre-cut, and pre-packaged collard greens due to the lack of kitchen space and time in public schools cafeterias. Using this insight, the cooperative put most of its efforts into the growing and processing of collard greens along with a few other niche items (AgMRC 1999; Diamond and Barham 2012). Thus, sensitivity to buyers' needs has been more important than diversifying product types.

Finally, other cooperatives have found it most profitable to include a mix of local and nonlocal products. This helps to provide extra supply as needed, to cover overhead costs, and to maintain relationships with institutional food buyers throughout the year. The case studies reveal that most cooperatives provide this mix of local and nonlocal products by partnering with a nonlocal organic cooperative. For instance, Home Grown

Wisconsin partners with CROPP Cooperative (Organic Valley), a national organic cooperative, to fill orders when its farmer-members cannot meet demand (Lawless 2000; Hendrickson 2004).

Another example is the partnership between La Montanita and Organic Valley Cooperative. This partnership has greatly benefited La Montanita's Foodshed Initiative by helping to cover overhead costs and providing year round product availability (Diamond and Barham 2012). A lack of year round availability is something that many local farmers struggle with when trying to sell their products to institutional food buyers. Hardesty (2008) points out that reliability and year round availability are two of the primary concerns that prevent institutional food buyers from purchasing local food. Thus, working with a nonlocal organic cooperative to sell produce during the off-season might be a way to maintain relationships with institutional food buyers all year.

In conclusion, the hypothesis is correct in assuming that a local and organic agricultural cooperative will sell multiple product categories. However, there is nothing about selling multiple product categories that makes this strategy better than selling a single product category. Instead, successful agricultural cooperatives choose product types based on which products will be most profitable for farmer-members to sell. It should also be noted that this variable is closely related to pricing strategies, because product types alone do not determine profitability. As I discuss below, it is the product types *and* prices that ultimately determine the profitability of an agricultural cooperative, and the extent to which the cooperative benefits farmer-members.

d. Pricing Strategies

Originally I hypothesized that a local and organic cooperative would price products as a group. Pricing as a group entails pooling similar products and pricing these products identically. In this pricing scheme, farmers receive profits as a percentage of total sales rather than receiving profits directly from the sale of their own produce. In this context I assumed that pricing products as a group would benefit farmer-members because products would be more appealing to institutional food buyers by keeping prices stable and ensuring that identical products were priced at the same amount, regardless of which farm these identical products came from. However, the case studies reveal that the original hypothesis is incorrect. Typically, cooperative leaders want farmers to set their own prices. Once the farmer sets the price, cooperative managers help negotiate this price with institutional food buyers. Having a cooperative manager negotiate prices benefits farmer-members because cooperative managers help to maintain amicable relationships with institutional food buyers who may believe prices are unfair or too high. Managers also help farmers receive a fair price for their product that reflects the true quality of the product. In this sense, managers act as middlemen that handle relationships with institutions so that farmers don't need to collectivize prices for the same products.

It is true that many local and organic cooperatives sell their products at a price that is higher than conventional produce. The GROWN Locally has stated that its products are generally priced higher than conventionally grown products, but lower than wholesale organic prices (Huber and Parker 2002; UWCC 2009). In addition, the New North Florida Cooperative has also stated that its products are generally priced higher than conventional produce (Diamond and Barham 2012). Institutional food buyers might be accustomed to receiving special discounts from large food distributors when buying

large volumes of food. Thus, when working with a local and organic agricultural cooperative, institutions may have to accept higher prices and be willing to accept limited price discounts. This can cause alarm for institutional food buyers when they are first purchasing through the cooperative. As previously mentioned, cooperative managers can help maintain amicable relationships between buyers and farmers when these issues related to price arise. Growers' Collaborative generally allows growers to set their own prices. However, the relationship is somewhat dynamic in that managers do provide feedback to growers when certain institutional food buyers are not able to meet price points. Managers also negotiate with growers when these institutional food buyers believe their volume of purchases warrants a price discount (Diamond and Barham 2012).

As mentioned previously, successful local and organic agricultural cooperatives sell their produce at price that is often higher than conventionally grown produce. The reason for this is that the higher prices reflect the quality and freshness of the produce sold through these cooperatives. Many case studies note this relationship between the price and quality of products. The GROWN Locally has stated that, "They know they cannot compete on price with large distributors, but they make this up by providing superior quality and freshness" (Huber and Parker 2002, 3). In addition, the Home Grown Wisconsin Cooperative ranks its growers based on a farm's history and track record of selling quality items. The top ranked growers, known as "priority growers", set prices (Lawless 2000; Hendrickson 2004).

Given that the quality and freshness of cooperative produce must be reflected in the price of this produce, managers of successful local and organic agricultural

cooperatives must be able to negotiate higher prices for their farmers. For instance, in 2002, price negotiations initiated by the New North Florida Cooperative's manager helped farmer-members receive a consistent price of \$14 per dozen collard green plants, while the market price varied between \$4 and \$14 per dozen (Diamond and Barham 2012).

In conclusion, most cooperatives allow farmers to set their own price, and then a cooperative manager negotiates this price with the institutional buyer. This pricing strategy empowers farmer-members by giving them equal bargaining power with institutional food buyers. In this context, bargaining power refers to the relative ability for two parties to exert influence over prices. Without cooperatives playing the role of negotiator, farmers would not be able to negotiate the price of their products with institutional food buyers. Farmers would either sell their products at a lower price or not do business with institutional food buyers at all. Because cooperative managers negotiate price, farmers are able to stand by the prices they have submitted rather than submit to the price requested by institutions, thereby receiving fair compensation for the quality of their products.

e. Strategies for Acquiring Distribution and Processing Equipment

In my original hypothesis, I proposed that cooperatives would gain access to distribution and processing equipment through the help of banks and public policy funding and assistance. By distribution and processing equipment I mean any piece of equipment or infrastructure that would assist the cooperative in packaging or delivering its product. This includes refrigerated trucks, processing kitchens, and distribution

centers. I suggested that banks would provide support for a cooperative by offering the cooperative loans and other forms of financial assistance used for purchasing distribution and processing equipment. Public policy support in the form of grants and other types of government assistance would also assist new local and organic cooperatives in acquiring funding for distribution and processing. The underlying idea is that cooperatives must obtain some capital early-on in order to assist local and organic farmer-members with selling to local mid-level institutions.

After reviewing the case studies, the original hypothesis is correct in assuming that distribution and processing equipment should be obtained early-on. Nevertheless, this may entail acquiring not purchasing distribution and processing equipment. Distribution and processing equipment is very important to the stability of an agricultural cooperative business, but the cooperative should not run into debt or use its liquid assets to purchase this equipment. Therefore, successful agricultural cooperatives do not look to banks for loans to purchase distribution and processing equipment. Instead, there are two alternative ways to acquire this equipment. First, cooperatives can purchase new equipment with the help of public policy or other institutions. Second, cooperatives can use old or existing equipment by implementing an “assets-based” approach. The concept of an assets-based approach was first introduced in the Growers’ Collaborative case study found within the USDA report by Diamond and Barham (2012) titled, *Moving Food Along the Value Chain*. This term was used to describe the Growers Collaboratives’ shift from seeking out to new distribution and processing equipment to seeking out existing infrastructure within the local region (Diamond and Braham 2012). In other words, an assets-based approach involves using existing infrastructure for distribution and

processing needs. With both of these strategies, cooperatives can obtain distribution and processing equipment without actually purchasing anything, as I describe below.

Relying on banks for financial support requires the cooperative to take out a loan and pay it back. This is not ideal, considering that some local and organic agricultural cooperatives run negative profits during the first several years of business. The Home Grown Wisconsin Cooperative suffered a \$3,200 loss during its first year in business (Lawless 2000). In addition, the La Montanita Cooperative has acknowledged that it will take several years to reach a break-even point for its Foodshed Initiative (Diamond and Barham 2012). Thus, although agricultural cooperatives help farmers sell their products; this does not mean the cooperative will always raise enough revenues to sustain itself without additional institutional support, especially if most of the money is going back to farmers.

Cooperatives can acquire new equipment with the help of public policy or other supporting institutions and organizations. They can apply for public policy support in the form of grant funding from government agencies. The New North Florida Cooperative received a \$40,000 grant from the USDA Agricultural Marketing Service to purchase chopping and washing equipment, and a refrigerated truck. The cooperative also received a \$327,000 grant from the USDA Rural Business Enterprise with which it purchased four refrigerated delivery trucks (Diamond and Barham 2012). The North Carolina Farm to School Cooperative relied on public policy support in the form of direct managerial support from a government agency. The North Carolina Department of Agriculture and Consumer Services operates the distribution division of the cooperative. The agency has created a unique food distribution service that is entirely operated and

funded by the North Carolina Department of Agriculture. This is a network of fourteen trucks, thirty trailers, and storing and cooling facilities (USDA Agricultural Outlook Forum 2010).

Agricultural Cooperatives also rely on their existing network of support to acquire new distribution and processing equipment. The distribution services for the La Montanita Cooperative's Foodshed Initiative were completely funded by the La Montanita's retail cooperative. The retail cooperative has purchased 36 refrigerated trucks, has sponsored the construction of a storage warehouse, and has constructed several central distribution centers (Diamond and Barham 2012).

Aside from acquiring new distribution and processing equipment, cooperatives can use existing distribution and processing equipment if it is available in the infrastructure within the local area. This is known as an asset-based approach, which can take several forms.

For instance, cooperatives can pass all responsibility and labor for distribution and processing to a local and nationwide food service company and distributor. Growers' Collaborative collaborated with local food distributors and food service companies such as Bon Appetit to distribute products to local colleges (Diamond and Barham 2012). Another way to implement an assets-based approach is to maintain responsibility for distribution and processing, but to rent space from an existing distributor or wholesaler. Home Grown Wisconsin borrowed the dock of another produce distributor in the area, but maintained responsibility for distributing its products. The local distributor who rented the space to Home Grown Wisconsin did not believe the cooperative was a competitor because Home Grown Wisconsin sold organic produce, while the distributor

mainly sold conventional produce. In fact, the distributor believed that by allowing Home Grown Wisconsin to rent out his dock, he would help his business by giving it good publicity (Lawless 2000). Finally, cooperatives can look internally for opportunities to use the distribution and processing space owned by farmer-members. GROWN Locally used the farm of one of its members as the central place for washing and packing produce, and made deliveries using a farmer-member's truck (Huber and Parker 2002).

One of the benefits of an assets-based approach is that it delegates supply chain activities to companies with experience and infrastructure (Diamond and Barham 2012). For example, food directors at University of California at Berkeley are able to buy local produce from their regular produce distributor, yet the food originates from Growers' Collaborative (Diamond and Barham 2012). Even when the cooperative maintains responsibility for distributing its product, the cooperative does not have to spend time maintaining equipment or writing grant proposals. In addition, this is a great way for local and organic agricultural cooperatives to collaborate and support other local businesses.

There is one caveat to the assets-based approach, which is that it must be sustainable. Agricultural cooperatives must insist that an assets-based approach keeps capital costs low early on, yet many of these cooperatives have also noted that the lack of capital and infrastructure was a challenge that kept the future of the cooperative uncertain. If a member's farm is being used as the central place for washing and packing, the member's decision to drop out of the cooperative might leave the cooperative un-operational. In addition, conflicts can arise between the cooperative and institutional

food buyers when dealing with a third party for distribution and processing. Growers' Collaborative occasionally worked with a larger produce distributor to fill orders that it did not have the supply to fill. Although this arrangement was essential for satisfying buyer demands, it led to increased claims of liability from buyers who complained they had received their orders in unsatisfactory condition. Since Growers' Collaborative was not responsible for delivering these orders, it had limited ability to investigate and refute these claims (Diamond and Barham 2012).

The strategy behind both of these methods is to keep capital costs low during the early stages of a cooperative's development. Distribution and processing equipment are essential for local and organic agricultural cooperatives who wish to sell to mid-level institutions. Nevertheless, dipping into cooperative funds for distribution and processing equipment is a financial risk. That is why the two methods discussed here do not require any up-front payments from the cooperative itself. When relying on public policy or institutional support, the cooperative is looking for outside funding to purchase new equipment. For an assets-based approach, the cooperative searches for existing infrastructure rather than funding. Regardless of the method chosen, it is imperative that the cooperative ensure its distribution and processing method is sustainable.

VI. Towards a Model for Successful Agricultural Cooperatives

In the preceding text I have described the necessary components of successful agricultural cooperatives. I began with the following question: *What strategies do successful agricultural cooperatives implement in overcoming barriers to market entry and in the food suppliers' market serving mid-level institutions?* To answer this question

I drew on a variety of case studies describing how successful agricultural cooperatives establish themselves, complete daily operations, and sustain themselves year after year. My analysis of these case studies provides the basic features of a model that can be used to inform small-scale organic farmers as well as others in the local food industry about how to create and sustain a successful agricultural cooperative. Unlike existing literature on agricultural cooperatives, the research I conducted for developing this model is not a case study and it does not provide a “how to” guide for establishing a cooperative as a legal entity. Instead, I have endeavored to provide a substantive model that defines how a local and organic agricultural cooperative can successfully sell products within the food buyers’ market for mid-level institutions. The basic features of this model are sketched below.

a. Prioritize financial viability and then business sustainability

The case studies reviewed in the previous analysis reveal that successful cooperatives should first work towards a “financially viable business model”, and then concentrate on creating a sustainable business model. The concept of a “financially viable business model” was first introduced in the New North Florida Cooperative case study within the USDA report by Diamond and Barham (2012) titled, *Moving Food Along the Value Chain*. A financially viable business model entails a plan to maintain sales and profits and includes strategies for promoting sales and relationships with institutional food buyers. A sustainable business model entails a plan to sustain the cooperative as a business entity. While creating a sustainable business model encompasses maintaining a financially viable business model, a sustainable business

model is broader, in that it also involves establishing an organizational structure for the cooperative that will support the growth of the business.

Successful agricultural cooperatives first implement a financially viable business model and then implement a sustainable business model. This is because the purpose of forming the cooperative is to increase sales of local and organic food among institutional food buyers and; the cooperative, therefore, must be operating in a way that serves its intended purpose before its leaders can attempt to sustain this operational structure. Essentially, this means that cooperatives should first focus on implementing a strategy to return profits to their farmer-members, and once this strategy is instituted, cooperatives should then work to “lock” this model in place by implementing a sustainable business model to preserve the cooperative as a business entity.

A financially viable business model can include several components, including:

(1) Marketing to inform current and potential institutional food buyers about products. Successful marketing can increase sales and also help *maintain* sales by informing institutional food buyers about up-coming harvest dates and products available for sale. Marketing is crucial to a cooperative’s success in returning more profits to farmer-members. Successful agricultural cooperatives perform marketing by hiring a marketing manager who has experience in sales and in “cold-calling” institutional food buyers, or by creating an entire marketing division to create educational flyers and posters that reach out to and inform buyers about the products sold.

(2) Supplying a mix of local and nonlocal organic products. A hybrid selection of local and nonlocal products has allowed successful cooperatives to sell products year round. This helps maintain year-long relationships with institutional food buyers, thereby

avoiding having to awkwardly re-establish relationships with institutional food buyers at the beginning of every season.

Once a cooperative has implemented a successful financially viable business model, cooperative leaders should then work on creating a sustainable business model. A sustainable business model can include several components, including:

(1) Dividing-up leadership tasks evenly among all cooperative employees; this division of labor is important to prevent one or two people from carrying all of the responsibility. Ultimately, it will prevent “burn-out” among cooperative employees, which will sustain personnel and leadership.

(2) Including multiple members groups within cooperative leadership. A diverse membership ensures that the entire local food industry is represented within the cooperative. This also helps to facilitate communication about specific problems between the cooperative and key stakeholders such as institutional food buyers. Identifying and resolving problems is crucial to preventing breaks in supply, improper packaging, and other potential catastrophes that worry institutional clients.

Thus, a primary feature of the model of successful agricultural cooperatives I am proposing is that the cooperative planners first implement a financially viable business model, which can be accomplished by marketing the cooperative and its products to institutional food buyers and selling a mix of local and nonlocal products. Once the financially viable business model has been established, the cooperative should then “lock-in” this model by evenly dividing-up responsibilities among all cooperative employees and including multiple members groups within cooperative leadership, which will ultimately lead to a sustainable business model.

b. Product and pricing strategies benefit the farmer-members

Implementing product and pricing strategies to benefit farmer-members is an important strategy for a successful local and organic agricultural cooperative, because it ensures that the cooperative stays true to its mission of supporting the success of small-scale organic farmers as suppliers to mid-level institutions. Furthermore, implementing product and pricing strategies to benefit farmer-members guarantees that farmer-members have a reason to participate and remain in the cooperative; e.g. through their involvement in the cooperative, their sales will increase and their farms will receive increased recognition.

This strategy is very similar to implementing a financially viable business model in the sense that the overall objective is to bring profits back to farmer-members. However, developing product and pricing strategies differs from developing a financially viable business model because it specifically focuses on the actions of suppliers, whereas a financially viable business model also considers the actions of institutional food buyers. In other words, a financially viable business model seeks to attract institutional food buyers in order to maximize sales and profits for farmer-members. In contrast, the product and pricing strategies seek to sell and price products so that sales and profits are maximized for farmer-members. For the latter purpose, the following components are required: knowledge regarding the needs of institutional food buyers in order to further process products, a mix of local and nonlocal products to cover overhead costs, and the ability of farmers to set their own prices with the help of a price negotiator.

A solid understanding of the needs of institutional food buyers can help cooperatives determine the extent to which their products should be processed. For instance, schools often lack adequate kitchen space and tools, and also lack prep time to prepare raw foods (AgMRC 1999; Hardesty 2008). Therefore, produce delivered to schools must be pre-washed and pre-cut prior to delivery. Successful agricultural cooperatives take the time to research the food-processing needs of their institutional food buyers to create a product that is “guaranteed to sell.”

Selling a mix of local and nonlocal products is another component of a successful product and pricing strategy (and also a component of a financially viable business model). A financially viable business model will plan for offering mixes of local and nonlocal products in order to sustain at least some year-round produce availability. This mix of local and nonlocal products will also help to cover overhead costs, such as operating expenses and labor costs during the low-seasons, which would otherwise take profits away from farmer-members.

The third component of successful product and pricing strategies entails giving farmer-members the ability to set their own prices, which ensures that farmers receive a fair price for the products they produce. In addition, having farmers set the prices for their own products enables these farmers to maintain the identity and reputation of their farm; farms can be recognized for the quality of their own products even when these products are sold through the cooperative. Moreover, having a cooperative manager negotiate prices with institutional food buyers helps farmers receive a fair price for their products even when institutional food buyers become demanding or unyielding. Although institutional food buyers might have difficulty accepting higher prices early on,

buyers are partly paying for the freshness and quality of products provided by the cooperative's farmers, and this may become more valuable to institutional food buyers with successful marketing and policy support. Therefore, price negotiation help to maximize profits by enabling farmers to sell their products at a price that actually represents the quality of the product, rather than forcing farmers to reduce prices to a price comparable to nonorganic wholesale produce.

For these reasons, implementing product and pricing strategies to benefit farmer-members is an important strategy for successful local and organic agricultural cooperatives. Such strategies will give farmer-members a reason to remain in the cooperative. Farmers will receive increased profits and recognition for their products. Implementing this type of product and pricing strategy requires knowledge about the needs of institutional food buyers, a mix of local and nonlocal products to cover overhead costs, and the ability among farmers to set their own prices with the help of a price negotiator.

- c. Support systems should be comprised of organizations providing diverse and ongoing forms of support.

Organizations providing support to agricultural cooperatives are important not only during the initial planning stages of the cooperative, but also on an ongoing basis. However, the types of support cooperatives require changes as the cooperative evolves into a fully-functioning business. A fully-functioning business is one that is able to successfully sell and deliver products to institutional clients on a regular basis. During the initial planning stages of the cooperative, its support system should provide

operational and research support to provide infrastructure and information to farmer-members. Once the cooperative evolves into a fully-functioning business, its support system should provide resources and directional support to help the cooperative acquire new distribution and processing equipment, hire and train employees, and create a sustainable business model. Therefore, in order to receive both operational and research support during the initial planning stages and resource and directional support on an ongoing basis, cooperatives should seek the help a variety of individuals and organizations.

With respect to the initial planning stages, the components of operational support include the following:

(1) Assistance researching existing infrastructure in the local area. This is important for implementing an assets-based approach to acquiring distribution and processing equipment. Implementing an assets-based approach during the initial planning stages will save on capital costs. Nevertheless, cooperative employees might need assistance to investigate available infrastructure in the area. Individuals and organizations within a cooperative's broader support system can assist in finding existing infrastructure, and facilitating communication that provides access to this infrastructure.

(2) Assistance with grant applications to attain start-ups funds. Start-ups funds are important for activities such as conducting market research and hiring bookkeepers, marketing managers, and price negotiators as contract workers.

With respect to the initial planning stages, the components of research support include:

(1) Market research that survey local farmers and identifies their initial interest in selling through an agricultural cooperative; this is important for successful recruitment of farmers into the cooperative.

(2) Market research to survey institutional food buyers to identify their preferences and needs, and to analyze the results of this research for the purpose of making decisions about processing and product types. Successful cooperatives have also used this kind of market research to facilitate communication between farmers and institutional food buyers in ways that make it possible to coordinate successful cooperative planning meetings.

As successful cooperatives evolve into fully-functioning businesses, the type of support these cooperatives require will transition to involving more resource and directional support.

With respect to a more experienced cooperative, the components of resource support include:

(1) Labor, primarily in the form of human resource support. Human resource support is needed to train and educate farmer-members and employees of the cooperative, and to assist the cooperative in hiring a bookkeeper, marketing manager, and price negotiator as permanent employees. Individuals working within a cooperative's existing support system can also act as representatives or contacts for the cooperative by being the face of the cooperative to the community or to the media.

(2) Grant application assistance. Rather than providing startup funds, grants can fund the purchase of distribution and processing equipment. If the cooperative is able to

attain such equipment through grant funding, it can avoid conflicts that might arise when utilizing existing infrastructure. For instance, if a cooperative relies on an outside produce distributor to deliver products to institutional clients, the cooperative has no way of investigating liability claims concerning damaged goods. Owning equipment will give the cooperative full control over its distribution and processing operations, and will help sustain the cooperative by making it less dependent upon others.

With respect to an experienced cooperative, there is only one component encompassing directional support, which is assistance creating a sustainable business model. But this is essential to the success of an agricultural cooperative. As stated previously, a sustainable business model is a plan to maintain the cooperative as a business entity. To create a sustainable business model, a cooperative's support system can facilitate communication in the same way that it facilitates communication during the cooperative's initial planning stages. Individuals and organizations comprising support systems will need to facilitate communication in order to coordinate meetings with representatives from all areas of the local food industry and to evenly divide responsibilities among all cooperative employees.

Supporting individuals and organizations are crucial to facilitating communication with multiple member groups during the initial planning stages as well as on an ongoing basis, and this same support system is crucial to maintain these relationships with key stakeholders throughout the cooperative's lifetime. Therefore, successful agricultural cooperatives should establish a support system that provides multiple forms of support. Types of support the a successful cooperative might need include, but are not limited to,

market research assistance, grant writing assistance, knowledge of local infrastructure, facilitation of communication, and human resource support.

VI. Conclusion

In conclusion, when reviewing the above strategies and components of successful agricultural cooperatives, two broad themes are emphasized. The first theme involves how the needs and strategies of a successful agricultural cooperative change over time. During the initial planning stages, a successful agricultural cooperative works to create a financially viable business model through marketing and incorporating both local and nonlocal products. Once the cooperative has more experience under its belt, it should begin to work on creating a sustainable business model that focuses on the organizational structure of the cooperative by evenly dividing responsibilities and including multiple member groups within the cooperative. Likewise, during the initial planning stages, successful agricultural cooperatives require operational and research support in the form of market research and assistance evaluating local infrastructure in order to implement an assets-based approach to acquiring distribution and processing equipment. Once the cooperative has more experience under its belt, it can begin to require resource and directional support in the form of human resources, grant writing assistance to acquire new distribution and processing equipment, and facilitation of communication necessary for implementing a sustainable business model.

The second theme involves the overall objective of the cooperative over its lifetime. Throughout a successful agricultural cooperative's lifetime, the overarching goals are always to increase sales of local and organic food, maximize sales and profits

for local organic farmers in the area, and promote the individual farms of local organic farmer-members within the cooperative. These goals are accomplished best by marketing products, selling a mix of local and nonlocal products to maintain relationships with buyers and cover overhead costs, researching the needs of institutional food buyers to know whether products should be further processed, and allowing farmers to set their own prices with the help of a price negotiator.

By planning around these two broad organizing themes, a local and organic agricultural cooperative can be successful because it will create a business that improves the livelihoods of its farmer-members and has a support network capable of sustaining the cooperative year after year.

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