



*The Role of  
Collaborative Community  
Supported Agriculture:*

*LESSONS FROM IOWA*





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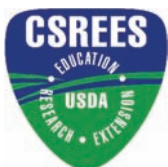
*The Role of Collaborative Community Supported Agriculture: Lessons from Iowa* is available at <http://www.ncrcrd.iastate.edu/projects/csa/index.html>. For more information contact:



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# EXECUTIVE SUMMARY

## *The Role of Collaborative Community Supported Agriculture: Lessons from Iowa*

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**The aim of this research project was to understand the role collaborative Community Supported Agriculture (cCSA) plays in community and economic development in Iowa. We found that cCSA serves as a business incubator for new growers and helps existing growers expand and diversify their operations. We also found that this kind of community agriculture offers workforce development opportunities, and provides a host of other benefits to Iowa's communities.**

In 2005, the North Central Regional Center for Rural Development in cooperation with the Iowa Network for Community Agriculture conducted a study of multi-producer, collaborative CSA (cCSA) in Iowa to understand its contributions to community development. We defined collaborative CSA as CSA in which multiple producers collaborate to provide food or fiber products to members of a CSA for which no single producer (or producer family) has sole responsibility. The primary goal of the study was to determine whether cCSA serves as a business incubator for small-scale, rural enterprise in Iowa. Other goals of the research were to learn about the benefits and outcomes members, producers and communities experience as a result of participating in cCSA. To meet these goals, we contacted current and former cCSA coordinators, producers and members by telephone, e-mail and mail.

Three of Iowa's four cCSAs participated in the study. Each participating cCSA served urban or peri-urban college towns and surrounding areas. We received 26 usable producer surveys, for an

overall producer response rate of 70 percent and 189 usable member surveys, for an overall member response rate of 46 percent. Producer demographics reveal that a majority of cCSA producers in Iowa are female, suggesting that collaborative, alternative agriculture structures appeal to women. The average cCSA producer also sells farm products through a variety of local food markets but cannot sustain household income solely through CSA or farm sales. The average cCSA member is female, urban, middle-aged and lives in an upper income household, suggesting that Iowa cCSA is not yet an effective mechanism for providing food access to lower income families. Yet in other ways, cCSA is making significant contributions to community development.

One community benefit of collaborative CSA is business incubation. Nearly half of producers said participation in collaborative CSA helped them start, expand, or plan new farm-related enterprises. New businesses emerging from their efforts include single proprietor owned vegetable CSAs and enterprises related to

agri-tourism. Participation in cCSA also helps producers expand and diversify farm operations. Another contribution is workforce development; producers report participation in cCSA prepares them for off-farm careers in sustainable agriculture.

Another important impact of cCSA is its effect on producers' decisions to participate in local food system activities. These decisions, in turn, affect community access to local foods. Most producers say participation in cCSA has influenced their business decisions. Participation increases practical farming knowledge; improves producers' marketing skills; allows producers to specialize in specific crops; increases grower confidence and pride; assists producers make critical decisions about starting their own CSAs; is essential for helping new producers enter local food system production; and in rare cases, helps producers make educated decisions about leaving local food system production.

In addition to measuring community impacts of cCSA, we also linked producers' reasons for getting involved with benefits they received as a result of participation to explain why producers might choose to expand, diversify, or even shut down their operation. The framework we used to conceptualize and measure this relationship is based on the community capitals framework, which divides benefits into six different categories: Financial/built capital, human capital, social capital, political capital, natural capital and cultural capital.

cCSA producers experience the greatest benefits in natural, social and cultural capital while participation brings them the least benefits in terms of political and financial gain. Thus, it is not surprising that with nearly two in five producers no longer participating in cCSA, we were able to link turnover to lack of financial

benefits. Additional reasons for leaving included the significant communication and coordination investments required. Noteworthy, however, are results that show women and men producers receive differential benefits when it comes to cCSA participation: Women producers receive more social and cultural benefits than do men. Producers are also more likely to agree their participation brings greater benefits to the community than themselves individually. Ideally, we would like to see local food systems that reward individual producers as much as the collective to ensure these producers have adequate incentives to participate.

In stark contrast to producers, members ranked financial capital to be the greatest benefit. However, in this case, financial capital was measured in terms of economic benefits to the community, not to members themselves. Political capital benefits were ranked last among members, preceded by social capital (fourth) and cultural capital (fifth).

With nearly half of member respondents indicating they are former members, we also examined predictors of member attrition including CSA features, members' demographic characteristics, level of involvement in cCSA, single vs. multi-producer proprietorship, type of community capital benefits experienced and the breadth of capital benefits experienced. When it comes to CSA features, the top reasons why members drop out are related to coordination issues. In addition, shorter tenure with the cCSA was positively associated with attrition. Level of involvement had no predictive power.

When we analyzed the impact of single- versus multi-proprietor ownership on retention, we found that cCSA members who had also been members of single proprietor CSA (sCSA) were more likely to report that sCSA provided



better opportunities to connect with the land and the producer, and knowledge about the way their food is produced. Not surprisingly, we also learned that current cCSA members are more likely than former members to experience financial, social, human and cultural capital benefits. Furthermore, members who reported benefits in a wider array of community capital categories were more likely to stay than those who did not. Another difference between current and former cCSA members is that current members are more likely than former members to supplement their share by raising their own food. However, cCSA and sCSA members are equally active in supplementing their CSA share direct by buying local foods from other direct markets.

Results also suggest a relationship between producer and member turnover: The higher the producer turnover, the higher member turnover. CSA members also appear to value their relationship with producers more than they value their relationship with other CSA members. Finally, findings reveal that Iowa's cCSA producers are adapting to changes in agriculture by implementing innovative, creative business strategies. Innovation among these producers is demonstrated by significant investments in social capital, willingness to use unconventional sources of labor, support for community inclusivity, engagement in creative producer partnerships and high regard for members as co-creators in sustainable food systems.



# ACKNOWLEDGEMENTS

The authors would like to thank the Iowa Network for Community Agriculture for supporting this research and advising this study, as well as the group of central Iowa CSA producers and members who participated in the planning, review, and dissemination phases of this research. In addition, we would also like to thank the collaborative CSA coordinators, producers, and members who not only took the time to answer our questions, but also engaged us in ongoing dialogue about the implications and practical use of these results. We are also grateful for the feedback we received from local food system practitioners and professionals who offered sound strategies on how NCRCRD can implement outreach activities to support healthy rural agricultural communities in Iowa and the region. Finally, we would like to thank Eric Henderson for data entry and statistical support he provided, as well as Mary Emery and Susan Fey for their editorial insights.



# INTRODUCTION

In the past century, systems of agriculture have changed dramatically. As agriculture restructures and becomes more consolidated, farm jobs decline and rural populations shrink. These changes in agriculture have significantly altered rural landscapes and the communities they sustain. No place has seen more change than the agriculturally dependent states in the Great Plains. Despite the ubiquity of industrialized agriculture, concerns increase about the impact of this kind of agriculture on the environment and society.

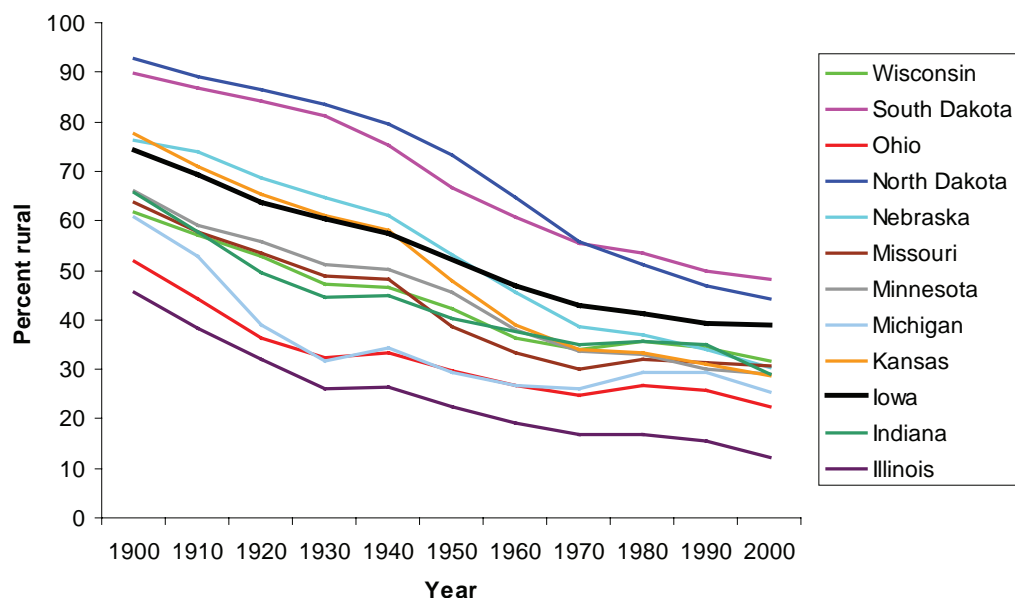
## Background

The rise of industrialized agriculture can be traced to the socio-technical regimes that emphasize gains in economic efficiency. A socio-technical regime is the set of rules grounded

in science determining legitimate scientific knowledge, engineering practices, production process technologies, product characteristics, skills and procedures, and ways of defining problems. Many of the features of current socio-technical regimes in Western agriculture are responsible for negative ecological and social outcomes that result from implementing those systems.

As agricultural enterprises became increasingly integrated into new socio-technical regimes, they became progressively disconnected from ...local ecosystems, local knowledge, local skills and craftsmanship, local specialties, local social relations and cultural repertoires, regional town-countryside relations and the economic relations embedded in them. (Wiscerke and van der Ploeg, 2004:5)

Figure 1. Rural population decline in states of the North Central Region, 1900-2000



Source: US Census Bureau

Across the North Central Region, large-scale, intensified, specialized and industrialized agriculture has changed the distribution of the rural population. Reflecting a trend over the past century, in 1900 74 percent of Iowa's population was rural; in 2000, that figure had dropped to 39 percent (Figure 1).

As systems of agriculture change, farmers are compelled to increase the amount of land in production to sustain a viable income. Evidence of this trend in 2002 shows the average farm size increasing to 350 acres from 334 acres five years earlier in 1997 (NASS, 2005). From 2003 to 2004 the number of farms<sup>1</sup> in Iowa generating the least amount of income (\$1,000- \$9,999) dropped by 400 while farms generating \$500,000 or more increased by 200 (NASS, 2005). The number of Iowa's farming-dependent counties<sup>2</sup>

out of a total 99 declined to a mere 13 in 2004 from 41 in 1989 (ERS, 2005).

What impact do these sweeping changes have on the economic composition of Iowa's rural communities? Figure 2 shows the top four sectors providing the most jobs in Iowa and the North Central region (BEA, 2003). In 2003, only 7.6 percent of jobs in the North Central Region's nonmetropolitan<sup>3</sup> counties were claimed by the farming sector.

Iowa's proportion of the workforce in the farm sector—9.8 percent—is greater than the regional average. Yet farm jobs trail employment in retail trade, government and manufacturing. These figures suggest that farming is no longer the foundation on which Iowa's rural economy relies.

**Figure 2. Percent of jobs in select sectors in nonmetropolitan counties of Iowa compared to the North Central Region (IA, KS, MN, ND, NE, SD, MI, WI, MO, OH, IL, IN), 2003**



Source: Bureau of Economic Analysis, Economic Research Service

<sup>1</sup> Defined by the USDA Census of Agriculture as any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold.

<sup>2</sup> Note that the definition of farming-dependent counties changed from 1989 to 2004. The 1989 figures are based on counties where farming contributing a weighted annual average of 20% or more of labor and proprietor income over the three years from 1987 to 1989. The 2004 figures are based on counties where farming contributed 1) 15 percent or more of average annual labor and proprietors' earnings during 1998-2000 or 2) 15 percent or more of employed residents in farm occupations in 2000.

<sup>3</sup> The Economic Research Service relies on the Office of Management and Budget definition of nonmetropolitan counties based on their degree of urbanization and proximity to urban areas.

Or is it? Despite the rise of industrialized agriculture, some Iowans have managed to carve out agricultural systems that remain central to their sense of collective identity, community and economy. Although relatively few and far between and certainly on a small but *not* insignificant scale, these Iowans are finding ways to adapt to global changes in agriculture by promoting alternative food institutions (AFI), one of which is CSA. Indications of these adaptations appear in agricultural statistics for the state. The 2002 Census of Agriculture shows that the number of farms in Iowa 10 to 49 acres in size actually grew from 13,329 in 1997 to 16,278, in marked contrast to an otherwise consistent pattern of decline in medium-sized farms (those with 50 to 999 acres) and growth of the largest farms (1000 acres and larger). Incidentally, the average CSA farmer in the upper Midwest owns about 30 acres (not all of which is dedicated to CSA production, which averages 6.7 acres) (Tegtmeier and Duffy, 2005).

CSA, like other forms of AFI, is part of a growing movement to change the face of agriculture from a focus on commodities to a focus on communities. Otherwise known as civic agriculture (Lyson, 2004), this “new” agriculture is one that strives to improve society, the environment and the economy. However, unlike some forms of AFI that remain “fundamentally rooted in commodity relations” (Hinrichs, 2000:295), CSA was adopted specifically to decommodify relationships as part of growing interest to reinvigorate local economies and reconnect consumers with producers, the land, their communities and the food they eat.

CSA re-embeds agriculture in the local (Cone and Myhre, 2000). Usually organic but not necessarily certified, it is a model that strives to establish economically viable, ecologically sound and socially just relationships in the process of

food production. In CSA, members pay for a “share” prior to the start of the growing season, a term that implicitly embodies notions of cooperation and investment. Individual benefits of membership include receiving a box of fresh, usually organic, produce regularly throughout the season; increased health benefits; improved knowledge about food production; and stronger community relationships. Collective benefits—benefits enjoyed by members and non-members alike—include local job retention; improved environmental health; a more diversified and locally controlled economy; increased use of the skills, knowledge and ability of local people in strengthening the economy; strengthened community relationships and communication; and improved community initiative, responsibility and adaptability. The result is a system of agriculture that:

- Supports local and regional food production and consumption.
- Promotes land stewardship.
- Builds relationships.
- Educates consumers about food systems and the foods they eat.
- Shares risk between consumers and growers.
- Adds value to grower knowledge, labor and products.

By becoming shareholders, consumers change the relationships they have with farmers, the land and their communities. CSA also changes the characteristics of agricultural products, the production and consumption of which requires support from new relationships, new technologies, new value chains and new policies. CSA is an expression of relationship marketing that catalyzes systemic change initiated by innovative actors through piecemeal change at the local level. Not always, but certainly most of the time, produce and meat sold through CSA is raised through sustainable agriculture practices

(characterized by low or no chemical inputs such as pesticides, herbicides and chemical fertilizer; low or no till practices; biologically diverse crop and animal representation; etc.). However, CSA promotes principles that are not only earth-centric, but also people-centric because of the geographical boundaries in which it operates. “Local food, as opposed to organic, implies a new economy as well as a new agriculture—new social and economic relationships as well as new ecological ones” (Pollan, 2006).

There are many different kinds of CSA arrangements and therefore many different types of expected impacts a CSA can have on a community and its members. While most for-profit CSAs are owned and operated by a single proprietor or farm family, a few are comprised of a well-defined coalition of small, collaborating producers. In 2003, the Iowa State University Extension Service listed nearly 50 CSAs in the state of Iowa (<http://www.extension.iastate.edu/Publications/PM1693.pdf>). Of these, a total of four (8%) are formally organized as collaborative, multi-producer CSAs. Producers in these CSAs cooperate and coordinate to carry out the mission and function of these organizations. In this study we look at their contributions to local food systems and rural development in general.

## *Research Objectives*

The North Central Regional Center for Rural Development conducted the study of collaborative CSA in Iowa with support from the Leopold Center for Sustainable Agriculture and the Cooperative State Research, Education and Extension Service (CSREES) in cooperation with the Iowa Network for Community Agriculture and a group of central Iowa collaborative CSA (cCSA) producers and members.

The objectives of this study were fivefold:

1. To define the role of collaborative CSA in Iowa as a business incubator for single family/individually owned CSA;
2. To define other roles collaborative CSA plays in informing the business decisions and actions of local agricultural entrepreneurs.
3. To identify the characteristics of collaborative and single family owned CSA models that appeal to their respective members and determine how those characteristics meet or do not meet member needs;
4. To determine participation of current and former CSA members in local food systems such as farmers’ markets; and
5. To determine whether high membership turnover in collaborative CSA is creating high demand for/participation in more single family owned CSA.

To meet these objectives, we gathered primary data to measure outcomes in terms of six types of community capitals illustrated in Figure 3 (Flora, Flora and Fey, 2004). This framework builds on Savory’s idea of holistic management (1999), a thesis that contends good management decisions must take into account the whole system in which events take place and is done through optimizing multiple goals. Within the system are the economy, society and the environment. We measured these system “parts” in terms of the outcomes that emerged from participation in cCSA. The economy is represented by financial/built capital; environment is represented by natural capital; and society is measured by cultural, human, social and political capital. Outcomes were evaluated by systematically analyzing producer and member responses to benefits they say they derived from participating in cCSA.



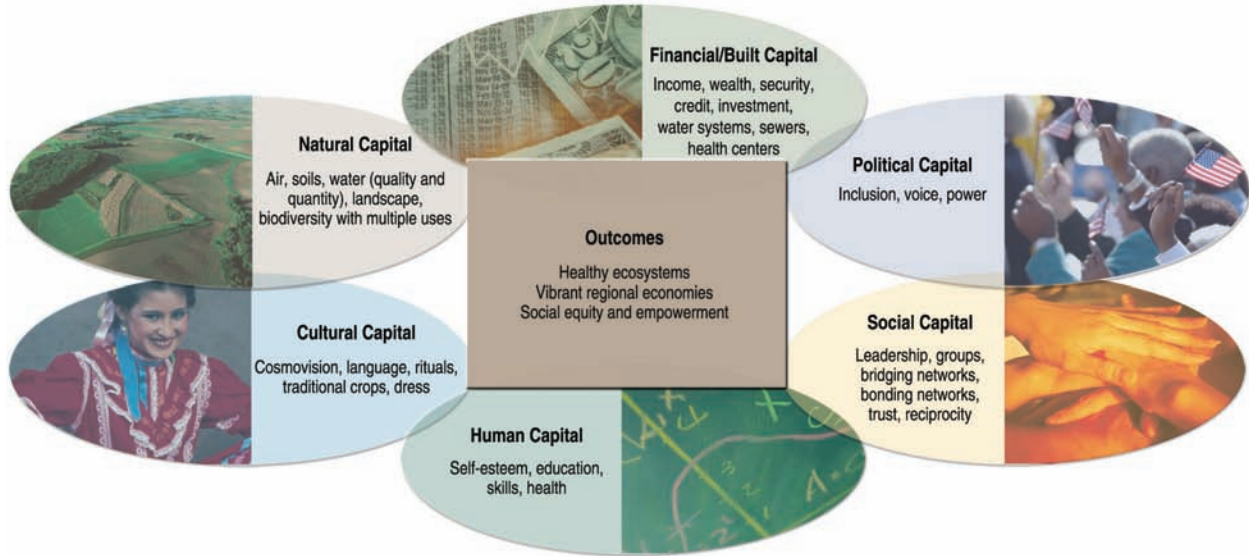


Figure 3. Community Capitals Framework

# STUDY DESIGN AND METHODS

To meet the above research objectives, we employed a mixed methods approach. To meet Objectives 1, 2 and 5, we developed a survey instrument for producers to complete online or by hard copy, and a telephone survey for producers who were also coordinators. To achieve objectives 3, 4 and 5, we developed a survey instrument for cCSA members to complete online or by mail.

With the help of an advisory committee we formed in cooperation with the Iowa Network for Community Agriculture and a group of central Iowa CSA producers and members, we identified four formal cCSAs in Iowa. Coordinators for three of the four agreed to cooperate and participate in the study.

## Study Participants

We initially planned to survey all collaborative CSA coordinators in Iowa, all former and current producers, and a sample of 10 current and 10 former members from each CSA. We adhered to our original plan of surveying all of the coordinators and producers, but adjusted our methods regarding members given we were not certain all of the CSAs would choose to participate. We were also not certain that each CSA would have at least 10 former members and that all former members would respond.

To illustrate this point, we anticipated a 50 percent response rate, which meant we should oversample each group by 10. Thus, in order to receive 10 responses from former CSA members, we would need to invite 20 to participate. For the

## *Various Roles People Play in Collaborative CSA*

**Coordinators**—Coordinators are involved in a range of responsibilities, the most common of which include the day-to-day operation and management of the CSA. Coordinators communicate with both producers and members to ensure products arrive at their destination, are distributed to the right people, and producers are appropriately compensated. Coordinators are often producers themselves or may be a volunteer, and may receive some kind of compensation for their service. Coordinators may also be involved in major decision-making about the cCSA.

**Producers**—Producers grow and harvest products for distribution to cCSA members and are responsible for delivery (to one or more delivery sites). Producers coordinate with each other to decide which crop types and quantities they will grow. In the cCSAs in this study, there were “primary” producers who made most or all of the decisions

and “secondary” producers who either grew by invitation on contract (always informally) or provided additional products such as meat, honey, and fiber products. Producers use various media to communicate with members about their products, production methods, and food preparation.

**Members**—At a minimum, members are responsible for expressing their commitment to the CSA prior to the start of the growing season, making advance payment, and regularly picking up farm products at a prearranged location. Some members also donate their time to the CSA while others receive a reduced share price in exchange for their time. Members are responsible for contacting producers or coordinators when they have questions about the products they receive. Decision-making input is usually limited to feedback about their experience as a member. In some cases, members recruit others and/or work to obtain funding to sustain cCSA operations.

smallest and newest CSAs, we knew this might be a stretch. This was indeed the case for one CSA, which had only 12 former members. As a result, we decided to include the entire population of Iowa cCSA members to ensure we had a sample size large enough to make statistically important conclusions.

### **Coordinators**

By April, 2005, we had developed a list of questions to ask the coordinators—essentially the gatekeepers with access to members—for each cCSA. We developed these questions to gather basic background information about the history, structure and nature of each CSA.

Coordinators were asked to participate because of the key role they play in the day-to-day organization and decision-making involved in managing these CSAs. Part of the list of questions included those appearing in the producer survey, since we suspected that all of the coordinators were themselves producers.

Our first contact with coordinators included mailing them a packet that included a letter of introduction and copies of the three surveys (one each for coordinators, producers and members). Two of the three coordinators who agreed to cooperate with us were producers, so they completed the producer survey and mailed it back in. (The third was not a coordinator

but rather a well-connected, actively involved founding member.) Once we had mailed the packet, we called coordinators to conduct a telephone interview to gather information about the general operation and structure of the CSA.

In addition to interviewing coordinators, we also asked them to cooperate by distributing the member survey. The way in which they chose to do this varied according to the time and resources they had to commit to the project and what they thought would be most effective in maximizing participation of producers and members. The coordinator for one CSA chose to provide us with lists containing member and producer contact information so we could directly handle survey distribution ourselves. For another CSA, a founding member coordinated the survey distribution, hand-delivering them to producers and current members when they came to the distribution site to pick up their produce. Former members of this CSA received their survey in the mail. For the third CSA, the coordinator also directly handled contacts with producers and members. To contact members, the coordinator sent out several e-mails, made phone calls and posted information about the study in the weekly newsletter. Producers of this CSA received hand-delivered hard copies of the survey.

### **Producers**

By Spring, 2005, we had developed and finalized a survey for the cCSA producers. All current and former producers of the three cCSAs were invited to participate in the study. Producers of one cCSA were invited to complete the survey either online or by mail. Producers of the other two cCSAs received hard copies of the survey distributed by the cooperating coordinator. Participating producers included those who provided produce for the regular vegetable

share, as well as partnering producers who sold supplemental food and fiber products to cCSA members not necessarily part of a share.

Producers of the cCSA where we had access to contact information who did not respond to our first invitation were contacted up to two more times for a total of three contacts. For the other two cCSAs, coordinators assured us they had informally discussed participation at least twice with producers. Rates of participation were highest in the cCSA where we had direct access to producers' contact information (80% versus 66 and 44%). We received 26 usable producer surveys, for an overall response rate of 70 percent.

### **Members**

Like the producer survey, distribution was handled differently for each cCSA depending on the discretion of the cooperating coordinator. We contacted former and current members of one cCSA by mailing them a hard copy of the survey, while simultaneously e-mailing them notice of the online link to the survey. We also asked the coordinator to publish an article about the study in the weekly newsletter. Two weeks later, we sent out a combination thank-you note and reminder to all members. Two weeks later, we sent an e-mail reminder only to non-respondents.

Former members of another cCSA received hard copies of the survey in the mail, while current members received the survey at the pickup site. Members of the remaining cCSA were contacted multiple times via e-mail for notification of the online survey link; this proved to be the least effective in terms of the member response rate for that cCSA.

We received 189 usable member surveys, for an overall response rate of 46 percent (58, 54

and 20% respectively). The 20 percent response rate is troubling. However, we decided not to weight the data to compensate for this for two reasons: 1) Our interest was not focused on individual cCSAs but the collective population of producers and members participating in cCSA in Iowa and 2) our objective was not to conduct a comparative analysis of similarities and differences between each cCSA but rather to shed light on the performance, characteristics and contributions of cCSA in Iowa as a whole.

In light of this approach, we advise the reader to interpret the results with caution, given that members' experiences may be mediated by the way in which each different cCSA is managed. Members of one cCSA may report wholly different experiences compared to members of another cCSA, regardless of its multi- or single-producer ownership. Some experiences, however, will be common to the collaborative cCSA experience.

# DATA AND DISCUSSION

This section is divided into three general subsections: In the first (What is Collaborative CSA?), we define collaborative CSA and describe the cCSAs participating in this study. In the second (Respondents), we present a demographic profile of the respondents—both producers and members. In the third subsection (Results), we present and discuss results in relation to the five objectives of the study.

## *What is Collaborative CSA?*

Almost all CSA is collaborative to some degree, since CSA producers generally cooperate with other area producers at least informally to obtain products to compensate for crop losses, offer other locally grown specialty products, or to do a favor for fellow local producers by providing them with an instant, if not occasional, market. For the purpose of this study, we focused on CSA in which multiple producers collaborate to provide food or fiber products to members of a CSA for which no single producer (or family) has sole responsibility—while at the same time recognizing that a complex continuum of collaboration exists within the CSA model. In other words, we focused on CSA in which decision-making is horizontal rather than vertical, a process that is shared between at least two producers. We found that although each cCSA participating in this study approaches decision-making differently, they all enable producers to share risk, share information, offer a wider variety of local products, and serve a larger and more varied market.

Other notable features they have in common include: 1) a membership base comprised

primarily of urban and peri-urban residents and 2) the provision of a basic vegetable share with the option to buy other locally grown products either as a share or through connections with other growers.

## **EcoFarms CSA**

EcoFarms CSA (a pseudonym) is a five-year cCSA led by three growers and nearly 30 member households. Members pick up their share at one of the participating farms and can supplement their vegetable share with orders from a local livestock farmer. Decision-making is an informal process through which producers use end-of-the-season surveys from members to verbally agree what to grow, who will grow it and what the share price will be. Over the past five years, membership in the CSA has grown except in the last growing season, when membership dropped by 23 percent. EcoFarms CSA draws its membership from a town of nearly 10,000 people, which is served by a socially progressive private liberal arts college. The CSA was initiated when interested local food system advocates matched an enthusiasm for local foods and commitment to community and environment with a startup grant from the College's Office of Social Commitment. Empowered by enthusiasm and financial resources, they organized, planned, and recruited producers and members to join the newly formed CSA.

Other entities playing supportive roles in Eco Farms CSA include a local faith-based organization which sponsored the initial pickup site, statewide non-profit producer and consumer-driven organizations which provided

farm networking opportunities and inspiration, and interns from a special program at the College. In addition, the CSA has been able to join with others to promote and expand local food system development. Local partners include a non-profit quality of life foundation, community meals program, social service agencies, County Extension Service, new partners at the College and farmers' markets. Ties with state-wide organizations include the Leopold Center for Sustainable Agriculture, Iowa Network for Community Agriculture and Practical Farmers of Iowa. Local partners with national connections include the Natural Resource Conservation Service, and the Resource Conservation and Development Program.

### **Crooked Carrot CSA**

Crooked Carrot CSA is the culmination of a connection made between producers attending a Practical Farmers of Iowa Conference 10 years ago. In operation for a decade, this CSA offers members access to vegetables, eggs, flour and bread. Like EcoFarms CSA, members can also order meat products. Three producers serve as the "core" producers and make all of the major decisions, while approximately seven other partner producers provide products but play no role in the day-to-day decision making of the CSA.

"[We] make arrangements with people dependent upon what our needs are and what their needs are." Sometimes, those arrangements mean the contract producer grows the product and the core producer(s) pick the crop. With other contract growers, the core producers share labor while planting and harvesting each others' crops.

Regarding members' ability to make decisions about this CSA, producers no longer rely on end-of-the-season surveys to gather input, since members tend to forget specific feedback by

the time the season is over; instead, the producers choose to maintain constant verbal contact with their members throughout the season and adapt weekly to those comments. Producers for this CSA also tailor the content of their shares according to different eating habits of three general groups.

This flexible, hybrid structure serves approximately 130 households in roughly three different geographical areas. Households in one location pick up their share on the farm of a participating producer. Households in a second area pick up their share at a farmers' market. Households located in a third area send individuals or have organized groups pick up shares on the farm. Additionally, the producer closest to this location drops off shares at a few designated off-site deliveries. A key community partner for this CSA includes a local non-profit organization that provides volunteers who work on the farms. This non-profit also buys CSA shares for low-income families involved in their programs. An area college provides interns who work on the farm.

### **Flat Hills CSA**

Flat Hills CSA started 10 years ago in another college town as a form of "intentional community." The purpose of intentional community is to share common goals and work together to achieve those goals. For charter members of the Flat Hills group, the goal was to share land and housing to strengthen and build community. The CSA emerged as a piece of this idea and succeeded when a group of members was able to secure philanthropic funding for the project. While the CSA concept thrived and grew with involvement from the University community and Cooperative Extension, the idea of intentional community withered. In the meantime, new partners contributed ideas and resources, including Practical Farmers of Iowa.

Flat Hills was initially a multi-producer CSA comprised of one vegetable grower, a beef producer, egg producer, fiber artist, baker and honey producer. Growth in subsequent years brought on more vegetable producers as “it seemed to make sense to spread out the vegetable growing to more than one farm [...]; vegetable growing for a hundred families is a lot more work than you think.”

The initial delivery site was located on a farm but later shifted to pickup sites at various church locations in town as producers with farms closer to town left the CSA. Membership the first year was set at 20 shares, then climbed to roughly 120 shares by the third year when more vegetable producers were recruited. Excluding the startup years, by 2004 membership had dropped to 55 shares. These shares provided income for six cooperating vegetable producers. Supplemental shares and/or products were sold by six other producers. In 2005, decision making was a responsibility of a core group, made up largely of producers and organizers who meet several times in the winter. At these meetings, growers negotiate who will grow what products and collectively set target amounts to meet during the coming season based on feedback from member surveys completed at the end of the previous season.

## *Respondents*

In this section, we provide a profile of producers and members. The demographic information we collected does not include educational level of either group, given that previous research has established CSA producers and members are generally highly educated. From producers, we collected information about current and former cCSA participation, tenure of participation, gender, age, farming experience, length of area residency, household size, marketing strategies,

and percent of household income provided by overall farm and CSA income. From members, we collected information about current and former membership in collaborative CSA, gender, age, household size and composition, income range, place of residency and length of residence.

### **Producer Profile**

Who participates as producers in formally organized collaborative CSA? What demographic characteristics do they share? Are they predominantly male or female, young or older, long-time residents or new ones? If we can answer these questions, we can discover who is most likely to participate and what features they find appealing.

For the purpose of this study, a producer was defined as anyone who provided products to the CSA, even value-added products. Thus, participation was not limited to only those who were cultivating crops or raising livestock. Of the 26 who responded, 11.5 percent were not actually farming but rather were entrepreneurs adding value to locally grown products (e.g., bakers).

The average producer for collaborative CSA is female, 45 years old, a 17-year resident of the area, lives in a household with 2.9 people and has 14 years of production experience. The average producer also sells farm products through several local foods markets, but cannot sustain household income solely through their CSA or farm sales.

### ***Tenure and Participation in Collaborative CSA***

Nearly two in three (61.5%) of the responding producers are currently participating in collaborative CSA. The average length of time producers cooperated with other producers

to provide products to members of the cCSA was 4 years. Producers furnished vegetables and fruit, flowers, dairy products, bread, cakes, grains, poultry, fish, pork, lamb and eggs. Only eight percent of responding producers had ever provided food or fiber products for more than one cCSA.

### *Gender, Age and Farming Experience*

Nearly two in three (61.5%) responding producers were female. If we remove the non-farmer value-added entrepreneurs from the sample, 65 percent are female. According to the 2002 USDA Census of Agriculture, 36 percent of primary farmers (those whose primary occupation classification is “farmer”) are female, whereas only 11 percent are principal operators (the person responsible for the on-site, day-to-day farm operations).

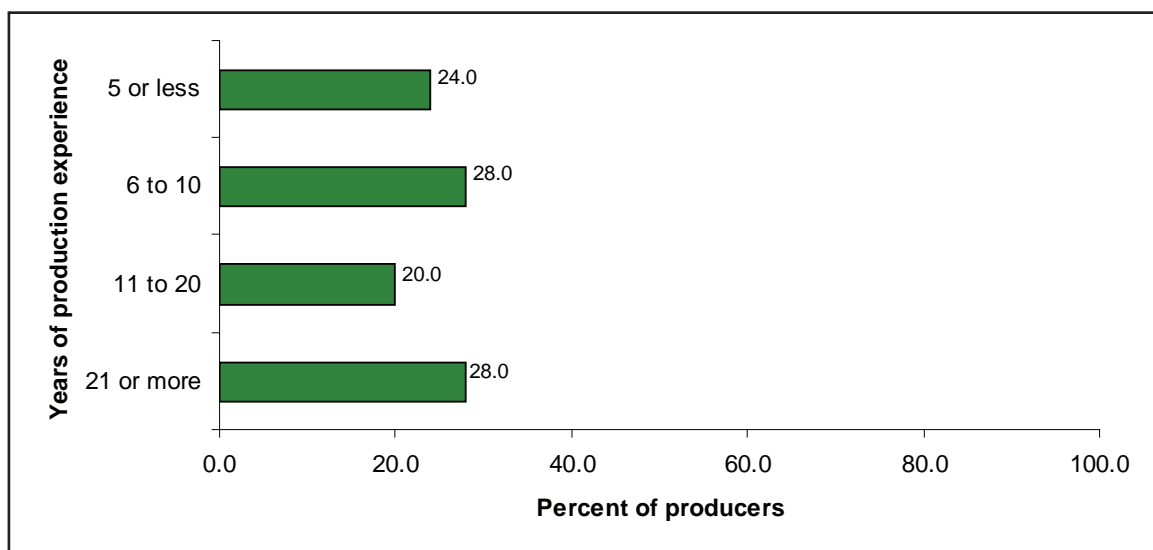
In a recent study of CSA in the Upper Midwest (Tegtmeier and Duffy, 2005), 53 percent of CSA operators were female. In a 1999 study of CSA farm operators conducted by the Center for Integrated Agricultural Systems (CIAS), 39 percent of primary farm operators were

female (2004). DeLind and Ferguson (1999) suggest CSA is a women’s movement based on participation of women members; we would like to build on this thesis by suggesting collaborative CSA in particular is another incarnation of a women’s movement, based on the gender composition of participating producers.

The average age of cCSA producers is younger (44.8) than conventional farmers nationally according to the 2002 USDA Census of Agriculture, which reports an average age of 55.3 years. In comparison, the average age of CSA farmers is 45.4 in the upper Midwest (Tegtmeier and Duffy, 2005) and 43.7 in the nation (CIAS, 2004). Nearly one-third (32.0%) of the Iowa cCSA producers are young—that is, under 40—based on the definition of young farmers according to the European Union’s Common Agricultural Policy. The same proportion is 50-59 whereas one in four (28%) is 40-49 years old. Eight percent are 60 or older.

The average number of years that cCSA producers were engaged in production activities (i.e., growing fruits and vegetables, raising livestock, baking, producing fiber products) was 13.7

**Figure 4. Years of production experience of Iowa cCSA producers**





**Table 1. Summary comparison of demographic characteristics of producers/farmers**

Demographic Characteristics of Producers/Farmers	Collaborative CSA Study	Upper Midwest CSA Study <sup>1</sup>	2002 USDA Census of Agriculture
Female	62%	53%	36%*/11%**
Average age	44.8	45.4	55.3
Average years farming or production experience	13.7	13.7	12.9

<sup>1</sup> Tegtmeier and Duffy, 2005.

\* Primary farmers whose primary occupation classification is "farmer."

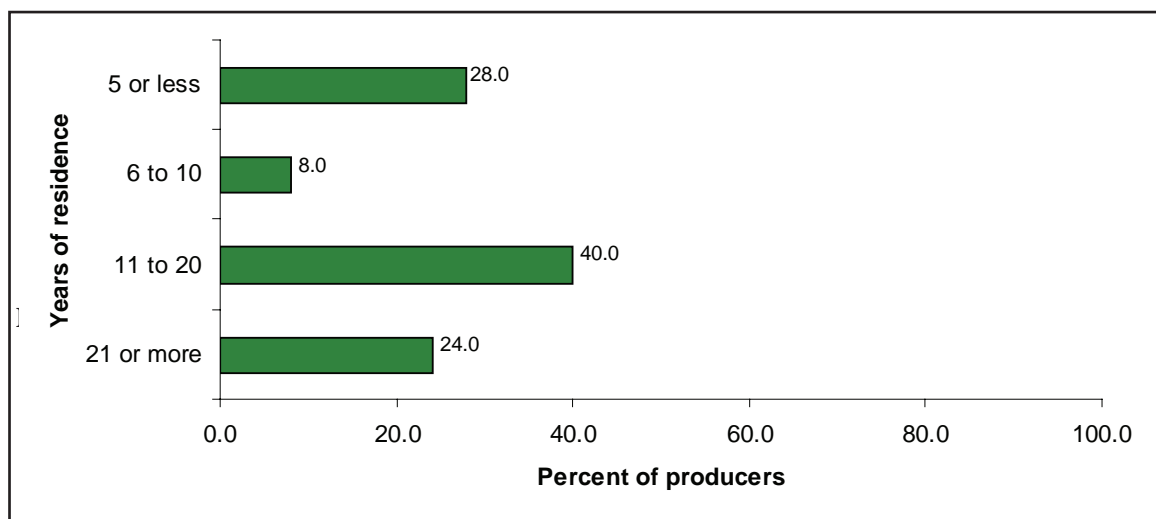
\*\* Principal operators who are responsible for the on-site, day-to-day farm operations.

compared to 13.7 years for the Midwest CSA operators and 12.9 years for farmers nationwide. Nearly one in four cCSA producers were involved in production activities for five years or less, while slightly more were involved for more than 20 years (Figure 4). This distribution suggests that to some extent, cCSA is providing a forum in which new producers can interact and grow alongside more experienced producers.

Table 1 summarizes the demographic characteristics of cCSA producers and compares them to CSA producers in the Upper Midwest and conventional producers across the nation.

### *Length of Residency and Household Size*

Bregendahl and Flora (2003) and Starr, Card, Benepe, Auld, Lamm, Smith and Wilken (2003) found that local food system networks operate on word-of-mouth marketing. Thus one would expect that newly arrived farmers would find cCSAs a useful mechanism of market entry. While the average length of area residency for cCSA producers is 17 years, Figure 5 shows that most cCSA producers are either brand new to the area or are long-time residents. cCSA in Iowa is therefore expected to provide an opportunity for interaction between newcomer producers and

**Figure 5. Length of area residence of Iowa CSA collaborative producers**

more experienced producers, implying positive benefits for producers who are new to the area in terms of networking opportunities.

Nearly half (48%) of cCSA producers report they have no children 18 years or younger living at home. Thus, they may not be able to marshal a significant source of labor from within the household or provide household minors with hands-on entrepreneurial learning experiences. The average size of cCSA producer households is 2.9 people—compared to 2.46 for Iowa and 2.57 for rural Iowa, which takes into account the nation's fourth-ranked elderly population (US Census Bureau, 2000).

### ***Producer Marketing Strategies and Diversified Household Income***

Collaborative CSA producers take a diversified approach to marketing their products. All but one producer indicated they sell products through other direct local food markets besides

cCSA (Figure 6). The most popular venues are institutional, restaurant and grocery store sales, followed by farmers' markets. Other sales not listed in Figure 6 include single proprietor CSAs, farm stands, mail order and custom-filled orders.

Despite taking a diversified approach to marketing local products, two-thirds of producers reported product sales do not always cover living expenses. This group reported that 25 percent or less of their family's needs are met by their overall food and fiber product income, in contrast to nearly 13 percent who reported they were able to meet 100 percent of the family's needs through their overall food and fiber product income (Figure 7). Overall food and fiber income provided an average of 27 percent of household income for producer households, compared to 50 percent in the Tegtmeier and Duffy study. Furthermore, an average of only 13 percent of household income needs was met by cCSA income, compared to 28 percent in the Tegtmeier and Duffy study (2005). The vast

**Figure 6. Additional local food markets for cCSA producers**

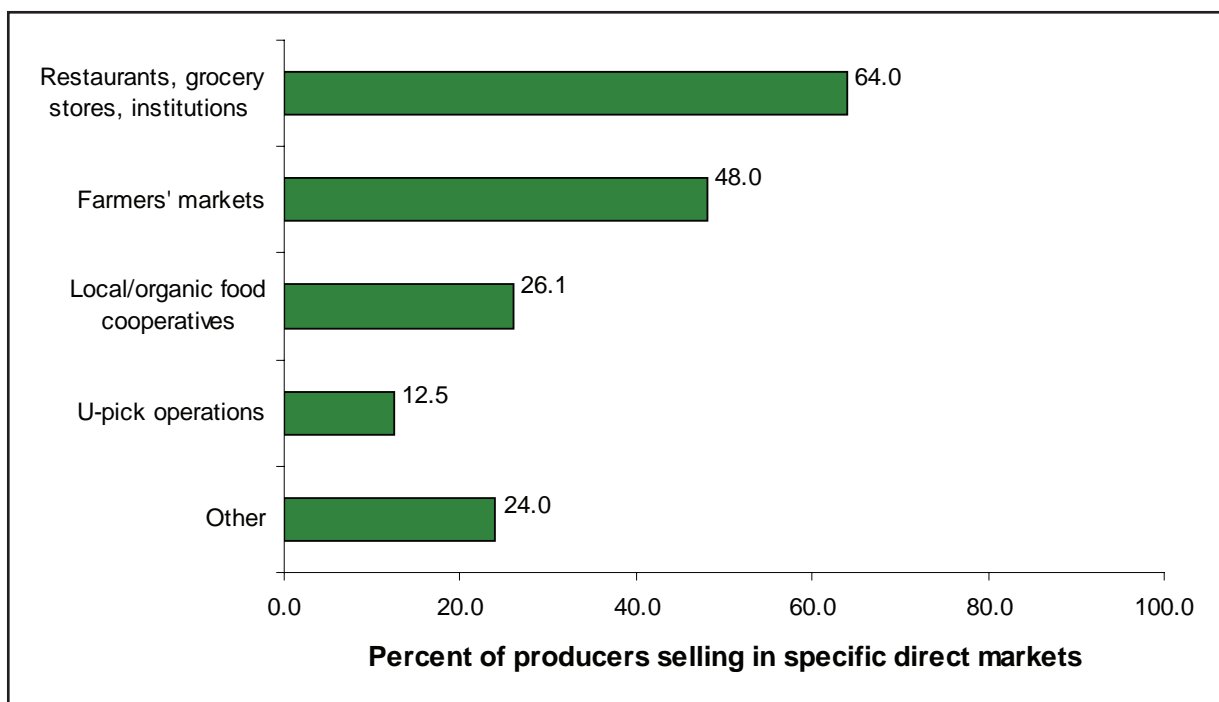
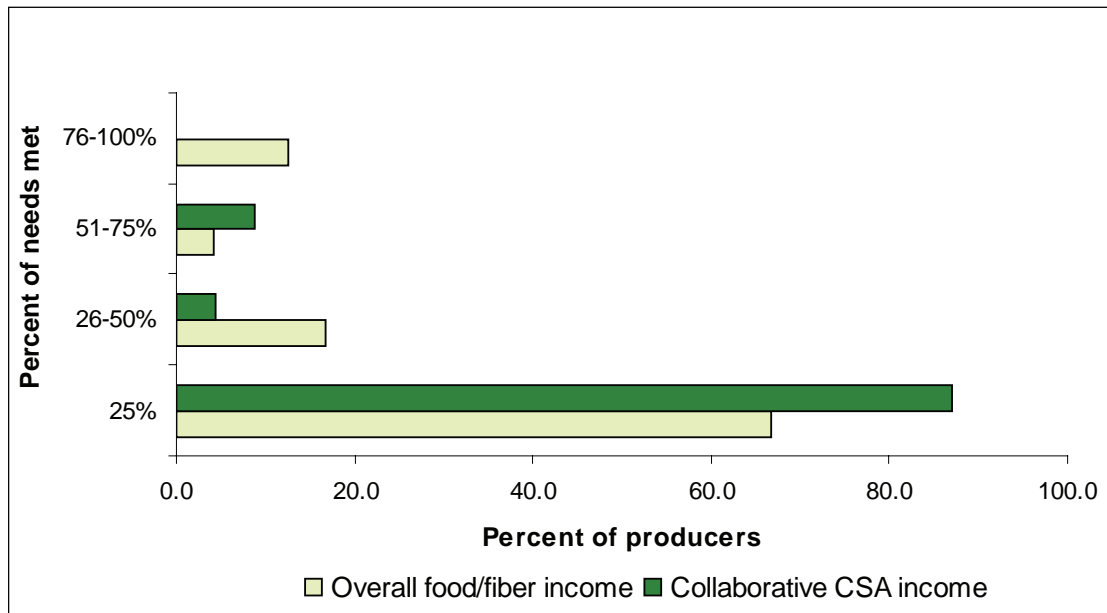


Figure 7. Percent of household needs met by overall food and fiber income and cCSA income



majority of cCSA producers (87%) reported that income generated through participation in cCSA meets only one-fourth (or less) of their household needs. This suggests that cCSAs are part of a pluriactive rural livelihood strategy.

It is therefore not surprising that cCSA producers seek off-farm sources of household income. Among cCSA producer households that farm, 59 percent of producers work off the farm. Also among cCSA producer households that farm and for whom it is applicable, 75 percent of spouses/partners work off the farm.

### Member Profile

Who are members of cCSA in Iowa and how do they compare to the general population of Iowa? To answer this question, we analyzed the responses we received from 189 member households where the primary adult CSA member was instructed to complete the survey. This section describes their demographic characteristics and whenever possible, compares those characteristics to those of the general population.

### Current and Past CSA Membership

More than half (55%) of the study respondents are currently members of cCSA and 45 percent are former members. In addition, a combined 17 percent of respondents either are (10 percent) or have been (7%) members of single proprietor owned CSA.

### Gender, Age and Income

Primary adults are disproportionately female—82 percent compared to 52 percent of adult (18 and older) females in Iowa (U.S. Census Bureau, 2000). In a study of members of four CSAs in Minnesota (Cone and Myhre, 2000), 78 percent of respondents were female. The authors of the study conclude that the bulk of responsibility for CSA membership (along with food procurement and preparation) is assumed by women. Although we did not gather the depth of gender information Cone and Myhre did, Iowa's collaborative CSA membership appears to corroborate this claim.

The age of cCSA members ranged from 21 to 78, showing how inclusive participation is in terms of attracting people from different age groups. The average age is 44.7.

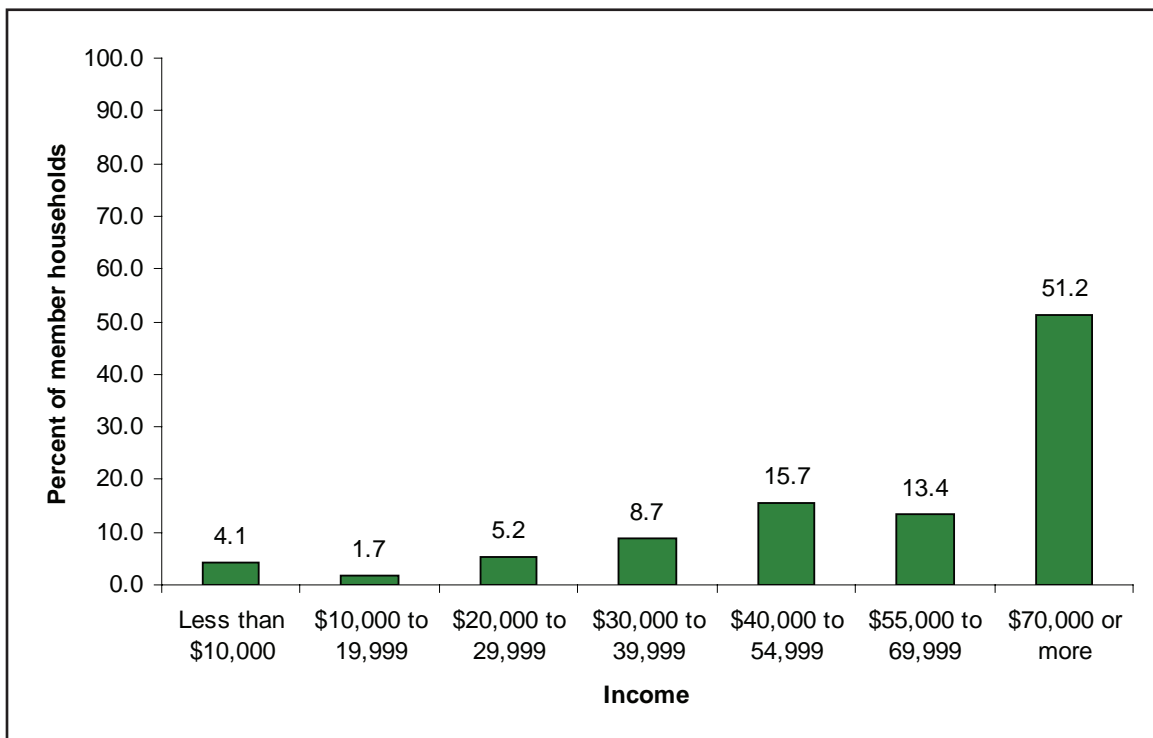
Members of cCSA are clearly in the upper income brackets. We asked respondents to estimate total household income from all sources in 2004 (Figure 8). More than half reported a household income of \$70,000 or more, compared with 24 percent in the Cone and Myhre study (2000) and 16 percent in the state of Iowa who reported an income above \$75,000 (US Census Bureau, 2000). Roughly one in ten cCSA member households earned less than \$30,000. This suggests at this point that cCSA is not an effective mechanism to provide food access to lower income families, corroborating concerns Hinrichs and Kremer voiced in 2002.

### Residency

To estimate the proportion of respondents who live in rural versus urban settings, we asked members where they lived and whether or not they lived on acreages, a term that usually refers to a sizeable plot of land with a rural address. We asked this question because there is a common perception that producers serving rural members face greater challenges in reaching people who have limited incomes but greater access to land (and therefore their own farming opportunities). We know that collaborative CSA in Iowa, for the most part, is serving upper income families but where do those families live?

We found that 12 percent live on acreages, which corresponds to the proportion of respondents who reported they lived anywhere outside the area's largest city. Thus, we can reliably conclude that overall, cCSA producers are serving urban residents.

Figure 8. Members household income, 2004



What else do we know about cCSA members? Are they newcomers to the area or long-term residents? Actually, a bit of both. Almost half (46%) have lived in the area for 10 years or less. Two in five are newcomers, having lived in the area less than five years. One in four is a long-time resident, having living in the area for more than 20 years. The average number of years members have resided in the area is 14.7 years, ranging from 1 to 50 (the median was 12 years).

### ***Children and Household Size***

Household size has implications for determining the appropriate share size but also the number of people receiving direct health and educational benefits of CSA. Of those we surveyed, the average household size was nearly three people (2.8), ranging from one to seven. Half (51%) of households reported they have no children 18 or younger compared to 37 percent of households participating in the Cone and Myhre study (2000). In 1997, Kolodinsky and Pelch found that CSA membership was negatively related to the presence of children. For households with children, the average number of children was nearly two (1.9).

In summary, the average cCSA adult member in Iowa is an urban female, in her mid 40s, an area resident for 15 years and living in an upper income household comprised of three people.

## ***Results***

Research to date on CSA so far has focused largely on either member or producer motivations for joining CSA. Tegtmeier and Duffy (2005) and Wells, Gradwell and Yoder (1999) focus on producer motives for joining; Fieldhouse (1996), DeLind and Ferguson (1999), Hinrichs and Kremer (2002), and Cone and Myhre (2000) focus on member motivations for

joining. What we aimed to do with this study was not only to research both producers and members of the same CSA, but also depart from the traditional emphasis on motivations and learn what benefits and outcomes members and producers (and ultimately, communities) experience by taking part in CSA. Results are discussed according to the five objectives we established at the outset.

### ***OBJECTIVE 1: Define the role of collaborative CSA in Iowa as a business incubator for single family/individually owned CSA.***

Some researchers (Lyson et al., 1995; Hinrichs et al., 2004) have suggested the need for studying farmers' markets to understand the role they play in incubating small agricultural and rural businesses. We extended this idea to CSA by asking producers about their participation in single proprietor owned CSA and the role their participation in collaborative CSA played in their decision to start their own CSA. More broadly, we also asked whether their participation in collaborative CSA helped them start any new or different farm-related enterprises to determine the contributions cCSA is making to community and rural job growth in Iowa.

#### **Collaborative CSA as a Business Incubator for Farm-related Enterprises**

Collaborative CSA provides specific business incubation benefits for nearly half of participating producers. Twelve producers (46%) said participation in collaborative CSA has helped them start, expand, or plan farm-related enterprises. Of these, nine producers (35%) reported participation in collaborative CSA helped them start new businesses or expand their business, namely by:

- Starting single proprietor owned vegetable CSAs.
- Expanding farm operations to serve other new direct markets such as restaurants, farmers' markets and direct consumer retail sales.
- Diversifying operations to provide new products to CSA members (such as eggs, bread, meat and cheese).
- Providing farmhouse dinners.

Three producers (12%) said participation in collaborative CSA has inspired them to plan for new ventures including:

- A fruit CSA.
- Buying clubs in new service areas.
- Agri-tourism options such as farm visits, a Bed & Breakfast and educational events.

These producers either are in the process or have already diversified or expanded their existing operations; are serving new direct local food markets; or are serving new locations. In addition to cCSA participation, these activities have enabled producers to learn which type of markets best meet their business goals and standards and help them identify the market structures that fit their production style and preferences.

### **Collaborative CSA as a Business Incubator for Single Proprietor-owned CSA**

Nineteen percent of producers reported they have operated their own CSA outside their participation in collaborative CSA. We asked these producers what they learned from their experience as a producer in collaborative CSA that helped them start their own CSA. All of the producers responding to this question recognized the time commitment required to participate in cCSA and the importance of good communication among producers.

One producer said that because of the time required to coordinate with other producers in collaborative CSA, she chose to start her own CSA to avoid that commitment. Another producer suggested that in terms of flexibility, collaborative CSA was structurally more rigid than single proprietor CSA and less apt to serve variable household eating habits.

*“People actually prefer to support a single grower as then the CSA can cater to their particular family situation or likes. During this initial year, each patron [of my CSA] got only those vegetables they indicated their family liked. From time to time I asked them to notify me via e-mail if they [wanted additional products that weren't] part of the original vegetable listing.”*

However, this may be a result of the way this particular CSA was organized rather than a characteristic inherent in the structure of collaborative CSA overall. The perceived inflexibility of collaborative CSA was summarized by a third producer as ultimately an issue of power and control: “It's easier to control every aspect [of production and marketing] and thus ensure your personal standards are met when you do things yourself and don't rely on others.”

These remarks suggest that collaborative CSA does not suit the goals of all producers who participate, leading to the creation of new single proprietor owned CSAs. While some might regard this as counterproductive, collaborative CSA serves a useful purpose in informing producers about the multiple models available for marketing their products and reaching local eaters<sup>4</sup>.

4 In recognition of the literature on alternative agriculture, the word “eater” is used instead of “consumer” to decommodify the relationship between producer and consumer and to relink the process of consumption to production (see, for example, Salatin, 2004 and Pollan, 2006).

## **OBJECTIVE 2:** *Define other roles of collaborative CSA in informing the business decisions and actions of agricultural entrepreneurs.*

Before conducting this study, we hypothesized that producer participation in collaborative CSA would not only stimulate the creation of new businesses but would also inform the business decisions and actions of local producers (including career decisions). We expected business decisions to be mitigated by several factors: First, the benefits producers expect to receive from participating and second, the extent to which producers actually receive those benefits. The extent to which producer expectations are fulfilled will define the decisions they make about participating as producers in local food systems.

### **Producer Expectations**

In their study of CSA operators, Tegtmeier and Duffy (2005) asked respondents why they decided to start their CSA operation. The top six reasons offered had to do with increased social capital (closer relationships with consumers and stronger ties to community) and financial capital (assured markets and income, guaranteed prices, and sources of capital). Farmers in the study were also asked to assess categories of values that encouraged them to participate in alternative agricultural pursuits. The authors concluded that

...the social and environmental aspects of CSA are stronger motivating factors than the possible market advantages of the model. Although assured markets and guaranteed prices do appear to be fairly strong motivating factors, these farmers do not seem to be drawn to CSA by an assured income or to make a living. (p. 10)

This certainly sounds discouraging for producers who want to make a living solely from CSA. However, we found that each producer has a range of motivations that compel them to participate. When we asked producers an open-ended question on why they chose to participate in collaborative CSA, most of the reasons they provided (they could list multiple ones) had to do with the financial advantages.

- Financial capital: 76 percent cited financial reasons for joining, including income they received from product sales, access to markets, and shared risk and responsibility with other producers.
- Social capital: 40 percent of producers cited social reasons for joining, including the importance of developing relationships with growers and consumers.
- Cultural capital: 24 percent referenced cultural reasons for joining. In this regard, producers said their involvement allowed them to live out their philosophical values, beliefs, commitments and convictions.
- Human capital: 24 percent said they joined to increase human capital—both their own and others'. In terms of their own, some producers joined to learn from other producers and to reduce their management and production responsibilities. Producers also joined to increase the human capital of others by improving human health, mainly through the production and provision of healthy food.
- Natural capital: 12 percent joined for environmental reasons to reduce chemical use or food miles to ship products to market.
- Political capital: Interestingly, none of the producers identified overt political reasons for joining.

If we compare the results of this study with Tegtmeier and Duffy's, we find that financial

factors are a strong motivating factor for joining, followed by social factors. In collaborative CSA, financial expectations are closely linked with social ties that are perceived to translate into economic gains for the business. However, producers cited few environmental reasons for joining. Something else noticeably absent was articulation of explicit political motivations for joining in terms of gaining access to elected officials or influencing policy. In Delind and Ferguson's study (1999), they found that CSA members do not join CSA to further a specific political agenda. Instead, participation provides members an opportunity to express their values in deeply personal but not necessarily public ways. Like members, it is possible that producers similarly do not view CSA as a political platform but rather a chance to make a modest living while fulfilling a set of social and cultural values that are inextricably bound to personal politics.

### Producer Benefits

Expectations are one thing; the benefits producers receive may be quite another. In this section, we use the community capitals framework to analyze the benefits producers reportedly received as a result of participating in collaborative CSA.

### *Producer Benefits According to the Community Capitals Framework*

Using a five-point Likert scale, we asked producers the extent to which they agreed that participating as a producer in cCSA helped them experience 52 specific benefits. For analysis, we created scales by computing means for six community capitals based on our theoretical framework. However, relying on the theoretical framework alone creates some challenges, since several measures could fit into more than one category. Therefore, we subjected our scales to tests of reliability to determine whether they legitimately "belonged" together as a single concept.

Table 2 summarizes the reliability scores for each capital concept. To be reliable a scale should have the highest alpha coefficient possible up to a value of 1.0 but generally at least 0.7 (the higher the alpha, the more reliable the measure; thus, the lower the alpha, the weaker the measure's reliability) (de Vaus, 2002). For example, the alpha coefficient for the nine items included in the financial/built capital scale is .8478, which falls between 0.7 and 1.0. This means that statistically, the scale is sufficiently reliable to be considered a single concept.

**Table 2. Cronbach's alpha for community capital scales, Producer survey**

Community Capital	Cronbach's Alpha	Number of Items Included
Financial/built capital	.8478	9
Human capital	.8134	12
Cultural capital	.8430	7
Social capital	.9224	6
Political capital	.9052	6
Natural capital	.9204	8



**Table 3. Financial/built capital scale items, Producers**

Participating as a producer in collaborative CSA helped you...
Buy land or a farmstead.
Acquire other farm assets
Access new markets.
Gain new consumers for your non-CSA farm products.
Increase your household income.
Stabilize your household income through pre-season contracts with members.
Diversify farm income.
Reduce or share risks associated with farming.
Provide income-generating activities for household children/minors.

***Financial/Built Capital Measures***

The items we used to measure financial capital measure the extent to which producers report they were not only able to increase their assets and financial wealth, but also diversify and stabilize their income. Table 3 shows the items included in creating the financial capital scale where the alpha coefficient is .8478. Although the updated Flora, Flora and Fey (2004) capital model distinguishes built capital from financial capital, we only had two items to measure built capital. Unable to create a separate scale, we felt justified in combining those items with financial capital rather than leaving them out of the analysis.

***Cultural Capital Measures***

Our measure of cultural capital centers on the notion of a generalized, shared identity to the land, farming, food and others who hold similar beliefs, ethics, values and philosophies. Table 4 (page 22) shows the items we included in the cultural capital scale, which had a reliability coefficient of .8430.

***Human Capital Measures***

We used eleven items to measure human capital, focusing on the timesaving aspects of collaborative CSA, educational and knowledge-generating benefits of participation, self-actualization (i.e., producers are able to engage in work that matches their skills, interest and training), and human health contributions. Table 5 (page 22) shows the items included in the human capital scale, where the alpha coefficient is .8343.

**Table 4. Cultural capital scale items, Producers**

Participating as a producer in collaborative CSA helped you...
Live your philosophical, spiritual, or ethical values.
Help CSA members connect with each other or other community members through farm or CSA-hosted events, festivals, potlucks, etc.
Stay connected to the land.
Build a sense of shared identity with other producers.
Maintain a sense of shared identity with members of the community around local or organic foods or farm products.
Help CSA members connect with the land through farm tours, garden tours, work opportunities, etc.
Participate in an important social movement.

**Table 5. Human capital scale items, Producers**

Participating as a producer in collaborative CSA helped you...
Reduce time spent gaining access to markets.
Reduce time spent performing farm duties by increasing access to CSA member or volunteer workers.
Reduce time spent managing farm business aspects like billing, managing accounts, etc.
Reduce time spent communicating with CSA members.
Reduce time spent distributing farm products to CSA members.
Make good use of your agricultural skills.
Put into practice your knowledge of environmentally friendly farming or animal husbandry techniques.
Increase your knowledge of environmentally friendly farming or animal husbandry techniques.
Share your knowledge of environmentally friendly farming or animal husbandry techniques with other producers and groups.
Be a part of educating the community about local food systems and the realities of farming.
Access knowledge of more experienced producers.
Offer local residents access to healthy and nutritious foods.

**Table 6. Social capital scale items, Producers**

Participating as a producer in collaborative CSA helped you...
Make professional connections with other producers.
Make personal connections with other producers.
Build trust among CSA members.
Establish a broader network of relationships in the community.
Strengthen relationships in the community.
Build relationships with members of different cultural or ethnic groups.

***Social Capital Measures***

The social capital scale we created addresses relationships, networks and trust with other producers, CSA members and the community. This scale includes six items and has an alpha coefficient of .9224 (Table 6).

***Political Capital Measures***

Political capital is a form of social capital, but is worth distinguishing because of its crucial link to power, influence and public resources. We included six items in the scale for political capital, which had an alpha coefficient of .9052 (Table 7).

***Natural Capital Measures***

Due to the small scale of participating CSA operations and the objectives of this study, we did not link CSA production practices with concrete, measurable impacts on the environment. (A whole body of literature exists on the environmental benefits of sustainable agricultural practices.) Instead, we developed a measure that relies on the extent to which producers believe their activities have a positive impact on the environment in terms of improving soil health, biodiversity, water quality, wildlife habitat and landscape appearance. Eight items were included in this scale, where the alpha coefficient equals .9204 (Table 8, page 24).

**Table 7. Political capital scale items, Producers**

Participating as a producer in collaborative CSA helped you...
Counteract the effects of industrialized agriculture on a community or regional scale.
Develop or maintain advocacy coalitions that support healthy local or regional communities.
Develop relationships with local government.
Develop relationships with county or regional government.
Develop relationships with state or federal government.
Develop relationships with local food system advocates.

### Ranking Community Capital Benefits

Once we created and adjusted our measures of the community capitals based on theory and reliability scores, we compared the means to determine whether there were statistical differences in the types of benefits producers

reported receiving from participating in collaborative CSA.

According to descriptive statistics (using means), producers reported the greatest benefits in natural capital (the lower the score in the left hand column, the greater the reported benefits), fol-

**Table 8. Natural capital scale items, Producers**

Participating as a producer in collaborative CSA helped you...
Increase biodiversity (by growing heirloom varieties, raising heritage animals, or cultivating something other than row crops).
Reduce chemical inputs into the environment.
Reduce food miles to get your farm products to market.
Improve the appearance of the landscape.
Improve soil health.
Improve water quality.
Improve animal welfare.
Improve wildlife habitat.

**Table 9. T-statistic coefficient matrix comparing producer benefits by community capital**

Community Capital <sup>1</sup>	Financial/ Built	Human	Cultural	Social	Political	Natural
Financial/built (2.8188)	—					
Human (2.3314)	3.915*	—				
Cultural (2.2821)	-4.273*	-.534	—			
Social (2.2564)	4.305*	.746	.346	—		
Political (2.6859)	.946	-2.519*	-3.669*	3.433*	—	
Natural (2.1202)	5.571*	2.130*	1.668	-1.203	4.585*	—

\* Result is statistically significant at  $p < .05$  level.

1 Scale or item mean on a scale of 1 to 5 where 1=strongly agree and 5=strongly disagree

**Table 10. Women producers' rank of community capital benefits from cCSA participation compared to men**

	Women's Rank	Men's Rank
Social capital	1 <sup>a</sup>	3 <sup>a</sup>
Cultural capital	2 <sup>b</sup>	4 <sup>b</sup>
Natural capital	3	1
Human capital	4	2
Political capital	5	5
Financial capital	6	6

a Statistically different where  $p < .10$ .

b Statistically different where  $p < .05$ .

lowed by social, cultural, human, political and financial/built capital<sup>5</sup>. However, despite this rank, the inferential t-statistic coefficients in Table 9 (page 24) show that there are essentially three statistically different levels of benefits that producers report experiencing. These benefits are listed by community capital type and in order of most benefits to least:

1. Natural, social, cultural (statistically no different)
2. Social, cultural, human (statistically no different)
3. Political, financial/built (statistically no different)

We concluded that producers reaped the greatest benefits in terms of contributing to environmental health, developing social relationships and

<sup>5</sup> In a separate analysis of built capital, 11.5 percent of reporting producers said participation enabled them to acquire farm equipment such as tractors, tillers, tools, irrigation equipment, etc.

sharing cultural values. Human capital, political capital and financial capital benefits were experienced to a lesser degree.

#### ***Women versus Men Producers***

When we analyzed the benefits producers receive by gender, we found statistically significant differences between men and women when applying the community capitals framework.

Using the scales described previously, Table 10 shows that women rank social and cultural capital benefits higher than others, whereas men producers rank natural and human capital benefits the highest. Women producers are more likely than men producers ( $p < .10$ ) to say they receive social capital benefits. Women are also more likely than men ( $p < .05$ ) to report cultural capital benefits. The implication of these findings is that collaborative CSA provides differential benefits for women and men producers and thus may provide different appeal to these groups.

Recall that the majority of cCSA producers in Iowa are women. Women producers may be more drawn to collaborative structures than men because of the social and cultural benefits they provide. Local, sustainable and alternative agriculture advocates, professionals, policy makers and practitioners would be wise to consider collaborative structures when designing programs appropriate for women farmers.

### ***Individual versus Collective Benefits***

We also analyzed the benefits producers reported receiving as individuals and benefits they reported for the community. We divided benefits into two categories and created two scales: Self-oriented benefits (e.g. learning farming techniques, diversifying farm income, making connections with other producers, etc.) and others-oriented benefits (e.g. sharing information, helping others connect to the land, increasing biodiversity, etc.). We included 26 items for the self-oriented benefit scale ( $\alpha=.8987$ ) and 22 items for the others-oriented benefit scale ( $\alpha=.9563$ ) (see Appendix 2 for a list of items included in each).

A comparison of means shows there is a statistically significant difference ( $p < .05$ ) in the individual versus collective benefits producers report from participating in collaborative CSA. Producers are more likely to agree they experience collective benefits versus individual benefits. Ideally, though, we would like to see food systems that reward the individual as much as the collective to ensure that producers have adequate incentives to participate or at the very least, food systems that redistribute the risk accordingly. For example, if the collective benefits are greater than individual producer benefits, then the collective should at the very minimum be taking on a proportionate share of the risk. Food systems that are ultimately unsustainable are characterized by

arrangements in which producers experience a modest share of benefits but take on the greatest share of the risk—the hallmark of modern, industrialized agriculture (Heffernan, 2000).

### ***Producer Expectations, Benefits and Decision-making***

Now that we have established producer expectations and benefits they reportedly receive, this section is reserved for a discussion on the relationship between expectations and benefits and how it impacts the decisions producers make about their food system participation.

If we align the actual benefits producers report receiving (based on quantitative analysis) with their expectations for benefits (based on qualitative analysis), we find some notable contradictions that might explain why some producers choose to withdraw from collaborative CSA. Recall that 76 percent of producers were motivated to join collaborative CSA for financial reasons (among others). However, financial benefits ranked last among benefits received. On the other hand, while few producers report they were motivated to join for environmental reasons, they reported significant benefits to the environment.

Not all of the data was contradictory, however. Producers report social, cultural and human capital benefits equivalent to their expectations. In terms of political capital, no producers overtly acknowledged political motivations for joining nor did they report political capital benefits. This finding raises several questions: Were the items we used adequate for measuring political capital? If so, who are producer advocates? Who links them with local food system advocacy coalitions, government officials and policymakers? Producers themselves may not be in a position to invest in the political aspects of local food systems

work because they have more pressing struggles meeting production, marketing and management responsibilities.

Using a triangulated approach to data analysis, we have shown how well producer expectations are aligned with the benefits they receive as a result of participating. To what extent does this alignment influence their actions in terms of sticking with or leaving the collaborative? How does producer participation in collaborative CSA impact decisions to engage in local food system production? Clearly, the disconnect between financial expectations and the financial benefits received might explain why collaborative CSA in Iowa has experienced some turnover. Nearly two in five (38.5%) producers responding to the study are no longer participating in collaborative CSA. Of those who are no longer involved, half cited financial reasons, such as “the money was not worth it” and “it was not economically feasible.” Other reasons included health problems (human capital), lack of communication (social capital), coordination time required (human capital/financial capital regarding opportunity costs), and moving.

So what influence does participation in collaborative CSA have on the business decisions producers make? When we asked producers this question, we learned that collaborative CSA participation is quite influential. Of those responding to the question, three in four said participation had an influence. Of these, 73 percent reported participation provided an educational experience that impacted their decisions. This group said participation increased their practical farming knowledge; improved their marketing skills; increased their knowledge about consumer preferences; gave them a new appreciation for consumer education; offered them new knowledge about the CSA concept; and allowed them to grow the crops they grow

best. Two producers mentioned that participation had increased their confidence and pride. For three producers, however, participation in collaborative CSA was educational in a way that pulled them further from the collaborative model. “For our farm, participation is a significant drain of time away from primary goals of farming.” Two others suggested single proprietor CSA was a better fit for them: “It helped me realize I wanted to operate my own CSA in my own way.” “[..D]espite the advantages of collaborative CSA, a better job could be done by a single proprietor/family CSA.” In contrast, one producer said collaborative CSA was essential for enabling him to participate as a new producer in local food systems. “I probably would not have started growing if [the collaborative CSA] was not there.”

Forty percent said it helped them make better marketing decisions that improved their financial status (usually by stabilizing or diversifying income). Yet income stabilization and diversification are not enough for all producers. One producer chose to withdraw from local food system activities as a result of participating in collaborative CSA. “Because of the work load, a decision had to be made whether to devote more time to raising foods for the CSA and less to my regular job. Making money was easier with my regular job, so that is what I chose.”

Participation in collaborative CSA proved to be a learning experience for most producers. It provided lessons in the economics of farming, marketing, cooperation and control. While one producer chose to leave local food system production, most stayed on although not necessarily with the collaborative model. Several started their own CSAs. In terms of community development, this is beneficial as new businesses are spawned from the collaborative CSA effort.

### Career Training

In addition to studying the role of collaborative CSA in incubating small, rural farm-based businesses, we were also interested in whether cCSA serves as a career incubator for producers. Given that one of the collaborative CSA farms in the study was managed and operated by students (certainly not the case for all multi-producer CSAs), we hypothesized that collaborative CSA was helping fledgling producers gain employment in agriculturally related positions paid by off-farm sources. With this in mind, we asked responding producers “Since participating in collaborative CSA, have you been employed in an agriculturally related position paid by an off-farm source? If so, what role did collaborating with other producers in this CSA play in your ability to serve in this position?”

Eight producers (31%) report they have been employed in agriculturally related positions paid by an off-farm source since participating in CSA. These producers have served in the public, private and the civic sectors as:

- Program staff and researchers for sustainable agriculture nonprofits.
- Owner of a sustainable foods marketing and distribution company.
- College garden manager with oversight over farm production and marketing.
- Vocational agriculture instructor at a secondary school.
- Food systems program specialist assisting farmers and companies identify viable products and address production and marketing issues.

While three of the eight producers said participation in collaborative CSA played no role in their ability to serve in these positions, five

(62.5%) credited collaborative CSA for helping them serve in their positions by:

- Providing them access to networks that led to employment.
- Gaining support from other producers.
- Increasing their knowledge about production and marketing methods.
- Helping them understand the dynamics of producer groups.

In sum, it appears that participation in collaborative CSA does more than incubate single proprietor owned CSA. It also fosters new farm-related businesses and provides support to expand and diversify existing local foods-based businesses. Although to a lesser extent, the experience also provides producers with skills and knowledge they can extend beyond production activities but within the realm of the sustainable agriculture movement. It also gave producers a chance to enter into a new market activity without high investment in order to “try it on for size.”

**OBJECTIVE 3:** *Identify the characteristics of collaborative and single family owned CSA models that appeal to their respective members and determine how those characteristics meet member needs.*

Cone and Myhre (2000) have already documented why people join CSA. Thus, our goal is not to determine why people join but 1) to identify the benefits members receive as a result of joining and 2) to determine the relationship between the benefits members experience and their behaviors in patronizing collaborative CSA and single proprietor owned CSA. The following section (Objective 4) extends the idea of member satisfaction with CSA characteristics to member patronage of non-CSA direct markets within the greater local food system.



**Member Benefits**

What benefits does participation in CSA have for members? Like the producer survey, we asked members the extent to which they agreed (using a five-point Likert scale) they experienced 49 benefits during the last growing season they were a member. (See Appendix 1 for a complete list of benefits and the percentage of members who agree they received them.) We expected benefits would differ by community capital with natural capital leading and financial capital at the bottom given the general consensus that supporting local, alternative food systems “costs” more.

**Community Capital Member Benefits**

For analysis, we created scales (again, by computing means), a process guided by our theoretical framework of the community capitals (Flora,

Flora and Fey, 2004). We tested each score for reliability to determine whether they belonged together as a single concept. A total of three items were removed. Table 11 summarizes the alpha coefficients for each capital scale developed from the member survey.

**Financial/Built Capital Measures**

We originally included six items in the financial capital scale, which measured two general dimensions: financial benefits that accrue to individual households (such as saving money on produce) and financial benefits that accrue to the community (see items below). We found that if we included the two items that included individual financial benefits, the reliability coefficient decreased (suggesting the scale was not reliable); therefore, we removed them. What we have is a scale that measures the economic benefits mem-

**Table 11. Cronbach’s alpha for community capital scales, Member Survey**

Community Capital	Cronbach's Alpha	Number of Items Included
Financial/built capital	.7841	4
Human capital	.8725	14
Cultural capital	.8241	10
Social capital	.8118	5
Political capital	.7265	5
Natural capital	.9019	8

**Table 12. Financial capital scale items, Members**

Participating as a member in collaborative CSA provided these benefits...
I helped support the local economy.
I helped create or save local jobs.
I helped support local farmers.
I helped support small farmers.

bers experience not for themselves, but as members of a community. Table 12 (page 29) shows the items included in creating the financial capital scale where the alpha coefficient is .7841.

### **Cultural Capital Measures**

Our measures of cultural capital center on the way in which members develop a strong sense of identity to the land, farming, food and set of specific values. Table 13 shows the measures we included in the cultural capital scale, which had a reliability coefficient of .8241.

### **Human Capital Measures**

We used fourteen items to measure human capital benefits, which centered on two dimensions of human capital: that of health and learning. Table 14 (page 31) shows the items included in the human capital scale where the alpha coefficient is .8725.

### **Social Capital Measures**

The social capital scale was created from items measuring the extent to which members report they connected with producers, other CSA members and the community. This scale includes five items (Table 15, page 31). The alpha coefficient is .8118.

### **Political Capital Measures**

The scale for political capital addresses the extent to which members agreed they participated in “small” agriculture as a form of protest against “big” agriculture and the extent to which they formed politically strategic social connections with players who can potentially influence food, agricultural and community development policies. We included five items in the scale for political capital, which had an alpha coefficient of .9052 (Table 16, page 32).

**Table 13. Cultural capital scale items, Members**

Participating as a member in collaborative CSA provided these benefits...
I supported local agriculture.
I supported the farming tradition in the area.
I lived my philosophical, spiritual, and ethical values.
I developed a personal connection to the food I eat.
I developed a personal connection to the place I live.
I accessed specialty or ethnic produce.
I accessed heirloom varieties or heritage species.
I took part in farm-based festivals, tours, or events.
I developed a connection to the land.
I participated in an important social movement.

**Table 14. Human capital scale items, Members**

Participating as a member in collaborative CSA provided these benefits...
I had access to healthy and nutritious foods.
I had access to a source of safe food.
I had access to organically grown or raised farm products.
I had access to food that is not genetically modified.
I had access to fresh, tasty food.
I shared my food preparation knowledge with other CSA members.
I learned more about who is growing my food.
I learned more about where my food is grown.
I learned more about how my food is grown.
I learned more about local foods and farming.
I learned more about the realities of agriculture.
I learned about food storage or preparation techniques from other CSA members.
I learned about food storage or preparation techniques from producers.
I learned more about some of the issues associated with environmentally friendly farming or animal production methods.

**Table 15. Social capital scale items, Members**

Participating as a member in collaborative CSA provided these benefits...
I shared my connection to the land with others.
I joined others to support alternative agriculture.
I connected with local producers.
I helped build community around local food.
I felt part of the community.

**Table 16. Political capital scale items, Members**

Participating as a member in collaborative CSA provided these benefits...
I helped support alternative forms of agriculture.
I helped counteract industrialized agriculture on a community or regional scale.
I developed relationships with local food system advocates.
I helped develop or maintain advocacy coalitions that support healthy communities
I developed relationships with government or policy makers.

**Table 17. Natural capital scale items, Members**

Participating as a member in collaborative CSA provided these benefits...
I helped reduce food miles.
I supported agriculture that reduces chemical inputs.
I supported agriculture that improves water quality.
I supported agriculture that creates healthy soil.
I supported agriculture that improves animal welfare.
I supported agriculture that increases biodiversity.
I supported agriculture that improves wildlife habitat.
I supported agriculture that improves landscape appearance.

### *Natural Capital Measures*

Again, due to the small scale of participating CSA operations and the objectives of this study, we did not link CSA production practices with concrete, measurable impacts on the environment but instead focused on members' awareness about the impact their food decisions have on the environment. For this, we gathered information about the impact member participation has on natural capital. We included eight items in Table 17, resulting in an alpha coefficient of .9019.

### *Ranking Community Capital Benefits*

Once the scales for each community capital were constructed, we compared the means to determine whether there were statistical differences in the types of benefits members report receiving from participating in collaborative CSA. Table 18 (page 33) compares member benefits according to each community capital. Descriptive statistics show members ranked financial/built capital benefits the highest (the lower the score, the greater the benefit), followed by natural, human, social, cultural and political capital. Inferential statistics comparing these means corroborate

**Table 18. T-statistic coefficient matrix comparing member benefits by community capital**

Community Capital <sup>1</sup>	Financial/ Built	Human	Cultural	Social	Political	Natural
Financial/built (1.5321)	—					
Human (2.1033)	-13.982*	—				
Cultural (2.3443)	-21.971*	6.690*	—			
Social (2.2225)	-14.702*	-2.898*	3.852*	—		
Political (2.4474)	-21.389*	-8.385*	-2.929*	-5.185*	—	
Natural (1.8648)	-7.938*	4.824*	12.455*	6.838*	15.315*	—

\* Result is statistically significant at  $p < .05$  level.

1 Scale or item mean on a scale of 1 to 5 where 1=strongly agree and 5=strongly disagree

these results and show they are indeed different. Thus, there are six different layers of benefits for members listed in order from most to least:

1. Financial/built
2. Natural
3. Human
4. Social
5. Cultural
6. Political

As expected, natural capital ranked near the top. However, much to our surprise financial capital bested natural capital by ranking first. How does participation in CSA provide members with financial benefits? To understand this, we must examine the items included in our measure of financial capital. The measures we included relate to financial benefits participation brings to the community, not to themselves as individuals. Political capital appeared at the bottom. A probable explanation for this is that members do not explicitly link their consumption patterns to

specific political outcomes, results DeLind and Ferguson (1999) found among CSA members they studied. Additionally, there may be social psychological benefits our survey was not designed to measure, for, as Pollan (2006) writes, the decision of many consumers of alternatively produced foods to spend a little more for a dozen eggs is one “inflected by politics, however tentative or inchoate.”

#### ***Individual versus Collective Benefits***

The issue of individual versus collective benefits that emerged from the analysis of producers prompted us to revisit this issue for members. Are members of collaborative CSA also reaping different individual and collective benefits?

As in the producer survey, we developed two scales for benefits that were individual or self-oriented and collective or others-oriented. A total of 21 items were included in the scale measuring collective benefits (the reliability coef-

ficient was .9249) and 27 items were included in the scale measuring individual benefits (reliability coefficient was .9113). Refer to Appendix 3 for a complete listing of included items.

When we compared the means for these two scales, we found that overall, cCSA members were more likely to report collective benefits of cCSA participation versus individual benefits ( $p = .000$ ).

### ***Demographic Characteristics and Community Capital Benefits***

Another question we asked was whether or not member benefits differed according to different demographic groups. For instance, do female and male respondents differ in the benefits they experience or those living in high versus low-income households? To test this, we compared the means for the scales we developed for the six community capitals. Neither gender, age, presence of children, or living on an acreage had a statistically significant impact ( $p < .05$ ) on the six types of benefits members reported experiencing. However, length of residency did. The longer members lived in the area, the more likely they were to report political benefits from participation ( $p = .019$ ) which gives rise to another question: To what extent does members' geographic stability over time contribute to grassroots success in mobilizing political resources to support local, alternative food systems? Unfortunately, this is not a question we can answer within the scope of this project, but one certainly worthy of study. When we tested for income, we found that the higher the income bracket, the less members agreed they received human capital ( $p = .017$ ) or natural capital benefits ( $p = .033$ ). There was no relationship between demographic characteristics and likelihood to report more or less individual or collective benefits.

### **Member Retention**

While some CSAs struggle to retain members, others have caps on the number of shares they offer and a waiting list of people willing to participate. Attrition is important to understand because it can indicate the extent to which the CSA is or is not meeting member expectations. Of course, some retention is inevitable as people move or decide they want to control the quantities and types of products they receive. But by examining retention, we get a reasonably clear picture about whether or not participation benefits meet members' expectations. In the process, we learn ways in which CSA can better serve members and strengthen local food system participation.

In this section, we lay out the results of our analysis on why members might choose to leave collaborative CSA. Within the scope of the study, we examined all possible determinants of retention, including CSA features, demographic characteristics of members, level of member involvement, single vs. multi-producer proprietorship, type of community capital benefits experienced, the diversity of capital benefits experienced, and the individual versus collective benefits experienced.

How are Iowa's collaborative CSAs faring in terms of member retention? We asked the CSA coordinators about the retention rate of members in the last growing season. Coordinators reported retention rates of 80, 69 and 59 percent. To put this into perspective, according to Docter and Hildebrand (1998) it is not unusual for many CSAs to have a high turnover rate and lose between 25 and 70 percent of their members each season. However, they also report that for the beginning CSA, a retention rate of 50 percent is typical while a successful CSA should aim for a retention rate between 75 and 80 percent by the time it enters its fifth or sixth season. Given that

all three collaborative CSAs have been operating for at least five years or more, at least two might be interested in ways they can improve member retention.

### ***Reasons for Attrition***

Recall that nearly half (45.5 percent) of member respondents are no longer participating in collaborative CSA. Why not? Figure 9 (page 50) shows reasons why members say they are no longer involved (they could indicate more than one reason). The top six reasons for attrition have to do with coordination issues: Coordinating member's summer schedules with weekly deliveries, coordinating the appropriate amount of produce distributed to members throughout the season, and the convenient role farmers' markets play presumably in overcoming the former. Nearly one in three (31%) cited cost as a factor. Poor food quality, lack of food preparation knowledge and lack of social connection were cited less frequently as reasons for attrition.

### ***Demographic Characteristics and Member Attrition***

In addition to knowing reasons why members leave, can we predict who will leave collaborative CSA based on their demographic characteristics? For example, are households with children or households with high annual incomes more likely to stay? When we examined the relationship between retention and gender, age, country/urban living, length of area residency, number of people in the household, households with children, income and number of years a collaborative CSA member, we found that CSA tenure—that is, the number of years members had been in the CSA—was the only characteristic positively associated with likelihood to stay. For each year members participate in collaborative CSA, they were 1.3 times more likely to continue

participating. Hence, we can surmise that new members have a more tenuous relationship. CSAs that can invest resources to retain members year after year appear to be in a better position to succeed, confirming Buchanan and Gillies' (1990) contention that customer retention is closely tied to business profitability.

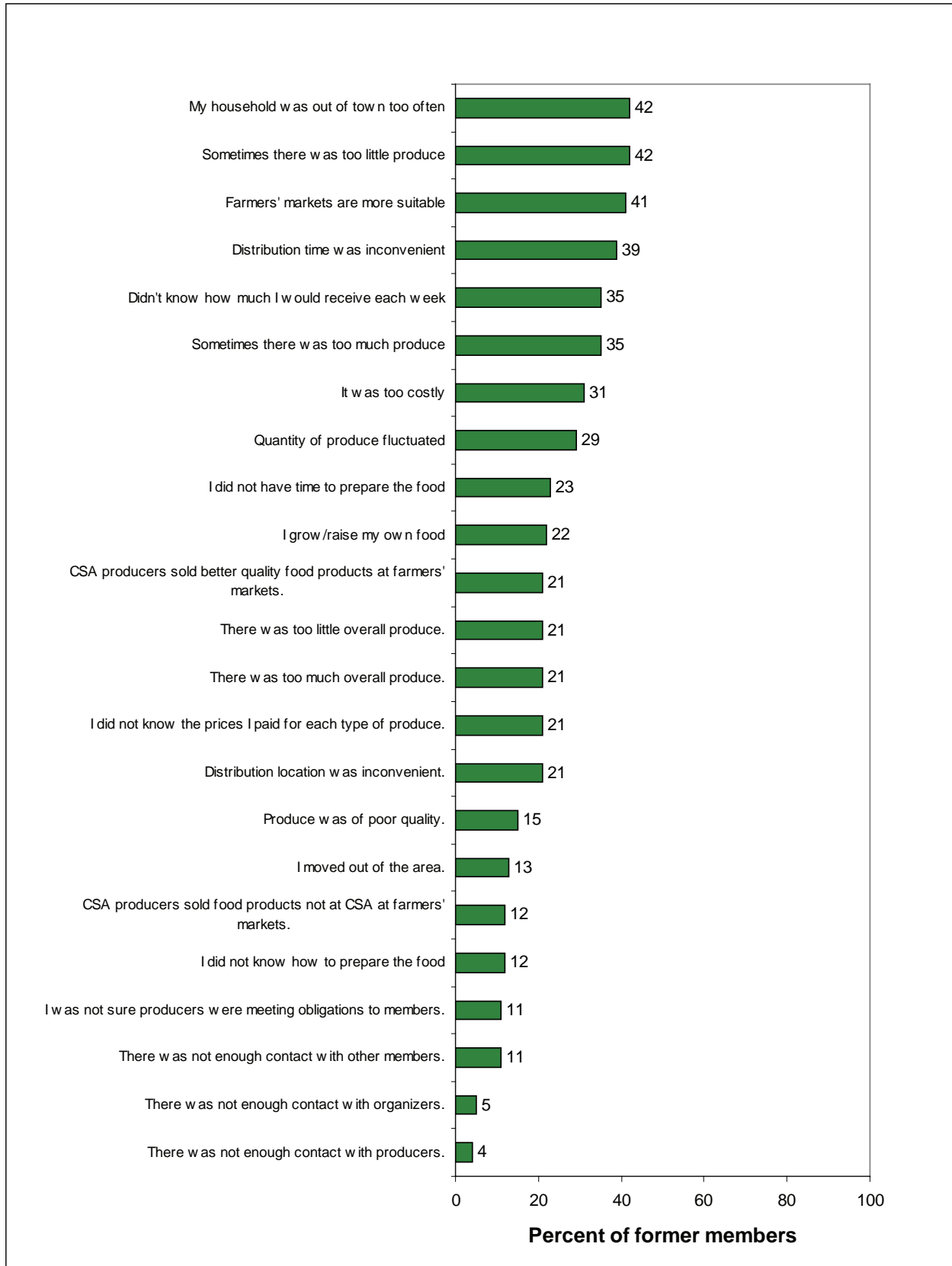
### ***Level of Involvement and Member Attrition***

Member involvement is often regarded as an indicator of buy-in and a measure of commitment to CSA. It follows that we often assume the more committed members are to CSA, the more likely they will stay. We set out to determine whether this was true for collaborative CSA in Iowa.

Members have various ways in which they can get involved. They can provide services to support the operation of the CSA; help in decision making about the CSA; communicate and interact with other members, producers and organizers; and visit participating farms. When we considered these four indicators in terms of retention, none alone predicted whether members would leave or not. Specifically, there was no statistically significant relationship between members who had worked to support the operation of the CSA (44.4%) and attrition, nor was there a relationship between members who said they had decision-making opportunities (31%) and their decision to leave. When we compared the amount of time (minutes) members spent per week on average communicating with other people involved in the CSA (including producers, organizers and members), we found no relationship between the time spent communicating and attrition. We also found that visitation to participating farms played no significant role in whether or not members stayed or not.

To determine whether these variables together could be used to predict whether members

Figure 9. Reasons for member attrition





stayed, we created an index. The total score for each person possible was 5. Here is how it was calculated:

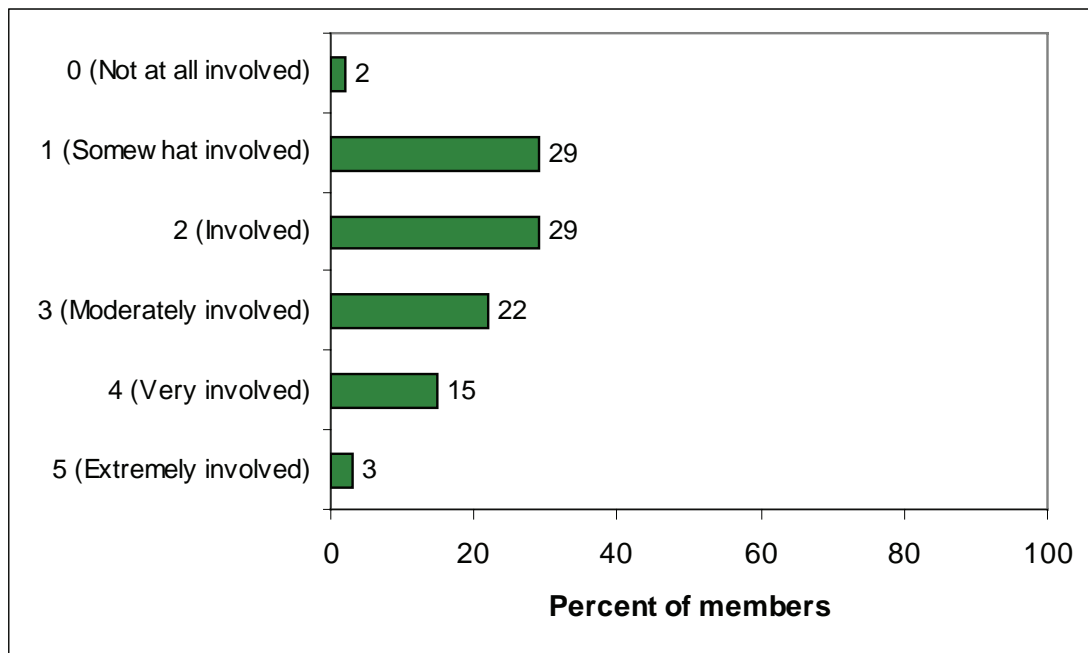
- Step 1: If members had provided a service to support the CSA, they were scored 1; if they did not provide a service, they scored 0.
- Step 2: If they had taken advantage of opportunities to make decisions about the CSA, they received a 1 (if not, they received a 0).
- Step 3: The same system was used to indicate whether they had visited a farm or not.
- Step 4: Regarding the amount of time they spent communicating with others involved in the CSA, if they indicated 0 minutes, then they were scored a 0 for this variable. If they said anywhere between 1 and 15 minutes (the median where half fell above and half fell below), they scored a 1. If they spent more than 15 minutes communicating, they were scored a 2. Thus, members who spent more time than others received more

“involvement” points than members who spent some, but a minimal, amount of time interacting with others.

Figure 10 shows the percent of members and their aggregate level of involvement in the last year they were a member of the CSA. Two percent were not at all involved whereas 3 percent were extremely involved. Most were somewhat involved or involved. When we used this index to predict attrition, the model was not useful; level of involvement as we measured it was unable to predict whether members stayed.

Perhaps level of satisfaction with the time members spent communicating with producers or other members might provide some clues into attrition. When we examined satisfaction levels, we found that former members were no more (nor less) likely to be satisfied than current members, which corroborated results in Figure 9, where very few indicated that too little contact with organizers, members, or producers was a reason why they left. Any way we measured it, the social component apparently made no

**Figure 10. Aggregate level of involvement in the last year as a member**



difference on retention. Only length of tenure with the CSA served as a predictor, and as the following sections illustrate, so did the types and breadth of community capital benefits.

### ***Member Retention and Proprietorship: Single- Versus Multi-Producer CSA***

Does the way in which a CSA is structured have any bearing on members' perceptions or experience with that CSA? To answer this question, we asked members of collaborative CSA whether they had ever been a member of single proprietor owned CSA and if so, to answer a similar set of questions about that CSA. We then proceeded to compare those responses to their responses about collaborative CSA. We call this subset of respondents "dual members."

Recall that 17 percent of collaborative CSA respondents indicated they either currently or previously belonged to a single proprietor owned CSA. We wondered whether members who had experienced single and multi-producer CSA would perceive differences in the benefits they derived from each. To do this, we asked dual members to answer an extra set of questions about single proprietor CSA that could be matched to their responses about collaborative CSA. For analysis, we created the same community capital scales that we created for the collaborative CSA member analysis and compared the means. When we compared the six community capital categories dual members say they received from collaborative CSA versus the benefits they received from single proprietor owned CSA, we found no significant differences. However, when we compared each item, we found the following differences according to the type of capital:

**Cultural capital:** Dual members were more likely to say that they took part in farm-

based festivals, tours and events ( $p = .041$ ) and developed a connection to the land ( $p = .046$ ) by participating in single proprietor CSA versus collaborative CSA.

**Financial capital:** No differences.

**Human capital:** Dual members were more likely to report they learned more about how their food is grown ( $p = .019$ ) and who is growing their food ( $p = .058$ ) as members of single proprietor CSA.

**Natural capital:** No differences.

**Political capital:** No differences.

**Social capital:** No differences.

These data point to cultural and human capital related reasons why some members might prefer single proprietor to multi-producer collaborative CSA. These data suggest that among dual members, single proprietor CSA provided better opportunities to connect with the land and the producer, and knowledge about the way their food is grown.

### ***Member Retention and Community Capital Benefits***

Do former members report different benefits than current members? If so, CSA advocates might find such information useful to get people involved and to keep them involved. When we compare the responses of current members to former members according to the community capital benefits they report, we find that there are several differences worth noting (Table 19, page 39).

First, current members are more likely than former members to agree they derive (collective or community oriented) financial benefits from participating ( $p = .027$ ). Second, current members are also more likely than former members to report they experience social ( $p = .001$ ), human ( $p = .002$ ), and cultural ( $p = .001$ ), human ( $p = .002$ ), and cultural ( $p = .001$ ), human ( $p = .002$ ), and cultural ( $p = .001$ ), human ( $p = .002$ ), and cultural ( $p = .001$ ).

**Table 19. A comparison of benefits derived from current and former members according to the Community Capitals Framework**

Community Capital	Currently a member?	Mean <sup>1</sup>	T statistic	P value
Financial/built	No	1.6163	2.232	.027*
	Yes	1.4604		
Human	No	2.2356	3.103	.002*
	Yes	1.9907		
Cultural	No	2.4466	2.242	.026*
	Yes	2.2572		
Social	No	2.4099	3.514	.001*
	Yes	2.0629		
Political	No	2.5093	1.275	.204
	Yes	2.3947		
Natural	No	1.8997	.668	.505
	Yes	1.8353		

1 On a five-point scale where 1=strongly agree and 5=strongly disagree.

\* Differences are statistically significant at  $p < .05$  level.

= .026) benefits. However, current and former members are no different in terms of the natural and political benefits they derive from participating. The lesson drawn from these findings suggests that in order to retain members in collaborative CSA, members must know or be educated about the financial benefits their participation brings to the community, as well as the human, cultural and social benefits it provides.

In terms of gaining political benefits, neither group reported many benefits in this area so it is doubtful that improving clarity about the political benefits for members would help as a retention strategy. However, both groups are in agreement about the environmental benefits participation brings. Member (and public) education campaigns should therefore focus on the financial, human, cultural and social benefits participation brings.

In addition to comparing community capital scale means between current and former members, we performed logistic regression to test more directly and specifically the relationship between retention and community capital benefits. In so doing, we found that members who experienced greater levels of social capital benefits were more likely to stay (chi-square = 12.174,  $p < .05$ ).

### ***The Role of Diverse Benefits***

Having established the relationship (or lack thereof) between retention and each community capital benefit, we wanted to test the relationship between benefits across the capitals and ability to predict member retention. In this regard, we hypothesized that members who receive benefits in a wider array of community capital categories were more likely to stay than those who did not. The logic supporting this hypothesis is that the more diverse and varied the capital benefits,

the more appealing participation is to members. Members who experience a concentration of benefits in one capital category will be less likely to stay. We tested this hypothesis by first calculating the means for the community capital scales for each individual (see previous discussion in Objective 3). We then coded each person as either agreeing (1) or disagreeing (0) they received each capital benefit based on their mean cumulative score for each capital category. Then, we summed the score for each individual, which could range from 0 to 6 where 0 indicates the individual did not receive benefits in any of the capital categories and 6 indicates the individual received benefits in all six categories. A value of 3 indicates the individual received benefits in three different community capital categories.

Using logistic regression to predict likelihood to stay, we found that diversity of member capital benefits is statistically important in predicting retention (Chi-square = 8.526;  $p < .05$ ). As benefits in the number of community capital categories increases by one, members are 1.5 times more likely to stay. In summary, the more diverse the benefits are for members, the more likely they will continue participating in collaborative CSA. For example, a member who reports benefits in cultural capital (e.g., by living ethical, spiritual and philosophical values), financial capital (e.g., helping support the local economy),

and human capital (e.g., accessing a source of healthy and nutritious food) will be more likely to stay than someone who reports benefits in only one type of capital.

### *Individual Versus Collective Benefits*

Finally, do current and former members experience individual and collective benefits differently? If so, can we predict who will stay and who will go? We hypothesized first, that there would be differences in both individual and collective benefits between former and current members. We expected current members to experience greater levels of both, which indeed was the case (see Table 20). Current members experienced more individual benefits and collective benefits than did former members. Thus, it appears that retention weighs heavily on both individual and collectively oriented benefits.

That said, we wondered if we could combine the benefits for each group (current and former) to claim more generally that the more benefits members experience, the more likely they are to stay. When we aggregated the benefits for each group and compared them using logistic regression, we found the model was statistically significant but not particularly powerful in determining whether those experiencing the fewest benefits discontinued their membership.

**Table 20. A comparison of individually- and collectively-oriented benefits derived from current and former members**

Type of Benefit	Currently a member?	Mean <sup>1</sup>	T statistic	P value
Individual	No	2.4060	3.319*	.001*
	Yes	2.1637		
Collective	No	1.9838	2.128*	.035*
	Yes	1.8285		

1 On a five-point scale where 1=strongly agree and 5=strongly disagree.

\* Differences are statistically significant at  $p < .05$  level.

#### *Objective 4: To determine participation of current and former CSA members in local food systems such as farmers' markets.*

The point of this objective was to determine the impact of other local food markets on collaborative CSA membership. Do non-cCSA sources compete with cCSA membership or do they strengthen it? In addition to an analysis of the role played by other direct markets offering access to local foods, we also considered home-based gardens and animal husbandry. Overall, nearly nine in ten respondents (88%) said they supplemented their cCSA share one way or another—either by growing their own produce/raising livestock or buying local farm products from sources other than collaborative CSA.

#### ***Home Gardening and Livestock Production***

More than two in five (42%) CSA members supplemented their share by growing their own produce in the last growing season they were a member. (Half of dual members [cCSA members who had also tried single proprietor CSA] said they supplemented their sCSA share by growing their own produce or raising their own livestock.) When we compared home production practices according to current and former membership in collaborative CSA, we discovered some surprising results. Contrary to what we expected, current members are more likely (nearly twice as likely) to supplement their share than are former members ( $p < .05$ ). An interest in gardening may be indicative of members' identification with the land and food production and thus a propensity to support others who make a living from it. Those who supplement their cCSA with home gardening are no more likely to report experiencing more natural capital benefits than those who do not garden.

#### ***Farmers' Markets***

A whopping 72 percent of cCSA members said they supplemented their CSA share with local produce from farmers' markets during the last season they were a member. (A comparable 68 percent of dual members said they supplemented their sCSA share by buying local farm products at farmers' markets.) When we broke this figure down by current and former membership, we found no significant difference between the likelihood of former versus current members to supplement their share by frequenting farmers' markets. Therefore, we concluded that farmers' markets complement and supplement collaborative CSA as opposed to compete with or supplant those shares—this, despite attrition results in the previous section that showed 41 percent of former members find farmers' markets more suitable for them. So while collaborative CSAs may be losing some members to farmers' markets, the loss is not statistically significant; rather it appears there are other reasons (or a combination of reasons) why members choose to leave collaborative CSA.

#### ***Local Food Coops***

One-third of cCSA members (35%) reported they supplemented their CSA share by buying local farm products from a local food cooperative in the last year they were a member. Neither current nor former members were more likely to do so. Again, these data suggest local food coops are not luring members away from collaborative CSA. More than half (55%) of dual members said they had supplemented their sCSA share by buying local farm products from a local foods coop.

### *U-Pick Operations*

Some farms encourage visitors to come out to the farm to pick their own produce. These are often called you-pick or U-pick operations for short. Twenty seven percent of dual CSA members and 18 percent of cCSA members supplemented their respective CSA shares with products from a U-pick operation during the last year they were a member. No differences were observed between current or former members of collaborative CSA.

### *Other Sources of Local Foods*

Nearly the same proportion of cCSA (37%) and dual CSA members (38%) reported they supplemented their respective CSA shares with local farm products provided by friends, co-workers and neighbors; through direct sales with both collaborative and non-collaborative CSA producers; roadside stands; meat lockers; and grocery stores.

We can conclude from these results that:

1. Direct local food markets such as farmers' markets, U-pick operations and other local food sales are not competing with collaborative CSA. Indeed, we suggest the opposite may be true—that the availability of local foods through these other markets might actually be strengthening participation in collaborative CSA. These markets appear to be providing complementary options to meet members' complex local food needs, an opportunity not wholly fulfilled by participation in collaborative CSA.
2. Members of collaborative and single proprietor owned CSAs are equally active in supplementing their CSA share.

3. At least in Iowa's collaborative CSA, current members are more likely than former members to supplement their share by raising their own food. This interest in home food production appears to be related to (continued) participation as members of collaborative CSA. Members who garden or raise their own livestock may be mindful about what they eat, where it comes from and who produces it thereby suggesting a strong commitment to local food systems.

### *Objective 5: Determine whether high membership turnover in collaborative CSA is creating high demand for/ participation in more single family owned CSA.*

To meet this objective, we relied on information gathered from both producers and members. Of the three collaborative CSAs participating in the study, two experienced relatively "high" levels of membership turnover, according to Docter and Hildebrand (1998) standards. Recall they suggest long-term CSAs have membership retention rates between 75 and 80 percent. While one of the study's collaborative CSAs reported a member retention rate in this range, the others reported rates of 59 and 69 percent. Interestingly, the CSA with the lowest member retention rate also had the highest producer turnover rate (33%). The CSA with the retention rate in the middle reported grower turnover after the 2005 growing season was finished. In contrast, the cCSA with the highest member retention rate reported it was taking on new growers. While three cases hardly provide us with enough data to determine whether producer turnover is statistically related to member turnover, it does suggest that producer and member turnover may be related, a claim that can only be corroborated by a more broad-based CSA study.

Producer turnover notwithstanding, does member dissatisfaction with collaborative CSA create demand for single proprietor owned CSA? To examine this issue, we summarized the open-ended, qualitative responses 28 dual members provided to the question we asked them about why they switched CSAs, 21 of whom provided usable responses. Of these 21, two had not switched but belonged to both at the same time. Removing these cases, 5 percent said they switched because that's where their friends were. (Note that respondents could state multiple reasons.) Almost half (47%) said they changed because of a better location, convenience and delivery options (such as home delivery). Nearly one in three (32%) switched because they moved and 37 percent said single proprietor CSA was a better fit because it offered members more choice and control over quantity and quality.

*Single proprietor [CSA] had better quality [and I] felt [was] more involved in supporting our family.*

*[I had] more control over quantities and types of produce received.*

*There was a lot of change between producers and products as they tried to get the CSA established and stable. Some producers did the CSA as a 'side' event; often there were new enthusiastic producers who were learning how to be a producer. I felt like very year was a year that I was still supporting the 'learning curve' of the CSA. It felt not so much like I was supporting normal risk, which is certainly part of a CSA, but that I was consistently subsidizing the learning and growth of the CSA and its producers—constant extra risk, no reliable reward. After four or five years I decided I had done my part to be true to my values, and went shopping for 'my own*

*farmer' as I call it. Someone who was my person, my farmer, and whose single focus was pretty much his/her relationship with what they grew and by extension who they grew it for.*

These comments reflect the impression that the single proprietor CSA structure provided a more responsive, tailored and personalized experience. (Before we conclude this might be a function of membership size, it should be noted that this comment came from a cCSA with a mid-sized membership.) One of the issues facing collaborative CSA is therefore ensuring that the relationship between members and producers does not become obscured by too many farmers with too many faces. Indeed, producer-member relations and member education emerge as critical pieces in helping members feel connected to the land and knowledgeable about the people producing their food. While several members feel they get a more personalized experience by joining single proprietor owned CSA, this can be attributed not necessarily to the multi-producer structure but how effective those structures are in communicating information about production methods and producers to members. Advocates and organizers of collaborative, multi-producer CSA should therefore be attentive to how well those structures communicate with members.

Finally, member and producer turnover both appear to be at least somewhat related to greater opportunities for growth among single proprietor owned CSAs. Of the five producers who said they participated in single proprietor owned CSA beyond collaborative CSA, two reported member retention rates, which were 75 and 80 percent—in the “high” zone. While these data are not particularly reliable, they do raise interesting questions about whether collaborative CSA faces unique challenges by virtue of its size when it comes to member accountability. Compared

## *Unanticipated Findings*

Little if any of the literature on alternative food institutions—or CSA for that matter—has described in depth the nuances and nature of relationships that contribute to the success of local, sustainable, alternative agriculture, although Salatin (2004) has written about the topic from an eater’s perspective in his book *Holy Cows and Hog Heaven: The Food Buyer’s Guide to Farm Friendly Food*. A farmer himself, he acknowledges that farmers typically are not versed in developing strong relationships with eaters: “Three generations of farmers have not learned people skills [...or...] marketing skills [...]. That’s one of the things that they enjoyed most about farming—not having to deal with humanity” (p. 81). Yet we know that local alternative production relies heavily on a web of overlapping, complex relationships to complete the supply chain. Yet what do we know about so-called “relationship marketing”?

### **The Importance of Relationship Marketing**

Relationship marketing is a term coined by marketing theorists in the 1980s in recognition of industrial business-to-business relationships that persisted over time through the use of long-term contracts (Wikipedia, 2006). Today, the term relationship marketing is overshadowed by the more general term “direct marketing” which has become commonplace in the language of local sustainable agriculture. Direct marketing refers to the relationship between producer and consumer—namely, that there actually is one. Conventional food marketing strategies rely on services of the middle (e.g., processors, distribu-

tors, retailers), which cloak the link between consumer and producer. Direct marketing operates differently. In direct marketing approaches, (usually) small producers make direct links with their consumers and in so doing, garner a fair price for their product while building trusting relationships with consumers.

Relationships are not only key but are absolutely essential for the success of local food systems. Local food systems build on social capital to reduce transaction costs that are used in conventional agriculture to move products from field to market. This feature is what distinguishes local food systems from conventional food markets.

The term relationship marketing is widely used in academic and mainstream market analysis literature. Advocates of the sustainable agriculture movement can learn from this literature, even if they do not agree with its perspective. For instance, several mainstream champions take a clinical, passionless view of the customer as the road to riches by describing relationship marketing as a means to simply maximize profits.

For example, Novo (2004) writes “By molding the marketing message and tactics to the Life-Cycle of the customer [an approach to profile changing customer behavior over time in order to profit from a lifetime of consumption], the relationship marketing approach achieves very high customer satisfaction and is highly profitable.” Novo is a TV home shopping industry guru and self-proclaimed “interactive customer valuation, retention, loyalty and defection expert with [...] years of experience generating exceptional returns on marketing program investments.”

The purpose of his approach is not to create healthy communities, sustain the earth or forward an important social movement but to



increase profits by capitalizing on a dynamic range of consumer behaviors over the course of a lifetime.

Nevertheless, the literature on relationship marketing has something to offer advocates of sustainable agriculture. In 1990, Buchanan and Gillies suggested building Value Managed Relationships between corporate manufacturers (suppliers) and distributors (consumers). The basic principle can be applied to managing relationships between local food system producers and eaters. The primary strategy of Value Managed Relationships is to retain customers not by focusing on the lowest unit price but to reduce overall system costs—something that would clearly benefit time-strapped local food system producers and eaters alike. The purpose is to build customer trust and loyalty to create sustainable systems of local agriculture that succeed in an environment of reduced market transaction costs.

In a nutshell, relationship marketing focuses on customer retention, as opposed to attracting new ones. The cost of retaining customers has been estimated at 10 percent the cost of acquiring new customers, savings of which can be attributed to the following factors (Buchanan and Gillies, 1990):

- Cost is highest upfront at customer acquisition. Thus, the longer the relationship over time, the lower the amortized cost.
- Long-term customers are loyal and tend not to switch (a finding corroborated by our study of collaborative CSA).
- Long-term customers tend to be less price-conscious as the product gains new value.
- Long-term customers refer new customers at no cost.
- Long-term customers are more likely to purchase other products and high margin products.
- Customers that stay tend to be satisfied with relationships and are less likely to switch to competitors, making it difficult for competitors to enter the market or gain market share.
- Long-term customers are less expensive because they are already familiar with the process and require less education.

Relationship marketing is “typically used with higher value goods where the seller has more than one product in which the buyer might be interested” (O’Brien, Hamilton and Luedeman, 2005:13). Thus, relationship marketing is critical for sharing and increasing the value of products (thereby improving the value chain) as consumers become more knowledgeable about the way products are produced and who produced them. This, in turn, translates into consumer affinity for the product, identity with both the product and producer and a premium (or at least a fair price) for the producer. The goal of relationship marketing is not to attain unchecked corporate growth, but to temper growth with well-placed business practices that make efficient use of producers’ time to not only grow and deliver produce but also retain repeat customers. This approach creates transparent channels for information, communication, interaction, service and delivery (O’Brien et al., 2005).

Another feature of relationship marketing is that it treats consumer purchases as a process that takes place over time, making sense of what might otherwise be a jumbled amalgam of unconnected producer-consumer interactions. For small-scale, alternative markets, relationship marketing occurs year round, even before production activities start. It is initiated at times by producers and at other times by members. It also takes place between producers and members, but also among members. Moreover, it becomes the subject of dialogue between members and non-members within their communities.

### *The Role of Relationships in “Small” Food*

One aspect of relationship marketing we hear little about is the notion of scale. While Pollan (2006) contends that small scale agriculture in and of itself is not necessarily a virtue (meaning that “small” food does not necessarily embody sustainable production or organic, for example), small-scale producers are supremely poised in contrast to industrial producers to benefit from relationship marketing because of the relatively small pool of eaters that comprise their markets.

With geographical proximity comes the opportunity for producers to engage in frequent and face-to-face interaction with eaters over time. In short, the leg up that local, small producers have over industrial systems is the ability to provide superior and direct customer service. Indeed, Payne (1995) views marketing and customer service as inextricably interconnected.

Small scale production—usually considered a liability in the context of globalized agriculture—and the ability of producers to personally connect with eaters and other producers with complementary products are crucial assets in creating new forms of agriculture that capitalize on a set of unique resources industrial agricultural complexes cannot mimic.

That said, part of the information we collected in this study focused on the resources small-scale producers are investing in relationship marketing—namely, the amount of time producers and members report communicating with each other, how effective was the communication and member satisfaction with it. By gathering this information, we learned several important lessons about the role of relationship marketing in small-scale local food systems.

### *Producer Investments in Relationships*

CSA producers spend much of their time communicating with other producers as well as CSA members. Producers of collaborative CSA report spending an average of 1.5 hours a week (ranging from 0 to 5) during the growing season communicating with other producers to provide products to members (Table 21). Producers reportedly spent an average of 1.9 hours a month (ranging from 0 to 10) communicating with each other during the off season.

We asked the same question of producers who operated single proprietor CSA. Not surprisingly, these producers spent less time—an average of 45 minutes a week—communicating with other producers during the growing season. Single proprietor CSA producers spent roughly one hour per month communicating with other producers during the off season. Collaborative CSA clearly requires more communication invest-

**Table 21. Time producers spend communicating**

	Average number of hours spent per week communicating with other producers during the growing season	Average number of hours spent per month communicating with other producers during the off season	Average number of hours producers spend per week during the growing season communicating with members?
cCSA producers	1.5	1.9	1.5
sCSA producers	.75	1.2	1.25

**Table 22. Time members spend communicating**

	Average minutes spent per week communicating with producers during the growing season	Percent satisfied with time spent communicating with producers	Average minutes spent per week communicating with other members during the growing season	Percent satisfied with time spent communicating with other members
cCSA members	13.0	73	11.5	72
sCSA members	12.3	91	3.2	75

ments between producers than sCSA; however, sCSA operations still involve communicating with other producers.

Producers said they spend an average of 1.5 hours per week during the growing season communicating with members of cCSA. Although the sample size is small (four responding), sCSA producers reported they spent an average of 1.25 hours communicating with sCSA members. Not surprisingly, collaborative CSA producers spend more time across the board communicating with producers and members than do single proprietor CSA producers. During the growing season only, collaborative CSA producers invested a total of three hours communicating with other producers and members on average compared to the average two hours sCSA producers invested.

Frequency and length of communication are only part of the equation; quality is also important. As such, we asked collaborative CSA producers to rank how effective overall communication was among the growers on a scale of 1 (very effective) to 5 (very ineffective) (we did not ask them to rate the quality of communication with members). The mean was 2.87, suggesting some room for improvement. More targeted study would be helpful in illuminating some of the communication challenges producers face when coordinating with other producers.

### ***Member Investments in Relationships***

How much time do members spend communicating with producers and other members? Are members satisfied with the level of communication they maintain with producers and other members? Are cCSA and sCSA members differentially satisfied?

cCSA members reported they spend an average of 13 minutes per week communicating with producers and organizers of the collaborative CSA (Table 22). There was no significant difference between current members and former members in the amount of time they spend communicating with producers or organizers.

Nearly three in four cCSA members (73%) are satisfied with the amount of time they spend communicating with producers or organizers, whereas 27 percent said it was too little time. There was no significant difference between current and former members regarding satisfaction levels.

Dual members (those who were once members of cCSA and sCSA) reportedly spent an average of 12.3 minutes per week communicating with their sCSA producer. Curiously, while this figure is about the same as the time reported by cCSA members, 91 percent of sCSA members

were satisfied with the amount of time they spent communicating with their sCSA producer. This corroborates qualitative evidence presented earlier that collaborative CSA may face unique challenges in ensuring members receive the information they seek from appropriate producers. In the collaborative setting, there appears to be more opportunities for confusion if communication channels are not clearly defined or understood.

In terms of communication among members, several studies suggest that while the community building aspects of CSA are important, they are not the highest priority (Cone and Myhre, 2000; Kane and Lohr, 1998). Lack of community is not a reason why members drop out. Certainly this will vary from member to member, but as a whole the case is strong. Results from our study concur based on information we collected from members about their communication habits and satisfaction.

Ranging from 0 to 120 minutes, cCSA members reported spending an average of 11.5 minutes per week during the season communicating with other CSA members (after removing one outlier that skewed the mean) (Table 22, page 47). There was no difference in the amount of time reported by current and former members. Nearly three in four cCSA members (72%) were satisfied with this level of communication while 28 percent thought it was too little time. Again, we found no difference between current and former members regarding satisfaction with the amount of time spent communicating with other members. Former members were neither more nor less satisfied than current members.

sCSA members reported spending even less time per week than cCSA members communicating with each other. The average time spent per week during the growing season was 3.2 minutes when

we removed a single outlier of 120, with a range of 0 to 20 minutes. Compared to the nearly 12 minutes reported by cCSA members, this is quite a difference, suggesting that collaborative CSA provides more opportunities for member interaction. To be fair, this is likely a result not related to collaborative or single proprietor CSA but a function of home delivery. All three of the collaborative CSAs had at least one pickup site where members could interact with each other, whereas half of the sCSAs did (the other half had a home delivery option).

Given CSA members of single proprietor CSA spend one-fourth the amount of time that cCSA members spend communicating with other members, would this mean that a greater proportion of sCSA members would be dissatisfied compared to cCSA members? No—three in four (75%) sCSA members were satisfied with the amount of time spent on communication with other members—the same proportion satisfied among cCSA members. The amount of time spent communicating with other members seems to make little difference in regard to satisfaction levels, in marked contrast to satisfaction levels members have with the amount of time they spend communicating with producers. The key lesson here is that CSA members may value their relationship with producers more than they value their relationship to other members.

### ***Innovative Relationship Marketing Strategies***

CSA is more than just an opportunity for direct marketing, it is an opportunity for relationship building. How (and if) CSA producers invest their time communicating with others is important to business success. Although not originally included among the objectives for this study, we learned that some collaborative CSA producers are using their relationships with others to build flexible, creative partnerships that create profits

and sustain their way of life while simultaneously creating multiple benefits for their communities. Below is a list of strategies some CSA producers are using to build stronger relationships with their members, other producers and their communities.

**Relationship Brokering.** By the end of the 2005 growing season, one of the collaborative CSAs participating in this study had dissolved. There were several reasons for this, the most culpable of which was tension among producers and an inability to resolve differences, in part because producers were differentially invested and the organization lacked strong, clear leadership. Concerning the leadership issue, producers were reluctant to invest their time in what appeared to be a sinking ship. With no primary producers willing or able to invest the time in rebuilding failing relationships, coordinators became the champions for a new organization backed by significant member interest when the old one fell apart. To overcome some of the producer tensions and accountability issues, the new structure was designed to allow producers to make decisions about their own operations but not the new organization. In consultation with interested local growers, coordinators reorganized the CSA as a hybrid CSA-buying club model where members can choose from several CSA shares, each produced by a separate producer, or they can choose to buy specific items if demand warrants delivery. Rather than simply managing logistics, the coordinators are using the social capital they developed within the old structures to act as “relationship investors” who are on the ground every week talking with members. The coordinators are representing producers. As a result, the new organization is not a direct market in the strictest sense except that members do have access to producers during delivery and at other times, should they so choose. This arrangement will succeed if

coordinators effectively meet the communication needs of both producers and members in a way that is helpful and beneficial for both groups. The fee structure coordinators have designed to sustain their role will originate from producer fees, a percentage of most produce sold and flat consumer fees to use the service. Two part-time seasonal positions were created in the process.

Although the dissolution of the CSA seems to be far from a success story, time will tell what the long term impact will be on the broader local food system. In the meantime, several lessons can be drawn:

1. Social capital plays an essential role in the survival of collaborative agricultural enterprises. Building and maintaining social capital with members and among producers of collaborative ventures is a time-intensive, long-term process.
2. Social capital is directly tied to the fiscal health of the business. As social relations degrade, the ability of organizations to meet their goals is inhibited, ultimately threatening its health and sustainability.
3. Producers in collaborative ventures should not underestimate the importance interproducer relationships have on their membership. Substantial investments in producer and member communication are required to keep the collaborative not only functional, but effective.
4. Producers who have neither the time, the skills, nor the interest to adequately invest in the relationship aspect of collaborative agricultural enterprises would be wise to find a representative who a) will best represent their interests while meeting the needs of their consumers b) will be skilled at connecting with people and c) already has connections within the local food system.

**Unconventional Labor Inputs and Management.** With all the demands on their time, CSA producers find it difficult to keep up with production, marketing, light processing, business management and other responsibilities. Innovative producers are therefore finding creative ways to take the pressure off by outsourcing some of their labor requirements. Although hardly innovative in the CSA scene where such practices are commonplace, many producers provide opportunities for members to work on the farm sometimes in exchange for a lower share cost. This is telling about the producer-member relationship in CSA where members are not just a market, but a source of reinvestment. These arrangements help educate members about the cycles of nature and the hard realities of agriculture, encourage limited resource families to participate in CSA, and provide CSA farms with labor inputs.

Perhaps what is more innovative are the ways in which some producers are engaging the greater community in CSA. Many CSA operators understand the importance of establishing relationships with local higher education institutions, which are generally a reliable source of interns who are eager, energetic and interested in learning about socially responsible, sustainable production. In exchange for offering practical educational experiences and perhaps even room and board, these CSAs benefit by gaining access to a source of less costly, but reliable source of labor. Just because producers have access to this resource does not necessarily mean they will use them wisely. However, some are. One producer makes sure she interacts with members each week at distribution while her intern is responsible for more practical matters. By understanding the importance of building relationships over time, this producer has strategically and wisely invested her time into the relationship aspects instead of asking the intern to do it, as she and

her members will be there together long after the intern has moved on.

College students are not the only source of labor. Producers are making connections with secondary schools to teach children about agriculture, biological sciences, mathematics, etc. In exchange, the children work in the garden. Other opportunities exist to link up with volunteer organizations in the community as well. One producer had links with a non-profit volunteer organization that serves limited resource families. This connection illustrates merely one way in which some collaborative CSA producers are reaching out to parts of the community that might not otherwise be involved.

**Producing and Partnering for Inclusion.** In general, we expect food raised outside industrial parameters to cost more than food generated from industrialized agriculture. Food produced through conventional channels has the benefit of government crop subsidies while externalizing the true environmental costs (food miles, packaging waste, chemical use, etc.) and social costs (job loss, low wages, poor health and nutrition). Truly sustainable agriculture, on the other hand, accounts for these hidden costs but faces a conundrum of pricing some people out of participation. Relative to conventional agriculture, CSA may cost more to the individual but less to society. Several studies dispute blanket claims that sustainably produced food costs more (CIAS, 2001; Sabih and Baker, 2000), instead holding that in some cases, it actually costs less than conventionally produced organic and non-organic food. Nevertheless, one of the challenges CSA faces is an image of catering to food elites rather than ordinary families operating on modest food budgets.

Some producers of collaborative CSA are eternally conscious of this issue or know others who

are. An active member of one of the collaborative CSAs started a local non-profit to assist limited resource families in accessing sources of fresh, local, healthy food. The non-profit buys food and CSA shares from area farms, using the food as a centerpiece to develop programs that support socioeconomically excluded families. Families enrolled in this program visit and volunteer at the farms and participate in educational activities. In return for the labor enrolled families provide, the CSA provides the non-profit with produce shares. Besides benefits to enrolled families, such an approach benefits the CSA grower in multiple ways—they sell more shares; have access to labor; and reach, educate and nourish families who might not otherwise have access the land, producers, or healthy foods. Inspiration for this partnership emerged when producers and members shared a vision and achieved their mutual goals through connections with each other and outside contacts.

Another way producers are innovatively supporting inclusivity is by combining structures that cater to different kinds of food needs. The hybrid CSA-buying club structure that emerged from the collapse of one of the collaborative CSAs makes it possible for a variety of people to participate. In addition to CSA shares, single items can be ordered from a list posted online every week, functioning somewhat like an electronic farmers' market. In this way, members can regulate what and how much they receive. If current enrollment for 2006 is any indication, this hybrid structure appeals to all kinds of eaters—those who want to experience the surprise and adventure of CSA membership and those who want more control over what and how much local food their household receives. Coordinators and producers hope this system will be more inclusive of families who want to support local food systems, but for various reasons, do not find participation in CSA viable.

**Members as Co-Creators.** CSA is a clear departure from patron-client relationships that typify most market transactions. CSA producers are usually well connected to their members and as a result, generate unconventional relationships that sometimes give rise to new food-related businesses. For example, one CSA producer had access to all the sources of capital, equipment and raw milk to make cheese, but lacked the time to invest. At the same time, the CSA producer had access to a member who had time to make cheese but no capital, equipment, or raw milk. The producer and the member teamed up together to start a cheese operation that provided additional products to members of the CSA, as well as income for the producer and the members. This is only one example where producers and members cooperate as co-creators in creating sustainable local food systems.

**Members as Marketers.** Other activities include members' efforts to recruit and retain members and actively engage in activities that ensure it will remain viable through education about local food systems and the role of consumers. One former cCSA producer who owns her own CSA explained how she chooses to admit new members from a waiting list into her CSA. This producer gives preference to friends and family of existing members not to be exclusive, but to capitalize on the relationship that member already has with the prospective members. The producer believes existing members act as educators by informing friends and family about the benefits and realities of consuming local food, which serves as an advantage in reducing member turnover.

**Creative Producer Partnerships.** Innovative collaborative CSA producers are willing to engage in creative relationships with other producers to better serve their members. For example, producers unable to grow all the produce they

want to offer members means they must source production to other growers who have their own constraints and desires about what they want to grow. One producer with whom we spoke contracted with another producer who likes to grow corn but not harvest it. Because the first producer is willing to pick the corn, she can get a better price for it. She also trades labor at harvest time with other producers. In this way, the CSA gets stronger by allowing producers to expand the variety of products they offer members while connecting with other producers. Although these may, indeed, be “low key cooperative kinds of things” as one producer put it, they are critical elements in establishing CSAs that are financially healthy, efficient and effective.

These are but a few examples of strategies former and current producers for collaborative CSA in Iowa are using to sustain their local food businesses. In CSA, we see that market-based exchange relationships are transformed as participants and partners interact and communicate over time within multiple contexts and with multiple motivations to achieve shared visions of sustainable food systems and communities. Hence, CSA changes the relationships participants and partners have with each other, the land and their communities. This project shows to a limited degree how those relationships are negotiated and what their impacts are. In the process, we have demonstrated the role cultural and social capital play in the creation of these relationships and how they contribute to the success of alternative agriculture enterprise. To summarize entrepreneurialism among some of the CSA producers participating in the study, we found that innovation surfaces through the development of pioneering, synergistic, reciprocal relationships with members, community non-profits and other producers. These relationships urge the cycle of

interdependent relationships to continue within the local food system with resulting positive impacts on social, human, cultural, natural and financial capital.



# SCIENTIFIC CONCLUSIONS

Collaborative CSA in Iowa incubates new farm-related enterprises such as single proprietor owned CSA and agri-tourism enterprise. It also plays a significant role in helping producers expand and diversify existing farm enterprises and serve new markets. Furthermore, collaborative CSA plays a role in inspiring producers to plan new farm-related businesses. Collaborative CSA also provides workforce development by equipping producers with skills, knowledge and networks they need to pursue off-farm careers in sustainable agriculture.

The benefits collaborative CSA producers derive from participation are varied. Overall, producers experience the most benefits in terms of natural capital, social capital and cultural capital. Producers experienced the least benefits as they relate to financial and political capital. Women and men producers differed in benefits they received from participation. Women producers of collaborative CSA are more likely to report social and cultural capital benefits. Given the majority of producers involved in Iowa's collaborative CSA are women, collaborative structures may be more important to women producers because of the role they play in building women's social and cultural resources.

Producers in collaborative CSA are more likely to report they receive others- or collectively-oriented benefits rather than individual, personal benefits from participation. In order to create viable local food systems, strategies must be devised to design local food institutions that reward the individual as much as the collective to ensure that producers have adequate incentives to participate.

Participation in collaborative CSA was very influential in helping producers make decisions about their farm- or food-based business. Specifically, participation:

1. Provides growers with local food production opportunities they might not otherwise have had.
2. Educates producers about the practical aspects of sustainable farming, time management, marketing, consumer preferences and the need for consumer education.
3. Provides producers the opportunity to specialize in specific crops/products.
4. Educates producers about the realities of cooperative business arrangements including issues of power and control.
5. Builds producer confidence and pride.
6. Stabilizes and diversifies farm income.

Each of these contributions helped producers make better decisions about their approach to local food system production including those who decide to drop out altogether.

Unlike producers, members reported the greatest benefits were related to financial capital. However, these financial capital benefits have to do with economic opportunities for their communities, not necessarily themselves. Current members were more likely to report (collectively-oriented) financial benefits than former members, which may have implications on the way in which CSA advocates might effectively frame reasons why people should participate.

Members concurred with producers that they also enjoy a high level of environmental ben-

efits from participating but relative to the other capitals, experience lower levels of social and cultural benefits. Yet like producers, members also experience few political benefits, which suggests that both groups do not make an explicit link between their own food consumption and specific political impacts we measured. However, length of residency was related to political benefits indicated by the finding that long-term residents were more likely to report political capital benefits than were short-term residents.

Members of collaborative CSA are also more likely to report they receive others- or collectively-oriented benefits rather than individual, personal benefits from participation.

We conducted an extensive analysis of reasons why members might choose to leave collaborative CSA in order to better understand how to retain members. Within the scope of the study, we examined predictors of retention including appeal of CSA features, demographic characteristics of members, level of member involvement, single versus multi-producer proprietorship, type of community capital benefits experienced, the diversity of capital benefits experienced and the individual versus collective benefits experienced. In terms of CSA features, we learned that many members drop out because of difficulty coordinating member schedules with weekly deliveries and receiving an amount of produce appropriate to household food needs throughout the season. Given these challenges, it is not surprising that many former CSA members indicated farmers' markets were a better fit. Poor food quality, lack of food preparation knowledge and lack of social connections provided by the CSA were much less frequently cited reasons for member attrition. Cost ranked seventh among 22 reasons why members dropped out.

Besides examining the features of CSA and how it relates to member attrition, we also examined the link between attrition and demographic characteristics. The number of years members had been in the CSA was the only demographic characteristic positively associated with likelihood to stay. CSAs would therefore be wise to invest resources in member retention strategies to ensure a more stable future.

The extent to which members were involved in the CSA had no bearing on attrition. That is, members who were most involved by providing services to support operation of the CSA, helping in decision making, visiting participating farms, or communicating with others who were involved were no more or no less likely to drop out than those who did not make the same investments. (Dis)satisfaction with the amount of time spent communicating with producers and members was also not helpful in predicting attrition. Any way we measured it, the level of CSA involvement made no difference on retention.

“Dual members” or members who have joined both multi-producer and single proprietor CSA report no differences in benefits they have received from each CSA according to the community capitals framework. However, dual members were more likely to say they took part in farm-based festivals, tours and events and develop a connection to the land by participating in single proprietor CSA. Dual members were also more likely to report learning more about how their food is grown and learn about who is growing their food as members of single proprietor CSA. These results suggest that single proprietor CSA may provide channels that are easier for members to navigate for accessing producer and production information and connecting to the land.

Current members were more likely than former members to report financial/built, human, cultural and social capital benefits. Retention strategies might therefore be rewarded with investments that target these benefits of participation as opposed to the environmental or political benefits. Retention strategies should also focus on marketing the wide variety of benefits members can receive from participation, based on evidence we found that members who experienced benefits across a broader array of capitals were more likely to stay than those who did not. Another way to frame the argument in support of participation is the collective and individual benefits it brings to members. We found that current members were more likely to report more individual and collective benefits than former members.

While some former collaborative CSA members view farmers' markets as a better fit for their household food needs, we cannot conclude that farmers' markets directly compete with CSAs based on information we gathered about CSA members' patronage of other local food markets. An overwhelming majority of CSA households supplement their collaborative CSA share either by growing their own produce/raising livestock, or by buying local farm products from sources other than collaborative CSA. When it comes to supplementing, current members were more likely than former members to supplement using home production sources. We concluded that activities in home production may be indicative of members' identification with land and the source of their food, and thus a propensity to support others who make a living from it. There was no difference between former and current members supplementing their shares through farmers' markets, suggested that farmers' markets actually complement collaborative CSA as opposed to supplant it. So while collaborative CSA may indeed be losing some members

to farmers' markets, the loss is not statistically significant, leading us to conclude there may be other reasons contributing to member attrition. Member participation in supplemental food provisioning clearly suggests that participation in collaborative CSA does not wholly meet household food needs nor does participation in single proprietor CSA. We found that members of multi-producer and single proprietor CSA are equally active in supplementing their shares. But rather than competing with CSA as one might guess, other direct food markets such as farmers' markets, U-pick operations, direct farm sales and local food coops appear to be providing complementary options to meet members' complex local food needs.

In determining whether high membership turnover in collaborative CSA creates high demand for single proprietor CSA, we found some interesting results. Despite evidence that member multi-producer and single proprietor CSA are equally active in supplementing their shares from other local food sources, some members have left collaborative CSA to join single proprietor CSA. Some switched because single proprietor CSA offered a better location, convenience, or more suitable delivery options. Others switched because they said single proprietor CSA provided a more responsive, tailored, personalized experience. One of the issues facing collaborative CSA is therefore ensuring that producer-member relationships do not get obscured by too many farmers with too many faces. We determined that while some members feel they are more satisfied by single proprietor CSA, this is not necessarily the result of the multi-producer structure but rather how well that structure communicates information about production methods and producers to members.

Also a key factor in creating high demand for more single family owned CSA is not just mem-

ber turnover, but producer turnover in collaborative CSA. Producers dissatisfied with the collaborative model often established their own CSA. And finally, we should not overlook the relationship between member turnover and producer turnover. In this study, the collaborative CSA with the highest member turnover rate also had the highest producer turnover. While three cases hardly provide us with generalizable findings, it does suggest that producer and member turnover may be related. In summary, greater demand for more single family owned CSA appears to be related to high member turnover, high producer turnover, and a link between the two phenomena.

CSA producers have demanding schedules. They must manage labor inputs, production, harvesting, light processing, packaging, delivery/distribution, customer recruitment and retention, marketing, education, business management and more. Local food system entrepreneurs who capitalize on relationships they have with a variety of people (producers, members, community organizations) to share these responsibilities in low-cost, efficient and useful ways are innovators. Moreover, they appear well positioned to run more sustainable, successful operations.

Producers for collaborative CSA spend more time communicating with other producers and members than producers of single proprietor CSA. And while members of collaborative and single proprietor CSA spend about the same amount of time communicating with producers, they are not equally satisfied. Single proprietor members are more satisfied, leading us to conclude that Iowa's collaborative CSAs face challenges in delineating channels and opportunity for communication. Results suggesting that members of collaborative CSA spend more time interacting with each other compared to single proprietor CSA may actually be attributed not

to the multi- or –single proprietor structure, but a function of home delivery. Not surprisingly, CSAs with home delivery offer less frequent opportunities for member interaction. Even though members of single proprietor CSAs (with home delivery) spend less time interacting with each other than collaborative CSA members, they are equally satisfied as collaborative CSA members with the amount of time spent on this activity. We can conclude from these results that members appear to be more interested in establishing relationships with producers than relationships with members, suggesting we rethink what it means to build “community” in CSA by considering different ways in which it is accomplished.

CSA is more than just an opportunity for direct marketing, it is also an opportunity for relationships to grow. How CSA producers invest their time communicating with others is important to business success. Although not originally included among the objectives for this study, we learned that some collaborative CSA producers are using their relationships with others to build flexible, creative partnerships that create multiple benefits for themselves and their communities. We have highlighted several strategies some CSA producers are using to build stronger enterprises and communities.

1. **Relationship Brokering.** Some producers are relying on relationship brokers to dedicate the time and effort necessary for building relationships with members and other producers. These producers realize that building and maintaining social capital with members and among producers of collaborative ventures is a time-intensive, long-term but critical process. They also realize social capital is directly tied to the fiscal health of the business.

2. ***Unconventional Labor Inputs and Management.*** Producers of collaborative CSA can share their labor responsibilities by turning to unconventional sources of labor such as their members and the broader community. Using members as labor inputs is not innovative to CSA, but involving the broader community is. Producers who are reaching out far into their communities and strategically managing that labor may be having a greater impact than those relying on their membership.
3. ***Producing and Partnering for Inclusion.*** In an effort to be more inclusive and become more sustainable, some producers are participating in ventures that appeal to different kinds of eaters—those who can afford the cost and adventure of CSA membership and those who cannot. Participating in these structures sustains local production by providing more income for producers, but also involves families who might not otherwise be able to participate because of their financial situation, schedule limitations, household size, or unique eating habits. Some producers are also being more inclusive by partnering with non-profits who are using CSA shares in programs for socioeconomically excluded families. In return for reciprocal investments these families provide, the CSA provides the non-profit with produce shares. Besides benefits to enrolled families, such an approach benefits the CSA grower in multiple ways—they sell more shares; gain access to labor; and reach, educate and nourish families who might not otherwise have access the land, producers, or healthy foods.
4. ***Members as Co-Creators:*** CSA producers are usually well connected to their members and tend to generate unconventional relationships that give rise to new food-related businesses. Producers of collaborative CSA are no exception. In at least one case, a CSA producer and member combined their assets to create a new business that provided additional products to members of the CSA, as well as new income for both the producer and the co-creating member. The fact that something like this could even occur shows how CSA producer-member partnerships can and do transcend traditional patron-client relationships.
5. ***Members as Marketers:*** Many producers recognize the valuable role members play in advocating and marketing for the CSA. Innovative producers are taking strategic advantage of members' social capital to actively engage them in the process of recruiting new members or to educate their friends and family about the impact their food decisions have on the environment, economy and society.
6. ***Creative Producer Partnerships:*** Collaborative CSA producers are initiating unconventional, creative relationships with other producers to better serve their members. These partnerships act as the CSA producers version of agricultural efficiency. To accommodate their particular skills and interests, producers may source out production of certain crops, livestock, or food products to other growers or processors who have their own ideas about what they want to grow. By sourcing out local production locally, the innovative CSA producer can offer a wider array of products but also involve more local producers in the process while at the same time extending the impact of the local food dollar. Although these may, indeed, be “low key cooperative kinds of things” as one producer put it, they are key elements in establishing local alternative food institutions that are financially healthy, efficient and effective.

Iowa's collaborative CSAs are changing the face of agriculture. Among them, we found a group of innovative agricultural entrepreneurs who are transforming the relationship agriculture has with their communities. Central to this process of transformation is the belief that eaters are more than just vessels of consumption—they are partners in production—and not just production of agriculture but production of healthy economies, environments and societies.

## *Limitations*

The results reported here only represent the members who participated in this study. They do not represent those who did not participate. The image we have drawn about collaborative CSA in Iowa is therefore subject to non-response error from at least two sources: 1) the CSA that chose not to participate, and 2) error from non respondents of CSAs that did participate. A noteworthy difference between the CSA that chose not to participate and those that did is that the non-responding CSA serves a rural area, while the others were largely urban-serving. We expect this difference to have changed the demographic profile of both members and producers but not to have impacted the other results in a significant way.

In addition, producers' and members' experiences are mediated by the way in which their respective collaborative CSAs function and perform. Members of one CSA may report wholly different experiences unique to the operation of that CSA. Some experiences, however, will be unique to the collaborative CSA experience. While we have the capability to compare results by CSA, the purpose of this study was not to compare and contrast each CSA, but to paint a bigger picture of collaborative CSA in general.

# IMPLICATIONS

The implications of the results presented in this report suggest that collaborative CSA may serve as an effective model of business and community development in rural areas adapting to changes in agriculture. Opportunities of multi-producer collaboration provide aspiring and existing producers the chance to:

- Try new agricultural enterprises while minimizing risk.
- Expand existing markets.
- Diversify farm operations.
- Access a larger and more diverse market to which producers might otherwise not have access as single producers.
- Gain immediate access to established local food system networks.
- Access producer support networks.
- Gain confidence as they try out new agricultural tactics and techniques.
- Cooperate instead of compete with other producers.
- Offer a wider variety of local food products.
- Fill crop or production gaps.
- Focus on preferred products.
- Stabilize and diversify farm income.
- Stabilize and diversify household income.
- Share business and production risks with other producers.
- Share business management responsibilities with other producers.
- Exchange production and marketing knowledge with other producers.
- Engage in mutually beneficial exchange relationships with other producers.

However, there are also several issues to consider when organizing multi-producer associations.

If addressed up front, these issues can provide outstanding opportunities for team building. Agricultural entrepreneurs interested in forming collaborative CSAs should be aware that:

- Participants (producers, organizers and members) must share a vision for the organization and buy into it equally.
- Collaboration requires significant investments in relationship-building activities with other producers. Transparency and diplomacy are essential characteristics of successful collaborative CSAs.
- Producer turnover should be minimized as it is likely to interrupt the continuity of both member-producer and producer-producer relationships.
- Collaboration requires substantial investments in relationship-building and communication activities with members. Not only do members want to learn from producers, but producers benefit from interaction with members by learning more about their preferences and how to accommodate them.
- Communication channels must be clearly defined and understood to support the free flow of information between all cCSA participants.
- Member retention depends on effective communication and coordination among producers.
- Decision-making is risky, but necessary. Not only should channels for decision-making within the cCSA be clearly understood, but there should also be people willing to take risks by making decisions. Collaborative structures help leaders access greater breadth and depth of information, garner more

broad-based support and better manage (and reduce) risks associated with decision-making.

- Decision-making channels should be created that focus on equity, not equality. Such structures must take into account differential investments of different producers (and/or members if it is a member-driven cCSA).
- Multi-producer associations require significant investments in everyday management and coordination. Decisions must be made about who will take on and carry out these responsibilities and how they will be justly compensated.



# OUTREACH AND EVALUATION

**N**CRCRD has participated in two different outreach activities in conjunction with this project.

1. NCRCRD worked closely with a small group of coordinators and producers in central Iowa to establish a new multi-producer local foods marketing initiative. NCRCRD presented and discussed research results relevant to the organizational efforts of this group to organize and design a local food system market around features members said were appealing in the study. NCRCRD helped the group define its purpose and develop an appropriate mission statement. NCRCRD also suggested creation of a web site and helped with its development.
2. NCRCRD was invited by Bridging Brown County, a county-based grassroots citizens' group in southeastern Minnesota, to conduct a workshop with a group of loosely organized, small-scale livestock and vegetable producers. Teaming up with a former cCSA and current sCSA producer, NCRCRD drew on its research to engage the Minnesota producers in a conversation centered on issues of sustainability and the importance of local food systems in community and economic development. We also engaged the producers in conversations related to practical issues of organizing a multi-producer association, as well as the benefits and challenges. Presentation materials from the workshop are available at <http://www.ncrcrd.iastate.edu/projects/csa/growingassets.pdf>.

For the project evaluation, NCRCRD invited alternative food system practitioners and professionals in the North Central Region to participate in a conference call in June, 2006. The purpose of the call was to build on their expertise and experience to help us plan and design future outreach activities to serve local food system advocates and educators in the region. We sent the participants a copy of the full report and synopsis in advance, and then asked them to reflect on:

- Ways in which they can use the research to help them understand opportunities and possibilities in alternative agriculture in their area.
- How they see this research making a difference and furthering the work they are doing.
- How NCRCRD can best disseminate information gained in this project to reach audiences that might make a difference.

Several who could not attend the call provided written comments. The feedback we received is summarized as follows:

Food system practitioners and professionals offered insights into how the research can help them understand opportunities and possibilities within alternative agriculture. Specifically, they said the research helps them understand:

- Strategies for building farmer capacity.
- Approaches that keep farm families on the land.
- The intricacies and complexities of farmer-to-farmer networks.

- Opportunities the collaborative CSA model and other multi-producer local food system models provide in terms of local workforce development.
- The role of relationship brokering in small business success.
- Nuances of organizational development in small, rural-based business.

Participants also reported that the research will help them:

- Identify the strengths of multi-producer associations in their area and how to build on those strengths to better serve these groups.
- Help growers better manage risk in terms of using multi-producer arrangements to reduce risk and stimulate more small-scale, agriculture-based enterprises.
- Help conventional producers consider transitioning into alternative agriculture.
- Structure collaborative producer ventures.
- Strengthen producer-to-producer relationships.
- Transfer and apply this model to promote other kinds of local business efforts (not necessarily agriculture-based) such as the sale of arts and crafts through local artist collaboratives.

Call participants said the research will make a difference in their work by helping them:

- Build farmer capacity.
- Employ strategies that reduce the risks for growers.
- Encourage growers to build communication skills.
- Engage more growers in alternative farming by focusing on risk management benefits.
- Help growers capitalize on their skills and strengths.

- Foster networks between producers with different, but complementary skills and strengths.
- Help growers find the “other leg” of the proverbial “three-legged sustainability stool” (referring to the triple bottom line of a healthy economy, environment and society).
- Assist growers in recognizing local natural resource strengths.
- Encourage growers to partner with others and farm in geographically and environmentally appropriate ways.
- Foment practical guidelines for small business owners and farmers.
- Aid farmers in understanding the importance of brokering, communication and business development.
- Provide opportunities for new farmers.
- Connect experienced farmers with new growers in alternative agriculture.
- Approach experienced farmers to share information to combat isolation.
- Help other alternative agricultural marketing organizations support the creation and proliferation of local food businesses.

Finally, the local food system practitioners and professionals with whom we communicated suggested NCRCRD use the research as a springboard to launch the following strategies as part of an outreach program to support and promote local food system development:

- Compile practical guidelines for small business owners and farmers.
- Compile practical guidelines on pursuing collaborative efforts.
- Facilitate the development of local resource networks by asking experienced farmers to volunteer as information resources for new farmers. This program could be modeled after the Project Leaders model in 4-H where people agree to be called and serve as resources for specific topic area(s).

- Produce a publication that discusses alternatives to conventional agriculture and the benefits of risk-sharing through collaboration (help farmers and others see opportunities and possibilities).
- Develop brief single topic publications two to four pages long. Possible topics include collaboration, relationship marketing, strategic brokering and risk management.
- Put all print publications on the Web, but don't rely on the Web as the initial or primary vehicle for reaching people.
- Contact local food system groups and ask them to include a summary of this project in their newsletter (such as the Iowa Network for Community Agriculture and others).
- Contact the Beginning Farmer Program at ISU to see how they might use information from this project in their outreach and Extension activities.
- Ask the Agricultural Marketing Resource Center and ISU's Value Added Agriculture Program to link their Web sites to publications from this research (in other words, keep organizations like these apprised so they can improve their services to support value-added and local foods based businesses).
- Consider producing a publication that targets aspiring local or alternative food-based entrepreneurs that would be useful for them in securing capital. Helpful information might include statistics that show there is consumer support for local foods.
- Develop an Extension publication that summarizes the research results. In the report, highlight short stories/lessons and meaningful, useful statistics.
- Write a press release about the study to attract popular Iowa media attention.
- Work to develop a curriculum guide for Extension educators.

- Conduct small (12-15 people), informal, hands-on workshops with Extension educators to deliver the curriculum guide.
- Conduct and/or facilitate small (12-15 people), informal, hands-on workshops with farmers to describe research results and most importantly, to show how the results can inform what they do.
- Incorporate the practical implications of the research into pre-existing statewide (or regional) Extension educator training such as the Iowa Café II training (conducted by Iowa State University Extension and Practical Farmers of Iowa with financial support from the USDA's Sustainable Agriculture Research and Education program).
- Contact Iowa high schools to see if they will include information like this in their agricultural curricula or agricultural entrepreneurship programs.
- Contact Iowa's community colleges such as Marshalltown Community College and Indian Hills Community College to see how they might consider incorporating the findings into their sustainable agriculture programs.
- Facilitate the creation of local communities of practice that involve Extension, local food system advocates, local economic development people and interested others such as health-based coalitions.
- Help local food system advocates identify parts of the research they can use, identify strategies for action and create an environment where action can take place.
- Ensure that sustainable/local food system information clearinghouses and organizations have access to results and practical implications of the research.



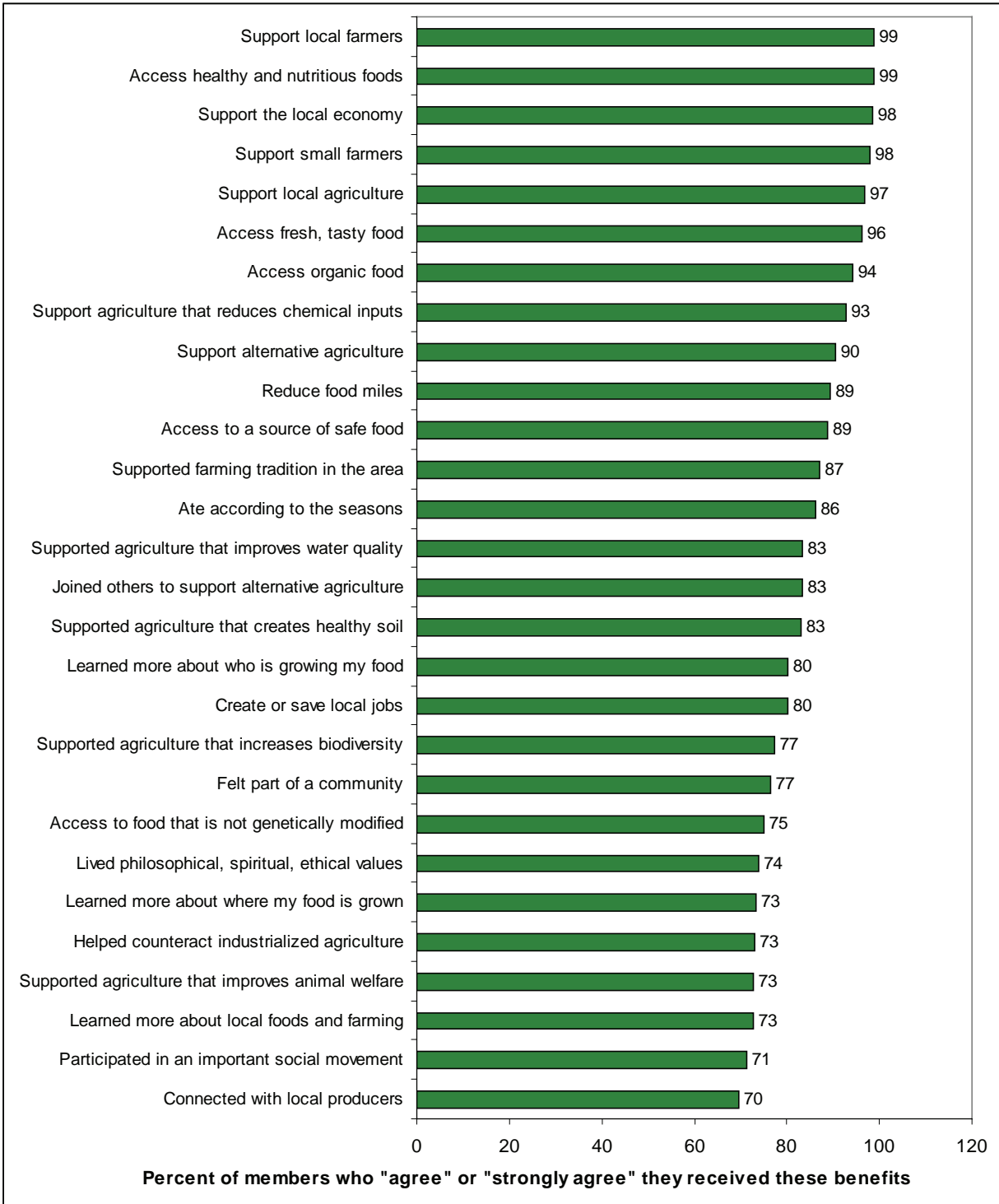
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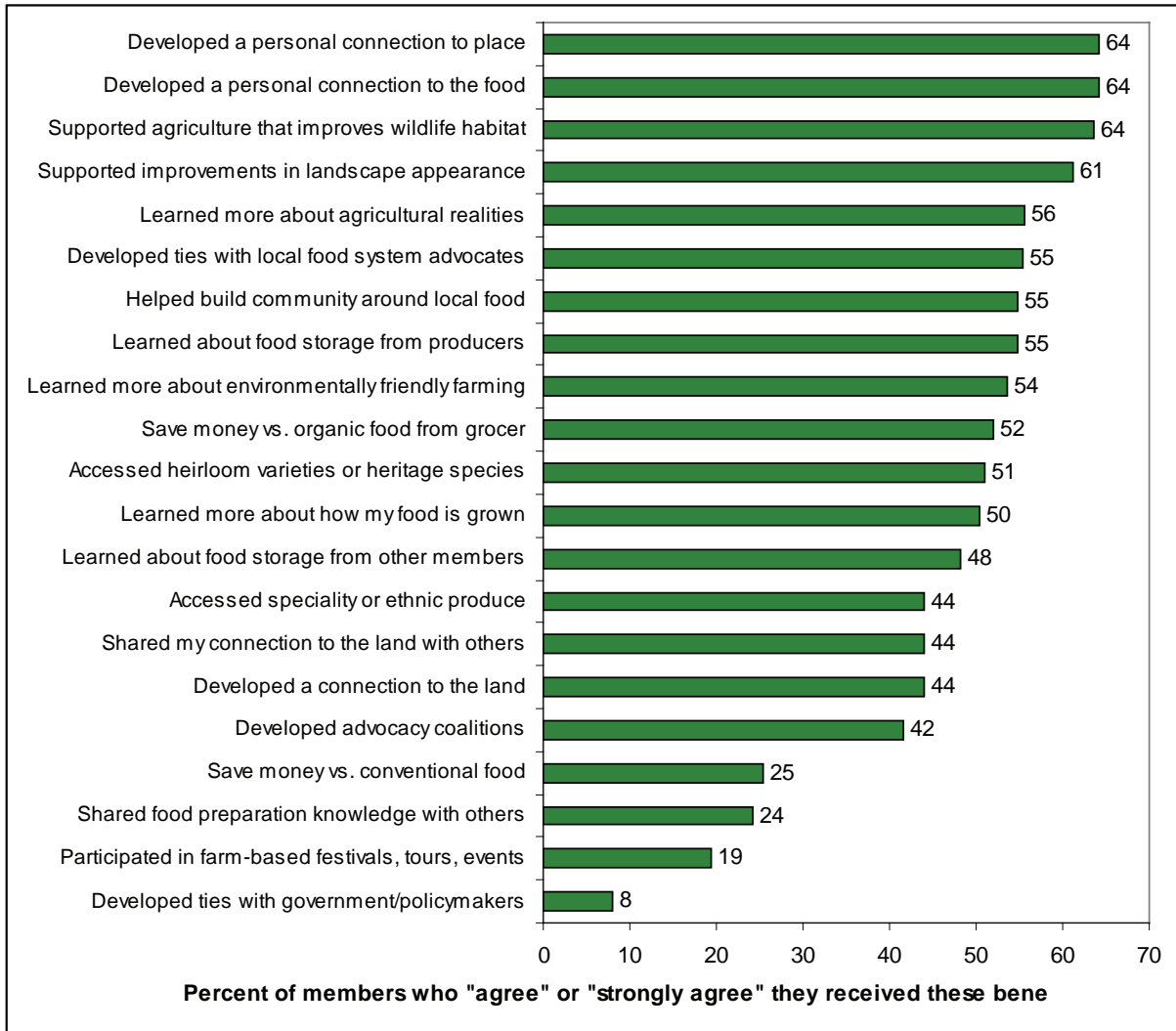
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# APPENDIX

## Appendix 1. Percent of members who receive CSA benefits



**Appendix 1. Percent of members who receive CSA benefits, continued**





## Appendix 2. Producer survey self- and others-oriented items

Individual measure (self oriented)	Collective measure (others oriented)	Measurement and Analysis of Community Outcomes of Participation in Collaborative CSA
	X	Help CSA members connect with the land through farm tours, garden tours, work opportunities, etc.?
	X	Share your knowledge of environmentally friendly farming or animal husbandry techniques with other producers and groups?
	X	Be a part of educating the community about local food systems and the realities of farming?
	X	Offer local residents access to healthy and nutritious foods?
	X	Increase biodiversity (by growing heirloom varieties, raising heritage animals, or cultivating something other than row crops)?
	X	Reduce chemical inputs into the environment?
	X	Reduce food miles to get your farm products to market?
	X	Improve the appearance of the landscape?
	X	Improve soil health?
	X	Improve water quality?
	X	Improve animal welfare?
	X	Improve wildlife habitat?
	X	Counteract the effects of industrialized agriculture on a community or regional scale?
	X	Develop or maintain advocacy coalitions that support healthy local or regional communities?
	X	Participate in an important social movement?
	X	Build trust among CSA members?
	X	Establish a broader network of relationships in the community?
	X	Strengthen relationships in the community?
	X	Help CSA members connect with each other or other community members through farm or CSA-hosted events, festivals, potlucks, etc.?
	X	Build a sense of shared identity with other producers?
	X	Maintain a sense of shared identity with members of the community around local or organic foods or farm products?
	X	Build relationships with members of different cultural or ethnic groups?
X		Stay connected to the land?
X		Live your philosophical, spiritual, or ethical values?
X		Buy land or a farmstead?
X		Acquire other farm assets? Please list _____
X		Access new markets?

X		Gain new consumers/customers for your non-CSA farm products?
X		Increase your household income?
X		Stabilize your household income through pre-season contracts with members?
X		Diversify farm income?
X		Reduce or share risks associated with farming?
X		Provide income-generating activities for household children/minors?
X		Reduce time spent gaining access to markets?
X		Reduce time spent managing farm business aspects like billing, managing accounts, etc.?
X		Reduce time spent communicating with CSA members?
X		Reduce time spent performing farm duties by increasing access to CSA member or volunteer workers?
X		Reduce time spent distributing farm products to CSA members?
X		Make good use of your agricultural skills?
X		Access knowledge of more experienced producers?
X		Put into practice your knowledge of environmentally friendly farming or animal husbandry techniques?
X		Increase your knowledge of environmentally friendly farming or animal husbandry techniques?
X		Develop relationships with local food system advocates?
X		Develop relationships with local government?
X		Develop relationships with county or regional government?
X		Develop relationships with state or federal government?
X		Make professional connections with other producers?
X		Make personal connections with other producers?

### Appendix 3. Member survey self- and others-oriented items

Individual measure (self oriented)	Collective measure (others oriented)	Measurement and Analysis of Community Outcomes of Participation in Collaborative CSA
	X	I supported local agriculture
	X	I supported the farming tradition in area
	X	I helped support the local economy
	X	I helped create or save local jobs
	X	I helped support local farmers
	X	I helped support small farmers
	X	I helped reduce food miles
	X	I supported agriculture that reduces chemical inputs
	X	I supported agriculture that improves water quality
	X	I supported agriculture that creates healthy soil
	X	I supported agriculture that improve animal welfare
	X	I supported agriculture that increases biodiversity
	X	I supported agriculture that improves wildlife habitat
	X	I supported agriculture that improves landscape appearance
	X	I helped support alternative forms of agriculture
	X	I helped counteract the effects of industrialized agriculture on a community or regional scale
	X	I participated in important social movement
	X	I helped develop or maintain advocacy coalitions that support healthy communities.
	X	I shared my connection to the land with others
	X	I joined others to support alternative agriculture
	X	I helped build community around local food systems
X		I lived my philosophical, spiritual, ethical values
X		I developed a personal connection to the food I eat
X		I accessed specialty or ethnic produce or farm products
X		I took part in farm-based festivals, tours, events
X		I developed a personal connection to the place I live
X		I developed a connection to the land
X		I saved money by buying a CSA share instead of buying organic food from grocer
X		I saved money by buying a CSA share instead of buying conventional food from the grocer
X		I had access to healthy and nutritious foods
X		I had access to fresh, tasty food

X		I had access to organic food
X		I had access to source of safe food
X		I had access to food that is not GMO
X		I learned more about who is growing my food
X		I learned more about where my food is grown
X		I learned more about local foods and farming
X		I learned more about the realities of agriculture
X		I learned more about how my food is grown
X		I learned about food storage or food preparation techniques from other members
X		I learned about food storage or food preparation techniques from producers
X		I learned more about the issues associated with environmentally friendly farming or animal production methods
X		I ate according to the seasons
X		I accessed heirloom varieties or heritage species
X		I developed relationships with local food system advocates
X		I developed relationships with government or policymakers
X		I felt part of the community
X		I connected with local producers