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UNDERSTANDING INCUBATOR FARMS:
INNOVATIVE PROGRAMS FOR NEW FARMER DEVELOPMENT

By

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Bachelor of Arts, Harvard University, Cambridge, MA, 2003

Thesis

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for the degree of

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Understanding Incubator Farms: Innovative Programs for New Farmer Development

Chairperson: Neva Hassanein

With the average age of farmers climbing close to retirement and an increased demand for locally and sustainably grown food, there is a great need for new and beginning farmers, particularly those engaged in alternative production practices. But the barriers to entry for these new farmers are high; land access, start up costs, finding a spot in the market, and a lack of social support all pose challenges. The last few years have seen an increased interest in supporting beginning farmers and the creation of new programs to do so. Incubator farms are one such promising strategy. Incubator farms are organizations that address the obstacles faced by beginning farmers by offering some combination of farming education, hands-on training, and low-cost access to land and infrastructure to help aspiring farmers start new agricultural businesses.

Despite the rise in beginning farmer training programs, Niewolny and Lillard (2010: 65) have described it as one of the most “poorly understood areas of agriculture, food systems, and community development research and practice.” This research aims to further knowledge of this area by studying one approach, incubator farms, in depth and then bridging research and practice. Three case studies of existing incubator farm programs are presented: Viva Farms in Skagit Valley, WA; the Elma C. Lomax Incubator in Cabarrus County, NC; and Urban Edge Farm in Cranston, RI. Research methods include 30 in-person interviews with program staff and new farmer participants, site visits, and a review of program materials. Interview transcripts, field notes, and program materials were coded and analyzed to identify common themes. The farmers valued these programs for providing knowledge and information, physical infrastructure (reduced startup costs), access to land, support and camaraderie, and collaborative action. These benefits arise because the farmers are in close proximity: they create a community of growers. Most farmers were comfortable farming leased land, felt that the program was worth the challenges, and said that they would not have their own farm operation otherwise. Lessons learned are drawn from the research and recommendations are made for establishing future programs in other locations, with a focus on Missoula, Montana.

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INCUBATING NEW FARMERS

As Christina Dedora and I sat in the grass next to the big old white dairy barn basking in the autumn sun, she told me how she fell in love with farming while interning in France. When she came back to the United States, she tried to get into farming in Massachusetts, but at the time, she found it very hard to break into the field. No one was interested in an inexperienced farm worker, and there were no internship opportunities or resources for beginning farmers. She ended up working in a flower shop, and eventually got a job on a farm. After working there for a few years, Christina tried to make a go of it on her own: she rented greenhouse space, grew flowers, worked four farmer's markets, did landscaping, and sunk money into what turned out to be a poor retail location. Despite her hard work, she eventually had to stop farming and get a "normal" job to work her way out of debt. Then one day a few years later, she was reading the newspaper and saw an ad for Urban Edge Farm asking, "Do you want to farm?" When she read the ad, she explained to me, "I was like, 'I want to farm!' and that's how I found out about the program with Southside Community Land Trust (SCLT), which was tremendous." She pauses as tears well up in her bright eyes. "I get choked up... This is such a resourceful place to be that here I am six years later."

With the support of SCLT's incubator program for beginning farmers, Christina established her own operation, known as Blue Skys Farm. When I visited in October 2011, she was nearing the end of her sixth year running Blue Skys and her first season farming full-time. Her story is just one of many I heard while visiting three incubator programs for beginning farmers around the United States. While the details of each story are unique, the common thread tying them together is how this innovative farm model has helped new farmers overcome the obstacles they faced to starting their own farm operations.

Introduction

With the average age of farmers climbing close to retirement and an increased demand for locally and sustainably grown food, there is a need for beginning farmers, particularly those engaged in alternative production practices. But the barriers to entry for these new farmers are high; land access, start up costs, finding a spot in the market, and a lack of social support all pose challenges. The last few years have seen an increased interest in supporting beginning farmers and the creation of new programs to do so.

Incubator farms are one such promising strategy. Incubator farms are organizations that address the obstacles faced by beginning farmers by offering some combination of farming education, hands-on training, and low-cost access to land and infrastructure to help aspiring farmers start new agricultural businesses. In contrast to classroom-based business support programs or some experiential farming programs, these incubator farms are land-based and have the explicit goal of helping to establish new businesses, not just to teach farming skills.

After sixty years during which agriculture industrialized dramatically, there is a burgeoning interest in the sustainability and security of our food system. Change continues, as local and organic food capture a growing share of the market and a new generation aspires to farm – but not necessarily with the benefit of inheriting a family farm. Despite the rise in beginning farmer training programs, Niewolny and Lillard (2010: 65) has described the topic as one of the most “poorly understood areas of agriculture, food systems, and community development research and practice.” This research aims to further knowledge of this area by studying one approach, incubator farms, in depth and then bridging research and practice. My goals are to better understand the structure and function of incubator farms, to learn from previous efforts, and to make recommendations about the establishment of future incubator farm

programs, with a particular focus on Missoula, Montana.

The remainder of this chapter lays out the significance and methodology of this research. Chapters Two, Three, and Four profile three existing incubator farm programs around the country, focusing on the structure and function of each. Chapter Five compares the three individual cases and considers the lessons for future programs.

Significance

The problem of industrial agriculture. Since the Second World War and even before, the structure of American farming has come to be dominated by industrialized, commodity agriculture, a system “grounded on the belief that the primary objectives of farming should be to produce as much food/fiber as possible for the least cost. It is driven by the twin goals of productivity and efficiency” (Lyson 2004: 371-372). In recent decades, the dominance of industrialized, commodity agriculture in the food system has been accelerated through the globalization of markets, consolidation of power, contract farming, and vertical integration (Lyson 2000). Kloppenburg et al. (1996: 36) argue that global food system creates economic and social distancing, which they call “one of [its] most salient characteristics,” and describe a number of problems that result. In particular, they point out:

Much of the power of agribusiness ultimately depends on farmers and consumers *not* knowing. If we do not know, we do not act. And even if we do know, the physical and social distancing characteristic of the global food system may constrain our willingness to act when the locus of needed action is distant or when we have no real sense of connection to the land or those on whose behalf we ought to act. Ultimately, distancing disempowers.

Hendrickson and Heffernan (2002) build on this work to describe how power in the dominant food system is controlled by just a few actors who have the capacity to act over great distances. The distancing created by the dominant food system limits access to knowledge and also to the

physical resources needed to farm.

Although industrial agriculture is extolled by some for its purported yield increases, it is excoriated by others for the environmental and social impact of its production practices. This highlights a “debate related to the categorization of First World environmental movements as driven by consumption issues (environmental quality or amenities) and Third World movements driven by production issues (livelihood struggles)” (Goodman and Redclift 1991, cited in Neumann 2005: 116). There is evidence that “such sharp distinctions are unwarranted and oversimplify the complexities of First World agroenvironmental conflicts that involve production and consumption concerns” (Neumann 2005: 116). Critics of industrial agriculture often focus on the environmental impacts, but industrial agriculture has an impact on livelihoods as well. It is possible to view industrial agriculture in an apolitical way, in which it becomes all about technology, increased yields, labor-saving, and “progress.” But viewing industrial agriculture in a political context, in the broad sense of politics as power, leads to concerns over access to resources and knowledge. From this perspective, the structural issues in agriculture seem to be more socially created than an issue of technology, efficiency, or trying to feed the world’s growing a population; similarly, Watts (2000: 259) describes many environmental problems as “less a problem of poor management, inappropriate technology, or overpopulation [than] *social* in origin and definition.” Kloppenburg et al. (1996: 37) argue that “the dominant dynamics of the global food system actively erode both moral economy and community.... What is needed is a fundamental transformation.”

Community oriented alternatives. While industrial agriculture is in many ways the norm, as evidenced by its synonymous label “conventional agriculture,” there are alternatives, many of which try to address the political issues created by commodity agriculture by

transforming the system. These alternatives have a variety of names, but scholars have identified common characteristics, primarily closer connections between a community and its food sources and diverse ways of creating or disseminating knowledge. More specifically, Kloppenburg et al. (1996: 33-34) calls for a “multiplicity of local foodsheds” and identifies the foodshed as “the elements and properties of that preferred, emergent alternative” that gives knowledge – or the potential to know, “a sense of connection and responsibility to a particular locality,” and a place from which to act. Kloppenburg et al. (1996:37) expand upon this idea:

We imagine foodsheds as commensal communities that encompass sustainable relationships both between people (those who eat together) and between people and the land (obtaining food without damage). In human terms, building the commensal community means establishment or recovery of social linkages beyond atomistic market relationships, through the production, exchange, processing and consumption of food.

Hassanein (2008: 289) articulates dimensions of a related concept, food democracy, “the idea that all people participate actively and meaningfully in shaping food systems,” including collaborating toward sustainability, becoming knowledgeable, sharing ideas, developing efficacy, and orienting to the community good. Lyson's (2000: 42) concept, civic agriculture, refers to “a locally-based agricultural and food production system that is tightly linked to a community's social and economic development.” (See Appendix A for a detailed list of characteristics.) He argues that the move toward civic agriculture has come about “throughout the U.S. as communities begin to 'relocalize' their food and agricultural systems” (Lyson 2000: 44). Among the benefits for communities that promote local systems of agricultural production, Lyson (2000: 43) identifies “greater control over their economic destinies... [and] enhanc[ing] the level of interaction among residents in order to contribute to rising levels of civic welfare, revitalize rural landscapes, improve environmental quality, and promote long-term

sustainability.” There is an element of the local food movement that is about a struggle for power over resources: the resources needed to create a secure and accessible food system, the power to control one's own livelihood and well-being (i.e. not having to be a farmworker applying pesticides), the resources needed to support to a community's quality of life.

Lyson (1999: 202) argues that “the decoupling of a population from local land as their food source reduces their incentive to protect their farmland from development” and that the structural changes that resulted from the industrialization and globalization of agriculture mean “fewer local people have an economic stake in land other than for development.” As communities lose farmland, they also lose the means “to regain local control and food security” (Lyson 1999: 202). Thus, helping beginning farmers gain access to land is not just about a romanticized image of small farms as part of the American Dream or even preserving farmland, but also a critical piece of efforts to relocalize the food system and increase community food security. In order to develop alternatives to the global, industrial food system, Lyson (2000: 44) asserts that communities must “develop the infrastructure, maintain a farmland base, and provide the technical expertise so that producers can compete in the local marketplace against the highly concentrated, corporate food system.” I would add that communities must also provide farmers a way in to the field (or the fields, as it were).

The changing path to farming. While farming certainly depends on natural and material resources, infrastructure, and knowledge, it also requires people. Beginning farmers are a critical piece of local food systems and civic agriculture, especially when it comes to ensuring the longevity and future of food systems now being built. Times have changed. It is possible and common, at least in the United States, to become a baker or a smith without having been born into the Baker or Smith family. And the Baker and Smiths’ children might be lawyers, doctors,

or teachers. Farming is one of the last professions where it is assumed that the business is handed down within the family. And yet this traditional image is increasingly inaccurate.

Farming, as a livelihood, is changing. The way in to farming and the background experiences of farmers are shifting. These differences are important to understanding the challenges faced by the current generation of beginning farmers. In the past, farming has primarily been a family operation, with most farms passed on to family heirs through some sort of succession planning. While this is still the case in some instances, new farmers increasingly do not come from a farming background (Barham et al. 2001). Intergenerational succession may still be more common in farming than in other self-employed occupations (Lobley 2010), but the most common way for a beginning farmer to acquire land is to purchase it from a nonrelative (Ahearn and Newton 2009). As the cost of agricultural land has risen out of reach of most beginning farmers, access to land has become a primary obstacle for beginning farmers (Ahearn and Newton 2009), particularly near the urban centers that also provide primary local markets for these new farmers.

Why do new farmers matter? The need to support beginning farmers is becoming more pressing as the population of U.S. farmers ages and nears retirement. In this case “farmers” means “principal farm operators.” Principal farm operators do not necessarily own their land – they may rent it – but the category excludes farmworkers. According to the Census of Agriculture, the average age of principal farm operators was 57 in 2007, up from 55 in 2002 and 54 in 1997. This statistic has been interpreted in a variety of ways; some attribute it to the contested United States Department of Agriculture (USDA) definition of what constitutes a farm, which may include rural residences, and the USDA requirement that a principal operator be named, possibly overlooking intergenerational management arrangements (Ahearn and Newton

2009; Gillespie and Johnson 2010). Both of these criticisms suggest that the commonly cited average age of farmers statistic could be inflated. One of the difficulties with interpreting these statistics is that they are broad categories. They do not differentiate between the many types and sizes of farm operations. For example, going beyond the concern that these statistics include rural retirees, there could be differences between the ages of farmers with small-scale, diversified farms and large-scale commodity crop farms. Although the precise details of this data are somewhat contested, there has been great concern among policymakers and practitioners about the aging farmer population.

Beyond the age of farmers, another measure of farm turnover is entry and exit rates. Some research indicates that entry and exit rates¹ for farming have been relatively stable and nearly equal (8-11%) between 1978 and 1997 (Ahearn and Newton 2009). If entry and exit rates are equal, that means farms are replacing themselves, which could suggest there is less cause for the future. But again, this broad statistical category can mask more nuanced trends. Farms are not necessarily being replaced by equivalent operations. In many places, production has been concentrated in fewer operations, suggesting that many new farm entrants are actually rural residences (Gillespie and Johnson 2005). Although they assert that entry and exit rates for farms have been similar, the USDA's own analysis of survival and growth rates of agricultural operations provides evidence that many farms are primarily residences not commercial operations (Ahearn and Newton 2009). Furthermore, other analyses actually suggest that farm entry rates have been declining (Gale 1994), meaning that there are more farms closing down,

¹ In an attempt to capture changes over time, the USDA uses linked data from the Census of Agriculture to match farm records from one Census to the next. From this data, they can determine how many farms have gone out of business and how many new farms have come into business in that time period. New entrants are farm operations that do have a matched record in the previous Census. Entry and exit rates focus on farm operations. The definition of new entrants and beginning farmers are not the same. Thus, new entrants are not necessarily beginning farmers – and not all beginning farmers are new entrants.

for retirement or other reasons, than there are new farms. Although the data is complex and difficult to interpret, the consensus seems to be that the increasing age of farmers and decreasing number of young farmers indicates that farmers are not being replaced (Gillespie and Johnson 2010), which causes concern about the structural changes that will occur in agriculture as the farming population continues to age and their farms are sold. Indeed, the USDA (2008) estimates that 70% of farmland will change hands in the next 20 years. There is worry that “the absence of a generation of new and beginning farmers can lead to: (1) concentration of land in large farms; (2) loss of rural communities; and (3) squandering the chance to shift to a more sustainable system of agriculture” (Mishra, Wilson, and Williams 2007: 3). This makes all the more pressing the question: When current farmers retire, who will farm?

Who are new farmers? While the true age of farmers and entry and exit rates from the field can be debated, evidence suggests that there are prospective and beginning farmers trying to get started farming and that they are facing challenges. In 2007, approximately 25% of all farm operators and 20% of principal operators were beginning farmers (Ahearn and Newton 2009). Anecdotal evidence, such as the rise in land link programs matching landowners with prospective farmers and the high ratio of seekers to landowners (Hubbard 2006), indicates that a growing number of new farmers are looking for land.

Who are these aspiring farmers? The USDA broadly defines “beginning farmers and ranchers as those who have operated a farm or ranch for 10 years or less either as a sole operator or with others who have operated a farm or ranch for 10 years or less” (Ahearn and Newton 2009). As with the USDA definitions of farms and principal operators, this definition is problematic. It does not distinguish between farmers in their first year of farming or their tenth, two possible groups that could have many differences. And under this definition, it is difficult to

categorize many farmers, such as beginning farmers who are working jointly with an established farmer or those who grew up on a family farm, left, and have returned. The USDA definition is, however, a starting point, and one that comes with additional demographic details. The USDA has found that beginning farmers are more likely than established farmers to be female, non-White, or Hispanic and that the entry rates are also higher for small farms (1-49 acres) than for larger operations. One other important distinction is that while beginning farmers are younger than established farmers on the whole, they are not necessarily all young farmers; in 2007, 32% of beginning farmers were 55 years or older (Ahearn and Newton 2009).²

In addition to collecting demographic information, the USDA has identified the challenges commonly faced by beginning farmers. The two primary obstacles to beginning farmers starting new operations are high startup costs and lack of available land (Ahearn and Newton 2009). Other research has found that additional factors include difficulty accessing markets, isolation, and an unsupportive social context (Barham et al. 2001, Johnson et al. 2001). Social support for farming encompasses personal relationships, community attitudes, support businesses (such as banks), and government policies (Johnson et al. 2001, Gillespie and Johnson 2010).

The USDA definition of beginning farmers is contested primarily because of its lack of specificity. Programs to assist beginning farmers may benefit from more precise definitions of their target audience. Barham et al. (2001: i) have identified the most important characteristic of successful beginning farmers as being “the ability to negotiate a good fit between their resources, skills, and farm and family goals.” Thus programs to support beginning farmers should begin

² By comparison, according to the same agricultural census, more than 63% of established farmers were 55 years or older (Ahearn and Newton 2009). It is impossible to determine from this data how many of the beginning farmers over 55 delayed entry to farming until they accumulated sufficient capital or inherited a family farm, how many changed careers to farming, and how many are really just living on a rural residence that qualifies as a farm.

with a clear assessment of those three traits. Beginning farmers have different needs depending on what stage of farming they are in. The Northeast New Farmer Network (Johnson et al. 2001) created a typology of new farmers based on the individual's current level of engagement and commitment to farming; within the spectrum of new farmers are both prospective farmers and beginning farmers. Prospective farmers, those considering farming, are divided into Recruits, Explorers, and Planners. Beginning farmers, those currently farming, include Start-ups (0-3 years), Re-Strategizing (4-7 years) and Establishing (8-10 years). Johnson et al. (2001) suggest identifying the backgrounds, farm experience and resources, and livelihood and operational goals of potential participants to use in designing appropriate program content. For the purposes of this research, I define prospective farmers as those considering farming, including those working as farm interns or employees; beginning farmers as those with less than ten years experience with their own operation; new farmers as encompassing both prospective and beginning farmers; and established farmers as those with more than ten years experience with their own operation.

While some research has focused on factors influencing the financial performance of beginning farmers (Mishra, Wilson, and Williams 2007), Gillespie and Johnson (2005) eschew designations of “success” and “failure” and categorize farm start-ups as “continuing” or “exited,” noting that some farms operating at a loss have resources to continue operating while short-term cash flow or health issues can quickly end other well-managed and profitable farms. They identified four factors related to continuation and exit in farm start-ups: a conducive social context, appropriate personal characteristics, suitable business characteristics, and good luck. Based on interviews with start-up farmers and an examination of their needs that were not being met, Gillespie and Johnson (2005) recommend programs that provide advising and mentoring, holistic management as an alternative to ordinary business planning, conceiving of farms as parts

of a larger food system, and playing to strengths of beginning farmers.

What are incubator farms? Many incubator farms aim to provide beginning farmers with exactly those kinds of support through advisors and mentors, business planning of different kinds (although not always holistic management), and finding market niches by looking at their farm as part of the existing food system. Through internet searches, presentations at conferences and meetings, and word-of-mouth, I have identified more than 25 incubator farm programs in the United States and Canada. Two of these are well-established incubator farms, the Agriculture and Land Based Training Association (ALBA) founded in 1972 in Salinas, CA, and the Intervale Center founded in 1988 in Burlington, VT. The rest are less than ten years old, with many started in the last two to three years or still in the planning stages. Most incubator farms provide beginning farmers with access to land and shared infrastructure at subsidized rates and usually include farm planning support or other mentoring resources. Many also provide a venue for cooperative marketing or support in identifying market niches. Incubator farms are primarily run by nonprofit organizations or county extension services (or a partnership of the two), although at least a few are operated by individuals³. Some programs focus primarily or exclusively on immigrant farmworkers or resettled refugees, while others are open to those with non-farm backgrounds who have gained relevant experience or those from conventional farming backgrounds who wish to move to more sustainable techniques but do not have the resources required. Although the terms vary, all incubator farms provide beginning farmers with secure tenure on the land for a set period of time and most programs then help the farmers transition to a

³ Incubator farms operated by individuals seem to provide many of same resources as those run by organizations (access to land, shared resources, mentoring and support). Typically, the individuals offering these opportunities are farmers and landowners themselves. The number of such programs may be underrepresented in my sample because they tend to be less formal and have less of an online presence. I learned about two such farms through articles profiling them and one through a personal connection.

more permanent location. The incubator programs themselves have differing land arrangements: some own the land through purchase or gift and others have long-term leases, sites range from four to 350 acres of land, and some are located in urban settings, while others are more rural and farther from population centers. Depending on the size of the program and organizational structure, staffing varies considerably from farm to farm. Startup funding for the incubator farms themselves comes from a variety of sources, including private donations, corporate and foundation grants, and federal or state programs. The Intervale Center provides an example of an incubator farm that is now economically self-sustaining. Many new incubator farm programs are modeled after the Intervale Center. The Intervale Center has initiated some evaluation and assessment of different aspects of its program (Tursini 2010), although existing research on incubator farm models is limited.

Building on existing research. Niewolny and Lillard (2010: 76) assert that “sustainable agriculture education and beginning farmer education are yet positioned at the margins of major research and education agendas,” and they call for continuing to “expand the boundaries of what constitutes meaningful programming for beginning farmers.” The goal of this research is to start building an understanding of one such type of programming; Niewolny and Lillard (2010: 76) offer “scaling-up business incubator programs” as an example of how practitioners can “integrate new approaches to establish, retain and expand sustainable agriculture concepts and activities into everyday practice.” I could not find any research on the incubator aspect of existing programs; two studies on the Intervale focus not on the farmers but on the experiences of consumers, looking at who eats the food produced at the Intervale (Neuman 2004) and the roles of gender in food preparation among Intervale’s CSA members (Sokolofski 2004). Another studied focused on the relationship between the experiences of women farmers at Intervale and

the ideas and goals of civic agriculture (Brooks 2010). One organization published a proposal for an incubator farm project in Greene County, New York (Williams and Zimmerman 2010). The closest work I have found to my research is a report by Carolina Farm Stewardship Association on their process and progress for identifying incubator farm project sites in North Carolina (Green and McReynolds 2009); this report gives some insights into factors to consider for starting an incubator program but does not address the experience of those involved.

Like other recent scholarship on beginning farmer programs, my research focuses on one particular type of program (Ostrom et al. 2010, Perez et al. 2010) and expands understanding of the field by adding research on another type of program. I hope to extend the literature on alternative food movements and beginning farmers to better understand the structure and function of incubator farm programs. It seems that the time is ripe for research to better understand this model of beginning farmer support.

Beginning farmers in Missoula, Montana. It also appears that the situation in the Missoula area is opportune for a new incubator farm program. Missoula County, in western Montana, has a population of 100,000 and faces development pressure from rapid growth over recent decades (Hubbard and Hassanein 2010). This population center has a burgeoning local food movement, with farmers markets at least three days a week, including two on Saturdays, several grocery stores and co-ops with an extensive selection of locally grown foods, and a growing number of Community Supported Agriculture (CSA) programs⁴. As a way to support working farms and ranches, the Missoula County Community Food Assessment suggested

⁴ CSAs are subscription based programs where consumers pay for a share of produce, and sometimes other agricultural products, up front at the beginning of the season and receive a box at pre-determined intervals (often weekly) throughout the growing season. This model helps provide farmers with capital early in the season when they have high expenses without much production and also shares the risk between the producer and the consumer.

“exploring ways to facilitate entry into farming to make it feasible for young farmers to get started” (Hassanein and Jacobson, eds. 2004: 90). A more recent study reports that the average age of Missoula County farmers is 60 years old and that when farmland in the area changes hands, it is usually not going to the next generation of farmers (Hubbard and Hassanein 2010). One of the recommendations for “build[ing] a resilient food system, strengthen[ing] our local economy, and support[ing] working farms and ranches in Missoula County... [is to] assist beginning farmers and ranchers in securing land and establishing viable operations” (Hubbard and Hassanein 2010: 41-43). And there are beginning farmers and ranchers in Montana. The recent project *Rooted* profiles 13 new farmer operations growing vegetables, grains, legumes, seeds, and livestock (Gibson 2010). Like many beginning farmers across the country, those profiled identified some of their top challenges as “start up costs, mastering the practical skills associated with farming, and learning to run a business” (Gibson 2010: 64). Based on the interviews with these new farmers, Gibson (2010) concludes that supporting new farmers in Montana will require financing opportunities, business training, land access, succession planning, and education and community building.

Several programs already exist in the Missoula area to support farming education and prospective or beginning farmers. Students at the University of Montana can receive credit for a supervised internship on the PEAS Farm, a campus-community partnership between the University’s Environmental Studies Program and the nonprofit Garden City Harvest. Several graduates of this program have gone on to start their own farm operations. Many aspiring farmers also gain experience interning on established farms in the area. The Community Food and Agriculture Coalition’s Land Link Montana helps facilitate arrangements between landowners and those seeking land to farm. An incubator farm program would help bridge the

gap for prospective farmers between learning to farm by working for others and starting an operation of their own, while Land Link Montana could provide resources to help transition participants to another land-tenure arrangement after the incubation period is complete. A variety of stakeholders in the Missoula area have expressed interest in establishing an incubator farm program in the area.

Methodology

This project is about bridging research and practice, and thus it combines two distinct threads: the more theory driven exploration of why incubator farm programs are valuable and the more pragmatic “how-to” advice for starting an incubator farm program. The guiding questions for this research are: (1) What are the structure and function of existing incubator farm programs? and (2) What can we learn from previous efforts to inform the development of future incubator farm programs? I am particularly interested in how incubator farms are a potential solution to some identified problems in the structure of agriculture. I explore these questions through three case studies of existing incubator farm programs. Focusing on just three of many possible sites achieves more depth in understanding each program. I selected the sites in order to represent the diversity of incubator farms according to the age of the program, organizational structure, participant demographics and geographic location. I also considered the relevance of each program’s circumstances to the situation in Missoula. The sites and reasons for their inclusion are briefly described below.

Viva Farm, Skagit Valley, WA

Established in 2010, Viva Farm is a partnership between Washington State University (WSU) Extension Services and GrowFood.org, a non-profit dedicated to supporting new sustainable farmers. Viva Farm offers bilingual courses on sustainable farming and agricultural

business planning. Graduates of these programs are eligible to start their farm operation on Viva Farm's 33 acres of land leased from the Port of Skagit. Viva Farm provides access to greenhouses, equipment, processing facilities, technical assistance, and business development. The program also plans to assist with transitioning established farm operations to new locations and is creating a loan fund to provide financing to new farmers.

Geographically, Viva Farm in Mount Vernon, Washington, about an hour from Seattle, is the closest existing incubator farm to the Missoula area. And from a temporal perspective, as a very new program, they offer insights into the experience of establishing an incubator farm in both the current economic conditions and also within the surging local food movement. And finally, Viva Farm works primarily, although not exclusively, with Latino farmers. Although Missoula has more Hmong farmers than Latino farmers, Viva Farm staff and participants may be able to offer a useful perspective on the particular needs of immigrant beginning farmers.

Elma C. Lomax Incubator Farm, Cabarrus County, North Carolina

About 20 miles outside of Charlotte, North Carolina, the 30 acres of the Elma C. Lomax Incubator Farm are owned by Cabarrus County and managed by the NC Cooperative Extension. Established a year before Viva Farm, the Lomax Incubator Farm is funded by a grant from the North Carolina Department of Agriculture's Agricultural Development Farmland Preservation Trust Fund, a grant from the Cannon Foundation, and a fund established by Cabarrus County for agricultural development. Participants have three to five years on the incubator farm. The Lomax Incubator Farm represents an interesting partnership between local government and Extension Services, and, as with Viva, provides insights into the creation of an incubator farm program in recent years.

Urban Edge Farm, Cranston, RI

The well-established South Side Community Land Trust (SCLT) started a Farm Business Incubator Program in 2003 at the 50-acre Urban Edge Farm, along the outskirts of Cranston, Rhode Island, and about nine miles from Providence. Initially, the program provided land, equipment and expertise to help resource limited farmers overcome the barriers to starting their own agricultural operations. Most of the participants were female, and several did not speak English as their first language. The land, purchased by the State of Rhode Island by combining a variety of funding sources, was then leased by SCLT. Over time, the program has changed its model. Farmers are no longer expected to leave within a particular time frame, and all of the farmers have been running operations there for at least four years. SCLT and the farmers at Urban Edge are in the process of re-envisioning their relationship to better serve both groups. This particular incubator farm is older than the other two program sites selected for visits and is primarily run by a not-for-profit organization. Participants include two Hmong farmers. This farm represents another model for acquiring the land needed, and as the most mature program, it offers insight into how participant transitions might work and what other directions an incubator program might take.

Building the case studies. These comparative case studies are multi-dimensional; to ensure a depth of understanding, I collected information through multiple strategies. For each program, I reviewed publicly available materials, visited the site, and interviewed staff and participants. I spent about three days at each site, primarily at the farm but also visiting relevant sites in the area, such as farmers markets. At the farms, I spent my time interviewing staff and farmers, helping out with farmwork as I could, observing the operation of the farm, and occasionally chatting with visitors (mostly customers).

Interviews were conducted in person and recorded for accuracy and later transcription. The interviews were semi-structured using an interview guide and probes for more detail. Semi-structured interviews “rely on a certain set of questions and try to guide the conversation to remain, more loosely on those questions. However, semi-structured interviews also allow individual respondents some latitude and freedom to talk about what is of interest or important to them” (Hesse-Biber and Leavy 2006: 125). I chose interviews as my primary research method because of the potential to gain information and understanding from individuals' experiences. Through this interpretive approach, I hope to convey the perspectives of those I interviewed and the meaning that they gave to their experiences.

This approach offers different types of information and benefits from the statistical data collection that provides some of the background information on beginning farmers discussed earlier. Many of those statistics do not distinguish between beginning farmers involved in civic agriculture and other types of farming. Beginning farmer programs, particularly incubator farms, are a relatively unexplored subject area. Both the programs and many of the participants are not representative of the dominant model of farming, and “in-depth interviews are very useful for accessing subjugated voices and getting at subjugated knowledge” (Hesse-Biber and Leavy 2006: 123). These interviews are a “knowledge-producing conversation” (Hesse-Biber and Leavy 2006: 128), and thus this research aims to contribute to and even be a form of the knowledge-building that is characteristic of food democracy and civic agriculture. I take this critical approach in hopes of empowering others as well.

Interviews with program staff. Producing knowledge about these programs begins with those behind them, the program staff. For the purposes of this research, staff may include founders, directors, coordinators, and program managers. Staff were selected using purposive

sampling techniques. I identified initial contacts at each program from publicly available information, primarily websites, and then asked that contact for additional suggestions of staff to include. This pool is necessarily limited by the number of staff each program has. In most cases, it was possible and appropriate to speak to multiple staff in different roles at a single site.

Table 1. Number of Interviews Conducted at Each Site

	Farmers	Staff
Viva Farm	7 of 9	4 of 4
Lomax Farm	3 of 16	4 of 4
Urban Edge Farm	7 of 7	3 of 3
Total	17	11

At Viva Farms, I interviewed all four program staff, including the Program Director, the Farm Manager, the Produce Manager, and an Extension Agent who co-founded the program and serves as an advisor. At Lomax Farm, I also interviewed all four program staff, including two Extension Agents, the County Extension Director, and the Local Food System Program Coordinator. At Urban Edge Farm, I interviewed five current or former staff, including the current Program Director, the two current Farm Stewards, and two former program employees who are currently farmers in the program. In all, I interviewed 11 current staff members (see Table 1). The interviews ranged in length from 16 minutes to more than three hours, with an average length of 98 minutes (see Table 2). Most of the interviews were one-on-one, although the interview with the Extension Director at Lomax Farm also included one of the Extension Agents, and I interviewed the Farm Stewards at Urban Edge, a married couple, together. Interview questions addressed how the incubator farms are organized and program goals. In an attempt to gather lessons learned from existing incubator farms, I also asked about the successes

of these programs and challenges that have been encountered. (For the complete Interview Guide, see Appendix B.)

Table 2. Duration of Interviews

	Farmers	Staff
Minimum length	15 minutes	16 minutes
Maximum length	1 hour 13 minutes	> 3 hours
Average length	42 minutes	98 minutes

Interviews with program participants. Although incubator farm staff are a wealth of information regarding their programs, the experiences of the participants in these programs are critical for understanding how incubator farms function. The sites were selected in order to be as representative as possible of the spectrum of beginning farmer demographics and circumstances. Participants that I interviewed were selected using purposive sampling techniques. Program staff provided contact information and an initial introduction via email or in person announcements. At Viva Farm, I was able to interview eight out of the ten farmers. At Lomax, I was only able to interview three out of the 16 farmers in depth. This low participation rate is because I was not able to contact farmers directly much in advance of my visit, and few farmers at Lomax come to the farm everyday, so it was difficult to just catch them there. At SCLT, I interviewed all seven of the current farmers. I interviewed 17 farmers in total (see Table 1). Interviews with farmers ranged from 15 minutes to over an hour, with an average of 42 minutes (see Table 2). When interviewing two of the Latino farmers at Viva Farm, I worked with a translator trained in social justice interpretation. Most of the interviews were with individuals, but I jointly interviewed two brothers at Viva Farm who run their business together. My goal in interviewing participants was to go beyond fact gathering to build an understanding of the actual experiences of beginning

farmers in incubator farm programs. How have they benefitted from the program? And what has been challenging? (For the complete Interview Guide, see Appendix C.)

Analysis. All interviews were recorded, with participant permission, and later transcribed. Transcripts and other documents were coded using content analysis. The objectives laid out in this proposal and the literature on beginning farmers, particularly the obstacles to starting new farm operations and the recommendations for supporting beginning farmers, guided my analysis, but I was also open to other categories that emerged from the data. I began by open coding data to identify “key themes, patterns, ideas, and concepts” (Hesse-Biber and Leavy 2006: 349) and then sorted the many responses into concepts and analytical categories. I attempted to identify themes within each of the case studies, as well as across the programs, and to make links between those themes and the recommendations for establishing future programs.

Strengths and limitations. The strengths and limitations of this research both stem from the methods employed. The multi-dimensional comparative case studies allows for an in-depth understanding of each programs. Yet, the results are highly-context dependent and difficult to generalize. In addition, causal relationships cannot be established with confidence.

Some of the limitations are particular to each case. At Viva, I worked with an experienced translator, but there may have still been language barriers with the immigrant farmers at Viva and Urban Edge. There may also be some hesitation among immigrants and former farmworkers to fully disclose their experiences, although the translator, who has experiencing translating for farmworkers, felt the farmers at Viva were more forthcoming than most. The low participation rate for farmers at Lomax Farm may mean that not all perspectives were represented in the interviews. And Urban Edge, I had a difficult time getting information about the early years of the program because of turnover. There are many variations on the

incubator farm model. More expansive research including more sites could more comprehensively identify the similarities and differences among programs.

Conclusion

At the heart of this project is a desire to ground research and theory in a practical application and to enhance practice with useful research and theory. Given concerns over the impact of our global food system and an aging farmer population, supporting new farmers is a critical piece of a more just and secure food system. In my research, I found that incubator farms appear to be a strategy to address structural problems in agriculture, including the aging population of farmers and limited access to knowledge and resources because of distancing and concentration of power. Incubator farm programs may pose a challenge to conventional agriculture in terms of property ownership and land tenure, farmer demographics, farming and marketing techniques, and how knowledge is created and shared. As part of the alternative to the conventional food system, incubator farms are not just about creating closer connections between a community and a food sources but also among the producers; they create a community of growers. Their proximity to one another as they farm one parcel of land gives the beginning farmers access to both knowledge and physical resources they might not otherwise have. From my perspective as an avid eater, an aspiring farmer, and a resident of the Missoula area, incubator farms are a promising way to ensure an agricultural future for a new generation. And nowhere is this potential being realized faster than on the 33 acres in Washington's Skagit Valley that have been transformed into Viva Farm.

VIVA FARM: CASE STUDY

“First piece of advice,” Sarita Schaffer greets me, waving toward a piece of heavy equipment, “Don’t buy a used tractor from a rock quarry!”

We launch into a tour of Viva Farm, with Sarita leading me by other tractors and some implements. We look past the cluster of buildings – a tool shed, greenhouse, walk-in cooler, and processing station – and over the fields, bursting with the late summer harvest of seven new farm operations, all the way down to the farmstand along Highway 20. Less than two years ago, none of this was here. “It was just an empty field,” Sarita explains.

Later on, describing the creation of Viva Farm, Sarita tells me, “It was definitely fast and furious. There's some other incubators in the area that have been doing feasibility studies for two years looking for the perfect piece of land, and ours was the complete opposite. It was like, ‘Let's do it. And if it works, it works, and if it doesn't, we tried. That's the best you can do.’”

How Viva Got Started

When I visited in September of 2011, near the end of Viva’s second growing season, Sarita described the program as “a culmination of two projects that sort of collided conveniently and beautifully.” The first project began five years ago when Don McMoran took a job as an Extension Agent with Washington State University (WSU). He looked around the room at the meetings he attended and noticed that the farmers were an elderly group. He knew that reflected a national trend of aging farmers and started to think of ways to involve a younger generation. When he started a young farmer group, he came up with just 20 farmers between 18 and 35 in Skagit County. That worried him too because with 100,000 acres of farmable land in Skagit County alone, he knew it would take more than 20 young farmers to keep the landscape in agriculture. Around that time, Don also started teaching the Cultivating Success program, a

course series that teaches farmers planning and production skills for small sustainable farms. He started thinking about educating Latino farmworkers and helping them become farm owners to increase the number of new farmers. He also heard complaints from the class participants about the difficulty of accessing affordable land to farm. So, he put in a request to WSU for a Latino farmer outreach position and put the word out that he had new farmers he needed to get on the land.

The other project that led to Viva Farm was Sarita and her husband founding GrowFood.org, a network that helps train a new generation of farmers by connecting them with opportunities to learn from established farmers. After expanding the network to thousands of members and countries around the world, the Schaffers recognized the need for a next step for aspiring farmers, which Sarita describes as:

Something that's really between even an advanced internship or apprenticeship and full farm ownership, trying to leap in and purchase land and take out huge debt when you have no idea whether the local market you've chosen is really viable or if you can't access credit because you've been an intern for the last five years and have basically been working for free to have an affordable education.

In 2008, when Sarita returned from a Fulbright in South America working with a microfinance organization that had started the first financially self-sufficient organic farming high school, she heard about the Latino farmer outreach position that Don initiated at WSU. She went on to sign a three-month contract with them to translate the Cultivating Success curriculum, make announcements available in Spanish, and offer simultaneous translation at events. As she started meeting with area Latino farmers, she heard a clear message: "they weren't interested in courses and having education available unless there was a parallel effort to develop opportunities to have

access to land, to have access to equipment, and to have access to markets.” It was the same thing Don had been hearing from other beginning farmers.

Sarita had been researching models similar to the program she worked with in Paraguay and had come across the incubator farm models at ALBA and Intervale. She thought,

That makes perfect sense that the old system was basically families would incubate their own next-generation farms on their own family land. And if the family farm as an institution has pretty much crumbled to the point where, or just shrunk to the point where it's nonexistent, of course public institutions and nonprofit organizations would have to come in at some point and start taking on the responsibility of doing that.

About that time, Don got a call from a family foundation with an interest in agricultural land preservation, agricultural innovation, and social justice. They all sat down for a breakfast meeting, and the funders asked Sarita her vision for what it would take to preserve farmland and engage young and marginalized populations. She pitched the idea for an incubator farm. They asked if she would direct it. Viva Farm was born, and things started moving.

The People at Viva

Staff. When I visited Viva, the program had four staff members. While the Farm Manager and Produce Manager worked full-time for the program, technically Sarita, as Program Director, and Don, the Extension Agent, were half-time and part-time respectively. Because Viva was a program of GrowFood.org, a nonprofit, they were overseen by the same Board of Directors.

Sarita is the Director of Viva Farm. On paper, it's a half time job (she's still the WSU Latino Farming Program Coordinator half-time too), but in reality it's more than full time. She fundraises and promotes the program; helps coordinate and teach the Cultivating Success courses; recruits wholesale accounts and signs up members for the Viva Farm CSA; helps pack

orders and make deliveries; and runs the weekly farmer meeting; all while negotiating new partnerships and innovative opportunities for new farmers and the program. Sarita's energy and dedication drive Viva Farm. Her advice to new incubator programs reveals her own commitment to the program to the program: "You've got to find someone who's just dedicated to the cause. Hopefully you don't burn them out before you make it through your startup phase... Be prepared for 80 hour to 90 hour to 100 hour work weeks." More than experiential farming knowledge, Sarita's primary contributions to the program are organizational skills, drive, and vision.

As an Extension Agent and fourth generation Skagitonian farmer, Don's network and knowledge of the valley were critical. After making the connections to the funders and the property, Don also put in the drainage infrastructure, the irrigation system, and worked the land. Now that the program is off and running, he has stepped back and primarily serves as an advisor. He stops by once a day to check in, offering advice and assistance as he can.

During 2010, the first growing season, Viva Farm hired a produce manager, Randy Kok, with a lifetime of experience. He started working in a Safeway produce department when he was 14, and by 16 he was the department manager – while still going to high school. He stayed with Safeway for a few years, moving to bigger stores. Since then he's had his own grocery store, run a fresh fruit and vegetable market, done research and development on smoked seafood products, worked with International Multifoods and General Mills, and done roadside sales. As Sarita said about Randy, "he's got all this practical, experience-based knowledge that you couldn't buy. You couldn't put someone through the training and create what he has in his brain from just the number of years of doing it and watching the trends over the years." Randy explains that at Viva his job is "everything that happens from harvest until the produce goes home with somebody – or into the compost pile." His top priority is getting the maximum amount of money possible for the

crops the farmers harvest by using every different market available, including the Viva CSA, wholesale accounts, the Viva Fresh Market (roadside farmstand), and occasionally the local food bank's fund for purchasing from local farmers. On top of buying produce from the farmers, keeping the farmstand stocked, managing Viva's inventory and accounts, and writing invoices, Randy shares his vast knowledge with Viva's farmers, teaching them how markets work and how to process, pack, and store their harvest most effectively. In the three days I spent at Viva, I rarely saw Randy stop moving. I asked him most of my questions as we carried boxes of produce from his truck to the farmstand. His role may not be necessary at all incubator programs, depending on how marketing is done, but Randy's skills demonstrates the value of experiential knowledge to incubator programs.

Starting Viva Farm has required a variety of skills. As Sarita said:

You have to have someone who knows how to lay trenches, someone who knows the very deep rooted community here, someone who doesn't know them at all and isn't afraid to think of totally different ways of doing things, someone who understands the whole tech element of what we're bringing here and web interface and web development. So I think a mix of skills is really, really critical to making something like this work.

Sarita went on to explain the nicknames that the original three staff have for each other. Don's nickname is Levers "because he loves doing excavation, big land work... But also politically, he's able to pull some levers because of his position and closeness with the County Commission and a lot of different people, both because he's a 4th generation Skagitonian and his position in the ag community." Randy is Hammer for his work ethic. And Sarita is Mouth: "Someone who keeps at it and is persistent about getting the word out and really doing the marketing. And mouth in the sense of just being very social. There's not anyone in the county that I'm afraid to

approach.” Don is not as outgoing, but points out that he hires people like Sarita who are good at it and like it. And Sarita adds, “I would never excavate.”

In May of Viva’s second year, the program hired a Farm Manager, David Youngquist. Another native Skagitonian, David grew up on a retired dairy farm and worked on neighboring farms ranging from dairy operations to seed production. He has a bachelor’s degree in Agricultural Business Technology Management from WSU, and during his last two summers in college, he had his own farm producing wholesale fresh market organic vegetables. Because Viva is in transition to organic certification, when they hired a Farm Manager, Sarita said, they looked for someone who had been through the certification process. As the Farm Manager, David summarizes his responsibilities as “education, operations, and production, kind of in that order.” He is responsible for answering farmers’ questions, preventative maintenance and repairs on equipment, and helping build new infrastructure. He also manages some crop production for Viva Farm on 15 acres of land not currently used by farmers in the program. Sarita explained the origin of this position:

The first idea was to have someone have office hours the same way professors do, only they're field hours, but then it never was going to actually connect. The likelihood of that connecting with people when people are actually here, because everyone has such erratic schedules, there's no way that's ever going to work. You basically have to have someone that's here full-time, but then if they're going to be here full-time, they have to have another reason to be here and add some other value to the project other than just being here for consultation.

Managing additional production for Viva added that “other value” to justify having a farm manager available full-time, but it also gives the farm manager an incredibly challenging job that requires balancing the demands of production with being available to farmers, maintaining facilities and handling repairs, and helping with the courses. David brought up how the other

demands on his time mean that they did not produce that much food on those 15 acres. When I visited, the program was trying to put together the funding to hire an assistant to help the farm manager with production and building infrastructure.

The Board of GrowFood.org, which oversees Viva Farm, includes Sarita's husband, Ethan Schaffer, and two other members. Ethan does a lot of Viva's business management as well as financial and long-term strategic planning. The other two board members provide essential expertise: one is a lawyer and the other has 30 years of experience in social financing and socially responsible investing. Viva Farm employs cashiers for the farmstand and contracts a bookkeeper on an hourly basis.

Farmers. When I visited near the end of Viva's second growing season in September 2011, Viva Farm was home to seven farm operations run by nine beginning farmers. Four of those operations were in their second year, while the other three were in their very first season. One couple who farmed during the first year of the program had to take a season off because of a medical issue but planned to return. No farmers have transitioned their operations entirely to other locations yet, but several farm additional acreage off-site.

When Sarita started doing outreach and recruitment, she wanted to find farmers with initiative and commitment. As an indicator of those qualities, she looked for people who were already taking advantage of every opportunity available. One of the first farmers Sarita worked with was Nelida Martinez. Born in Oaxaca, Mexico, and married at 14, Nelida came to the United States shortly after marrying and began working on farms in California and raising a family. Throughout the years, Nelida has had a variety of side enterprises to provide a second income. After her son fell deathly ill, Nelida left conventional agriculture. She got involved with the community garden where Sarita met her and then started farming at Viva Farm in the first

year of the program. She runs her farm operation, Pure Nelida, with her daughter Lisette Flores. Between their acreage at Viva and another location, they grow 86 varieties of vegetables, specializing in peppers and tomatoes. They sell some produce through Viva, some at farmer's markets, and some to friends. Lisette is also one of the cashiers at the Viva Farmstand.⁵

Salvador and Misael Morales,⁶ brothers from Oaxaca, also joined Viva Farm in the first year of the program and run their operation, NW Green Farm, together. Between them, they have worked as a lab tech, managed a fast food restaurant, and worked as a radio DJ, but they also have experience in agriculture. They even started their own small farm operation on land owned by a church and sold corn to members of the congregation. Now they sell some of their vegetables through Viva, but most is still sold to friends and family. The brothers both still work full-time jobs in addition to farming. Sarita observed, "They're very realistic about [becoming farmers]. I think particularly because they failed on their own, and they realize they have limited time and resources to spend out here. So they're expanding pretty slowly, but they're very serious about it... It frustrates them a little bit that they can't really pour themselves into it." Salvador's advice to new farmers is to "think twice" because "it's not easy." According to Misael, the brother's are "going to look really hard the next year to see if it makes sense to continue or not." His advice to new farmers is telling of the challenges they have faced: "If you have money and you have time, then okay, yeah, you could do it."

⁵ When I visited, I had a chance to talk with Lisette while she was working at the farmstand. Although I had set up a meeting with Nelida through the translator I worked with, we did not end up with an opportunity to meet.

⁶ On the first day of my visit, I had the chance to speak directly with Salvador. Later, I also met with Misael and spoke with him with the help of Erin, the translator.

When Regino Flores⁷ came to the United States from Oaxaca, he worked for five years in wholesale vegetable buying and selling in California in one of the major urban wholesale markets. At Viva, he grows berries and a mix of vegetables.

Santiago Lozano⁸ also worked in California in agriculture, first working for other people and then doing his own contract growing. His passion has always been for berries, and he grows two acres of organic strawberries at Viva and five acres of conventional strawberries across the road. Although he had experience farming in California, he had always worked with a single buyer. Sarita points out that before Viva, he had no experience with direct marketing or running his own business. Farming at Viva gives him a chance to learn those skills. While there, he has also purchased his own tractor and is pleased to have it available whenever he wants to use it.

Jon Harman has a background in environmental education but has primarily worked in carpentry and catering. He had been talking with a friend about growing food on the way to a tango class where they happened to meet Sarita. He helped build Viva's greenhouse during the winter between the first and second season and started farming during the second year of the program. He grows a mix of vegetables and so far sells them where he can. He's looking at a number of opportunities to partner with other farmers in the future and hopes to use farming as a bridge into education. The Cultivating Success courses were the impetus for Jon to get into farming. He would not be farming if it were not for Viva.

Farming is also a career change for Dan Luethy, a physical therapist who wanted more meaningful work. After interning for a season on a biodynamic farm, Dan looked for opportunities to farm for himself. In his first year at Viva, Dan grew vegetables for a one-member CSA and experimented with growing grains. As a mid-career changer not in his 20s and

⁷ Erin could not reach Regino in advance of my visit to set up a time to talk. I did not get to meet with him while I was there. Sarita provided this information.

⁸ I met with Santiago along with Erin who provided translation.

without a family, Dan does not consider himself the typical beginning farmer that incubator farm programs intend to target, but he is deeply appreciative of this opportunity: “In the process of deciding who the incubator farm would be for, I’m grateful they were expansive enough to include the oddball like me who was just figuring things out.” Dan is also an exception to the assumption that farmers are better when they own things. When I visited, he was in the process of purchasing his own spader because the program’s implements did not meet his standards for soil conservation. In the future, he hopes to “integrate my living situation with my production,” but he does not necessarily want to own the land. His priority is to focus on the farming. When he has the space, he plans to diversify his operation to develop his own sources of fertility and incorporate rotations and livestock.

At 54, Valerie Rose is the oldest of Viva’s farmers. She worked in research administration and radio reporting until she was laid off and moved to the Skagit Valley from Seattle. She learned about Viva Farm while taking a master gardener course and decided that after years of talking about farming, it was time to give it a go. She has been growing vegetables on her half-acre Grateful Food Farm operation and learning how to transition to farming, which, as she points out, is “more than large scale gardening.” Although Valerie had experience growing food, she had more to learn to become a farmer. Valerie has also learned her physical limits farming at Viva; in the future, she hopes to partner with a young beginning farmer who can do the tractor work and in return wants a partner like Valerie to do the marketing.

The farmers at Viva reflect several broader trends among the beginning farmers. At the time I visited, one-third of the group were women and two-thirds were Hispanic. Not all of the beginning farmers were young: some came to farming as a second career, while others had experience as farmworkers but not as “principal operators” of their own farm. They have taken a

variety of paths to farming and do not necessarily come from a family farm background. Despite these varied backgrounds, the experience of Viva suggests that farmworkers aspiring to be farm owners may have overlapping needs with other groups of beginning farmers.

How the Program is Set Up: The Structure of Viva Farm

Land and lease. After the family foundation agreed to fund the program startup for Viva, the first step in the action plan was to find land. Their first choice was a ten-acre parcel adjacent to the agricultural research station. Sarita envisioned new farmers learning from cutting edge scientific researchers next door. But WSU had been eyeing the property for a long time, and when they heard it was for sale, they moved in and started bidding. Then Don got to talking with the Director of Sustainability at the Port of Skagit. Written into the Port's bylaws is a dedication to sustaining agriculture in Skagit County, and they had 33 acres of farmland that had been in commercial potato production available for lease. In March of 2010, two months after that breakfast meeting with the investors, Viva Farm signed a lease with the Port of Skagit. Because GrowFood.org was still a small nonprofit, new to the area and fiscally sponsored by an organization in California, the foundation co-signed the lease to ensure financial backing. The program pays about \$5,000 in rent per year to the Port on a three-year lease with two options to renew, so nine years in total. One of Sarita's next goals is to secure a 15-year commitment from the Port. None of the programs I visited own their land and they all have similar length tenure, but Viva is the only to pay a significant amount in rent.

Production. The beginning farmers independently operate their individual farms at Viva. Several other types of production happen at the farm as well. When I visited, David, the Farm Manager, managed production on 15 acres of the land not being utilized by beginning farmers. The yield helped supply the farmstand and the Viva CSA and provided another source

of income for the program. But, managing 15 acres, as Sarita noted, “necessitates a certain type of equipment.” With the beginning farmers on one-acre parcels, Sarita said, “[we] almost have to have two totally different sets of equipment, one that the incubator entity is using and one that the tenants themselves are using, so it’s really complicated.” David mentioned several times that they needed to evaluate Viva’s production plans based on the demand they had that season to figure out what it makes sense for the program to grow and what they should be encouraging farmers to grow.

Viva is also the site of a potato trial run by David for WSU Extension and a cover crop field trial run by Eric Landry, a graduate student. Sarita was curious to see what it would be like to have a researcher on site; she wants farmers to develop an attitude of experimentation and was hoping they would learn a bit about how to set up field trials to yield meaningful results. As a trial, she allowed Eric free use of the land, thinking that his cover crops would probably add more value than rent; in the future, she predicts that she would come up with a different agreement. Eric does not have the funding to continue his project, but Jon, one of the new farmers, worked closely with him and plans to carry on some of the work. When I asked about sharing resources, one farmer mentioned that, although the staff tried to work around farmers’ schedules and irrigation needs, the potato trial made watering difficult because when it was being irrigated the water went out for everyone else. With both Viva’s production and the potato trial, those projects may ultimately compete with the needs of the beginning farmers the program is designed to serve. While the benefits may prove worthwhile, that potential drawback should be accounted for as much as possible in an incubator program.

Infrastructure and equipment. At the outset, the only building on the land was the pump house. There wasn’t so much as a mainline for the irrigation. The plan for the first year

was to put in a greenhouse and the irrigation system – things that would be easy to remove if it didn't work out, Sarita notes. They started building a greenhouse, but realized it was too late in the season to really be useful to farmers. At that point, they switched gears and put in a wash station instead so that whatever grew and was harvested that first year could at least be washed and sold. The far north end of the farm, where the processing station, walk-in cooler, and greenhouse were built, is zoned light industrial. The rest of the property down to Highway 20 and the Viva Fresh Market farmstand is zoned agricultural.

The processing station, built the first year of the program, is available to all participants for washing and packing their harvest. A basic shade structure over gravel with several sinks, large counters, and lights for late night work, the wash station was built to meet the standards for Good Agricultural Practices set by the United States Department of Agriculture (USDA). Future plans include laying a concrete pad to upgrade the facility.

The irrigation mainline was also buried during the first season. Viva provides the infrastructure up to the hydrant, and after that the irrigation equipment is the responsibility of each farmer. The irrigation system is set up to run water through an iron filtration system, but the holding tank limits the water capacity. There had been some problems with the system losing pressure, but since being hired, David has upgraded the system and been able to correct most of those problems. At peak irrigation times, David has to manually bypass the iron filter and holding tank to provide enough water. Farmers are charged a fee of \$100 per acre per year for water, which includes irrigation and the wash station. That's a relatively high price for well water, but it covers the maintenance and repair of the system as well. Ideally, Sarita would like to be able to meter each individual's water use to more equitably divide the water fees, but the cost

of installing such a system is prohibitive and significantly more than the savings they might be able to offer individual farmers.

Viva's greenhouse was finished in time for the second season and built for the program's future capacity. Only three farmers rented space inside for starting their crops. They were charged \$150 for the use of one table, but they spilled over and, between the three of them, filled the entire greenhouse. Sarita could not find anyone leasing greenhouse space in the Skagit area, so there was no market rate to compare costs. Viva's price was based on building and maintaining the greenhouse. Sarita has some doubts about the cost effectiveness of running a large greenhouse and wonders whether it would make more sense to provide small loans for farmers to build their own. There are tentative plans to heat a small, enclosed area at the back of the greenhouse with exhaust heat from the walk-in cooler and use that area for germination. Jon, one of the three farmers who used the greenhouse the second season, thought that would be useful. He also suggested that farmers should have hoop houses to plant into and that the greenhouse should be used for planting and production when seed starting is complete. Hoop houses and production greenhouses are planned for the next stage in Viva's growth. Dan, one of the other farmers who used the greenhouse, considered it one of the main benefits of being at Viva, and Valerie regretted her choice not to use it this year because of the difficulty she had starting her seeds.

The walk-in cooler was also finished for the second season and built for the future capacity of Viva Farm. Right now, one end is enclosed as the farm office. Eventually the office will move into a trailer, and the two sides of the cooler will provide wet and dry storage. Viva uses the cooler to store their own inventory, produce they purchase from farmers for the Viva CSA and farmstand. Farmers can also lease space in the cooler at \$50 per pallet. Compared to

other commercial cold storage options in the area, Viva's walk-in cooler is apparently a fraction of the price.

For Viva's second season, they also opened the Viva Fresh Market, a retail farmstand located at the south end of the property along Highway 20. Viva's primary goal is selling produce from the farmers on-site, but they also source products from other local and regional farmers. The initial stand was an experiment to see if it would be successful. It was, averaging \$1,200 a day in sales in the first year, and when I visited there were plans to expand it to include meat and dairy products. A cashier, paid hourly, runs the stand, while Randy, the Produce Manager, keeps it stocked.

While the goal is to shift more and more fieldwork responsibilities over to the farmers so that they can gain those skills, Don and then David handled it the first two years for practical reasons. The first year Viva was borrowing a tractor, one much larger than they needed. With such a large tractor and so much else to worry about, having Don work the entire property at once was simpler than teaching every single farmer to use the tractor themselves on a one acre parcel. By the second year, Viva had purchased a tractor, but it was still larger than what the individual farmers needed. Farmers have started learning to use the equipment, but from a practical perspective, with such a large tractor doing the fieldwork all at once makes sense. Over the first two seasons, Viva's equipment kept changing, making it difficult to figure out a usage charge. During that time, they simply tracked the hourly use to calculate a fuel fee. As Sarita said, "all we wanted to do was just have enough money in the fuel pot to keep refueling it." About a month and a half before my visit, they had established a fee structure that tried to account for maintenance, repairs, and depreciation in addition to fuel usage. Sarita also looked into the cost for renting equipment to ensure that Viva's prices were not higher than the market

rate. Salvador, Santiago, and Dan all expressed frustration with having inappropriate equipment available for the job they were trying to do. Santiago noted that the tractor was too large for the small parcels they farm, and Dan found the attachments provided did not align with the conservation tillage practices he hoped to employ. Jon and Dan also brought up how many times the old rock quarry tractor broke down throughout the season. So while having access to physical infrastructure was named as a key benefit of the program by several farmers, one of the biggest challenges the farmers at Viva expressed was issues with the equipment, whether it was having inappropriate equipment, the tractor breaking down, and the irrigation system going out. Viva was the only site where farmers named equipment issues as a challenge.

Beginning farmer classes. So far, all of the farmers at Viva have completed the Cultivating Success courses offered through WSU. The first course, Sustainable Small Farming and Ranching, is offered in the late fall, and the second, Farm Business Planning, is taught in the winter. Both meet for three hours, one evening a week, for twelve-week sessions and cost \$250 per farm family. Extension services throughout Washington offer the Cultivating Success courses, but in Skagit County, they are a collaboration with Viva Farm and offered bilingually (English/Spanish). The courses can also be taken for credit as part of Skagit Valley College's new Sustainable Agriculture micro-certificate program. Guest speakers range from established area farmers to sustainable brand-marketing specialists from Seattle. Jon describes the course as the "catalyst to get me in the game" and says that if he had not gotten in the class, he wouldn't be farming. Valerie found tremendous value in the preparation that the courses offered:

Viva and the classes that precede participation in Viva, the classes through the extension service, really help people think through a lot before we dive in out here in the field. I've made and tore up so many business plans in the classes, and what a gift to be able to do that instead of wasting time and money... investing in something and finding out it doesn't work.

Salvador said that for him the greatest benefit of Viva has been learning about regulations governing organic production and how to approach markets. Although Santiago found parts of the course valuable, he was also frustrated spending time in classes that were less relevant to his berry operation:

The course offers a lot of things, but it doesn't just talk about farming. It talks about cows and animals and cheese making and all of these things. And sometimes I feel like I don't want to lose my time going to learn about these other things when it's not what I want to learn about, but... the course is really good.

In the future, Sarita anticipates recruiting farmers more broadly and recognizing other comparable coursework and preparation besides the Cultivating Success courses. While this is a fairly limited data set to extrapolate from, the farmers I spoke with specifically valued what they learned about the business side of farming. Depending on their background, beginning farmers may need business planning skills as much as or more than instruction in farming practices. Santiago's experience highlights the benefit of targeting instruction through individual classes, workshops and field days instead of required class series covering a broad range of topics.

Farmer selection. For the last two years, Viva and WSU have primarily promoted the Cultivating Success courses, and then the courses have been the main source of recruitment for Viva Farm participants. As a result, Sarita and Don have had a relationship with the farmers before they become part of Viva. Selection for the program has very much been on a case-by-case basis with the only application requirement being a business plan. Sarita was hoping that the winter after my visit, they would finally have the chance to “do a big push, even outside of the County, to really try to find really talented candidates who are looking for this opportunity.” With all the major projects Viva had for the second season – setting up the cooler, building the farmstand, and launching the CSA – Sarita did not feel like she had the time to recruit more

broadly or the time to devote to farmers new to the area. Her plan had been “to grow really slowly until we're well enough established... Now we're at the point where I'm ready to recruit outside.” In the future, when applicants come from outside Skagit and aren't already personally known, Sarita expects to use a more formal written application. From her experience, Sarita had a clear vision of the new farmers she wanted to target in this program: those with farming experience who were not quite ready or able to take the leap to farm ownership on their own.

Farmer leases. Farmers sublease plots of land from Viva. The seasonal lease is based almost entirely on the lease ALBA in California has developed over the last 30 years. Viva is in transition to organic certification and so requires farmers to adhere to organic standards and maintain production records for the certification process. In addition, Viva's lease with the Port requires a certain area of the ground to be in cover crop by a particular date. While this is a sound management practice, the requirement caused issues the first season because farmers lost some of their harvest when the staff put in the cover crop. When I visited, they were working to resolve this problem by making farmers responsible for their own cover cropping, but there were still questions about whether farmers could overwinter crops. Whatever the solution, this hitch raises questions about how to handle whole farm management.

Viva charges farmers \$400 per acre, which includes the spring field prep and, the first year, fall cover cropping. According to Sarita, the market rate for agricultural land in the Valley is \$200-250 per acre for non-organic certified and \$300-350 per acre, maybe \$400 for really premium, certified organic land. When farmers have questioned the price, Sarita points out that difference in price is more than repaid in the value of the fieldwork that is included – shovel ready ground that has been disked, cultivated, and mulched.

Program fees. When I asked the farmers about the fees, a majority I spoke with said it would cost more to do it on their own, that the fees were below market value, or that the cost was accessible. One farmer made a distinction, saying that the fee for land was reasonable but that the cost for the greenhouse needed to come down (or would need to if farmers were actually being charged for all the space they used). One of the farmers did feel that “for somebody who doesn’t have a whole lot of money, it’s a lot of money to spend.” Lisette, who had half of her parcel not producing well, offered a balanced perspective: “It’s kind of hard getting a profit to cover the lease for the whole acre and a half, to pay for the greenhouse we use, the tractors we use... [But] going out by yourself, it will come out way higher, so it seems reasonable.” She added that she and her mom are trying to use the equipment as little as possible to reduce their expenses. Two farmers also noted that they had had confusion over the fees and were charged more than they had expected. In one case it was because the equipment fees changed. In the other, the farmer was not given a lease right away; when he was, he said the fees were higher than he had originally been told, but that the price was still a value.

Transitions. When I visited, all of the farmers had been there for one or two seasons. Several farmers also leased acreage off-site, but no one had fully transitioned from Viva to another location. Based on her experience with business startups, Sarita expected to encourage farmers to stay at Viva for at least three years and probably five to seven years to get established. But she added that she could be wrong and those transitions could happen sooner, given that some farmers were already expanding their operations off-site. She also envisioned a slow transition, with farmers gradually expanding to additional acreage off site and reducing the acreage they farmed at Viva as they replaced Viva’s infrastructure at the new location.

Program budget and funding. Up to this point, Viva's own funding has come from a variety of sources. The seed financing came from the undisclosed family foundation. Additional funding has come from the USDA Beginning Farmer and Rancher Development Program and the Socially Disadvantaged Farmer and Rancher grants administered by WSU's Small Farms Team; GrowFood.org's general fund; course fees and additional funds through WSU for administering the Cultivating Success courses; the fees paid by farmers at Viva; and produce sales. The Produce Manager position is funded half by GrowFood.org and half by AmeriCorps SCORE. Although one of Viva's goals now is to earn more revenue through product sales, Sarita doubts if they will ever be able to break even. Her goal, which she would love to surpass, is 50% funding from sales income and 50% from grants and foundations. Viva's operating budget hovers around \$100,000, but Sarita is quick to point out the line around staffing. Don McMoran's entire salary and half of her own are paid by WSU for their role in Extension, although, because of their seamless relationship, it can be difficult to distinguish between the work they do for Viva and the work they do for WSU. Viva does pay Don a small stipend for the additional work he does beyond the requirements of his full-time job. Randy and David are full-time Viva employees, although David's salary is about 95% from Viva; when setting his salary, Viva took into account what WSU would be paying him for running the potato trial.

The Northwest Agriculture Business Center (NABC) initially provided fiscal sponsorship for Viva Farm. At the time, NABC was running Greenbank Farm Training Center on nearby Whidbey Island. Sarita explains that they worked with NABC because they wanted a local partner and because "as far as securing future funding, it makes sense for similar projects to pair up in the same county. Because if we don't work with them, we're going to be competing for the exact same pot of money." About the time that NABC dropped Greenbank Farm, GrowFood.org

became an independent 501(c)3. Sarita didn't want to run two nonprofits, so GrowFood.org and Viva Farm got rolled into one.

Meetings and decision making. Every Thursday evening, Sarita facilitates a meeting for all of the farmers. Meetings sometimes include mini-workshops, but they are primarily a time for shared decision-making and problem solving. After brief announcements, the meetings provide time for longer discussions. Anyone who wants time dedicated to a topic can let Sarita know before the meeting, and she ensures there is time for it to be addressed. Every other Thursday, Viva also pays for any product bought from the farmers. Thursday nights were the only night everyone could agree on because they are all already at the farm that day packing orders, which makes for a long day. Although the meetings can go long, Sarita says it is hard enough to get everyone to gather once a week, let alone trying to break the agenda up and meeting twice a week. She hopes to bring someone in for a weekend workshop on facilitating productive meetings, but also believes that:

There's an energy of meetings, of bringing humans together, where there's just going to be tension and conflict, and we do our best. Everyone tries to have some humor about it. But meetings are meetings. The reason why they're needed is because tension builds up. Or will. We try to be as proactive as we can.

When I asked the farmers about how they make decisions and negotiate sharing resources, most of them brought up the Thursday meetings. There was a sense that although meeting every week is a challenging time commitment, the meetings are useful. Santiago explained:

So at Viva on Thursdays we have meetings, and if we have any complaints we just put them on the table. And that's one of the good things about Viva is that we work that out. Sometimes we're lazy about it. Sometimes it feels like a waste of time because they're every Thursday. Sometimes there are benefits for the producer, and it's all good.

Santiago went on to explain that one of the primary benefits is the information Sarita brings to the meetings: “there's always something that we're learning and that she's bringing.” Most of the farmers seemed to feel that sharing resources was not a big deal. Several mentioned that they all keep different schedules, and others said it just required communication.

Organic certification. When I visited, Viva Farm was in the second year of three for transitioning for organic certification. While the land had been in conventional production in the past, no prohibited substances have been applied since Viva farmers began farming the land. Sarita expected that record keeping would be the most difficult aspect of the certification process:

The record keeping I think is what's going to be the challenge for us. We've had no problem making sure the stuff isn't being applied, but then practices such as cover cropping... I'm not really down on people about just getting stuff on paper and diagrams of where they planted what. So basically, people are responsible for keeping record of their individual plots, but it will be David and myself who will actually, well, that's not true because we'll probably do it as a group, really put the whole together, and definitely when the notes come back from the reviewer, everyone will be included, particularly if we fail. If we're not organic certified this year because there's not enough information about parcel 5, that will be a learning experience. There's part of me that's like, if we get rejected for organic certification, it will be really good for everyone in some way because they'll get to see that and we'll all work through it together.

Sarita and Viva have a strong relationship with the organic certifier for the area. As the WSU Latino Farming Program Director, Sarita assists him on inspections for Latino applicants, and he gives a presentation on organic certification, the pros and cons, costs, and process, for the Sustainable Small Farming Course. The inspector told Sarita that Viva would definitely be a new model for them to certify. From the beginning, Sarita has been asking him:

Will we be considered one property? Will we be one management unit? Or are they actually going to require us to break the whole

thing up into the number of submanagers or whatever there are? Because you could look at it both ways... Technically, it's under one management. And we're overseeing the work that everyone is doing as far as our lease is concerned. Legally, that's how it would be seen because liability-wise GrowFood.org would definitely be responsible for anything, so it feels fair to me that the organic certifier see us the same way. But we'll see what happens when we get there.

Salvador and Misael said that one of the greatest benefits of farming at Viva has been having support understanding government regulations, but they also pointed out that organic certification is an expensive process. Santiago knows there is demand for organic strawberries, but he is not receiving a better price for his crop and growing the berries organically costs him more than conventional practices would. Valerie highlighted the importance of their location in relation to markets for organic food: “We're so lucky here to be close to Seattle... There are a huge number of wealthy, well-educated people who value supporting organic farmers.” Just as for individual farmers considering certification, an incubator program needs to know their markets and whether official certification will yield benefits worth the time and financial costs.

Markets and marketing. Viva’s staff repeatedly talked about the benefit to new farmers of the marketing that Viva offers. When Sarita was talking about Nelida, a fairly experienced but still beginning farmer who was already farming a nearby parcel, she said she thought Nelida came to Viva to take advantage of the equipment and also to be:

Tied into our whole infrastructure and the benefits that come from it because we do a ton of marketing. I think that's probably the biggest asset to Viva. Just getting out there. Basically, having someone around the clock telling your story for you and marketing. And it's hard to tell your own story sometimes, but we love doing it. I love doing it.

In talking about the other new farmers, Sarita described how Santiago had experience farming but not with direct marketing. And Salvador and Misael “didn't have much of a concept of

marketing and just didn't really know who or how to talk to people, how to make people understand the value of what they were doing, the value of the product primarily or tell the story in a compelling way.”

Sarita described many layers and forms of marketing that Viva provides. She puts a great deal of effort into raising awareness of the program itself and the issues that the program’s mission seeks to address – and making connections between the two – locally through news articles, radio spots, and flyers and nationally through conferences and speaking engagements. Viva Farm also directly markets the multi-farm Viva CSA and tells the story of the program and the individual farmers. Sarita explains the many benefits of such marketing:

All of that directs attention and energy back to Viva Farms whether it's coming from someone who is an end customer in terms of coming to the incubator and bringing the value of being a new farmer here and bringing all of their social capital to the project, or attracting donors, to keep the actual infrastructure of the whole program going, or it can be someone who actually purchases food product from any of the farmers or from the whole collective of us.

Viva also helps farmers individually with developing their brand, logo, and marketing plan, although Sarita acknowledges that “there's some stuff that happened the first year as far a level of service that I would love to offer every single person every single year, but as we grow its going to be difficult to maintain.” While Viva helps the individual farmers with marketing, the relationship works in reverse as well. The farmers themselves help to promote the program by always presenting their individual farm name in conjunction with telling people that they farm at Viva.

When I visited, Randy told me that the plan was for him to help teach the courses during the coming winter. He had seen a lot of unrealistic marketing plans from the new farmers but went on to explain that:

Some of the marketing plans I've see are fairly good if they had the wherewithal to be able to follow through on it, but [not if] they don't have the wherewithal or the experience or the knowledge. They may have a good idea where to sell something, but they have no idea how to sell it and how to maintain it.

With his lifetime of experience, Randy asserted, "I'll be able to show them, when you're farming five acres, [this is] how the market works." Don, the Extension Agent, observed that marketing posed more of a challenge for the new farmers than growing good food and explained why Viva started its CSA and farmstand in the second year:

Most of these individuals can really farm; however, what we saw last year was they couldn't market their product. And that's why we ended up getting into the CSA and into the market stand because they were letting a lot of product just rot in the field because they couldn't make the contacts.

Now that Viva has a CSA and farmstand, David, the Farm Manager, says:

[The farmers] get an opportunity to see how a retail stand comes together, and they have access to sell their more specialty stuff here, stuff that sells in a market farmstand. And we are out there trying to sell their products for them, doing a lot of the marketing for them, which is a huge help. There's hardly any product in the field going to waste, and that's a problem when you're experimenting and learning how to grow something. It's not just whether or not you can produce it, but then you have to go sell it.

Viva purchases product directly from farmers, and then resells the produce through the farmstand and also through its other channels, including the Viva CSA and restaurant accounts. According to Randy, farmers nationwide receive on average only 23% of the market dollar. He proudly points out that Viva's farmers get at least 50% and as much as 70 to 80% of the market value of crops sold through Viva's channels. Although Viva's top priority is selling produce from the Viva farmers, they also buy produce from other farmers in the region to supplement their farmstand inventory. The added advantage of this policy, according to Don, is that the concerns of some area farmers who viewed Viva as unfair competition were alleviated when Viva started

buying produce from them. Sarita recruited 100 members for the first year of the Viva CSA. Only one of the 100 had been a CSA member before (she had moved and was no longer near her old farm). Creating new markets is a priority for Sarita:

It was one of the goals we had going in is we really wanted to create new markets because we ask so much of the experienced farmers around here that are coming in, usually on a volunteer basis, to share all of their proprietary knowledge, all their years of experience, all the mistakes they've made, not charging anything for [that]. The last thing I want Viva Farms to do is go out and rob their market share.

Viva's CSA was a joint venture with Growing Washington, another program providing opportunities for beginning farmers that already ran a large CSA in neighboring counties and was looking to expand into Skagit County. As Sarita said, Growing Washington already had the knowledge of how to plan production for a CSA and so they "incubated" Viva's CSA. For the future, Sarita says, "We're focusing more and more trying to figure out how to get in higher value markets, so Seattle is definitely on the horizon."

When I asked how Viva had been most helpful in starting and running a farm operation, Salvador identified Viva's instruction in how to approach markets as one of the top benefits: "Teaching us how to approach the market. Pretty much that's what they teach us." Some of the other farmers seemed to have a different perspective on the advantages of Viva's markets and marketing. When I was asking about the challenges, Lisette described the issues with their particular parcel. When I probed to see if there had been other challenges, she replied, "Not with Viva, but with farming itself. You have to find a place other than the stand to be selling or else you would not be selling anything at all." Jon was grateful to have the chance to explore potential markets as an incubator farmer, but with regard to Viva's markets, he said, "I've been able to sell some to the market stand. It's been pretty minimal... if you don't have a market you're

going to be selling to the incubator farm at a wholesale price for very little and you might get back the seed cost. You're not going to make a living. You're just going to struggle at it.” Valerie expressed a similar sentiment. Because of the cold, wet spring, her most successful crop has been leafy greens. Yet, she told me:

The farmstand is new this year, and the stand has been selling Viva grown produce as much as possible, which is wonderful. Except they can't sell leafy greens because there's no cooler. They tried selling leafy greens, and they just dry out and shrivel up and look awful. Since leafy greens is the majority of what's done well this season, that's been very frustrating.

Santiago, who grows organic strawberries, said, “They always say there is a benefit, and yeah, I get to sell my product with Viva, but I don't really know what benefit of that is.” It was unclear if that was because he felt he could sell his berries without Viva’s markets or if he was not seeing a financial gain from growing organically, as required by the program, to offset the added expense of organic berry production.

According to the literature on beginning farmers, accessing markets is a major challenge, and the staff at Viva also saw the farmers struggle to sell their produce. The staff took steps to address the problem by building markets, but there seems to be a disconnect between the staff’s approach and the farmers’ experiences. The farmers do not seem to value those markets as highly as might be expected. While it is hard to explain definitively without additional research, the discrepancy is worth considering. Tentatively, it seems that farmers may need help accessing markets but that the program providing markets may not be the most beneficial solution.

Financing. Viva Farm has also been developing a small loan program to fill the gap new farmers face in accessing credit. They started by giving out a few loans, all in the hundreds of dollars, for small equipment purchases and market booth fees. The process was straightforward; according to Sarita, “we just created a note together. There were no complicated

terms; it was basically a zero interest loan that was to be paid back by the end of the season, or as soon as she had revenue coming in to just pay it back parcel by parcel.” The motivation for these small loans was really to see if people would repay them. Sarita did not want to invest the considerable time and resources it would take to develop the capacity to offer larger loans if farmers would not repay the smaller loans. The experiment worked, so Sarita moved forward on developing a partnership and the capacity to offer loans in the thousands of dollars. Viva has been working with North Coast Credit Union, a local not-for-profit organization that would administer the loan program. Viva’s social investment partners would put up the majority of the money for the loan program, thus taking the risk if someone defaults on a loan. Having a partner is critical, Sarita points out, because she has no desire to be in a position to collect loans from the very farmers she is mentoring and supporting and because Viva has enough projects right now without trying to learn how to be lending institution as well.

How the Program Works for Farmers and Staff: The Function of Viva Farm

The farmers at Viva named a number of benefits to being part of the program. The top benefit they named was the knowledge and information they learned through the classes, meetings and ongoing interactions. The other aspects they found most helpful to starting and running their own farm operations included the land, the infrastructure and equipment, and the support and camaraderie from staff and other farmers. A few farmers also mentioned that they appreciated the opportunity to plan and prepare for their own farm, whether it was the chance to explore markets or draft business plan after business plan. Although she was the only farmer at Viva to name collaborative action as a benefit, Valerie spoke eloquently about some group projects they had undertaken and concluded:

I really value the social and economic bounty of collective action.
To me, that’s another plus of Viva is the connection that we’re

making socially but also the fact that now, together, we can do so much more than we can individually.

The benefits of the program that the Viva farmers described seem to directly address some of the challenges that beginning farmers commonly face, namely accessing land, high start up costs, and social support. The program provides access to land, reduces start up costs by providing infrastructure and equipment, and creates a social context conducive to farming by providing farmers the knowledge and support they need on an ongoing basis.

The primary challenges the farmers described were the organizational structure of the program; poor equipment as described earlier; and farming itself, be it doing the work by hand or dealing with the weather. The issues they raised with the organizational structure encompassed several areas. The first had to do with the particular parcel they were farming, be it the rockiest patch on the property or the one parcel not located on the mainline for irrigation. This highlights the potential for resources at an incubator program to unintentionally be distributed unevenly. Two farmers talked about the challenge of not always being able to do what you want when you want because of waiting for the fields to be plowed, and two also brought up the difficulty of being part of a startup that is figuring out a lot as they go. Although not all of the farmers were affected by the cover cropping clause in the lease during the first season, most of them brought it up as a concern. Salvador and Misael lost a significant portion of their corn harvest the first season when the fields were plowed under in order for the fall cover crop to be planted. The dates for cover cropping were not clearly communicated to farmers early in the season, and by the time they were, it was too late to change anything. Losing that harvest – and income – was upsetting to the farmers and their peers. The second year, farmers would apparently be responsible for their own cover cropping, although the deadline for planting the cover crop might

still affect how late they could harvest their crops and the issue of overwintering crops does not seem to have been resolved.

Only a couple farmers brought up group dynamics and working together as a challenge, but what stood out was that one farmer really made clear that the issue was not working with the other farmers but was instead the orientation and approach of certain staff: “The orientation of someone who is managing a multi-farmer enterprise, I think, there was missing the connection that the success of the program is kind of based on the success of the farmers here too.” One of the staff jokingly describes himself as being “in transition” to organic. While there seemed to be potential for the staff’s vast experience in more conventional agriculture to expand and inform the beginning farmers attempts to build viable businesses, there may have been times those perspectives came into conflict with the farmers’ alternative approaches to agriculture as well.

When I asked the farmers if they would be farming if they were not a part of Viva, whatever their response, they almost all expressed that Viva was critical and that without the program, their attempts to farm would be different. The majority said no, that they could not imagine how they would do it without the support or resources of the program. Santiago said he might be farming but added that farming has been his dream for sometime. Lisette said her mother would definitely be farming because that is what she is motivated to do (and what she was doing before she came to Viva). When I asked about the future of their farm operations, Salvador, Santiago, Dan and Lisette all said they plan to get bigger. Dan, Valerie, and Jon are all interested in teamwork and cooperative endeavors and in forming partnerships. Santiago and Dan were already in the process of buying their own equipment. Several farmers talked about finding a niche and refining their production. Interestingly, only one farmer, Salvador, talked about buying land, while Santiago, Dan, and Valerie said they all expect to continue leasing land.

Jon and Lisette both offered advice for new farmers: have a market, your own market, for your produce. Salvador and Misael, the brothers, both warned that potential farmers should really carefully consider the decision to try farming and any money they invest. Dan expressed how important it is for an incubator program to have different players with important skills and to have a model that can sustain itself. Lisette, who worked 173 hours as a cashier in the first two weeks that the farmstand was open, emphasized the importance of having plenty of help and of having the farmers get along. (Though as Sarita said, “Everyone is ‘oh, hire more people’ Yeah, but then you just create another 60 hours of work for fundraising. It doesn’t just come out of nowhere.”) Santiago’s advice was simply, if you have the opportunity, do it.

When I asked the staff about the program’s greatest successes, they had a variety of responses. Sarita was most excited about the speed of their development:

It's easy for me to get caught up in the day to day and just feel like every day is a full day of putting out fires and just throwing ourselves, like pushing a boulder up a hill, because that's both how farming is and how startup businesses are and how anything with a social dimension is. But then, I'll pull out pictures from last year and realize that a year ago this was just a giant empty field. It was just a field. No irrigation, nothing. No market, no customers, no reputation in the community. And now I go out in the community, and I'll introduce myself. "Oh! Viva Farms! That's awesome what you guys are doing with new farmers." I don't have to say what we do. People already know about the program.

She also talked about how the proximity allowed farmers to learn from each other. She and David both named the amount of support for and excitement about the project. Don talked about Santiago’s success, financially and his plans to expand and farm full-time; he added that it was especially impressive as an organic berry farmer – something Don discouraged him from doing because of the difficulty. David was pleased with the number of beginning farmers interested in the program and the amount of marketing the farmers have access to. And Randy, recognizing

the extra challenge of being part of a startup endeavor, was just glad that the farmers still wanted to farm. As he said, “That’s huge. That’s worth everything. That’s the only reason we’re here.”

The staff named equally diverse challenges. For the program, Sarita’s greatest challenges are achieving financial solvency and finding a sustainable revenue model; developing their capacity as an educational program; and being understaffed and undercapitalized. Personally, her greatest challenge is burnout. Don and David both brought up the challenges of setting up the infrastructure and getting it running correctly and of facilitating a group of different people so that they communicate and work together well. Randy sees the greatest challenge as how much the farmers have to learn, particularly the experiential knowledge of how things work: “It’s learning, learning, learning. And overcoming what [they] read or what [they’ve] seen and finding out what the reality is.”

For all of the staff, their vision is for the program to grow: more farmers, more land, more food, increased supply and demand, better infrastructure, better equipment, an expanded farmstand, higher value markets, more collaboration and partnership, better production planning, getting farmers on their own land with access to capital, value added processing, and replicating the program in other places. Randy also hopes that the program will prove that the small farmer can succeed.

Don, David and Randy all suggested that any incubator program identify their markets first and create market-based production plans. Because of the number of people involved, David, the Farm Manager, recommends keeping all systems, whether they are for irrigation or record keeping, as simple as possible. Randy, the Produce Manager, suggests having the capacity for value-added products. Sarita and Don both said to expect to raise a lot of money and work long hours and that getting really good people is also a necessity. Sarita offered numerous other

bits of advice: get a good tractor, have a lawyer on the board, find someone dedicated to the cause to organize the program, have bilingual staff if farmers are bilingual, think carefully about marketing and create a memorable brand and name. Yet, after describing the dedication and commitment and love it will take to replace what families once gave their children to create the next generation of farmers, Sarita still encouraged those thinking about starting an incubator program to do it.

Key Points from Viva Farm

Visiting Viva, I kept coming back to how quickly this program came together. The velocity seems to be driven by Sarita's efforts and to reflect her approach:

There are so many groups that I hear from that have been trying to do it for years and just don't get anywhere... Just do it and recognize that there's going to be five million mistakes along the way and people are going to get hurt or frustrated or whatever, and then there's going to be success and accomplishments. And that's just how it is.

Some of the farmers certainly expressed frustration with the startup phase, not having systems and the foundations in place. And yet, they all seem grateful for the program. Part of the success and the speed at which it has come seems to have been the serendipity of finding motivated funders for the startup phase, but it is also rooted in the vast experiential knowledge assembled in the Viva staff, whether it is Randy's knowledge of produce markets, Don's knowledge of the Skagit Valley, Sarita's knowledge of agricultural entrepreneurship, or her husband Ethan's knowledge of nonprofits and business startups. Viva has also developed key partnerships with WSU for providing education and with the local credit union for providing financing to farmers.

Marketing is a major component of Viva. As we will see, Viva is unique among the programs I visited in having their own distribution networks and buying produce from the farmers. This part of the program is essentially a "for profit" aspect of the otherwise not-for-

profit program and requires a huge amount of staff time and dedication. And yet, Viva's marketing efforts have helped the new farmers move produce that they were otherwise having a hard time selling and has alleviated some nearby farmers' concerns over competition.

For at least Salvador and Misael, there is frustration that they cannot commit as much time to farming as some of the other new farmers and a question of whether they will continue farming. But three of the other farmers – Nelida, Santiago, and Regino – are all farming additional acreage off-site. Nelida was already farming at the other location before coming to Viva. Sarita had connected Nelida with the man she leases the land from, although Nelida and Lisette negotiated the agreement on their own. Santiago and Regino both negotiated their expansions on their own. According to Sarita, most of the berries that Santiago grows at his other plot are still going through Viva's market streams. Sarita expects that when farmers move on to other locations that they will stay a part of the Viva's marketing network.

Early in our conversation, Sarita reflected on how incubator farms are replacing the now nearly gone institution of family farms in creating new generations of farmers. Near the end of my questions, in reflecting on the challenges of building such a program, Sarita reflected further on what this shift means for incubator programs:

Our team, not just me, but our entire team has contributed their sweat, blood, sweat and tears to this project. And that's the reality. So there's a lot of excitement, there's a lot of people, everyone loves the mission, but whether, when it comes down to it, they're willing to buy the produce to support it or make the grant or the loan or the investment to support it is another question. A lot of people have expressed extreme support, but in the end words aren't going to build an incubator. Words aren't going to build the next generation of farmers. Every generation has contributed to the next, and I think it's going to have to keep going that way. So we'll see. I mean, it used to be done by parents, and you see what parents will give to their kids. I mean, that's how farmers were created in the past, so the entities that are creating farmers in the future are going to have to be prepared to give, to provide that

much dedication and commitment and love to someone that is not even a child. Without being patronizing on top of it! We have to have the dedication of a parent and the professionalism of a professor or a business consultant.

Then, as I started to wrap up our conversation, she exclaimed, “But do it! But do it!”⁹

⁹ Then she added, “And when you solve all the problems that we’ve had, please let us know!”

ELMA C. LOMAX FARM: CASE STUDY

Signs of a burgeoning local food system are literally everywhere the local Extension Agents and I have stopped in Cabarrus County, North Carolina. The triangular sign on the front of Cruse Meats, the locally-owned processing facility where the County is constructing a kill floor, identifying it as part of the Voluntary Agricultural District. The rectangular sign at Marvin's Fresh Farmhouse Restaurant declaring "Got to be NC Agriculture – Goodness Grows in NC." And the banner emblazoned with the food policy council's new "Locally Grown" logo posted at the entrance to the Elma C. Lomax Incubator Farm. These new projects are built on a foundation Debbie Bost, the County Extension Director, started building more than a decade ago. As we settle into a booth at Marvin's Restaurant, an Extension Agent, Carl Pless, tells me that back when Debbie started, "We had County Commissioners that actually said there's no agriculture in Cabarrus County." "But driving here, you saw it!" Debbie interjects. Now, the Cabarrus County government is an avid supporter of innovative food system projects, and even the driving force behind some of them. Yet, without the support that the Extension Service has built, it seems unlikely that the local food movement here would be experiencing the success that it is today.

How Lomax Got Started

Shortly after Debbie took over as the Extension Director, County Extension started looking at how to help keep agriculture a vibrant part of Cabarrus County. After five years of work, they got a Voluntary Agricultural District that includes 132 farms and over 11,000 acres approved in the County. With the establishment of the Voluntary Agricultural District, the County Commissioners also appointed an agriculture advisory board. Extension Services also worked with the schools to establish an agribusiness and environmental sciences school days

program at the county fair that involves 150 volunteers and 56 learning stations and reaches 2,900 sixth grade students. As Debbie says, “it’s taken 11 years to get here, but now things are clicking. If you don’t do that groundwork and get [support], I mean, it just took that.”

In 2007, Extension Services had the opportunity to apply for the first round of grant funding through a state legislature designated Agricultural Development Farmland Preservation Trust Fund. Along with a supportive County Manager, they were still asking the question of how to keep agriculture important in their community. Within the radius of Charlotte’s urbanizing development influence, Cabarrus County is divided: heavy development from the west to Concord and then still quite rural east of the town. That winter, the County Manager attended a conference and heard a presentation by American Farmland Trust talking about sustainable agriculture projects. He came back and called Debbie: “I need your help, we need to do this.” So she started researching, looking at what other communities were doing. In her research, she came across the incubator farm models at Intervale and at ALBA.

Debbie and the others knew that their community was often split into “two different groups that don’t see eye to eye about how things need to happen.” Not everyone recognized the importance of agriculture, and so they decided it was time for a town hall meeting. They worked with the tax assessor’s office to invite everyone with land in present use value taxation.¹⁰ From a 1,200 person mailing list, over 200 people attended the meeting along with all five County Commissioners and the County administration. At the meeting, Debbie posed the question, “If agriculture is important in this community, what do we need to do to continue to foster that?”

¹⁰ Present use value taxation, often called ag deferred, is a taxation program in North Carolina that reduces the tax burden of landowners with agricultural land. If land in agricultural production meets certain parameters, the value of the land that the landowner pays taxes on is significantly less than prime valuation. If the land comes out of the present use value taxation program (for example, if it is sold and will no longer be farmed), then three years of back taxes must be paid on the full value of the land. As of 2010, when land comes out of the present use value taxation program, the rollback taxes go into a fund for sustainable agriculture projects.

She also explained the opportunity to pursue grant funding. Among the main concerns expressed by attendees were that the average age of farmers was increasing without enough young people wanting to farm and that the capital outlay required to get started was a major barrier. From that conversation, they outlined five things they wanted to do: appoint a local food policy council, establish a beginning farmer program with an incubator farm, construct a kill floor at the local meat processing center, conduct a community food assessment, and develop a marketing plan. About the town hall meeting, Debbie says, “You know, in hindsight, that was the best thing we ever did because it was grassroots driven. It was those people saying these are the kinds of things [we need], and we would never be where we are right now if we couldn't turn back around to them and say, ‘this is what you told us you wanted us to do.’” Carl added, “The thing is the County Commissioners were there at that town hall meeting. They got to hear the people, and [Debbie] asked for a show of hands, ‘How many would be in favor of doing that? How many would be in favor of this? We had hands going up... You had the voters there.’”

That night at the town hall meeting, while everyone was talking, Debbie was thinking about the idea of an incubator program and remembering a conversation about a 30-acre farm that had been bequeathed to the County. The next day, she went to the County Administration and said, “What about that farm? You already own this property. Let’s do this!” According to Debbie, the County Administration “jumped on it.”

The People at Lomax

Staff. Lomax Farm is a project of Cabarrus County. The staffing for the program is entirely from County employees that already had full time jobs and now also help run the program; there are no staff specifically dedicated to the incubator farm. While the Extension Director and Agents got the program off the ground and initially ran the entire thing, the

responsibilities for education and facilities have now been divided, with Extension keeping the education component and the County's new Local Food Systems Program Coordinator taking on the facilities management.

Debbie, the County Extension Director, was involved in the start up process, securing land and funding and facilitating the building of infrastructure. Now she is involved in budgeting and organizing for the educational part of the program. When I visited, she was preparing to gather information from the farmers about the field trips and guest speakers they wanted.

Carl and another Agriculture Extension Agent, David Goforth, helped plan and build the incubator farm. They looked at the land during the site selection, laid out the plots and irrigation lines, and planted a cover crop the fall before farmers started on the land. They organize and teach the Beginning Farmer Classes offered in the winter. They have taken different approaches in how hands-on they are with helping farmers after the course is complete, but both visit the farm regularly to help farmers and answer questions. Although their responsibilities are similar, their approach to agriculture and to helping the famers is different.

During the first two seasons of the incubator program, Debbie, Carl and David handled all of the responsibilities for running it and the farm on top of their already full schedules. The County Manager recognized that Cooperative Extension was overtaxed with the amount of work they were doing and so as of July 1, 2011, during the farm's third season, divided the responsibilities between Extension and the County's relatively new Food Systems Program Coordinator, also known as the Food Dude. Aaron Newton, who not coincidentally was also one of the first new famers at Lomax in 2009, now takes care of the program's physical assets: he ensures that the tractor has fuel, that the gate is closed and locked at night, and that broken equipment is repaired. He also makes the final decision on facilities' expenditures. Once again,

these responsibilities were added to an already full time job. The original intent of Aaron's job, created in May of 2010, was to staff the newly formed food policy council, address food policy concerns, and serve as a liaison to other people and groups working on food issues.

When the program was created, the Extension Agents also chose three resource gardeners and a mentor farmer. The resource gardeners filled out applications and all had backgrounds in botany and growing vegetables organically. They were given small plots to garden at Lomax in exchange for being a resource to the new farmers. The mentor farmer had farmed organically in the mountains of North Carolina for ten years and had a close relationship with the Extension staff there. When he had to move to the Concord area and needed a place to farm, he paid a visit to his new local Extension Office. As Debbie describes it, he "walked in and we thought, 'oh, this might work.'" And so the mentor farmer was given land at the incubator farm with the idea that he would share his knowledge with the new farmers.

Unfortunately, the mentor farmer position did not work out as intended. Carl described how the mentor farmer would work the ground when the heavy clay was too wet, compacting the soil and setting a poor example for the new farmers. According to Carl:

He turned out to be one of the worst, as far as abusing the soil. It was just, 'I've got to do this, I've got to make a living.' Well, it doesn't work that way. We've got places that he farmed out there that are not farmable now because of that kind of thing, just running the soil when it's too wet.¹¹

While the mentor farmer did need to make a living, it seems that he took advantage of the situation and the fact that the County was footing the bill to benefit his own business. He grew cut flowers in the greenhouse in winter, racking up a heating bill that would have made the endeavor unprofitable under other circumstances. He also aligned himself with two of the

¹¹ While Carl worried about the beginning farmers following the mentor farmer's example, the farmers I spoke seemed to have learned from his poor practices what not to do. They expressed concern about soil compaction and appeared to have heard Carl's lessons about good land management.

beginning farmers and organized a successful operation that, according to Debbie, really caused a rift among the other participants. But Debbie acknowledged that the mentor farmer model did not work out at least in part because of the way the position was set up; that is, they were moving so quickly they hired the mentor farmer without a job description or a contract. Aaron offers a similar take:

It was partly his fault, but it was also partly the program's fault. Because here you're asking a guy to bust his ass trying to feed his family off what he's making on probably close to 3 acres and answer questions. And they all come at the same time. Colorado Beetle is hitting, so everyone wants to know about it. Or it's harvest time and everyone wants to know about post-harvest practices.

Although the program did not have a mentor farmer when I visited, both the program staff and participants were considering ways that a mentor farmer or some kind of on-site staff position specifically dedicated to the program might be more effective.

Farmers. Along with the mentor farmer and resource gardeners, nine beginning farmers started at Lomax in the first year of the program. According to Carl, there have been a total of 20 farmers at Lomax. When I visited during their third season, in October of 2011, 16 farmers currently farmed on the site; I interviewed three of them at length and spoke to two more briefly. The participation rate at Lomax was lower than at the other sites I visited in part because I was not able to get the farmers' contact information ahead of my visit to set up interviews and because many of the farmers at Lomax farm very part-time and visit the farm more sporadically so I could not just catch them there. The farmers I did speak to were very passionate about farming and had long term farming aspirations.

Doug Crawford, a retired facilities manager for Phillip Morris, had years of home gardening experience before completing the beginning farmer course and taking on a plot at

Lomax Farm. In his first season, he grew a variety of vegetables on his half-acre plot and sold them at farmers markets and to restaurants. He harvested 1,200 pounds of edamame (soybeans) by hand. Although he describes this as a “leisurely, passionate type job,” being retired also allows Doug to be one of the only full-time farmers at Lomax. In the future, he is considering running a small CSA and selling produce to the large multi-farm CSAs in the area. Eventually, he plans to purchase his own property and focus on edamame, blueberries, and asparagus.

Despite having little agricultural experience beyond visiting his grandparents’ farm during the summer when he was growing up, Joe Rowland has known he wanted to be a farmer for a long time. In 5th grade, he went to school on Career Day dressed in jeans, boots, a white t-shirt, and a grain company hat. “I went as my grandfather, the grain farmer,” he says, “so I wanted to do it since childhood, but then of course, other things get in the way. I went on and worked other jobs and did normal stuff.” Joe moved back to North Carolina a few years ago, intending to farm, but as he explains, “it’s hard to get into, so I was just working at natural markets and things like that, trying to stay in the business somehow.” When Joe heard about the program, there was a 45-person waiting list. With every person getting three to five years to farm at the incubator, it would be some 30 years before a spot opened up. Joe signed up anyway, figuring he’d get a laugh when years from now an email arrived letting him know a spot was open. He also took the class and started volunteering at the farm. He took the class again the next year, and suddenly there was a spot for him at the farm. Some of the staff indicated that he was moved up the waiting list because of the initiative and dedication to farming he showed coming out to volunteer (like Nelida at Viva, taking advantage of any opportunity available). When I asked if he had another job, he said no, but he does make some money as a musician and receives a little rental income from his grandparents’ land, which he inherited. He has set up his

life so he can live cheaply with few bills, allowing him to focus on farming. He and his girlfriend recently moved five minutes away from the farm – so now she has the long commute to work – so he can be sure his starts in the greenhouse are tended to. He plans to continue farming, although at this point, he is not sure if it will be in North Carolina or on the family land in Indiana.

Don Boekelheide started out at Lomax as a resource gardener, but now he is farming full-time. He has extensive knowledge of growing food: in college, he was the teaching assistant for a vegetable growing project in college, served in the Peace Corps as an agriculture volunteer in Togo, participated in community gardening for many years, teaches agronomy at the local community college, and works as a test gardener for *Organic Gardener* magazine. But as he describes it, “This is my first chance to get back into production in some time... I have too much theoretical knowledge, which I need to temper with experience. I needed to see what I could grow. A garden scale is one thing. Could I actually do farming?”

Joselyn Harriger, also in her first year of farming at Lomax, learned about the program on the annual “Know Your Farms Tour.” After that tour, Joselyn was hooked. She also got on that long waiting and took the class anyway. A plot opened up, and she was in. Joselyn lives on the other side of Concord and commutes to Charlotte for work, so she has squeezed farming in after hours and on weekends. This year she partnered with a friend to grow vegetables for themselves and a three-member CSA; knowing how little they knew about farming, they deliberately kept the CSA small and limited to friends: “We told them up front, ‘Look, here's what we want to do. I can't guarantee you what you're going to get every week. We have no idea how this is going to work.’” What little excess harvest they have had has been sold at market by one of the other farmers.

As a group, the farmers at Lomax do not reflect the racial trends seen among beginning farmers nationally, but they do mirror some of the other characteristics. Many are women and almost all come from a non-farming background. Overall, they had less experience coming in than the farmers at the other programs I visited, were more part-time, and had more widely ranging aspirations for the future (from farming full-time to growing food for themselves).

How the Program is Set Up: The Structure of Lomax Farm

Land. The land that Debbie had in mind for an incubator farm had been bequeathed to the county by Elma C. Lomax under the terms that it be used for wildlife, farming or an undeveloped park. The nearly 34-acre parcel had been a farm, but the county was not sure what they were going to do with it and so put it under the care of the Parks and Recreation Department. Elma Lomax had set aside three one-acre parcels, one for each of her children, and the County received the remaining 31 acres. Two of those parcels are along the edge of the property, but one, including the original home and a well, is located right in the middle. The County is leasing that one-acre parcel in the middle from Elma's son, and if everything goes well, the son plans to donate his parcel to the program. The section originally given to the County included a pole barn that had been used for storage and feeding cattle and the original, now dilapidated and somewhat hazardous, old barn.

Infrastructure and equipment. At the start of Lomax's first growing season, in March 2009, Carl and David walked the property and laid out the best places to put the individual plots. The irrigation lines were then laid out based on those plans. The County spent \$12,000 to have a well dug and \$17,000 to have a professional run the irrigation lines. At the time, the program did not have a relationship with the son who owns the original home site, and so did not have access

to the existing well. Carl speculates that the program could have saved money and not needed to dig a new well if there had not been a rush to get everything going:

Had we had access to that [well], we may not have had to drill that [new] one. But at that time we had no access to this property, which is why if we'd have just not gotten in a hurry to do anything that first year and got ready, then all this might have fallen in place and saved a bunch of money. But who knows?

The new well is 60 feet deep (typical for the area) and provides 30 gallons of water per minute. The program supplies the irrigation infrastructure up to the hydrant; farmers are responsible for the equipment after that point. Extension asks the farmers to run drip irrigation only. Carl points out that the system could run sprinklers, but that the efficiency of overhead irrigation would be low during the day when most of the farmers want to water. With drip irrigation, six farmers can water at the same time, which according to Carl has been sufficient so far.

The County also purchased a kit for a 34' by 96' greenhouse for \$14,000. As Debbie launches into the saga of the greenhouse, she exclaims, "that was a learning process!" As they got started on the greenhouse, the Deputy County Manager called to say they needed a building permit. And so Debbie started the process of trying to obtain a building permit. The first stumbling block was the national standard for greenhouse building permits that requires engineered architectural plans. Debbie objected: they did not have engineered plans and building a greenhouse with them would cost four times more than what they had already spent. The next question was whether the greenhouse met the International Fire Code. Debbie asked, "Where do I find the International Fire Code?" Fortunately, the kit they had purchased has polycarbonate ends, which met the requirements. After weeks of going back and forth, Debbie called the County Manager to get help. When he called her back to say the permit was ready, Debbie headed down to the Planning and Zoning Department only to discover the process was not over:

I walked in and the lady was sitting there in her cubicle. I said, 'I'm here to get my greenhouse permit for the County,' and there were three men's heads that looked up over the partition and said, 'So you're the one' and I said, 'Well, I guess so.' And they're like, 'Well, it's not ready. We need to fill out all these things. So I was there three hours, and the lady started with 'I guess the person applying for this is the County?' Well, yes, it's a County project on County property, so yes it would be the County.

Then the woman asked for their septic tank permit. Debbie informed the woman that they did not have a septic tank permit nor did they need one because they did not have a bathroom. The flustered woman asked where people would go to the bathroom to which a frustrated Debbie retorted, "There's 30 acres. They can go wherever they want." Then she added that there would be a port-a-potty and that the site was not open to the public. Finally, the requirement was waived. This went on for three hours. Debbie finally left with the building permit in hand, but her experience gave her insight into the obstacles farmers encounter whether starting new operations or expanding established ones.¹² These regulatory obstacles are an example of a social context that makes farming more difficult for all farmers, not just beginning farmers. She has shared her experience with decision makers and told them:

If you do this to everybody, number one, there's either things going on you don't know about, which I know because I would never call them ever again to ask, or people aren't going to do anything around here. In Cabarrus County, if it becomes too cumbersome to do anything in agriculture, and you have to jump through these hoops, they're not going to do it.

Debbie points out that she had the support of the County Manager and still barely managed to navigate the bureaucratic requirements. Throughout our conversation, Carl and Debbie asserted

¹² They finally issued Debbie a permit for the greenhouse, but it was not the end of the story. Debbie said, "The inspector called me and said, 'You know, we're giving [the permit], but you have a temporary building permit, which means technically it should come down at the end of 6 months, because it's temporary. And he said, 'Don't ever ask me to go out there to the incubator farm to do anything for you ever whatsoever because I don't want to see that it's still there.'"

that many of the local food and sustainable farming initiatives happening in the area would not be possible if they were not supported by the local government.

By the time the greenhouse was completed with the labor, plastic and electricity, it cost about \$30,000. Unfortunately, in hindsight, Carl wishes they had not built the greenhouse that first year. The staff has since realized that the greenhouse they built is too big: it costs too much to heat and has been underutilized. To make the best of the situation, Carl has been considering building a greenhouse within the greenhouse that could be heated for germination.

In April, with the new well dug and the greenhouse finally erected, the first group of nine new farmers started planting the ground that Carl and David had put in cover crop the previous fall. That spring, the County also installed electric fencing to keep out deer. By summer, they pulled out the old feed troughs from the center of the pole barn, and the County came in and poured a concrete slab floor. Then Extension purchased a 10' by 20' walk-in cooler, three 3-bay sinks, several stainless steel tables, and a 2,400 pound flaker ice machine and set up a post-harvest processing area in the pole barn. Extension had not anticipated how quickly farmers would be producing food, and so they scrambled to find ways to handle the harvest until the processing area was finished in August. Farmers were taking coolers to the Extension office and getting ice from the machine there to cool the vegetables. In hindsight, Carl said they should have explained to the farmers there would not be processing available that first year and to plan their production accordingly, that they were sharing what was ready and would be working into the rest. He explained, "This is not something you jump into doing in two months. Now you may do the doing [in two months], but you need to have done the planning part over a period of time."

In the fall of that first season, Extension built a hoop house. Several farmers were interested in season extension and had asked about building small hoop houses on their individual plots. The Extension staff were concerned about how farmers would access their plots without winterized roads and how they would manage to get to the farm twice a day to open and close the structures when some of them live 10 or 15 or more miles away, so they decided to build one larger, shared hoop house. Carl came up with a design to build it out of wood, and they contracted with some local guys who had a sawmill to cut them Cabarrus County grown oak timbers. They used their own labor to put up the cedar poles, bolt the trusses together, and erect the hoop house. The entire process from cutting the trees to finishing the structure only took a couple weeks and only cost \$1,800. Carl points out that at 30' by 96', the 2,900 square foot hoop house cost well under a dollar per square foot – something a farmer can pay off the first year.

In the summer of 2011, the third season of the program, the County built a new office at the fair grounds and moved the old fair office trailer¹³ out to Lomax. Debbie and Aaron named many benefits of the new structure: they now have a place to leave messages for everyone, keep a phone and computer, get out of the weather, and give presentations for tour groups.¹⁴

Like Viva, the incubator farm at Lomax has had their share of tractor problems. Originally, the County moved a tractor from another facility to the incubator farm. Shortly after, the tractor was stolen. The program then had the unanticipated cost of buying a new Kubota tractor. This one has a lojack security system. They also bought a shipping container where they could lock up and store the tractor. In addition to the Kubota, they have a FarmAll Super 8, which they use as a cultivator or with a disc, a flail mower, or chisel plow. Individual farmers

¹³ The old fair office may be a double-wide trailer, but it was \$54,000 when it was new just over ten years ago and is still in excellent condition.

¹⁴ And they no longer have to change clothes in the walk-in cooler or pee outdoors!

have purchased or brought their own equipment out as well, including a rototiller and a bed shaper. Carl observed “Most of the people, we’re finding, coming in to this are not mechanically inclined. Don’t have a real sense of how to use or take care of equipment... We’re not drawing in farm boys who grew up knowing how to use equipment.” Carl and David, both raised on farms and around farming equipment, have struggled to teach the new farmers how to use the tractors. An added challenge Carl described is that once a farmer completes a task on the tractor, they often do not get to practice their new skill because they may not need to do that same job again for months. Being a 1951 model with a clutch, loose steering, and sticky hydraulics, the FarmAll Super 8 poses its own challenges to the new farmers. According to Carl, the women have been embarrassed when he tries to teach them to use the tractor. In addition to the challenges of teaching the new farmers to use the equipment, the staff has observed a lack of accountability. Debbie explained, “Equipment gets broken and nobody tells anybody. Then the next person to use it can't use it because they're breaking it and not telling anybody.” The staff are considering options to increase accountability and ensure financial costs associated with the tractor are covered: a deposit that would be deducted from for repeated abuse; changing the rules so that first year participants can only use the tractor under the supervision of a staff person; or charging an hourly fee based on the operating cost of the tractor plus an additional percentage for maintenance. Debbie does not want increased fees to be cost prohibitive but also recognizes that the participants are taking on none of the financial risk currently.

Beginning farmer classes. Each winter, starting in 2009, Carl and David have taught a Beginning Farmer Course. The class meets for two and a half hours one evening a week for nine weeks. Carl and David bring in guest speakers from the Farm Service Agency and the Soil and Water Department. The course covers soils, plant propagation, using a greenhouse, taxes,

insurance, conservation, and even how to stake tomatoes. As Carl said, “general stuff that you need to know if you didn’t know anything [about farming].” Participants pay a \$100 fee to take the course. Debbie did not remember how the \$100 fee was decided on, but she did say that the goal was to keep the class accessible and yet still have some financial investment so participants took it more seriously. More than 30 people take the class each year, and Carl speculates that it may have been closer to 300 if the class had been free. Extension Services lists the class on their calendar, which is printed in the newspaper each week. Other people hear about it through tours at the farm.

Farmer selection. The Beginning Farmer classes are a prerequisite to farming at Lomax. Interested participants then fill out a written application, including a business plan. Carl pointed out their expectations for the business plans are very generous because the applicants have no experience to draw on. Although there is an application, it does not seem that anyone has been turned away from the program (just put on a waiting list when there is not space available). Carl believes the selection process needs to be more thorough and include an interview:

Take the time to have an interview process. We did not do that. We thought, “Oh, we don't have time to do all that.” You do have time to do that. If you don't have time to do that, you don't have time to do the thing. Talk to people about why they want to be here. The application is fine, but talk with them about why they want to be here and what they are hoping to accomplish.

He explains that an interview would help identify those applicants who are a good fit for the program and those who are not.

Farmer lease and fees. The farmers do not sign a lease currently, although Carl would like to see that happen. Debbie has approached the County Attorney to draw up a lease that spells out the terms of the agreement (and its termination), but it has not been drafted yet.

There are also plans to revise the fees that new farmers pay to farm at Lomax. Up until now, farmers have not paid any additional fees to farm at Lomax beyond the \$100 course enrollment. As Carl said, “If you take the course and then don't come out here, you got your \$100 worth. If you come out here, all this is bonus, same hundred dollars.” Carl and Debbie are primarily interested in some sort of a deposit that would help motivate farmers to properly care for the equipment and cover some of the repair costs. Carl and Debbie do not think the program will ever be economically self-sustaining; Debbie added that financial self-sufficiency had never been a goal because then the program would cost prohibitive. Carl thinks that maybe some incubators should be set up that way, but Debbie was quick to protest and provide an example of a particular participant who has to work another job to make a living but could access the program because of its low cost: “I'm not sure that she's going to be this really huge full-scale farmer, but she's benefitted. It's been good for her.” Carl added, “That would be more in the human development part of the thing, which we never thought about, at least to start with, but it's part of it.”

In direct contrast, Aaron, the Food Systems Coordinator now responsible for facilities management, stated that financial self-sufficiency is absolutely a goal. One proposal he described is for a “rent style” program with specific charges for resources at the farm, such as an hourly use rate for the tractor. They have also considered charging a percentage of sales so that if you are only making \$1,000 a year at the start, you are only paying a part of that to access the land and resources. At the heart of this dilemma over what to charge for the program is not really a disagreement over what would be a fair cost but rather how accessible the program should be and who it is meant to serve. Some of the participants cannot dedicate much time to farming, and in some cases nor do they want to, and so they do not have the revenue from farming to cover

higher fees. But at the same time, there seems to be a threshold below which participants do not need all of the services Lomax is providing; they might benefit just as greatly from a lower cost gardening class and community gardening program. The issue also raises the question of how an incubator program can best serve beginning farmers who are serious about farming but still have to have a full-time job.

The farmers acknowledged that they are getting a great deal at Lomax. Joe pointed out that any one aspect of the program – the land, the equipment, the training – would be worth the \$100. He continued:

I think it should be a lot more. I'm glad it's not. But I don't think people would bat an eye, or should bat an eye, if they said, it's \$500. I don't think the whole program would be any less worthwhile if they said the program is \$1000. \$100 a year is pretty amazing.

Joe went so far as to say, “There’s no reason this farm can’t almost pay for itself.” He envisioned that happening through the fees farmers pay and even a Lomax County plot that the farmers provided the labor for and the profits of which went back to the program. Joselyn agreed that the farmers are “getting quite a bargain” but added that, despite the low fees, with her other startup costs, she probably would not make her money back this year.

Transitions. Despite being relatively new, Lomax has had several farmers exit the program. The farmers who left all intend to continue growing food or working within the food system. Most of the farmers left by choice because of other job opportunities or land closer to home; the mentor farmer and one of the new farmers he partnered with were asked to leave but are still farming elsewhere.

There is a not a clear rule for how long farmers can stay at Lomax. According to Debbie, the staff have been saying all along that it would be three years, but she expected three to five

years to be a more realistic timeframe given everything the farmers had to learn. When I visited, the original participants were in their third season and had been asking “So are you going to kick us out?” Debbie assured them it would not happen that way. One of the next tasks is to figure out how to help farmers transition to new sites. Debbie explained:

We're working on how to help them transition to other land. What we've added now for next year is part of the whole beginning thing is you've got to start thinking about a transition plan when you first come in because you can't think about that at the end. It has to be something that you're working on every year.

Because the staff did not have a refined selection process when they started the program, they also have the challenge of working with participants who do not fit the program’s mission. Debbie hopes to figure out a process for working with those participants that the Extension Staff has realized are not going to make it as farmers – and who, in some cases, do not want to be farmers, they just want to learn to grow food. The staff have not decided how much support they will be able to offer to farmers once they transition to other sites; as Carl points out, there is only so much the staff has time to accomplish, so anything they choose to do requires a tradeoff. Of course, many services provided by Extension are available to any farmer. As David said of the participants, “When they have a problem, they contact me like any farmer across the County would.” The same would hold true for former participants. An added bonus Carl described is that anyone who leaves the program in good standing can remain on the email list where they will receive information and hear about opportunities. David also mentioned that those people have stayed involved and come out to help at Lomax. He envisions those alumni and the program “building a community of farmers interested in small scale agriculture.” The day I visited, Aaron had been given responsibility for another five-acre parcel of County land. Some suggested using

it for another incubator program, but Aaron was also considering using it as a transition space and leasing it to graduates of Lomax.

Aaron has also envisioned a potential model for peer mentorship among the farmers that would allow for gradual transitions off-site, much like Sarita expects to happen at Viva. In Aaron's model, incoming farmers are given a very small area to farm and are paired with a farmer who is ready to start expanding off site. As the more experienced (but still beginning) farmer transitions off, the newer farmer takes over more and more of the plot and the responsibility. Eventually, the more experienced farmer leaves entirely, but they still have a relationship for asking questions and sharing ideas. Once responsibility for the plot transitioned to the newer farmer, that person would take on the mentor role and the process would begin anew. Aaron's hope is that this sort of mentorship would incorporate education and a way to take care of the land because the farmers would be invested in those coming after them. Aaron had informally experienced something like this in his time at the incubator. One of the other participants actually started out volunteering for him on a work trade for a CSA share. As he took on the job with the County, he transitioned some of the land he leased to her.

Program budget and funding. A local foundation donated \$150,000 to start the incubator program, and despite being very frugal, Debbie said it took every bit of that money to get the program going. Carl explained that there were some places they might have been able to cut costs, such as putting in the irrigation system and building the greenhouse, but others where they really got the best possible deal, which includes the County land that the program uses free of charge. When I asked Debbie about the program's operating budget, she said, "We're not there yet." Given how new the program is and the changes happening (like a new office trailer), they have not figured out what it is going to take to operate yearly. As this point,

the program does not have any salary expenses; one upside to not having dedicated program staff is that Debbie, Carl, David and Aaron's salaries are all paid by their respective departments. As with the start up costs, Carl pointed out some operating expenses really could not be reduced but that others, like running the greenhouse, might get cut back.

Aaron, who is now responsible for the facilities end of the budget, plans to find ways to reduce their resource use and inputs as much as possible – for example, by insulating the floor of the walk-in cooler – and then increase revenue to cover those costs through fees, growing perennials crops, or hosting events at the farm. Not only would Aaron like the program to be “budget neutral” (where it does not require any outside capital), his ideal is to hire a dedicated staff person to be on site full-time (or even half-time). But he asserts that having a more realistic budget is critical “both because of economics and money being really tight and also having recently lost our County Manger who is our absolute biggest cheerleader for local food.” Aaron does not want the program to be criticized for its spending.

Meetings and decision making. Although Aaron has been given the authority – and responsibility – for making final decisions on facilities, site improvement and equipment, he solicits and considers feedback from both Extension and the farmers on those issues. Decisions around the educational programming are Extension's responsibility. And the County Manager ultimately has authority over both. The decision to move facilities management to Aaron was made by the County Manager.

The farmers gather for an evening meeting twice a month. On the second Thursday, they meet with Extension Services. On the fourth Thursday, it is just the farmers. The meeting with Extension provides an opportunity for on-going education, and the farmer only meeting gives them a chance for collaborative decision-making. Echoing many of the farmers at Viva, Doug

and Joe told me that sharing resources, like the tractor, just has not been a big deal. A lot the farmers have different schedules, and during crunch times, like spring planting, they make sure to communicate with each other ahead of time. Joe, Joselyn, and Aaron all pointed out that email has been critical for that sort of communication. Aaron attends both meetings to make himself available for facilities issues, but he is not an active participant because he does not want to interfere with the education that Extension provides or the farmers' autonomy.

Shared responsibilities. The farmers at Lomax are gradually taking over the responsibilities for maintenance and farm chores. They have a chart with the different tasks assigned to farmers on a weekly basis. Jobs include taking the garbage out to the road for pickup, checking the electric fence and irrigation, cleaning the office and bathrooms, picking up litter, mowing the common areas and along the deer fence, cleaning the post-harvest facility, and, perhaps most importantly, opening and closing the greenhouse each day.

Organic certification. The County Manager, who supported this project from its inception, told the staff that it would be certified organic. Because the land had not been in production for some time, the farm was immediately certified. Speaking as staff, Aaron is not sure what will happen to their organic certification now that the County Manager is gone, but speaking as a successful new farmer and former participant, he added:

As a producer, it was nice because it gave me access to markets I wouldn't have had. But it's a pain in the ass to certify a farm, and it's a huge pain in the ass to certify a farm where you have 16 different people doing things, all of whom could do something stupid and jeopardize the entire farm.

David fills out the paperwork for the organic certification. Carl wants nothing to do with it but did mention that the reviewer often comments "needs more written records here" on their

application. Debbie also has reservations about the benefits of organic certification for the program:

The County determined that certified organic was what we had to do because that's what they wanted to do. There's all of us in this office convinced that that's not the best. Sustainable practices are important and teaching sustainable practices are important. However, everything involved in organic certification, and especially with all of the different people and all the different plots, is so cumbersome. And around here, it's not netting anyone additional benefits such that it makes it economically advantageous. I mean, they're not getting a dollar more a pound for anything because it's labeled certified organic.

With the change in County management, Debbie plans to revisit the decision to certify the farm.

Markets. Unlike Viva, Lomax does not buy produce from the farmers or have its own market channels. Nor does Lomax have a farmstand. Unfortunately, their location at the end of a dead end road does not have much visibility. While he would like to have a farmstand, Carl is quick to point out that the quality of the land and County ownership are much more important. Even without the program providing markets, as at Viva, being a part of the program has helped farmers access markets. They have worked together to sell produce and benefitted from their collaborative marketing arrangements. One of the farmers will take whatever produce the other farmers have to market and stock one booth. Carl, Joe, and Joselyn all mentioned the advantages of pooling their efforts in terms of time and labor savings. Joselyn also pointed out that she did not usually have enough produce to supply an entire booth on her own, but that by combining with the other farmers, it was worthwhile to send whatever excess she had that week. Whichever farmer works the market gets a small percentage of the sales as a commission. The incubator farm is within range of a number of farmers markets, and by working together the farmers can attend more markets. Although there are farmers markets closer to the farm in Mount Pleasant and Concord, the farmers are driving to Charlotte and Davidson because, according to Carl, they

can get a better price there. Some of the new farmers have helped Carl with experimental crops he plants, and then Carl has given them the harvest to sell at market.

How the Program Works for Farmers and Staff: The Function of Lomax Farm

When I talked to the farmers about how the incubator program at Lomax has been most helpful to them establishing and running their own farm operations, almost across the board, they identified the infrastructure and equipment, knowledge and information, access to land, and support and camaraderie. For instance, Joe described three major benefits in terms of access: access to land, access to equipment, and access to training. Then he added, “Community, camaraderie, relationships. You learn stuff every time you come out here from each other. You forge friendships.” Similarly, Joselyn appreciated having an expert to call with her questions and said that “obviously... the availability of the water and the land” are critical – she would not be farming without them. And finally, she talked about the other participants:

Even the people you're working with are really helpful. We have so many knowledgeable people. I don't know what Joe's background is, but he's amazing. Everything he does pops up out of the ground and grows like crazy. So, it's just incredible. He's just great. And Don has so much knowledge. I'm actually taking a class with him right now in vegetable production.

These benefits – land, infrastructure, knowledge, and support – closely mirror the replies of the farmers at Viva. None of the farmers at Lomax specifically talked about collaborative action when I asked about the benefits of the program, but throughout our conversations they described their collective marketing and sales with clear appreciation.

The farmers at Lomax described only a few challenges. The biggest challenges had more to do with farming than the program itself. Doug talked about trying to get his production plan in place, timing the planting of crops, and about the summer heat, while Joselyn was frustrated with the wet weather at the beginning of the season when she was trying to work the ground and get

her crops planted. Doug also needed more labor to harvest his mountain of edamame and, even with the low cost of the program, faced the financial challenge of prioritizing what to buy first and wondering if he would manage to break even the first year. After the spring weather, Joselyn described her other challenges as “my lack of knowledge of things: when to plant, how much to plant, spacing, and trying to figure it all out. That’s the biggest challenge for me.”

Joe named several challenges that had to do with group dynamics. The first challenge Joe identified was bringing together a large group of people with different goals, trying to work together, and agreeing on how to run the farm. But he pointed out that you will run into that challenge in almost any group setting. Joe also described a divide between the farmers, like him, who are there every day and those who are less involved: “We’re trying to do this all the time, only. Compared to somebody that is here once a week or isn’t here for two weeks, I think there can be a little disconnect there.” He felt some frustration because the more full-time farmers take on more responsibility for shared chores and feel more of the impact when others do not do their part. Aaron observed the disconnect between the two groups as well. He characterized it as the group that can dedicate close to 40 hours a week to farming, either because they are young and do not have kids or because they are retired, and those that can spend closer to 10 hours a week because they have jobs and families. He acknowledged that the farmers who are there every day see what needs to be addressed around the farm and seem to have a stronger sense of ownership, but he is concerned with serving both groups:

So how do you level the playing field, make sure that everyone has equal input in terms of how the farm operates and is maintained without sort of disenfranchising folks who can only be there 10 or 20 hours a week? And part of that might be a level of expectation that’s understood when people come on, and part of that might be raising the bar, trying to make sure there are more folks who, for whatever reason, have that time. But that’s a big issue for us.

As Aaron pointed out in another part of our conversation, even among established farmers, few of them are farming full time; most rely on an off-farm source of income too. Expecting new farmers to be full-time farmers might be unreasonable and unrealistic.

Joe was also concerned that the program was understaffed:

The Extension Agents don't have a ton of time. They have full time jobs on top of this, and I think for the learning aspect to really flourish, there just needs to be more availability. But not that is dumped onto somebody's already full plate because that doesn't make it easy. Also, I don't want to become a burden when I call them three times a day to ask about aphids or something like that, but for me to get the most out of it from a learning experience, I want to know.

He added that sometimes it was difficult just to figure out what was going on and wanted there to be one go to person who could make decisions on the spot.

When I asked the farmers if they would be farming if they were not at Lomax, their answers varied, but they all asserted that it would be very different if they did not have the support of the program. Joselyn said she would not be farming otherwise, that there was no way she would have the money, knowledge and resources, but that with what she is learning, she feels like after she leaves Lomax she will be capable of going out and farming on her own, which she plans to do. Doug said he would be farming, that his plan for retirement had already been to buy land to farm. Yet, he is grateful for the learning opportunities and the chance to refine his plans: "I would have never had this educational opportunity. I mean, this is exponential from the standpoint of getting a jumpstart in doing the right things... I would have been farming, but not efficiently." He is figuring out the scale of his future operation, his target market, his infrastructure needs, and a reasonable marketing plan based on the labor he can manage. He also knows what to look for in a piece of property and has been saving capital to buy a tractor. Joe

has known he wanted to farm for a long time but is not sure he would have succeeded without the help of the program. When I asked if he would be farming otherwise, he replied:

I can't say 100%, and I think if the question is kind of trying to get at is the end result a benefit, is it worthwhile for a program like this? I would say "Hell, yeah!" Put that exclamation, put [it] in the chicken feet, the whole "Hell, yeah!" because what it gave me is an opportunity to get my toe in the water without jumping in and now I know wholeheartedly, 100%, I want to jump in. It's the only thing that I can see that I even halfway can do for the future... I don't know if I would have gotten the opportunity without being here first [It's been] an opportunity to make money, has really given me an opportunity to pay some bills, and buy myself the time to really just try and experiment and see what it is I want to do. So I can't say whether or not I'd even have the opportunity without some sort of program or some sort of leg up or help.

All of the farmers echoed that sentiment: trying to start farming without this leg up would have been tough, but now they feel more prepared for a future of farming.

Joe recommends that new incubator programs take the time to set it up properly and think through the details ahead of time. He asserts that a successful incubator farm needs to have the right people, both leaders and farmers: "Have proper leadership that can really be involved and not people that have eight hats to wear and something is always going to fall through the cracks... And get the right [farmers] and make sure those people are into what the program wants." Joselyn, who does not know how she would be farming without this program, offered this advice for organizers of new incubator programs:

Do it!! Be patient with us, with us beginning farmers. We don't know what we're doing. And you're going to have some people that drop out. I mean, that's part of it. And it's not necessarily a bad thing. Kind of weeding out people that don't want to do it... I love it. I know there's others out there that would love it too.

Talking with these new farmers, it was clear that Joselyn is not the only one who loves it.

When asked about the greatest successes of the Lomax Incubator Farm, the staff members give two parallel answers. The first is the success of the beginning farmers; that is, the new farmers are learning, making money, and will be ready to go out on their own and continue farming. The other is that some of the new farmers have realized that this is not what they want to be doing — without having gone out and invested a huge amount of money. Debbie and Carl both pointed to the recognition they have received from others who want to learn from them, as indicated by the number of requests they receive for tours and interviews. Aaron, in his policy role, sees benefits for the greater food system: the program is a rallying cry and source of pride for local food advocates. He also sees the program turning out not just beginning farmers but better advocates for farming because of their hands-on experience.

While the successes of the program are real, the challenges they have faced are numerous. There are the inherent challenges of bringing together a large group of people and getting them to collaborate and agree. There are questions about the long-term funding and sustainability of the program. There is the lack of capacity, particularly in staffing. There are the benefits of being a County program – the County has many resources they can draw on – but also bureaucratic challenges.¹⁵ There are the challenges of new farmers who do not necessarily know how to care for the land or the equipment. And then there are the challenges that come with being a startup that is moving quickly: they started out too big and too fast; they did not always have the right people in place; there was not enough planning; and they were figuring out a lot of

¹⁵ As a County program, they may be better positioned to overcome regulatory obstacles, like the greenhouse building permit, but they also have to deal with County level bureaucracy, like Aaron, the Facilities Manager, not being allowed by his contract to lift more than 10 pounds or the County Risk Manager's concerns about the electric fence, non-County employees using the tractor, and beekeeping: "Bees? Why do you need bees?"

systems as they went. While they have ideas for addressing all of these challenges, they may have more yet to face, with the recent departure of their greatest advocate, the County Manager.

Some of the staff's plans for the future are focused on refining aspects of the program, such as finding ways to run the greenhouse more efficiently, improving communication and accountability among the farmers, and getting down their operating procedures. Other changes may be more comprehensive; both Carl and Aaron discussed ways to change the program's entire model. Even while they refine the existing program, Aaron is already looking ahead to a time when Lomax is the premiere teaching facility for farmers on the east coast and the program is replicated in other places.

When I asked the staff what advice they would offer future incubator programs, their suggestions were based on what has worked for them. Debbie advocated for a town hall meeting to bring the wider community together and to hear their concerns and interests. David recommended convening an advisory committee with a diversity of perspectives and skills. Carl pointed out the importance of communicating with the broader community as the program proceeds; better they talk with you than about you, he says. Most of the advice revolved around how the program is set up: start slow and small and take the time to plan; break down what you need and establish a timeline; have job descriptions and contracts with clear expectations; have an application and an interview process so you can get to know people; select people carefully; and look at other models but also realize you cannot be everything to everyone.

Key Points from Lomax Farm

Throughout my visit to Lomax, I heard again and again from the staff how important the community involvement was at the outset of the project and how critical the County support has been throughout. The incubator program is really just one piece in the bigger picture of what's

happening with local food in Cabarrus County. It would not be possible without the larger conversations and efforts happening there. And at the same time, the program is helping to advance those efforts. Through the experience of trying to construct a greenhouse, Debbie and the Extension Staff have been positioned to create regulatory changes to make farmers' lives easier. And the program is turning out not just new producers but better local food and farming advocates. While there was an effort to gather grassroots support and involvement, there are times that the incubator program has alienated parts of the Cabarrus County agriculture community. Carl mentioned some inflammatory comments made by the mentor farmer in a newspaper article that reinforced the view held by some that the program is an organic hippie commune. In his role as a liaison, Aaron has been involving the conventional agriculture community in the work of the food policy council to build understanding between the groups.

Being a County program has numerous benefits – starting with free use of the land – and the County has many resources the program draws on, from the County Attorney drawing up leases to County welders repairing farm equipment. At times, the program has also been lifted up by the will of Extension Service's administrators and other times it has been limited by their decisions that are not always based on a thorough understanding (like the Bermuda grass that was used to landscape around the parking lot and greenhouse that is now taking over because the certified organic farm can't get rid of it).

The staff repeatedly talked about needing more planning at the outset of the project and the ways they might change the program in the future. Yet, as Carl pointed out, they might not have foreseen all of the things they needed to do differently or better at the outset. Much has been learned by doing. And by moving quickly, they were able to capture the momentum and support that existed at the time – which was not guaranteed to last. No one made that particular

connection about the past, but they did point out that political winds are subject to change in the future and that they have already lost a key supporter in the County administration.

Perhaps the most important question that has yet to be answered is exactly who the program is primarily intended to serve. Answering that question could help determine how to best meet the educational needs of the new farmers and what fees are appropriate to charge them. Carl and Debbie want to be sure that the program is accessible to anyone and so set a low financial barrier for entry. But doing so means that the participants have really different goals and needs: some are really determined to become Farmers, while others really just want to learn to grow food. According to Aaron, “You have folks out there, at the incubator, who are talking more about their want to learn to grow food but not necessarily to become farmers, you know, big F Farmers and make most of their money from farming.” He is grappling with how to prioritize resources and land to best meet the needs of these different groups. David pointed out in our conversation that an incubator program can’t be everything to everyone, and Joe brought up several times the need for the people involved to fit what the program offers.

Lomax is in the position to make changes based on what they have learned already. Aaron is guiding a planning process to establish a two-year and five-year plan for the facility, in part so “people can better understand when they come into the program what they are getting into.” The two-year plan will address what the program expects to spend, what equipment is needed, and how many farmers will be on the land. The five-year plan will include bringing the budget more into balance and long-term policies for soil treatment and noxious weeds.

URBAN EDGE FARM: CASE STUDY

I arrived just in time to scurry after the Governor of Rhode Island, Lincoln Chafee, and officials from the Department of Environmental Management (DEM) as the farmers from Urban Edge and the staff of Southside Community Land Trust (SCLT) gave them a brief tour of the property. Earlier that the morning, the Governor had visited Confreda Farm, which, according to the Program Director at SCLT, is “700 acres, a lot of corn production. At least in Rhode Island, that's probably the most conventional agriculture here. Urban Edge Farm is pretty much at the other end of the spectrum. It's small acreage, really diversified crops, shared greenhouse space, monthly farmer meetings.” For Ken Ayers, Chief of the State’s Division of Agriculture, the “point of that day was to show this is the range of agriculture in Rhode Island.” The Governor’s visit to Urban Edge showcased a unique arrangement between the State, a nonprofit, and a group of beginning farmers.

How Urban Edge Farm Got Started

Southside Community Land Trust, founded in 1980, runs 13 community gardens in low-income neighborhoods around south Providence. The origin story of Urban Edge Farm is a bit unclear at this point – some sources point to a former staff member of SCLT as the driving force behind its founding while others say a community gardener approached the Land Trust looking for more land. Whatever the impetus, SCLT decided to look for land to help community gardeners who wanted to transition to market farming. Accordingly, they contacted their network of farmers, landowners, the State, land trusts, and contributors (Retsinas 2005). Around that time, Ringrose Farm, an old dairy in an area with significant open space and agricultural land

preservation, went on the market and the State bid \$508,000¹⁶ for the property. The previous owner, George Ringrose, had willed the property to a nonprofit association for the blind. Although the property was worth more than a million dollars if sold for development, the association saw the value of preserving the farm and accepted the State's bid. While the DEM owns the farm, the Agricultural Land Preservation Commission and the City of Cranston hold an easement for perpetual development rights on the property. The State approached SCLT about managing the farm, and the DEM's press release from October 30, 2002, announcing the State's purchase of the property also includes the news that SCLT would be establishing a farm on the land.

That same fall, the first group of farmers entered what was intended to be a four-year Farm Business Incubator Program. A grant proposal from SCLT for the "The Providence Urban Agriculture Initiative for Community Food Security" posted on the whyhunger.org site¹⁷ describes the original plans for the program, then called Shared Harvest:

The Shared Harvest program establishes a new-entry farmer incubator program, supports creation of a farmers' market, and helps establish a community supported agriculture (CSA) program to serve low-income urban residents in Providence. The State is donating a 50-acre parcel of land for new, primarily immigrant farmers who, once established in farming, will receive assistance getting additional land by the Land Trust... On the land, SCLT are [sic.] able to offer up to fifteen new farmers the opportunity to start their own agricultural businesses, providing them technical assistance in the development of business and marketing plans, instruction in general farm management practices and the demands of New England climate and soil conditions, and farm equipment for them to use cooperatively. Once they have established their businesses, Southside Community Land Trust can work with area Land Trusts to place the new farmers on larger tracts of land so

¹⁶ The State's bid of \$508,000 was funded by \$210,500 from the Agricultural Land Preservation Commission, \$197,500 from The Nature Conservancy through a grant from the Champlin Foundations, and \$100,000 from the City of Cranston.

¹⁷ According to the site, the project, which encompassed more than just the incubator program, received an award of \$220,000 in 2002 and \$182,596 for three years in 2004.

they can increase their size and profits... Each farmer may stay at Shared Harvest for a maximum of three to four years, paying a rental rate corresponding to earned income. Farmers will revise business and marketing plans annually and farmers will receive support through a small loan program to purchase their own equipment. At the end of their term, SCLT will work with the Farm Service Agency and local lending institutions to secure each of the farmers a larger, independent plot of land.

The program was initially spearheaded by Pat McNiff, a Program Director at SCLT. He was essentially a farm manager, both preparing the farm for the program and farming a section of it under SCLT's auspices to support a CSA. The revenue from the CSA was intended to be another source of income to support SCLT and the incubator program. Several assistant farm managers and interns helped staff the farm.

When Pat McNiff left, around 2005, Katherine Brown, now the Executive Director of SCLT, replaced him as Program Director. She made the first significant changes to the model at Urban Edge Farm. One of the original incubator farmers told Katherine that she wanted to be able to stay at the farm permanently, and so Katherine eliminated the expectation that farmers would leave. For a while there was a both coordinator for the incubator program and a farm manager overseeing the production. But Katherine also recognized that with the staffing requirements at the farm, SCLT's production was not profitable. Eventually, SCLT eliminated production for their own CSA altogether.

As Urban Edge Farm has changed over the years, it has become less clear how the program fits into the overall goals of SCLT and what the relationship between the farmers and the nonprofit should be. As Christina Dedora, a former staffer for SCLT and current farmer at Urban Edge, said:

One of [SCLT's] goals was to take the community gardeners that were in South Providence and have them come out here and start a business, so it was geared toward that. Their overall mission is to

help people grow food, so this fit into their mission. But then I don't think they knew how it was going to evolve, and it evolved to this.

Leo Pollock, the current Program Director, explained in more detail the challenges this created:

Southside's mission is essentially to help people grow food. Traditionally, we've really focused on underserved communities in [South] Providence... We just did a big strategic plan, and so the shift has been to really think how do we support that across the city, recognizing that certain neighborhoods have real issues with access and that gardens are a way for people to have access to fresh fruits and vegetables. So there's been a little bit of tension with like that doesn't really fit well with Urban Edge Farm. I think it did maybe a little bit more in the beginning when it was thought of as being for community gardeners or growers in the city who are potentially thinking about or interested in becoming market growers. That that could be an incubator for them to sort of scale up a little bit and then with the goal of eventually going on to purchase or move on to a larger farm... The incubator part of it sort of lost it's focus, not because really any other reason than just the price of farmland in Rhode Island makes an incubator program here without any specific supports connecting farmers to land impossible. Given that now it's sort of a collaborative farm model, the question is how does that fall under Southside's mission and how closely does it do that.

When I visited in October 2011, Leo and the farmers were preparing to work with a consultant, Kathy Ruhf from Land for Good, to try to work out what the relationship between the nonprofit and the farmers should be.

The People at Urban Edge Farm

Staff. The staffing has changed considerably over the farm's history. Current staffing levels are minimal, with none full-time. Leo, the Program Director at SCLT, technically oversees Urban Edge, but he has little to do with the farm on a day-to-day basis. Leo's position was relatively new when I visited, having been created in January 2011 to direct SCLT's programs, allowing the Executive Director to focus more on public relations and fundraising. Leo works with SCLT's grant writer and supervises SCLT's urban market farm, network of community

gardens, and educational programs. With the exception of Urban Edge Farm, these programs all have their own dedicated staff. When I visited, Leo's primary responsibility with regard to Urban Edge Farm, as laid out in SCLT's recent strategic plan, was to work with the farmers to figure out the ideal relationship between SCLT and the farmers and to identify how to work towards that relationship.

The only other staff currently at Urban Edge are Stewart Taffe and Heidi Hetzler, the Farm Stewards, who do about 200 hours of maintenance work a year in exchange for reduced rent in the old farmhouse. They also facilitate the farmers' monthly meeting. Officially, Stew and Heidi are supposed to act as the liaisons between the farmers and SCLT, but they both work full-time, off-farm jobs. According to Stew, the farmers tend to either repair things on their own, or Christina and Michelle, former staff and current full-time farmers at Urban Edge, take care of communicating with the Land Trust. When Stew and Heidi became the Farm Stewards in June 2010, the farmers decided to give the position more structure and clearer expectations than it had previously.

Farmers. Currently, six farms operate at Urban Edge Farm. When I visited in October of 2011, all six had been in operation for at least four years. All seven farmers (one operation is a partnership) farmed full-time; I interviewed all seven. Several farmers left the program in the earlier years, although I was not able to get an exact number. When I visited, all of the farmers at Urban Edge were full-time farmers.

Chang Xiong, one of the original farmers at Urban Edge, helped grow food for her family in Laos while growing up. In Providence, she got involved with a Hmong Community Garden. One day at the garden, she saw a sign for the new program at Urban Edge. She called as soon as she got home. The staff at SCLT told her that they would teach her to farm and then provide her

with land. But Chang had one more question: she wanted to know if they would help her find a place to sell too. She wanted to start a business and if they would not help her learn to market her produce, she was not interested. But they said they would and so she signed on for the classes. Early on, the staff helped Chang identify markets and would make phone calls to get information for her. Now, she feels comfortable making the calls herself. She grows a variety of vegetables on her two-acre plot and sells them through a collaborative CSA and at farmers markets.

Choua Xiong immigrated from Laos in 1979 and had a plot at the Hmong Community Garden for 20 years before farming at Urban Edge. He grows almost 100 different kinds of vegetables, most of them of specialty crops for the immigrant groups of Providence – African, Asian, Spanish, Portuguese, and Italian – and sells them at at least five different markets. Early in the season, before the markets open, he sells to some Asian stores.

Michelle Kozloski has also been at Urban Edge since the early years of the program, but she started out as a staff member. At first, as an Assistant Farm Manager, she primarily cleared the long abandoned fields and prepared them for farming. Then she was producing food for the Land Trust. By her fourth and final year working for SCLT, she was the only staff person at Urban Edge and her job was to oversee the incubator program and ensure that the needs of the new farmers were met. At the end of 2007, SCLT laid off Michelle, but, as part of what she dubbed her “severage package,” SCLT allowed her to continue farming the five acres she had farmed for the Land Trust. In 2008, she started her own operation, Zephyr Farm, growing vegetables and raising laying hens. She sells at two farmer’s markets, through her own small CSA, and to restaurants. She also makes a value-added frozen pesto product, Besto Pesto, at a nearby commercial kitchen incubator. Before coming to Urban Edge, Michelle had worked on market farms around the U.S. for five years. When I visited in October 2011, she had recently

purchased her own piece of property. With a lot of work ahead, she was planning a slow, gradual transition.

Although she is no longer an employee of the Land Trust, Christina still functions unofficially as the coordinator at Urban Edge. When I called SCLT to ask about the program, they put me in contact with Christina, and she coordinated my visit. All the farmers point to her as being the liaison between them and the Land Trust. SCLT hired Christina to be their Office Manager in 2006. For five years, Christina worked full-time in the office and farmed part-time after hours at Urban Edge growing cut flowers. Because she ended up working closely with the farmers, SCLT actually made being the liaison part of her official job while she worked there. When I visited, she was nearing the end of her first season as a full-time farmer. She now grows half flowers and half produce, in part because of the growing demand for local produce and in part because she wanted to be able to eat more of what she grows. She sells at three farmer's markets, a mobile wholesale market, and a collaborative CSA with Chang and another former Urban Edge farmer. Christina has one employee who works 20 to 30 hours a week, depending on the season, and a teenage boy who works about 3 hours a week doing her mowing, moving rocks, and taking care of any other heavy lifting for her.

Katie Miller and Jo Bloch run the two-acre Scratch Farm together. Katie had a little farm experience – she worked for a fall and a season on another farm – before asking her friend Mary, who founded Scratch Farm, if she wanted a business partner. Katie and Mary ran Scratch Farm together for a year before Mary left for graduate school. While in college, Jo got a student job at a community garden and learned to grow food. She began volunteering everywhere she could, including at SCLT's City Farm and for Mary and Katie at Scratch Farm. When Mary left, Katie asked Jo to come on as her partner. But Jo had just graduated and headed to South America to

volunteer on farms there. Part way through her travels, she realized she had not only the opportunity she was looking for but what she called “a community of growers” in Providence, so she flew back and took Katie up on her offer. Katie and Jo both live in Providence and can commute to the farm by bicycle. They have a lot of volunteers come from Providence to help at the farm. They have given tours and workshops for classes from nearby universities and for the Northeast Organic Farming Association - Rhode Island (NOFA-RI). Growing two acres of vegetables, they sell through their own CSA and the Little City Grower’s Cooperative. They also have a few fruit trees that have not bore any fruit yet. Scratch Farm had been certified organic for three years when I visited. Katie decided to get certified because she wanted to be able to use the word “organic” in her marketing materials. Katie and Jo have worked hard to improve their soil and refine their crop rotations. According to one of the other farmers, “This is not prime agricultural land. Katie and Jo have absolutely transformed their soil with composting.” Like Dan at Viva, Katie and Jo are examples of farmers with an extraordinary land ethic, even on land they do not own.

Before John Kenny began Big Train Farm in 2008, he worked for seven years as an intern, farmhand, and manager on several different diversified farms. He grows a variety of vegetables and potted herbs, and he keeps bees and sells the honey. He has refined his marketing plan every year with a different combination of markets, CSAs, and restaurant accounts. When I visited, he was running a 100-share CSA that made up 60-75% of his business in any given week and selling the remainder through a co-op or direct to restaurants. Although farmers at Urban Edge are not required to leave, John plans to relocate eventually so that he can expand his operation.

The farmers at Urban Edge are representative of several significant trends among beginning farmers. Women are not only well represented, they actually make up the majority of the group. Several of the farmers are non-white immigrants. The farmers had varied experience prior to Urban Edge, but most do not come from a family farm background. And while they were the most experienced group of beginning farmers at any of the sites I visited, they still needed the opportunities and resources an incubator program provided to start their own operations.

How the Urban Edge Farm is Set Up: The Program Structure

Land and lease. SCLT leases the 50-acre farm from the State's DEM for \$1 a year. Their second five-year lease expires in 2012. Initially, the State said they would sell the land to SCLT at the end of the first five-year lease for \$1, but the State opted to continue leasing it to them instead. While SCLT has little day-to-day involvement in the operation of Urban Edge Farm, the State has made clear that the lease needs to be with the non-profit. Because the land is owned by the State, which does not want to be seen as giving unfair preference to some farm operations, stipulations in the lease try to prevent unfair competition with other local farms. There cannot be on-farm sales (such as a farmstand) or any non-farm businesses on site (which does eliminate potential income streams for the farmers and the program). Ken Ayers, the Chief of the State's Division of Agriculture for the DEM, has assured Leo that "this is about as ideal of a scenario as they could have envisioned" and that the State wants to keep Urban Edge operating on the land. Yet, it is very difficult to make any changes to SCLT's lease with the State. Ayers has warned Leo that changing the lease means the Legislature has to get involved. Once that happens, it opens up the possibility that the Legislature will not like the terms and could make all sorts of unfavorable changes. And so, Ayers has encouraged SCLT to keep the lease as it is.

About 20 acres of the entire property are farmable. A small woodlot and protected wetlands make up the remainder. Engineers from the Natural Resources Conservation Service (NRCS) helped devise a plan to fence the property so that deer and wildlife have access to the protected area. Before SCLT leased the land, it had been abandoned for a number of years. The property required extensive work before it was even ready to farm. Multiflora rose, an invasive species, and boulders covered the upper fields. The roads to those fields were impassable. Two houses had to be demolished; other buildings needed renovation.

Production. As mentioned above, Urban Edge Farm originally managed some its own production with the idea that the profits would support SCLT and the program.¹⁸ According to Michelle, at its peak, the Urban Edge Farm CSA had 200 members, but, she explains:

We just hit [a point] where it was all too much... The idea was that it would be an incubator farm, so we switched the focus back to the incubator. And also because in the beginning there was just a lot of struggling for resources, and so we just kind of decided instead of competing for resources, we were going to focus the resources on the incubator program.

Currently, each of the farms manages their production independently, but some collaborate in marketing and sales. Christina and Chang work together to run a CSA, and some of the farmers sell Michelle's eggs through their channels.

Infrastructure and equipment. The dairy's old barn needed work but was worth keeping. SCLT added a processing area inside the building and another one outside. The indoor area includes racks, a bathtub for washing lettuce, and an old washing machine for spinning greens; the outside processing area has mesh tables for washing and scrubbing vegetables. The

¹⁸ Some of the farmers use the name "Urban Edge Farm" to refer to SCLT's production when they actually grew food and will say things like "when Urban Edge Farm existed." But the sign at the entrance and SCLT's website both still refer to Urban Edge Farm. Stew, who worked for Urban Edge in its earlier incarnation, says that the farmers have individual farm names and Urban Edge refers to the property as a whole. For clarity, I use Urban Edge Farm as the name of the program, just as the other incubators are called Viva Farm and Lomax Farm.

farmers keep some equipment in the rest of the barn and dry store vegetables like garlic and onions in the loft. Building Futures, a nonprofit that trains people on probation and parole how to do construction work, rebuilt the stairs to the loft, an example of how community partnerships can benefit incubator programs.

SCLT also built two greenhouses: one heated and one unheated. Farmers pay for the heated greenhouse according to the square footage they utilize; the cost is calculated by dividing the oil and electricity bill by the available space. The space in the unheated greenhouse, which John says they use essentially as a cold frame, is divided equally among the farmers and included as part of the per acre land fee. In 2010, five of the farmers received funding from NRCS to build hoop houses. They are scattered around the property on each farmer's plot.

There was another usable building from the old dairy near the entrance to the farm; since the farm became a diversified small vegetable operation, it has seen a variety of uses. The building seems to be called the CSA building because the Four Friends CSA, organized by Christina and Chang, uses the building for CSA members to pickup their shares. The building had the meat cooler from the original farm; the program enlisted the nonprofit Building Futures to refinish it. The farmers each had a pallet's worth of space in the cooler. Because Michelle had significantly more production than the other farmers, she was literally busting through the ceiling during the peak of summer production. At the time, another small, organic farmer was going out of business. Michelle bought his mulch layer, another tractor implement, and his walk-in cooler. She outfitted it with a coolbot and installed it in the small building at Urban Edge with the help of a friend and without needing to call in an electrician. Michelle also houses her egg washing machine in a room in the CSA building. The machine, which she purchased from Iowa, has been critical to her egg production operation:

I started out washing eggs by hand and then, appropriate technology for small farmers, this has revolutionized my operation. It really allowed me to grow because what really stopped me from growing more eggs was time to wash them.

The entire situation around the walk-in cooler and the unequal use of the CSA building has caused some tension between the farmers. Before Michelle built her own cooler, one of the farmers was getting frustrated because the overflow prevented her from getting to her own space in the shared walk-in. Another farmer was frustrated that the unequal land distribution allows farmers to grow and expand their businesses – and thus use resources – at different rates. All of the farmers were using the building differently, but only Chang and Christina’s cooperative CSA was paying for the use of the space. The farmers decided they need to come up with an equitable fee structure for the building, but they could not agree on how that would work. Eventually, Leo came to one of the monthly meetings to facilitate, and the farmers decided everyone should pay based on the square footage they used.

There are two wells, one that feeds the greenhouse and barn and one that feeds the CSA building. The irrigation water is pumped from a pond, a system that was built by the Land Trust. Building Futures constructed the shed over the irrigation pump. The farmers pay \$50 a year for water. The cost is based on the diesel bill to run the pump divided equally among the seven farms. Initially, the Land Trust provided the incubator farmers with big thick fire hoses and overhead sprinklers to water their fields. Now the farmers are responsible for buying their own equipment to hook into the main line. Most of the farmers use drip tape or small overhead sprinkler systems. For the most part, there have been no problems with the irrigation system supplying water for all the farmers. There are, however, occasional challenges. One of the farmers told me about the time Michelle’s big irrigation gun stopped the water for everyone:

We started the pump up, and her gun wasn't working. We thought it was the irrigation pump not pumping enough water, so we stopped the whole thing. And it took a couple of days, when it really turned out that it was her gun that was broken. So yeah, one person can stop the whole, in that instant... because we actually thought it was the irrigation pump. We thought there was a blockage or a leak or we got all like crazy. But it turned out it was just her gun needed to be greased, and then it worked. So things like that can happen.

One of the most contentious issues at the farm was also related to irrigation system. Both wells broke the previous summer on consecutive Mondays. There was not a clear system in place to determine who paid for repairs at the farm; SCLT and the farmers figured it out on a case-by-case, with the two groups generally sharing the costs. When the one well broke, most of the farmers agreed to split part of the cost, but one of the farmers refused to pay because she felt another farmer was responsible for the damage. In the end, the other farmers divided the cost among themselves, and the one farmer did not contribute. When the repairs are smaller, some of the farmers seem to just step in and take care of it themselves.

The program provides two tractors and the implements, but two farmers, Michelle and John, do all of the tractor work. The first plowing of the spring is included in their rent. After that, the farmers pay \$30 an hour. According to John, the farmers need to give him and Michelle at least five days notice when they need tractor work done. For every hour of tractor work that Michelle and John do for the other farmers, they bank an hour of time that they can use the tractor for their own needs. John said he never uses all of the tractor time he accrues, but he does not mind because it is nice to know he can hop on and use it whenever he needs it. One of the farmers expressed frustration with the quality of the tractor work; he did not feel like his fields were well plowed and would prefer to do his own tractor work. Other farmers, like Christina and Jo, are grateful to have someone to drive the tractor for them. This year, John and Katie got a

mentorship grant from NOFA-RI, and John was actually paid to teach Katie how to drive the tractor. When I visited, they had not figured out how Katie would be charged in the future if she does her own tractor work.

When the program began, the Land Trust provided farmers with access to a tool bank so they did not even have to purchase their own hand tools. Farmers were supposed to pay according to their use, but that proved difficult to manage. Eventually, the tool bank was discontinued, and the farmers bought the tools from the Land Trust. The Land Trust has also sold off some of the other equipment to farmers, including irrigation pipes and tractors.

Although the Land Trust had to demolish two houses, one farmhouse on the far edge of the property was worth keeping. There is an office space in the back of the farmhouse, and it is the site of the only bathroom on the property. Stew and Heidi, the Farm Stewards, live there; one of their tasks is keeping the shared bathroom clean.

Beginning farmers classes. In the first few years, Urban Edge Farm offered classes for the beginning farmers in the farmhouse. By Michelle's recollection, they used a curriculum from The New Entry Sustainable Farmer Project; they had a syllabus to follow and guest lecturers came in to speak. When Chang was telling me about the program helping her find markets, she also talked about how much she learned from the classes when she first came to Urban Edge:

Because the time I come in, I don't know how to grow a lot, but after I learn, learn, learn, now I know how to grow a lot. I know how to help... like Katie, she know, but some things she don't know how to grow... I talk to her too. I show her. I show everybody.

Several of the other farmers independently mentioned Chang's knowledge and experience and how they go to her with questions. According to Katie, although she had a lot to learn about farming, for her the classes were not productive for learning to farm:

It wasn't very useful, honestly. You just learn so much more when you're doing the work rather than when you're in the classroom. I've learned a lot from books and conferences and from YouTube videos. I do think that it's possible to learn something from workshops, I learn things from workshops all the time, but it's better at a conference where you can choose which workshops to go to I think. Diana's workshop on weeds I do remember, and it was useful. She said, 'Get them while they're small!' and that was a good lesson to learn, but otherwise I don't remember it being super useful.

Michelle explained that after the program's model changed, they discontinued the classes because most of the farmers had been there multiple years and had the classes when they first started. When she was the coordinator, farmers would come for check-ins and show her their business plan, but there were no classes.

Farmer selection. At this point, Urban Edge Farm does not have room for any additional farm operations until one of the current farms leaves. There have not been any new farm operations in the last four years. Christina described the application process when she started Blue Skys Farm:

You had to apply for the program and then you got interviewed, and they narrowed it down to, I think there were just like six openings, so you had to technically fit in. Someone made that decision, 'Oh, this person has the right qualifications' or 'This person is serious.' I don't think they wanted to let just anybody in.

According to Christina, the application "was pretty simple. If I can remember, it was just a one-page thing. Like why do you want to farm? Do you have experience? And really I think that was it. It was one page. I don't really remember specifically, but I know it wasn't anything complicated." The farmers did not have to complete a business plan as part of the application because, Christina explained, they were going to receive training on writing a business plan as part of the classes.

Farmer leases and fees. Although the program changed the incubator model so farmers could stay on the land longer, the farmers still only signed one-year leases with the Land Trust. They pay a fee per acre of land; the fee starts low and increases each year a farmer is at Urban Edge. No one could tell me what the market rate for leasing agricultural land is in the area, but they had the sense that the rent at Urban Edge is comparable. The lease requires farmers to use organic practices, although the farm as a whole is not certified. Some farmers have chosen to get their individual plots certified.

The farmers all seem to feel their leases are good and fair. Some of the farmers want longer-term leases – the longer the better – but Chang prefers the flexibility of the one-year lease: “I think it's good. I leave one year, I think I don't want to farm this year. You have a three or five year [lease], maybe you don't want to farm, what can you do? You can't do anything.” Some of the farmers have approached the Land Trust about having longer leases. In 2011, Katherine, the Executive Director, agreed to change the leases to two years, which coincided with the expiration of the Land Trust's own lease with the State in 2012. Leo has a sense that they could negotiate new lease terms while working with Kathy Ruhf, as long as they still fit within the requirements of the State's lease. Across the board, the farmers expressed that the fees they pay are fair or even below market. Some of them would, however, like to see some changes with what their fees pay for. One suggestion is to have their fees calculated to include repair costs and kept in a separate bank account, with a transparent budget, to be used to pay those sorts of bills.

Off-site transitions. From what I could gather from Christina, only one of the handful of incubator farmers who has left Urban Edge is still farming. She farms across the street and collaborates with Christina and Chang to run a CSA. Having recently purchased her own

property, after years of working toward that goal, Michelle is preparing to transition off of Urban Edge. But, she says, she plans to do so gradually, as she prepares her land and builds or replaces what is available at Urban Edge. John also said that when he is able to move off-site, he plans to do so slowly. When Urban Edge Farm was founded, the plan was to provide support for the farmers to find other land to farm after completing the incubator program, but the program never got to that stage before the model was changed. SCLT does not seem not situated to provide that kind of support.

Program budget and funding. Early on, a variety of grants funded the building of the farm and program. I could not get any confirmation on the startup costs, but several farmers and staff threw out the figure that the Land Trust spent a million dollars in the first five years of the program. When I visited, SCLT was not actively writing grants for Urban Edge Farm, but Leo hoped that would be part of their conversations in the coming winter about how to best setup the relationship between SCLT and the farmers. He felt like there are grant funding opportunities that the farmers would be eligible for but added:

To some extent if they don't want a sixth of the administrative costs of the organization, then they would need to be writing their own grants. There have been other times where we're essentially a pass-through, so I think there is potential for that. But these are the things that I think we really need to figure out.

At this point, the only income is from the fees farmers pay. The farmers demonstrated through their own budget proposal that the fees they pay cover the cost of running the actual farm. But SCLT's budgets show the farm operating at a loss because they are also charged one-sixth of the organization's administrative costs. Some of the farmers are frustrated by that because they do not feel like they use the same resources or receive the same benefits of being a program as SCLT's other projects, but at the same time some do acknowledge that they need to pay

something for the services SCLT provides them. Figuring out what that figure is exactly will be part of the process with Kathy Ruhf.

Meetings and decision making. The farmers meet monthly, usually on the first Sunday, to discuss any issues that need to be addressed and to make plans for dividing up chores like taking out the trash or for group projects like cleaning up the farm or digging a new ditch. In the past, the farmers rotated responsibility for leading the meetings, but they found that did not work well because it was so inconsistent and the farmers had differing skills for facilitation and note-taking and different native languages. So the farmers approached Stew and Heidi, who already attended the meetings in their roles as Farm Stewards, to take over the facilitation. Stew and Heidi set the agenda ahead of time, with input from the farmers, lead the meetings, take minutes, and ensure that any follow up action is taken. The farmers use a consensus model for decision making; the Land Trust offers facilitation training that Christina found really valuable for making their meetings effective and efficient. The farmers have a lot of responsibility and authority for making decisions – an intentional move on the part of Katherine, the Executive Director of SCLT – but anything with a significant cost still goes to Leo and Katherine as well. For the most part, the farmers indicated that did not have problems making most decisions together. The two contentious issues that have come up were deciding how to divide repairs costs and how to equitably pay for the use of the CSA building. These types of issues are solved on a case-by-case basis right now, but one of their goals for the future is to establish clear guidelines for handling these situations.

How Urban Edge Works for Farmers and Staff: The Program Function

As at Viva and Lomax, the farmers at Urban Edge identified the infrastructure and equipment, support and camaraderie, knowledge and information, and land as the most helpful

parts of the program, although in this case the knowledge and camaraderie are primarily shared with the other farmers, not through classes or the staff. Unique to Urban Edge, a number of farmers also talked the importance of their proximity to Providence, as being near an urban area provides markets, volunteers, and the lifestyle that some farmers prefer all within biking distance. John, who had significant farming experience, also specifically talked about the value in being able to establish himself as a farmer: he has purchased equipment and, by signing his own Section F taxes, he is now eligible for farm loans.

By far, the farmers greatest challenges at Urban Edge have to do with the organizational structure and the group dynamics of working together. Regarding the former issue, several farmers were frustrated by the unequal distribution of land and resources. Other individual responses regarding challenges with the way the program is set up included frustration with not being able to expand, not knowing the long-term future as the program evolves and changes, not having clear communication around what was okay to use or do at the farm, not knowing what exactly they are paying for, and not knowing how to move forward with their changing relationship with the Land Trust. A lot of the challenges seem to center on the changing model of the farm and evolving relationships with the Land Trust. As Michelle said:

It's hard because people entered it as a program, and now we're trying to turn it into something that's not a program, which there's varying degrees of interest in doing. Some people would rather just pay the rent and be tenant farmers. Other people would rather have more say in bigger decisions.

When it comes to group dynamics, several farmers talked about the disagreements and interpersonal problems that come with being part of a group. An equal number talked about the farmers' different levels of involvement and the challenge of getting some farmers to participate in the shared maintenance of the farm. One farmer also talked about how it took them years to

become a cohesive group. Apparently communication became much easier once everyone was using email. Other issues that individual farmers mentioned were language barriers between farmers, the tractor work not being done properly, and farming itself, specifically figuring out and refining a business model and production systems.

On the whole, the farmers at Urban Edge were all very determined to be farming. They all had some experience farming – several had extensive experience – or were dedicated gardeners looking to expand. Even those who are optimistic that they would be farming without SCLT and Urban Edge thought it would be pretty different. Katie predicted that she would have farmed somewhere else and burned out. Christina was sure she would be farming, not because of an abundance of options to do so but because it is all she wants to do: “At this point in my life, I’m sure I would be somewhere else because there’s nothing else I want to do except farm.” Jo and John both expected they would have continued working for other farmers and eventually gotten tired of that and moved on to other careers. Michelle figured she would still be managing someone else’s farm. Chang described the many reasons she loves to farm, most related to how it keeps her strong and healthy, and said she would be farming no matter where she was.

Except for Jo, who recently decided to apply for graduate school, all of the farmers have plans to continue farming. Choua and Christina want to expand their operations: Christina’s goal is to plant the entire two acres she leases from Urban Edge in the coming year, while Choua plans to buy his own land when he moves to be near family in Arkansas. Michelle just bought her own farm, but Christina wants to continue leasing land. She feels like owning her own farm would be too challenging at this point in her life. Michelle and John both want to diversify their operations, she with perennials and he with livestock, particularly ducks, quail and more bees. His goal is to “complete the loop. The organic system I've got out here is not exactly as organic

as I want it to be.” Most of the farmers have plans for refining production and marketing: Katie and Jo plan to change the distribution of their spring, summer and fall CSA shares, Katie wants to build another high tunnel, Michelle is planning to have on-farm sales and events at her new property, and Christina aims to have a greater profit in her second season of full-time farming.

The farmers’ advice for new incubator programs centered around setting up a program carefully and deliberately. Several emphasized that the land and resources must be distributed equally and asserted the need for clear expectations and guidelines. Michelle, who was on the farm’s staff early on, recommends starting small and growing slowly. She also suggests starting with experienced beginning farmers, getting in as much infrastructure at the outset as possible, and finding outside funding (beyond farm production). John, who came to Urban Edge Farm after the model changed, said not to call the program an incubator:

The way this place has turned out is a lot of people are here to stay. And I feel like its kind of a demeaning term, a little bit. Like when I came here, I already had seven years of experience. I didn't feel like I was being incubated. I felt like I was leasing, paying to lease, paying for equipment, buying all my own stuff, and no one was showing me how to do it. So I feel like people should be proud. And I don't know, I just always thought that was kind of a condescending term because it kind of separates you from the other, or it could separate you from the rest of the farming community.

Katie and Jo suggest hiring a farmer to help set up the farm, someone who will really know the details of what a farm operations needs. Katie also suggested that the farmers should be as separate and independent and do as much of the management as possible, that farmers should buy their own hand tools, that maintenance and repairs should be budgeted for in the fees farmers pay, and that the fees should be paid into a separate back account with a clear budget. Christina advised that anyone setting up an incubator program should “be patient and know that

it takes a few years to get rolling, whether it's interpersonal relationships or whether it's building a road... and then to know that it's really about building community.”

When I asked the staff about the greatest successes of the program, Stew said he thought it was “giving access to people who want to grow food an opportunity to do that without having to be in debt.” Heidi added, “Because, especially in Rhode Island, land is so expensive and it almost seems like you have to have had a family farm that's passed down to you. Unless you happen to have someone that's going to support you financially to start up a farm, it's pretty much impossible I would say.” Leo listed several successes: “I've never seen a collaborative farm actually succeed long term... There are seven pretty thriving businesses... and they have each other as resources.” Stew and Heidi talked about a number of challenging aspects of the program: not having a designated staff person to handle coordinating the program, getting the farmers to work together to share resources, dealing with the different levels of farmer involvement, negotiating the changing relationship between the Land Trust and the farmers, making sure the meetings are organized so the farm functions, and addressing the farmers concerns that they have no equity in their farm operations. Leo's primary concern is negotiating a fair relationship between SCLT and the farmers. He envisions that in the future this challenge will be resolved so that the farmers have most of the authority and responsibility for running the farm, while the nonprofit offers very specific support and services:

Southside is the leaseholder for it and to some extent provides help on specific things when needed. And maybe that's if the farmers want to apply to grant funding, that it's submitted on behalf of us and we're a pass through for it. That we help with things like facilitation when specific issues come up. But to some extent that the farm is really holistically self-sustaining, so that they're really doing their own administration of how farm fees are determined and doing the invoices for those, looking at their utility costs. That would be sort of my ideal. And they're not only identifying what is needed but are looking for ways to make that happen.

Although that is his goal, Leo does not want to suddenly just drop responsibilities on the farmers and see them fail. Leo points out that the Land Trust does handle a number of administrative tasks for Urban Edge, like paying the utilities and determining fees. His concern in transitioning these jobs to the farmers is to do it in a way that will not overwhelm them, helps them set up systems for handling these shared management jobs, and will ultimately be successful.

When I asked for advice for new incubator programs, Heidi suggested establishing policies and putting a framework into place to help farmers run meetings and delegate tasks. She also recommends keeping the lease up-to-date:

Right now we just have this document that's completely outdated. But in an ideal world, you have a good document that backs you up when a decision needs to be made. So I guess that's why I made that suggestion is to really have something that farmers can agree upon and have input on to make sure it would work for everybody. And it can be modified, but it needs to be modified through a procedure as well.

Her final piece of advice was to have a regular meeting at an established time, even when it seems unnecessary, because “things always come up, even if you think there’s nothing on the agenda. And even if you do have an agenda, more stuff comes up.” Leo advises taking the time to set a clear vision:

I'm heavily influenced by this training we did with this group called the Interactive Institute for Social Change, which is based in Boston and really works on how do you bring groups of people together to create social change. And it's hard, it involves a lot of time, it involves a lot of work. But I would say the best advice I could give, and this is true for any sort of endeavor that involves a lot of different people, is to really take the time up front to come together and to say what is our vision of what this would look like ideally, for everyone here. And then, if you can get to that place where everyone says, ‘If this collaborative farm were to be successful, it would look like this,’ then you have the ability to say, ‘Okay, what do we need to do to get it to that place?’ You know, to some extent, we never did that. It just sort of evolved

organically and changed based on it started as probably one or two people's vision of what it would look like, and then that shifted to another vision of what that looks like, and now that's been created. But now you have seven people that are part of that and don't see the same vision or have a different [vision]. So to some extent, that's what I would say we're doing with [the consultant] now. Really like from farmers' perspective, from Southside's perspective, what does this look like ideally? And then what do we need to get there? And I think a lot of people think 'Oh, we don't need to do that up front, that'll just come.' And I would say, if you do that work up front, the work of getting there is much easier. If you don't, you're likely to reach a point where people's idea of what this looks like ideally is very different and that's when conflict starts to happen. So, upfront work makes the road much smoother.

While some individuals may have had a clear vision at the outset of Urban Edge Farm, the vision and the program have evolved significantly. Those changes seem to be at the root of their current challenges, and in some ways their upcoming consulting work with Kathy Ruhf would give them a chance to collectively agree on a new vision.

Key Points from Urban Edge Farm

The story of Urban Edge Farm demonstrates how incubator farms can be successful in supporting new farmers, even as the program evolves and changes. They face challenges because the program has shifted, but they have also supported six successful new farm operations. The story of Urban Edge Farm revolves, in many ways, around a common concern about the incubator farm model: Does it really work to expect the farmers to transition off the farm to another location? While it is just one example, Urban Edge Farm provides an illustration of how an incubator farm might evolve away from the incubator model. Yet, it is important to remember that this is just one example and does not definitively prove that the transition process cannot or will not work. It does seem that land is particularly difficult to access in Rhode Island, but the program never really tried to help farmers access land. Instead of offering that support, they

changed the program. And even without that support or the requirement that the farmers transition off, one farmer has managed to purchase her own land and others have plans to eventually move to other locations.

BRINGING IT ALL TOGETHER: COMPARISONS AND LESSONS LEARNED

Introduction

This research set out to explore three objectives: the first was to simply get a better understanding of how incubator farms are set up, the second was to build a deeper understanding of the experiences of beginning farmers in these programs, and the third was to draw out lessons to consider in creating future incubator farms. Although each case provides an abundance to consider, comparing and contrasting them highlights significant points. Yet, in doing so, it is particularly important to remember the strengths and limitations of this study. The strengths come from aiming to understand in some detail the perspectives and experiences of the farmers and staff who participated in the study. The limitations are the flipside of this depth: the results are context-dependent and thus difficult to generalize. Also, while some causal relationships may be suggested, they cannot be established with confidence (nor is that the goal). The value and the meaning come from hearing the voices of the farmers and staff and from the deep engagement with each case.

The next two sections of this chapter compare and contrast the three incubator program case studies. The first section focuses on the structure of the programs, including how they were started, staffing, the land and lease, production, infrastructure and equipment, courses, farmer selection and leases, fees, transitions, program budget and funding, meetings and decision making, organic certification, and marketing. The second section considers how the programs function for the farmers and staff, looking particularly at the benefits and challenges. Based on these comparisons, the next section lays out decision points for the development of new incubator farm programs, and these considerations are applied to Missoula, Montana. The

chapter concludes with recommendations for future research and then returns to the significance of this research.

Comparisons – Structure

How they got started. The origins of each program are, not surprisingly, very context dependent. All three farms combined unique circumstances, people, and resources to launch the incubator program. Yet, all three stories seem to involve the potent combination of hard work and good luck, a dedicated person with a vision – Sarita, Debbie, and Pat McNiff respectively – and a bit of serendipity – the funders who gave Viva the seed grant, the land that Cabarrus County already owned, the State purchasing a farm and approaching SCLT about farming it. Of course, none of the founders worked alone. Each required a broader community that was equally dedicated and resourceful: Don McMoran, the Extension Agent and fourth generation Skagit Valley farmer, and the rest of Viva’s Board and staff. Carl and David, the committed, experienced Extension Agents in Cabarrus County; the County Manager; and Aaron, the Food Policy Coordinator. The SCLT staff and other Urban Edge staff in the early years and the farmers themselves now. When incubator farms set out to help new farmers overcome the obstacles to starting a farm, many of those same challenges shift to the program. Accessing land, capital, knowledge, and markets (but especially the first two) are still difficult. Having a broad base of support and a community to draw on makes it possible.

Staff. The staffing at Viva Farm, Lomax Farm, and Urban Edge Farm shows the wide variation that is possible in dividing up the staffing responsibilities (see Table 3). At Viva Farm, four staff members – ranging from part-time to more than full-time – handle education, program direction, produce and sales management, and farm management. At Lomax Farm, County

Table 3. Comparative Summary of the Structure of Three Incubator Farm Programs

	Viva Farm	Elma C. Lomax Farm	Urban Edge Farm
Organization	GrowFood.org (non-profit) and WSU Extension Services	Cabarrus County Extension and Food Systems Program Coordinator	Southside Community Land Trust (non-profit) and farmers
First season	2010	2009	2003
Location	Mt. Vernon, WA 50 miles from Seattle On Highway 20	Concord, NC 20 miles from Charlotte End of dead end road	Cranston, RI 9 miles from Providence Rural/suburban border
Ownership and Acreage	Leased from Port of Skagit 33 acres Three year lease with two options to renew, ~\$5,000/year	Owned by county 30 acres Minimum 10 year commitment to program	Owned by state Leased by SCLT 50 acres total – 20 farmable (remainder protected wetlands) Five year lease, \$1/year
Staff	Program director (pt) Produce manager (ft) Farm manager (ft) Extension agent (pt) Bookkeeper Cashier Board	Extension Director 2 Extension Agents Food Systems Program Coordinator (all part-time, no dedicated staff)	Program director Farm Stewards (200 hr/yr) (no dedicated staff, has changed since program inception)
# of Farmers	9 (2 partnerships)	16	8 (1 partnership)
Parcel Sizes	1-2 acres	$\frac{1}{3}$ – $\frac{1}{2}$ acre	2-5 acres
Services	Courses/on-going education Marketing Financing	Courses/on-going education	Courses (discontinued)
Buildings	Greenhouse Walk-in cooler Processing area Farmstand	Greenhouse Walk-in cooler Processing area Hoop house Office	Greenhouse Walk-in cooler Barn/Processing area Unheated greenhouse High tunnels
Water source	Well	Well	Pond (irrigation) Well (barn, greenhouse, processing)
Who does tractor work?	Farm staff, will be transitioned to farmers	Individual farmers	2 of the farmers (one more is learning)
Organic Status	In transition	Entire farm certified organic	All farmers required to use organic practices - some farms individually certified
Fees	\$400/acre for land (includes spring field work) \$100/acre for irrigation \$150/table for greenhouse \$50/pallet for cooler \$56/hour for tractor	\$100 for course, includes all services at Lomax	\$300-500 for land (includes first spring plowing) \$50 for irrigation ~\$300 for greenhouse (by square footage) \$30/hour for tractor Extra building space – paid by usage

Extension Agents and the County Food Policy Coordinator divide the primary responsibilities of education and facilities management on top of their already full-time jobs. At Urban Edge Farm, the staff has evolved to include only the Farm Stewards and a Program Director, none of which have day-to-day roles at the farm but who are essential to facilitation and decision-making.

While Viva Farm still feels understaffed to the farmers and current staff, they face the challenge of funding the salaries for a larger staff. At Lomax Farm, farmers wish they had more access to the staff but worry about overburdening them. And at Urban Edge Farm, many of the staff responsibilities at the other programs fall to certain farmers who are willing to step up and fill those roles.

Staff for an incubator farm program need to fulfill several basic roles, including education, facilities management, and program facilitation. Education may involve the initial classes offered by the program and ongoing informal teaching opportunities at the farm.¹⁹ In addition to a farm manager or mentor on staff, Viva and Lomax also brought in experts from the community to supplement their educational offerings. Facilities management includes maintenance and repairs for buildings and equipment. A staff person overseeing facilities could perform the maintenance and repairs herself or simply be responsible for ensuring they happen. Program facilitation involves a number of different skills and responsibilities: fundraising; gathering applications and organizing applicant interviews; handling leases; paying bills; and actual facilitation (setting up meetings, fostering good communication, and establishing clear decision making procedures). Depending on the needs of a particular program, these responsibilities could be divided (or not) in many ways. For example, one person with farming

¹⁹ The exact role of the staff in education could vary tremendously based on the needs and backgrounds of the farmer participants. While I will address educational needs of the participants in more detail later, with regard to staffing it is worth considering how much instruction the farmers will need. If the farmers have minimal experience, they may need classes to begin and daily, ongoing instruction and oversight in the field. More experienced beginning farmers may only need mentorship periodically.

experience (including building and equipment maintenance) as well as the ability to manage a program could handle them all (with enough hours in the week). Or, one person with the appropriate skills could run the program, arrange to bring in presenters for educational programs, and hire out equipment repairs. Depending on the skill and experience levels of the farmer participants, some of these responsibilities, particularly for facilities maintenance, can – and should, for their own learning – be delegated to them. These three areas only cover the basic requirements common to most incubator programs. A program like Viva running a farmstand may need a produce manager and/or cashiers. A program with the right facilities might choose to have a farm steward or caretaker on-site to oversee the property and increase security. A program like Urban Edge, where the staff is less involved day-to-day, might find that a person to act as a liaison between the farmers and the organization plays an important role.

Land and lease. Of the three programs I visited, which all have between 30 and 50 acres of land total (with 20 to 30 acres farmable), none purchased land. It was not intentional that I visited such similarly sized farms, and they are certainly not representative of all incubator programs across the country. Elsewhere, incubator farms range from Nuestras Raices' La Finca in Western Massachusetts, which is 4 acres and rents 1/4 acre parcels to participants, to Intervale and ALBA, which have several hundred acres each, although both have significant conservation areas and not all the land is in cultivation. At Urban Edge, where all of the farmers are farming full-time, participants have two to five acres each. That size is proving sufficient to support annual vegetable production, although some farmers would like to be able to expand. Farmers at Lomax have significantly smaller parcels, but few are farming as a full-time or even primary occupation. The acreage requirements of an incubator farm will depend primarily on the number of farmers and type of production the program will support.

All three of these programs essentially lease land and have security in their tenure for the foreseeable future. Viva has a three-year lease with the Port of Skagit with two opportunities to renew, effectively giving them a nine-year lease. Lomax Farm does not have a lease or long-term commitment from the County, except that the County has invested a great deal into the program and guaranteed grant funders at least ten years of operation. Urban Edge Farm has a five-year lease from the State and assurances from the Department of Environmental Management that they want the program to continue. Securing land, in all three instances, seems to have depended on the network and connections of either certain program staff or the organization.

An incubator program requires enough land to support the beginning farmers' operations and to provide for sound crop rotation and cover cropping practices. Viva seems to be taking an active role in managing the farm as a whole; they require cover cropping, and Sarita said that, while they did not have specific acreage limits for what an individual could farm, they would limit particular types of crops (such as berries) for reasons of marketing and ecological diversity. Lomax did not seem to have a system in place yet for crop rotation and cover cropping. At Urban Edge, the farmers manage their own crop rotation and cover cropping; several take this very seriously and have carefully refined their systems, but they seem to run very intensive production leaving little fallow time. It seems that farm management at incubator programs needs to operate at the individual farm level, which farmers would be responsible for under particular guidelines, and at the whole farm level, which staff may orchestrate. Especially with the turnover in farmers, incubator farms need a way to manage production over time and across operations. While each operation is independent, the program may need a staff person, farm manager, anchor farm (that does not transition off-site), mentor farmer, or advisory board that helps provide the oversight and continuity to ensure the land is well managed.

The particular location of these programs was serendipitous (or arbitrary, depending on your perspective): all three had an opportunity arise and took what they could get. But, the locations offer insight into some important considerations for locating an incubator farm program. All three farms are near urban centers that provide markets for the farmers. The farmers at Urban Edge also appreciate being able to live in an urban area while farming and value the volunteers that come from Providence. Viva was fortunate to find land on a major state highway with enough traffic to support a farmstand.

Production. The farmers' own production at all three sites was almost exclusively annual vegetable production. The exceptions are Santiago's strawberries and Dan's grains at Viva, Lomax Farm's bees, Michelle's chickens and rhubarb (which she plans to dig up and move to her new farm), John's bees, and Katie's fruit trees (which have not yielded any fruit yet), all at Urban Edge. The staff and farmers at Lomax are considering ways to move into perennial production, including asparagus and blueberries. Because these crops take longer to produce, they are considering planting them for educational purposes with the program harvesting the yield instead of individual farmers and/or a share going to farmers who help with the management. The land needs and production cycles of annual vegetables make them well suited to the incubator farm model; small acreage can yield significant harvests, and with annual harvest – and replanting – farmers can harvest a crop their first season and not lose out when they transition off-site. The longer production cycle for perennials and larger acreage needs for grains make them more difficult, but not impossible, within this model. Livestock are also a possibility with the appropriate infrastructure and land area.

All three incubators have, have had, or are considering having their own production as an additional source of income for program operations. Viva Farm had annual vegetable production

but, given the demands of managing production, was weighing how best to continue in the future. Urban Edge Farm had given up its production because it competed with the needs of the beginning farmers and did not prove to be a financial gain for the program. And as described above, Lomax was considering some perennial crop production when I visited. While sales seem like a plausible revenue source for a land-based farming program, these programs suggest that it may not actually pay off.

Infrastructure. One of the greatest benefits of these three programs is the physical infrastructure they provide, thereby reducing the startup costs of farming. The infrastructure was similar; all three programs provided a greenhouse and hoop houses, post-harvest processing facilities and refrigeration, irrigation (well and/or pump, main line, hydrants), tractors and attachments, and fencing appropriate for wildlife in the area. Farmers provide their own hand tools, irrigation equipment from the main line to their field, and any other equipment they need. Only Urban Edge Farm had someone living on site. In that situation, the only challenge to the Farm Stewards was that neither of their “landlords”, the State or the Land Trust, wanted to invest any money into repairs on the old farmhouse. Lomax Farm had an RV hookup on site and had considered building a cabin. Both Viva and Lomax have had some issues with theft; an on-site caretaker or farm steward could improve security.

Classes and knowledge sharing. Another of the primary benefits, as important as the infrastructure and reduced start up costs, was the knowledge and information farmers gained by being part of the incubator farm. They described learning through formal channels, specifically the classes and meetings, but also through on-going informal interactions because they are in close proximity to each other and the staff. To the farmers, learning from each other was at least as important as, if not more so, than learning from the classes.

Viva and Lomax offer a class series in the winter before farmers start at the incubator farm. Lomax's course is required; Viva's is required unless farmers have comparable education elsewhere. Urban Edge offered classes early on but discontinued them after they changed the program model. Both Viva and Lomax offer their courses through Extension Services, which specializes in adult education, and bring in guest speakers.

In crafting the educational component of an incubator farm, the top consideration should be the specific needs of the beginning farmers that the program is targeting. Not all beginning farmers have the same level of background and experience. Like some of the farmers at Lomax, they may have almost no experience at all and will need to be shown every step of farming starting with how to germinate seeds. More experienced beginning farmers, like Nelida and Santiago at Viva or Michelle and John at Urban Edge, may have years of experience as farm workers or even as managers of small farms. They need less instruction on how to grow food and more support in setting up and running their own business. Part of the planning process for an incubator farm needs to be identifying the specific beginner farmer audience being targeted by the program and determining their educational needs. The timing and method of delivery are also important considerations. For example, business and market planning may be best suited to off-season classroom based instruction, while tractor maintenance may be best taught in a hands-on workshop.

Farmer selection. Closely tied to the educational component of an incubator program is the question of how farmers enter the program. The staff at Viva and Lomax emphasized the importance of the farmer application and selection process. (None of the current staff at Urban Edge were a part of selecting the farmers.) Prior to my visit, Viva only asked applicants for a business plan, but all of the farmers had been through the courses and so had a relationship with

the staff. In the future, when the staff would not necessarily know the applicants, they planned to move toward a more formal application process. The staff at Lomax expressed that they needed a more rigorous application and interview process to get a better sense of the applicants' goals and dedication. They felt that finding farmers who were a better fit for the program would alleviate some of the challenges they had experienced. Much like planning effective educational programs for beginning farmers, being able to select farmers who are a good fit for an incubator program requires having a clear vision of what the program hopes to accomplish and who the target audience is.

The work of the New England New Farmer Network (NENFN) demonstrated that the needs of prospective farmers and beginning farmers vary widely according depending on which of the six stages of the new farmer typology they fit into (Johnson et al. 2001). Some of the significant challenges at the existing incubator farms seemed to arise out of a lack of clarity, or specificity, in the purpose and target audience of the program. The real promise of incubator farm programs seems to be in helping new farmers make the transition from farmworker to farm operator. In terms of the NENFN typology, this means recruiting Planners, the third stage of prospective farmers, and providing support for them to become Start-Ups, the first stage of beginning farmers. Planners are committed to becoming farmers but not yet producing commercially, are in the process of acquiring the skills they need, and may be actively planning a farm operation. Start-ups are farmers in their first three years of commercial farming. Identifying the target audience will help ensure that as the vision comes into fruition everyone is moving in the same direction and that the program is tailored so that it really accomplishes the goals. The NENFN typology (Johnson et al. 2001) offers several dimensions (including skills and

knowledge, family and community, and resources and markets) to consider when targeting beginning farmers and creating programs to meet their particular needs.

Farmer leases. For the most part, farmers at Viva and Urban Edge felt the leases they signed were fair. (Farmers at Lomax do not sign a lease for their plots.) At Viva, the only complaint was about the cover-cropping requirement. While the farmers acknowledged that it is a good farming practice, they were upset that they (or their peers) had lost harvestable crops during the first season because the requirement had not been clearly communicated. While whole farm management may prove to be a challenging piece of incubator farm planning, it seems like the frustration farmers experienced at Viva could be avoided. At Urban Edge, now that farmers are no longer expected to transition to another location, some, but not all, of the farmers wanted longer-term leases.

Program fees. The fees that farmers are charged to access the services at Viva and Urban Edge Farms are similar, while the fee at Lomax Farm is significantly lower. Because of the turnover in staff, I did not get a clear sense of how the fees at Urban Edge Farm were originally determined. Fees at Viva are determined based on the predicted costs for providing the service and are compared to market rates to ensure they are competitive. For the most part, farmers felt like the fees were fair or a good deal (and at Lomax, an exceptional bargain). Most acknowledged that it would cost them more to do it on their own, although a couple at Viva still pointed out that it was a lot to spend for someone without much money and a part-time farmer at Lomax still did not expect to earn back what she invested in her first season despite the low program fees.

Urban Edge Farm, the longest standing of the three programs I visited, provides several insights to consider for establishing a fee structure. The first is that the program fees should

cover repair costs, as they do at Viva. This means that repairs and maintenance need to be accounted for in determining the fees. Some of the most challenging decisions that SCLT and the farmers at Urban Edge have had to make in the last few years are deciding who will pay what when unexpected repair costs arise. Some of the farmers would like to see the fees they pay go into a separate account with a clear, transparent budget from which the farm's operating costs are paid. It was very important to the farmers at Urban Edge to know what they were paying for.

While one of the expressed goals of incubator farms is to help new farmers overcome the obstacles to starting their own operation, particularly the high startup costs, the example of Lomax Farm suggests that it may be possible to swing too far the other direction. They set the very low fee of \$100 to access all the resources at Lomax Farm because they did not want a financial barrier to prevent anyone from farming. While there is some contention over how the fees should be structured – and admittedly, some staff want to see the cost stay low – the staff seems to have recognized that this extremely low financial barrier means that some participants have less investment in the farm. In some cases, participants do not take good care of the land and equipment. Some participants do not fit the mission of the program; they are simply trying to learn to grow food, not necessarily to become farmers, and might be better served by a low-cost community garden program. Setting fees appropriately may actually be one way to ensure a program is targeting the right audience, and yet that must be balanced with the goal of providing a broad group of new farmers with access to the resources they need.

Off-site transitions. Although all three programs have had a few farmers leave to farm elsewhere or expand off-site, at this point the instances are so limited that it is impossible to draw conclusions about the process of transitioning beginning farmers from an incubator farm to another location. As programs mature, this will be a critical area for future research. There are,

however, some initial insights that at least challenge assumptions around this issue, namely that having to transition will be an undesirable burden to beginning farmers. Only one farmer cited not knowing the long-term future of their tenure on the land as a challenge of being at an incubator farm, and that was at Urban Edge, where farmers do not have to leave after a specified time period. Her concern had more to do with wanting a long-term lease and not knowing what direction the evolving relationship between the farmers and the Land Trust would take. When I asked farmers about their future plans, a nearly equal number said that they planned to lease land as said they hoped to buy land. While some of the farmers would like to own their own farmland, that it is not necessarily a goal for all. The farmers seem comfortable farming leased land for the short-term and many are comfortable with it for the long-term.

When I describe incubator farms to people, one of the most common reactions is to question how farmers would feel about having to transition to another site after investing time and energy into a piece of land. At first look, Urban Edge Farm seems to fit the presumption that farmers would not want to leave. The program asked one of the farmers what she wanted, and she said she didn't want to leave and so they revised the program. Several people at Urban Edge described how difficult it is to access land in Rhode Island. That could be an argument against incubator farms: where will the farmers go next? But Leo, the Program Director, made an important distinction: "the price of farmland in Rhode Island makes an incubator program here without any specific supports connecting farmers to land impossible." Urban Edge Farm does not have those supports in place. Although early documents said the program would help farmers secure land, that part of the program was never developed. It may be difficult to access agricultural land, but in this case, it is impossible to say whether those transitions might have worked because they never really tried. And, although they do not have to leave, one farmer

secured land on her own and others have plans to leave as well. Perhaps the lesson here is that most farmers will need support in securing land whether it is a requirement to leave or not.

The example of Lomax also demonstrates that those transitions will require advance planning – and more than just a winter or a growing season’s worth of planning. The first group of farmers at Lomax were expected to transition off at the end of the third season, but when that time rolled around, they were not ready because they had not been working towards transitioning. Lomax now expects farmers to start planning for that transition when they start farming there. And the transition does not have to happen all at once; Sarita expects farmers to move off Viva gradually, and Michelle expects to move her operation from Urban Edge to her new property in stages.

Program budget and funding. The startup costs for these farms were paid primarily by private foundations and grant funding. It may be possible to achieve financial self-sufficiency, but none of the programs have done so at this point. Viva supplements the income from grants and farmers’ fees with farmstand and CSA sales. Lomax is considering ways to cut expenses and add revenue streams, such as hosting events, to balance their budget. The farmers at Urban Edge demonstrated through a budget proposal that the existing fee structure does pay the costs of running the farm. The program and staff costs from SCLT, however, put their budget in the red. At Urban Edge Farm, the farmers were trying to figure out what benefit they gained from the program costs of being part of SCLT, but that is largely because of the way the program model has changed, requiring the farmers to be much more independent from the parent organization. But the lesson may be applicable in other cases: once an incubator farm is up and running, covering the programmatic costs of an incubator farm may prove to be the greatest ongoing financial challenge.

Decision making and group dynamics. While the exact structure varies, all three farms have regular meetings for information sharing and decision making. At Viva, the meetings are weekly and led by Sarita. At Lomax, the farmers meet once a month with the Extension staff and once a month on their own. At Urban Edge, the Farm Stewards facilitate a monthly meeting for the farmers using consensus decision making and act as a liaison with the staff as needed; the Program Director also steps in to facilitate particularly difficult decisions. For the most part, staff make the major decisions that impact the budget of the program, with input from farmers. Farmers negotiate their day-to-day interactions, particularly the sharing of resources like the tractor. The lesson seems to be that regardless of the exact decision-making structure, the process and authority need to be clear to all involved. There needs to be clear communication about how decisions are made, which decisions are whose to make, and whom to go to with concerns. The challenges around decision making seem to arise primarily when these processes are ambiguous and secondarily when farmers (and staff) feel their voice and concerns are not heard. The recommendation I heard in interviews was that the organization needs to put the framework and policies in place. The other lesson is that facilitation – and training in facilitation – is important. Sarita wants to bring someone to Viva Farm to teach effective meeting facilitation, and SCLT offers training in facilitation and consensus decision making.

Urban Edge is a particularly interesting case to consider because the farmers take on so much of the decision making and responsibility for day-to-day operations and because they are successful full-time farmers. There may be a relationship between those two attributes, but it is difficult to discern without more research. Has having more authority contributed to their success? Or did it work to give them more authority because they are skilled at what they do? Or is there some other factor – their experience and dedication to farming before coming to the

program, the length of time they have been running their own operation – that plays a role in both? The farmers at Urban Edge actually acknowledged the most challenges around group dynamics and decision making, possibly because they have been working together the longest or because they have the least guidance and oversight from the parent program. Recall that they approached the Farm Stewards about facilitating their monthly meetings because they needed help, and they have even needed the Program Director to step in at times.

Organic certification. While each farm handles official organic certification differently, all three require farmers to use organic practices. Viva is in transition to organic certification, Lomax is certified organic at the direction of their County Manager, and Urban Edge Farm as a whole is not certified but some of the individual farm operations are. Lomax is weighing whether the process for certification is worthwhile. Just as for small farmers not at an incubator program, there seem to be compelling reasons to go either way, and the decision should really be made based on the particular circumstances and whether certification would offer the farmers sufficient benefits. The additional caveat is that the incubator farm model is definitely different and, at this point, new to certifiers, and it adds complexity to the record keeping and paperwork. Even without the restrictions of certification, it seems important to specify allowable practices to avoid issues between farmers with different approaches to production sharing space.

Markets. While farmers are for the most part selling their own produce, incubator farm programs seem to help them access markets in a variety of ways. At Viva, they provide actual venues for farmers to sell through with the Viva CSA, farmstand, and wholesale accounts. Or, as with Chang at Urban Edge, the program may help farmers identify markets. Farmers also work together to market their crops, whether through a collaborative CSA, as at Urban Edge, or by

sharing booths at farmers market booths, as at Lomax. Accessing markets is an obstacle for many beginning farmers, but the structure of incubator farms can help them overcome that challenge in a variety of ways.

Viva's model of building their own market channels, blending elements of a for-profit business with the non-profit organization, brings up several considerations. The benefits are that the sales provide another income source for the program and give not only the beginning farmers but also other area farmers an additional market. (Viva sells other farmers' produce at the farmstand, which helped alleviate the other existing farmers' concerns about competition from the incubator.) At the same, developing and maintaining these markets requires tremendous organizational capacity and resources, primarily in staff time.

In considering organizational markets for a new program, it would be worth asking what the primary purpose is: Is the goal to raise income for the program? Is the goal to provide the farmers with markets? If the goal is to raise income for the program, the next consideration is whether the needs of building those markets may in any way compete with the needs of the new farmers (as program production seems to do). If the goal is to help farmers access markets, the question becomes whether the program providing markets will position the farmers for long-term success. Also, how else could that goal be accomplished? Do the farmers simply need knowledge about marketing and how to develop markets? Are there potential partners that already specialize in distribution, such as a farmers' cooperative? And then, once the options are identified, the final question is which of these will benefit the farmers the most in the long run? Will they continue selling through the program's markets after the transition off? Or will they have to build new markets at that point? Just as programs and farmers need to plan ahead for accessing land

when they are ready to transition off-site, so too should they take a long-term approach to marketing.

Comparisons – Function

Farmers at all three incubator programs named the same primary benefits of the program: access to knowledge and information; access to physical infrastructure; access to land; and support and camaraderie. These primary benefits closely parallel the challenges beginning farmers face. Other benefits they cited included collaborative action; the opportunity to refine their plans and prepare for their own farm; and the location. (For a complete list of benefits named by farmers, see Table 4.) With the exception of location, which was only named by farmers at Urban Edge, and collaborative action, which was not named by any farmers at Lomax (although they are engaged in collaborative action through collective farmers market stands), the other benefits were all expressed by farmers at all three programs. Yet, there are some distinctions. Farmers at Urban Edge more often talked about the knowledge and support they receive from other farmers, while at Viva and Lomax the farmers talked more equally about knowledge and support from staff and other farmers. The informal, ongoing learning opportunities seem as important to farmers, if not more important, than the formal, structured learning opportunities. While one farmer at Viva spoke eloquently about the value of collective action, it was primarily the farmers at Urban Edge who described the specific ways they have realized those benefits. It is hard to say if those farmers actually work together more collaboratively, perhaps because they have farmed there longer, or if it is that they recognized the value of that collaboration. Other farmers did not specifically name collaborative action as a benefit, even though they are engaged in, and seem to benefitting from, exactly those kinds of arrangements.

The other seeming anomaly were two farmers, both at Viva, one who said he was not sure what the benefit of the program was and the other who said that the benefits were limited. Both farmers were Hispanic men, but their farming situations are significantly different and may explain their answers. One has been very successful – he had a great deal of agricultural experience and is also farming other land that he accessed on his own. Even though he had some things to learn about running his own farm and direct marketing produce, he may not have been the type of beginning farmer that needs all of the services an incubator farm offers. The other farmer is having the opposite experience: he is questioning whether he will continue farming. He has struggled to have the time and money to invest in farming on top of his full-time job. It may be that he needed more support or it may be that farming is not the right choice for him. As the staff at Lomax pointed out, they think it is a success if someone realizes they do not want to farm without having gone into debt to do it on their own. Yet, plenty of other aspiring farmers realize through apprenticeships and learning experiences that farming is not the right path for them.

Table 4. How the Programs Function According to Farmer Participants

<p>Benefits of the program (Farmer responses)</p> <ul style="list-style-type: none"> • Knowledge and Information • Physical Infrastructure • Land • Support and Camaraderie • Collaborative Action • Opportunity to refine and prepare for own farm • Location • Don't know/not much <p>Challenges of the program (Farmer responses)</p> <ul style="list-style-type: none"> • Organizational structure • Farming itself • Group dynamics • Poor physical infrastructure

The farmers identified four main types of challenges to being part of the incubator programs: the organizational structure, farming itself, group dynamics, and poor physical infrastructure (see Table 4). The problems with organizational structure varied, but most were aspects of the program that could be changed, not fundamental issues with the model. Frustrations ranged from the uneven distribution of resources (such as farmers having smaller plots, rockier soils, or poorer access to irrigation infrastructure) to the difficulties of being part of a new program in the startup phase. The second challenge, farming itself, is also not specific to the incubator model and included lack of knowledge, the weather, and needing more labor. When I asked about the challenges of being a part of the program, the fact that many farmers named challenges inherent to farming instead of anything related to the program suggests that the program did not really pose significant challenges, at least not ones that could outweigh the challenges of farming. And these same farmers all talked about the ways that the program helped them overcome the challenges of farming. That the farmers named group dynamics as one of the challenges could be interpreted as a sign that shared farming spaces do not work, but that did not seem to be the sentiment behind the comments. Most farmers pointed out that the dynamics were no more challenging than any other group situation. Further, many of the benefits they experienced were a direct result of farming in a shared space. The payoff of working together seemed to be worth the challenging flipside of group dynamics for most of the farmers, and several talked about they became a cohesive group. Interestingly, more farmers brought up the challenge of group dynamics at Urban Edge Farm than at Viva or Lomax. This could be because those farmers have been working together longer or because they are given more of the responsibility for day-to-day farm operations with less oversight and guidance from the parent program. Some of their most challenging group decisions could be avoided by working out

policies and procedures for things like repairs costs in advance of issues arising. They have also found facilitation support from the Farm Stewards and Program Director to be critical for shared decision making. The final challenge, poor equipment, really only came up at Viva with regard to the tractor being too big and breaking down frequently. While equipment repairs are a part of farming, in this case it was especially an issue because of the equipment provided by the program, a solvable problem.

Table 5. How the Programs Function According to Staff Participants

<p>Successes of the program (Staff responses)</p> <ul style="list-style-type: none">• Provide resources for new farmers• Farmers experiencing success• Support from community• Interest from new farmers• Some people realize they do not want to farm• Program actually happened• Benefits larger community <p>Challenges of the program (Staff responses)</p> <ul style="list-style-type: none">• Organizational capacity• Group dynamics• Physical infrastructure• Farmers' investment level• Interactions without outside authorities• Farmers lack knowledge and skills• Changing relationship between farmers and organization
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When the staff talked about the successes of the programs (see Table 5), the focus was on how the program was achieving what it set out to do and the benefits that were being providing to the farmers (and the greater community too). The top two successes they identified, providing resources for new farmers and farmers experiencing success with their own farm operations, are essentially the mission of most incubator farms in action. Among the specific resources that the staff named were that they farmers learned from one another and had each other as resources

because of their proximity. The staff were also pleased with the support they had received from the community, the high level of interest in the program from new farmers, the fact that through the program some people realized they did not want to farm without going into tremendous debt (this was primarily at Lomax Farm, where participants had less experience), the sheer fact that the program happened, and that the program benefitted the larger food movement by creating experienced farmer advocates and by providing a source of pride.

The challenges that the staff identified (see Table 5) were similar to those the farmers described. Instead of organizational structure, the staff focused on organizational capacity: trying to achieve financial solvency and figure out a sustainable revenue model, being under-staffed and under-resourced, and starting out too big and too fast without the right people in place (this challenge was only named at Lomax where they started with 16 beginning farmers and no job description for the mentor farmer). The challenge of group dynamics came up as staff talked about learning to communicate and that the farmers needed facilitation for their meetings to function (this was at Urban Edge). Staff at all three sites mentioned differences in perspectives posing a challenge, but it came up the most at Lomax where the target beginning farmers were not clearly identified and some may have been better served by other types of support programs. The other challenges were mentioned fairly infrequently: getting in infrastructure, farmers not being invested (again, mostly at Lomax), dealing with outside authorities like the County or the former landowner (only at Lomax) the farmers having a lot to learn, and negotiating the evolving relationship between the program and farmers (only at Urban Edge). Some of these challenges may apply to other programs, but several are fairly specific to the particular circumstances.

Decisions Points for Developing Incubator Programs

Hendrickson and Heffernan (2002: 361) examine where power is situated in the dominant food system and identify spaces where alternative systems can emerge:

The global system is predicated on controlling and speeding up time – in both production and consumption – and eliminating unique sets of knowledge and management that require more time to amass and apply... To succeed, [alternative] movements must organize where the dominant system is vulnerable – by making ecologically sound decisions, by relying on time and management rather than capital, and by building authentic trusting relationships that are embedded in community.

If thoughtfully planned, incubator programs can be positioned to take full advantage of these spaces. What follows are decision points based on the case studies of these three existing programs and designed to help in the development of incubator programs.

Staff

- How will primary staff responsibilities be divided?
 - Who will be responsible for program organization and facilitation?
 - Who will be responsible for farmer education?
 - Who will be responsible for facilities and maintenance
- Are there other staff responsibilities that the program needs fulfilled? (ex. caretaker)

Land

- How many operations will the program ideally support?
 - How many new operations per year?
 - How many years will new operations stay on site?
 - What will they be producing?
 - What acreage will be need to support this production and good land management practices?
- How will whole farm management decisions and oversight be handled? (ex. crop rotations, cover cropping, ensuring a diversity of crops, weed management)
- Is the location near potential markets?
- Is the location near housing for farmers or can housing be provided on-site?
- What is the soil quality?
- What water access is available?
- How much does the property cost to purchase/lease and maintain?

Production

- Will the program manage any of its own production?
- If so, who is responsible for it and who will put in the labor?
- What will be done with the yields?

- Will it compete with the beginning farmers' needs?

Farmer Selection

- What is the primary purpose of the program?
- What segment of the new farmer population is it meant to serve?
- What are the needs of those new farmers?
- How will the farmer selection process work?
 - Will an interview and/or application be required?
 - What will be asked during the interview and/or on the application?
- How much experience will entering farmers be expected to have?

Infrastructure and Equipment

- What infrastructure and equipment will be provided?
- What are the purchase/installation costs?
- What are the projected maintenance and repair costs?
- Who will be responsible for maintenance? (staff and/or farmers)
- Will there be rules for who can use the equipment and when?
- Once the land is located: What infrastructure already exists? What needs improvements? What needs to be installed? What needs to be removed?

Beginning Farmer Education

- Again, what segment of the new farmer population is the program meant to serve?
- What are the educational needs of those new farmers?
- What formal and informal opportunities will be offered for knowledge sharing?
- Who will provide formal opportunities (such as classes, workshops, and mentoring)?
- Will formal education opportunities be ongoing (like a class series) or onetime (workshops and field days)? Will they be mandatory?

Program Fees

- What services will farmers be charged for?
- What will those services cost the program to provide? (staff time, startup, maintenance, repair)
- What is the market rate for those services in the community?
- How much will farmers be charged for services? Will rates be staggered/subsidized over time?

Off-Site Transitions

- How long will farmers will allowed to farm at the incubator?
- What support will be provided to farmers to help them find land to transition to?
- What support, if any, will be provided to farmers after they transition off-site?
- What resources already exist (or need to be developed) to help farmers transition? (ex. Land linking programs)
- When and how will planning for the transition happen?

Program Budget and Funding

- What will the startup costs be?

- What will the operating costs be?
- What will the staffing costs be?
- What funding sources are available for startup?
- What ongoing funding sources are available?

Meetings and Decision Making

- Who will be responsible for making what decisions?
- How will decisions regarding shared resources (ex. tractor use) be made?
- What venues will be provided for collective decision making? (ex. regular meetings)
 - Who will facilitate those decision making processes?

Organic Certification

- Will producers see a benefit for organic certified produce?
- Will the entire farm be certified?
- Will allowable practices be specified (regardless of certification)?

Marketing

- What, if any, marketing will the program provide?
- How will the program help farmers access markets?
- Will the program cultivate any market channels? (ex. farmstand)

Misc.

- What community partners or resources exist that the incubator farm could work with?
- Will any financing or micro-credit be offered to farmers?
- What are the liability concerns for the program? What sort of insurance will the program carry?

Applying the Decision Points to Missoula

The purpose of an incubator program in Missoula really seems to be to help aspiring farmers who have some experience bridge the gap from internships and other learning opportunities to having the capacity to run their own farm operation, or in the terminology of the NENFN to help Planners become Start-up farmers. As described in the first chapter, there are many ways for new farmers in the Missoula area to gain background experience and knowledge. An incubator could really be geared for those who are serious about farming and could require a reasonable amount of prior experience. With that in mind, the educational component of the program should be designed to fill the gaps in the background of the more experienced new farmers, likely with an emphasis on farm and business planning more than basic production

skills. A fall or winter course in business planning could be supplemented with growing season workshops and field days targeting specific skills (such as tractor maintenance). Farmers could also be expected to take on various maintenance and repair jobs around the farm. There seems to be room in the Missoula market for some livestock production (poultry, seasonal dairying, goats, pigs), and so an ideal location would have the capacity for livestock as well as annual vegetable crops. Farmers may also be able to grow some perennials, such as strawberries, and an anchor farm that is not expected to transition off-site could produce other perennials, such as blueberries and asparagus. Fruit trees could be managed by the program as an educational, demonstration orchard, or individual farmers could take on the management. Farmers markets in Missoula are fairly saturated with vegetable production, and so a key component of an incubator program would be helping farmers access (and possibly helping to develop) other markets. There is room to expand institutional markets, so vegetable production may target these markets. There are a number of potential partners in the Missoula area, including the Western Montana Growers Co-op (for marketing and distribution), Land Link Montana (for off-site transitions), and Extension Services and the University of Montana's Environmental Studies program (for education).

The most critical staff need for an incubator farm in Missoula seems to be program organization and facilitation, including planning, fundraising and coordinating stakeholders to get the program started and then overseeing the different aspects once the program is in place. Once the program is established, a program director could coordinate other beginning farmer programs or be reduced to part-time. The established farming community could be involved with the project by serving as mentor or resource farmers. They would teach workshops or field days, be available as needed for questions, and be provided a stipend for their services. A farm will need someone, either a program director, caretaker, facilities manager or advisory board, to

oversee facilities maintenance and repairs and whole farm management, although responsibility for carrying out these tasks should primarily fall to the farmers.

Farmer selection should include an application with business/marketing plan and an interview. The primary purpose is to ensure farmers have the background to be successful, fit the mission of the program, and can fill a market gap. Ideally, a class or workshop in creating business plans would be offered before farmers are expected to complete the application, although they would certainly continue refining their plan after they are selected. Having classes and workshops offered before the applications are due can also give the staff another venue for getting to know applicants, and the courses would be open to other beginning farmers as well, not just program applicants. Farmers should be given at least three years but probably five years to farm at the incubator. The program, in partnership with Land Link Montana, should help farmers plan their transition off-site starting at least one year, if not more, in advance.

If an incubator farm is to include livestock and long-term cover cropping, more acreage will be needed for grazing, haying, and fallow ground. An ideal location would be have good agricultural soils, adequate water access for irrigation, and be close enough to town for farmers to access housing and markets and for the community to be involved with the farm. The Target Range, Orchard Gardens, and Grass Valley areas are potential locations, as is the area just south of Missoula along Highway 93. Leasing land seems to be the ideal arrangement because so much fundraising is required for other aspects of the program. Startup costs for infrastructure and equipment will depend greatly on the existing resources once a site is selected, but should be in line with what most programs spent of around \$150,000. Once the program is up and running, the fees that farmers pay should cover operating expenses, including maintenance and repairs, although on-going funding may be required to cover staffing and program costs, unless another

income source is developed. A potential income source for the program would be to build a USDA certified and inspected processing facility that could be used by incubator farmers for value-added processing and also rented out to other local producers. Because of the complexity of record keeping for an incubator farm, organic certification does not seem worthwhile for the entire site, although allowable practices should be specified by the program and good records must be kept for whole farm management.

Future Research Needs

Because there has been so little research on beginning farmer programs, particularly incubator farms, this research is exploratory. The results have opened up numerous avenues for future research. Some of the future research needs include:

- What are the specific needs of different types of beginning farmers? How can incubator programs best meet those needs?
- How are incubator programs reaching out to socially disadvantaged farmer groups?
- Why are women so well-represented at incubator programs? Does this reflect broader trends in farmer demographics or is it attributable to an aspect to an aspect of the model?
- How do incubator programs change as they mature? This question may be particularly well-suited to longitudinal research, as I found that it was difficult to track the changes over Urban Edge's nine year history in a single snapshot visit.
- What is "success" for beginning farmers at incubator programs? (Or for beginning farmers in general?) How can it be measured?
- In the long-term, do farmers from incubator programs approach farming differently? Does the program influence their farming practices or role in the farming community?
- How are alternative and micro-credit financing programs implemented?
- How well do incubator programs meet their conservation and sustainability goals?
- How are alternative land tenure models working?
- What are the key characteristics of a location (city or town) that can support a successful incubator farm program? Is there a typology of places that fit particularly types of beginning farmers programs?

These questions span a several disciplines and lend themselves to a variety of research methods.

Conclusion

This research arose out of concerns about structural issues in the field of agriculture. As eaters, all of us have a vested interest in the future of our food sources. We need farmers. And because the current generation of farmers is getting older, we need new farmers. But would-be farmers face a particularly tough row to hoe. They cannot access the resources necessary to farm. They need access to land, capital, knowledge, markets, and social support. Fortunately, interest in farming seems to be growing, but these farmers are different from those who came before them. They are more likely to be women and to be Hispanic or non-White. Many are interested in alternative forms of agriculture. And there are some attributes they are less likely to have. They are less likely to inherit land. They are less likely to even be from a farming background.

As beginning farmers change, and so too their needs, the programs that serve them are evolving as well. One such type of program, incubator farms, seem to challenge some of our collectively held ideas and images about farming. Namely, the idea of the small, self-sufficient family farmer who owns and independently works land passed down generation to generation. Incubator farmers do not own the land. They farm it for seasons, not generations. They share space, resources, and decision making with an entire group. And yet, this collectivity, this proximity, affords the farmers a way to shift the power and control over access to resources in agriculture and overcome those obstacles to starting their own farm operation. This shared farming space gives them access to both the knowledge resources and physical resources they need. An incubator farm benefits the farmers by creating closer connections among a group of producers – a community of growers.

Often the public discourse of alternative food movements focuses on shortening the distance and creating connections between a community and its food sources (Know your farmer!), but producer to consumer relationships are not the only ones that matter. As

Kloppenburg et al. (1996: 37) describe, a commensal community will build relationships “among producers, between producers and consumers, and among consumers.” It seems valuable, in the greater movement, to give more recognition to the importance of these connections among producers. Incubator farms are not the only way producers build relationships with each other; grower cooperatives and farmer networks also cultivate these deeper relationships (Hassanein 1999). Incubator farms seem to be one approach particularly well-suited to meeting the needs of beginning farmers by building these relationships. In doing so, the programs address the greater structural issues in agriculture: Who will farm? And how will they get started? With the help of incubator farms, more beginning farmers are finding a way into the fields, and success once they arrive.

Appendix A. Characteristics of Civic Agriculture

According to a literature review by Thomas Lyson (2000: 44), the following six characteristics are associated with civic agriculture:

- 1) Farming is oriented toward local market outlets that serve local consumers rather than national or international mass markets.
- 2) Agriculture is seen as an integral part of rural communities, not merely as production of commodities.
- 3) Farmers are concerned more with high quality and value added products than with yield and least-cost production practices.
- 4) Farming is often more labor intensive and land intensive and less capital intensive and land extensive. Farm enterprises tend to be considerably smaller in scale and scope than industrial agricultural production.
- 5) Producers more often rely on indigenous, site-specific knowledge and less on a uniform set of BMPs (best management practices).
- 6) Producers forge direct market links to consumers rather than the indirect links provided by wholesalers, brokers, and processors.

Appendix B. Interview Guide for Program Staff

Thank you for agreeing to participate in this interview. I appreciate you taking the time to meet with me. As you know, I am interviewing program staff of incubator farms and beginning farmers in those programs to better understand how to support new farmers. I'll be using what I learn to make recommendations to the food policy council in Missoula about the possibility of starting an incubator farm program there.

Before we get started, I wanted to be sure you know that your decision to participate in this interview is entirely voluntary and you are free to withdraw from the research at any time. Or if there are any questions you don't want to answer, just let me know.

Also, if you would prefer, I can strive to keep your identify in this study confidential. In other words case, I will not use your name in any presentations of the research or written reports. However, I cannot guarantee you complete confidentiality since I will be interviewing so few staff people in the course of this study and you are the only [____] at [____]. Is it ok for me to use your name?

And finally, if you are ok with it, I would like to tape record the interview. Taping ensures that your views are accurately recorded, and it allows me to focus on what you are saying. Is that ok with you?

Background

1) I wanted to start by hearing about your involvement with [____]. Would you tell me about your role in the program?

Follow up: How long have you been with the program? How did you get involved?

Starting the Farm

2) Turning to the program itself, I thought we could start at the beginning and talk about how the incubator was created. Tell me the story about how this got started.

Follow up: When it was getting started, what were your main goals?

Follow up: You already touched on this, but can you describe the steps/process involved in establishing the program?

Probe: Who was involved? Were there any organizational partnerships?

Land

3) I'd like to learn a little about the land itself. How did the program find its land?

Follow up: How much land does the program have? Is it owned or leased? From whom?

What are the terms? Where is it located? What buildings were originally on the site?

Farmers

4) Of course, the farmers themselves are central to the program. I was hoping you would tell me a little more about the farmer participants in the incubator farm program.

Follow Up: Who are the program participants? Are particular groups recruited? How many participants are there currently? How many have there been total?

5) How are the participants selected?

Follow up: What is the application process like?

6) How long do farmers stay on the incubator farm?

Follow up: Do they sign a lease? What fees are they charged? How do you determine what to charge? Does the program require farmers to use any particular practices?

Follow up: When we're finished here, would you be willing to share a copy of the application and lease with me?

7) How many farmers have transitioned to other sites? Are they still operating farm businesses?

Follow Up: What support do you provide when farmers transition to another location?

Services and Resources

8) I wanted to talk about the services you provide farmers. I see on the website that you offer...

Business planning? Marketing? Financing or other financial services? Mentoring? Formal or informal? Workshops or field days? Anything else?

Follow Up: Can you tell me more about ____? Who provides this service? What is their background?

9) Does the incubator provide any equipment to farmers? (**Alt.** I read on the website that you provide ____ to farmers. Is that right? Anything else?)

Probe: Fencing? Irrigation? Tractor and attachments? Hand tools?

Follow up: How does that work? Are there additional fees?

10) What about buildings? Greenhouses, storage space, washing & processing, anything like that?

Follow Up: Are there any additional fees for the farmers using those resources?

11) What about water?

Follow up: How does that work? What are the farmers charged?

12) Who makes decisions regarding these resources, like what to purchase or who gets to use the equipment and when?

Follow up: How are those decisions made?

Finances, Staff & Decisions

13) So we've talked about the services you provide and also the land, and there must be costs associated with those. I'd like to talk about funding for the program. What types of funding sources does the program have?

Probe: Fees for services? Rent for land? Grants (public and private)? Loans? Other fundraising?

14) What is the organization's overall budget?

15) Is the program economically self-sustaining through fees?

Follow up: (If not) Do you anticipate being able to reach that point?

16) Could you tell me about the program staff and their responsibilities?

Follow up: What's the total FTE (staffing) requirements for running the program?

17) Every organization has to make difficult decisions, whether it's about finances or running the program. We already talked a little about decision making regarding shared resources, but can you tell me about how other decisions are made about the incubator program and who makes those decisions?

Reflection

18) I've asked you a lot of very specific questions about the program, but I wanted to finish with a few more reflective questions. What are the program's greatest successes?

19) What are the biggest challenges the program has faced?

Follow up: How did the program overcome those challenges?

20) What is your vision for the future of the incubator farm?

21) As you know, part of the purpose of my research is to help a group that is interested in starting an incubator farm in Missoula. I'd love to hear what recommendations you would give a group starting an incubator farm program.

22) As we wrap up, do you have any other thoughts you'd like to share?

Thank you so much for your time. I really appreciate your generosity and your willingness to share your experience and perspective. If I have any further questions, would it be okay for me to follow up with you? **Thanks again! Have a great day!**

Remember: Ask for copy of lease and application.

Appendix C. Interview Guide for Farmer Participants

Thank you for agreeing to participate in this interview. I appreciate you taking the time to meet with me. As you know, I am interviewing the program staff of incubator farms and beginning farmers in those programs to better understand how to support new farmers. I'll be using what I learn to make recommendations to the food policy council in Missoula about the possibility of starting an incubator farm program there.

Before we get started, I wanted to be sure you know that your decision to participate in this interview is entirely voluntary and you are free to withdraw from the research at any time. Or if there are any questions you don't want to answer, just let me know.

Also, if you would prefer, your identity as a participant can remain confidential. In that case, I will not use your name in any presentations of the research or written reports. Is it ok for me to use your name?

And finally, if you are ok with it, I would like to tape record the interview. Taping ensures that your views are accurately recorded, and it allows me to focus on what you are saying. Is that ok with you?

1) I was hoping we could start by talking about your background in farming. Please tell me about your farming experience before coming to [_____].

2) So then how did you get involved with [_____]?

3) I'd like to hear about your farming operation here. Please tell me about it.

Follow up: Acreage? Crops? Where do you sell? When established?

4) Well, now that you've told me about your farming operation, I wanted to talk a little more specifically about how [_____] has helped you in starting and running your own farm. How has [_____] been most helpful to you?

Probe: You mentioned [_ summarize _]. Anything else? Are there any other benefits?
(Probe twice)

5) We've talked about a lot of the benefits of being here at [_____]. I'd also like to hear about the difficult parts of being involved in a program like this. What have been the challenges of participating in [_____]?

Probe: What else? (Having another job? Living arrangements? Not owning the land? Sharing resources?)

6) One of the things I'm really interested in is group dynamics here at [_____]. I assume you have to do some decision making around things like sharing equipment or watering. How does that work?

7) How do you feel about the lease agreement/land tenure? Do the fees feel about right?

8) (*If transitioned from program*) I'm also curious to hear about your experience after the incubator farm. Did you continue farming after leaving the program?

Follow up: (If yes) How was the transition experience? How did the program or your experience there help? (If no) Why not?

9) I've asked you a lot of very specific questions about [_____], but I wanted to finish with a few reflective questions. Would you be farming if you weren't here at [_____]?

10) I'm curious to hear about what's next for you. What are your plans for the future of your farm operation?

11) As you know, the purpose of my research is to help a group that is interested in starting a farm like [_____] in Missoula, Montana. I'd love to hear what advice you would give that group.

12) As we wrap up, do you have any other thoughts you'd like to share?

Thank you so much for your time. I really appreciate your generosity and your willingness to share your experience and perspective. If I have any further questions, would it be okay for me to follow up with you? **Thanks again! Have a great day!**

References

- Ahearn, Mary and Doris Newton. May 2009. "Beginning Farmers and Ranchers." USDA Economic Research Service. Economic Information Bulletin Number 53.
- Barham, Brad, Douglas Jackson-Smith, Steve Stevenson, and Jennifer Taylor. 2001. "Nurturing the Next Generation of Wisconsin's Dairy Farmers." Center for Integrated Agricultural Systems (CIAS) and Program on Agricultural Technology Studies (PATS), College of Agricultural and Life Sciences, University of Wisconsin-Madison.
- Brooks, Kelli. 2010. "Women farmers and civic agriculture: A case study in the Intervale, Burlington, Vermont." M.S. Thesis. University of Vermont.
- Gale, Fred. 1994. "The new generation of American farmers: Farm entry and exit prospects for the 1990's." Agricultural Economics Report 695. Washington, DC: United States Department of Agriculture.
- Gibson, Beth. 2010. "Rooted: A New Generation of Farmers and Ranchers in Montana." M.S. Thesis, University of Montana.
- Gillespie, Gilbert and Sue Ellen Johnson. 2005. "Success in Farm Startups in the Northeast." Paper for the annual meeting of the Rural Sociological Society.
- Gillespie, Gilbert and Sue Ellen Johnson. 2010. "Success in Farm Startups in the Northeastern United States." *Journal of Agriculture, Food Systems, and Community Development* 1(1): 31-48.
- Green, Bryan, and Roland McReynolds. 2009. "Incubator Farm Development Project: Final Report." Carolina Farm Stewardship Association and Ben and Jerry's Foundation.
- Hassanein, Neva. 1999. *Changing the Way America farms: Knowledge and community in the sustainable agriculture movement*. Lincoln: University of Nebraska Press.
- Hassanein, Neva. 2008. "Locating Food Democracy: Theoretical and Practical Ingredients." *Journal of Hunger and Environmental Nutrition* 3(2-3): 286-308.
- Hassanein, Neva and Maxine Jacobson, editors. 2004. *Food Matters: Farm Viability and Food Consumption in Missoula County*. Missoula County Food Assessment.
- Hendrickson, Mary K. and William D. Heffernan. 2002. "Opening Spaces through Relocalization: Locating Potential Resistance in the Weaknesses of the Global Food System." *Sociologia Ruralis* 42(4): 347-369.
- Hesse-Biber, Sharlene Nagy and Patricia Leavy. 2006. *The Practice of Qualitative Research*. Thousand Oaks, California: Sage Publications Ltd.

Hubbard, Paul. 2006. *A Land Link for Western Montana: Keeping Land in Agriculture from One Generation to the Next*. M.S. thesis, University of Montana.

Hubbard, Paul and Neva Hassanein. 2010. *Losing Ground: The Future of Food and Farms in Missoula County*.

Johnson, Sue Ellen, Marion Bowlan, Jane McGonigal, Kathryn Ruhf, and Cathleen Sheils. 2001. "Listening to New Farmers: Findings from New Farmer Focus Groups." Northeast New Farmer Reports. The Northeast New Farmer Network.

Kloppenborg Jr., Jack, John Hendrickson, and G.W. Stevenson. 1996. "Coming in to the Foodshed." *Agriculture and Human Values* 13(3): 33-42.

Lobley, Matt, John R. Baker, and Ian Whitehead. 2010. "Farm Succession and Retirement: Some International Comparisons." *Journal of Agriculture, Food Systems, and Community Development* 1(1): 49-64.

Lyson, T.A., C.C. Geisler, and C. Schlough. 1999. "Preserving Community Agriculture in a Global Economy." Pp. 181-216 in *Under the Blade: The Conversion of Agricultural Landscapes*, edited by Richard K. Olson and Thomas Lyson. Boulder, CO: Westview Press.

Lyson, Thomas A. 2000. "Moving Toward Civic Agriculture." *Choices: The Magazine of Food, Farm and Resource Issues* 15(3): 42-45.

Lyson, Thomas A. and Amy Guptill. 2004. "Commodity Agriculture, Civic Agriculture, and the Future of U.S. Farming." *Rural Sociology* 69(3): 370-385.

Mishra, Ashok K., Christine Wilson, and Robert Williams. 2007. "Technology Adoption, Management Practices, and Financial Performance of New and Beginning Farmers: Evidence from a National Survey." Paper for the annual meeting of the Agricultural and Applied Economics Association.

Neuman, Emily Kinney. 2004. *Public Access to Urban-Grown Produce: Who Eats Local? A Case Study of Intervale Food Consumption in Burlington, Vermont*. M.S. Thesis, Iowa State University.

Neumann, Roderick P. 2005. *Making Political Ecology*. London: Hodder Arnold Press.

Niewolny, Kim and Patrick Lillard. 2010. "Expanding the Boundaries of Beginner Farmer Training and Program Development: A Review of Contemporary Initiatives to Cultivate a New Generation of American Farmers." *Journal of Agriculture, Food Systems, and Community Development* 1(1): 65-88.

Ostrom, Marcia, Bee Cha, and Malaquíás Flores. 2010. "Creating Access to Land Grant Resources for Multicultural and Disadvantaged Farmers." *Journal of Agriculture, Food Systems, and Community Development* 1(1): 89-106.

Perez, Jan, Damian Parr, and Linnea Beckett. 2010. "Achieving Program Goals? An Evaluation of Two Decades of the Apprenticeship in Ecological Horticulture at the University of California, Santa Cruz." *Journal of Agriculture, Food Systems, and Community Development* 1(1): 107-124.

Retsinas, Joan. 2005. "Farm Business Incubator Makes Impact in Rhode Island." *In Business* 27(1): 21.

Sokolofski, Leah Kase. 2004. "Managing Household Food and Feeding: Gender, Consumption, and Citizenship Among Community Support Agriculture Members." M.S. Thesis, Iowa State University.

Tursini, Andrea. 2010. "The Intervale Center: Strengthening Community Food Systems in Burlington, VT." Presentation at the October meeting of the NE Beginning Farmer Learning Network (BFLN). Latham, NY.

U.S. Department of Agriculture. 2007. *Census of Agriculture*. National Agricultural Statistics Service.

U.S. Department of Agriculture. 2008. *Family Farm Forum*, April. Cooperative State Research, Education, and Extension Service (CSREES).

Watts, Michael. 2000. "Political Ecology." Pp. 257-274 in *A Companion to Economic Geography*, edited by E. Sheppard and T.J. Barnes. Blackwell Publishing.

Williams, Donna and Rick Zimmerman. 2010. "Green County Agriculture Incubator Study."