UNDERSTANDING THE UNIVERSITY-BASED EXTENSION AND SMALL-SCALE FARMER INTERACTION: A CROSS-CASE ANALYSIS BETWEEN THE SYSTEMS OF FLORIDA AND SCOTLAND

By

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To Dad and Mom…
who always believed
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<td>CAP</td>
<td>Common Agricultural Policy</td>
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<td>CED</td>
<td>County Extension Director</td>
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<td>EAS</td>
<td>Extension and Advisory Services</td>
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<td>FAMU</td>
<td>Florida Agricultural and Mechanical University</td>
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<td>FBAASS</td>
<td>Farm Business Adviser Accreditation Scheme for Scotland</td>
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<td>FL-CES</td>
<td>Florida Cooperative Extension Service</td>
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<td>FSU</td>
<td>Florida State University</td>
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<td>GCFI</td>
<td>Gross Cash Farm Income</td>
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<td>GFRAS</td>
<td>Global Forum for Rural Advisory Services</td>
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<td>IACS</td>
<td>Integrated Administration an Control System</td>
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<tr>
<td>IFAS</td>
<td>Institute of Food and Agricultural Sciences</td>
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<td>IRB</td>
<td>Institutional Review Board</td>
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<tr>
<td>LFA</td>
<td>Less Favoured Areas</td>
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<td>NFUS</td>
<td>National Farmers’ Union, Scotland</td>
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<td>NIFA</td>
<td>National Institute of Food and Agriculture</td>
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<td>SAC</td>
<td>Scottish Agricultural College</td>
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<td>SFP</td>
<td>Single Farm Payment</td>
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<td>SRDP</td>
<td>Scottish Rural Development Programme</td>
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<td>SMEs</td>
<td>Small and Medium-sized Enterprises</td>
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<td>SRUC</td>
<td>Scotland’s Rural University College</td>
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<td>UF</td>
<td>University of Florida</td>
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<tr>
<td>UF-IFAS</td>
<td>University of Florida, Institute of Food and Agricultural Sciences</td>
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<td>USDA</td>
<td>United States Department of Agriculture</td>
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Abstract of Dissertation Presented to the Graduate School of the University of Florida in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

UNDERSTANDING THE UNIVERSITY-BASED EXTENSION AND SMALL-SCALE FARMER INTERACTION: A CROSS-CASE ANALYSIS BETWEEN THE SYSTEMS OF FLORIDA AND SCOTLAND

By

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This descriptive study explores the existing perceived dynamics between small-scale farmers of Florida and Scotland and their respective university-based agricultural extension/advisory system. Specifically, this study examines how the structure and organization of two university-based extension systems, and the associated processes and perceptions used to do work, correspond with the perceived needs, interests, and capabilities of the local farmers in creating their small-scale enterprises. This study employed a case study methodology using dyadic interviews to capture the data necessary for addressing the research objectives. The data collected during this study were analyzed using a modified constant comparative method. The findings suggest that small-scale farmers in Florida represent a very diverse group. Their diverse backgrounds and informational and advisory needs have left many FL-CES agents with a significant challenge that they have yet to conquer. The researcher hopes that the findings will help Florida Cooperative Extension Service better understand their current relationship with Florida small-scale farmers, as well as begin to answer the question of whether these farmers would be willing to use Extension were payment to be required.
CHAPTER 1
INTRODUCTION

Defining Extension and Advisory Services

A variety of extension or advisory service programs have been utilized throughout the world, each presenting a consistent, primary goal of enhancing the agricultural productivity of a nation. Programmatic models have ranged from technology-transfer systems run by ministries of agriculture to more participatory models that attempt to integrate the receivers of knowledge into every level of the development and delivery process (Nagel, 1998; Seevers, Graham, & Conklin, 2007). A spectrum of educational methods has been used to deliver agricultural advice ranging from itinerant agricultural teachers in Prussia and demonstration farms in Switzerland to non-formal trainings and on-farm advice utilized by land-grant university systems such as those in the United States [U.S.] and Scotland (Rivera & Gustafson, 1991). Regardless of model or method, countries across the world each embraced a desire to increase knowledge and productivity for agricultural and natural resources throughout the 19th and 20th Centuries (Jones & Garforth, 1998).

The nuances of such diverse programs make it challenging to develop a definition that accurately captures the nature of such efforts. Several definitions have been put forth (e.g., Bernet, Ortiz, Estrada, Quiroz, & Swinton, 2001; Birner et al., 2009; Labarthe, Caggiano, Laurent, Faure, & Cerf, 2013). The definition selected for this research situates Extension and Advisory Services (forthwith referred to as EAS or extension services) within the context articulated by researchers at the Global Forum for Rural Advisory Services [GFRAS]. According to Sulaiman & Davis (2012), Extension and Advisory Services consists,
of all the different activities that provide the information and advisory services that are needed and demanded by farmers and other actors..., to assist them in developing their own technical, organisational, and management skills and practices so as to improve their livelihoods and well-being (Christoplos, 2010). It recognizes the diversity of actors in extension and advisory provision (public, private, civil society); much broadened support to rural communities (beyond technology and information sharing) including advice related to farm, organizational, and business management; and facilitation and brokerages in rural development and value chains. (p. 2)

Though differing in approach, most extension systems focus on "lighting the way."

These systems are aimed at helping people through decision-making processes necessary for creating a better, more productive future (Ban & Hawkins, 1988). Therefore, each program has as a part of its mission a mandate to elicit individual and community-level change – whether in knowledge, attitude, practice, or policy – to impact decision-making processes toward this better future.

While each country that employs some form of extension service exhibits systematic and organizational differences unique to the country itself, those that share overall model type consistently display inherent characteristics as well (Nagel, 1998). One example of such an occurrence can be found among the countries that have chosen to utilize a university-based agricultural system to provide such programming. A university-based extension system is founded on the idea that “agricultural research and teaching institutions…create and possess relevant technical knowledge which, when transferred to people, may empower them to make their own decisions” (Seevers, Graham, & Conklin, 2007, p. 230). Effective examples of this system exhibit strong linkages between the research, teaching, and extension components within the institution as well as productive ties out into the community (Ban & Hawkins, 1988; Rasmussen, 1989; Seevers, Graham, & Conklin, 2007). Two notable examples of the
university-based extension system in a developed country are the U.S. land-grant system and the Scottish advisory service.

Both the U.S. and Scotland have created and maintained such systems, linking national extension programming to multiple university-based agricultural institutions throughout each nation. In both countries, these services are responsible for extending the knowledge generated within these institutions of higher learning out into their respective communities. While these university-based systems are not solely responsible for providing all the agricultural advice within each nation, the knowledge generated through research within these institutions has been transformed by extension personnel into intentionally designed products that have provided practical and applicable agricultural advices and technological advancements for clientele at the local level for well over a century (Rivera & Gustafson, 1991; Silva, 2015).

An examination of the agricultural history of these two countries suggests that both the U.S. and Scotland have successfully achieved, and continue to attain, this overarching goal (Ingram, 1992; National Institute of Food and Agriculture [NIFA], 2017a). Each system has effectively made calculated shifts in both content matter and delivery methods to address the dynamic problems that have emerged within the respective country throughout the 20th Century (Fogel & Malson-Huddle, 2012; Sparks, 1999). However, regardless of perceived success, the persistent and often rapidly changing dynamics in many locales provides a sound rationale for continued assessment of the usefulness of a given extension system especially regarding the impacts of a funding scheme as it applies to targeted at-risk or marginalized audiences (Prager, Labarthe, Caggiano, & Lorenzo-Arribas, 2016).
This dissertation examines the existing relational dynamics between one historically marginalized audience (small-scale farmers) and their respective university-based agricultural extension or advisory system (those in Florida and Scotland). The foundation for this study is provided in Chapter 1 and includes an introduction of the role of extension systems within agricultural development; an overview of university-based extension systems specific to Scotland, the U.S., and Florida; and a discussion of the relevance of extension for small-scale farmers. Chapter 1 then delineates the purpose of the study, describes the research objectives, presents a summary of the research methodology, and discusses the assumptions and limitations of the research presented.

**The Role of Extension within U.S. Agricultural Development**

It is common to hear that the mission of “extension” is to extend the knowledge and expertise located within a given system out to members of the local agricultural community (Davis, 2009; Jones & Garforth, 1998). Indeed, much of the history for EAS programming around the globe demonstrates that concept, often within rural and agrarian environments. However, the ability to access the knowledge and technological advancements made within these systems is not only important for farmers (Prager, Labarthe, Caggiano, & Lorenzo-Arribas, 2016; Rivera & Gustafson, 1991). The services provided through extension contribute so significantly to the public-good that some “80% of the world’s extension services are publicly-funded and delivered by civil servants” (Anderson & Feder, 2007, p. 2345). Thus, extension services have the potential to impact worlds beyond the farm, affecting both academic as well as political agendas as well (Prager, Labarthe, Caggiano, & Lorenzo-Arribas, 2016; Rivera & Gustafson, 1991).
An examination of EAS models during the 20th Century reveals that some systems are more successful than others in generating change among certain audiences in various communities, especially when working with communities deemed at-risk or marginalized (Deshler, 1998; Nagel, 1998; Prager, Labarthe, Caggiano, & Lorenzo-Arribas, 2016). Moreover, it cannot be taken for granted that a system or model that has worked in one country’s agricultural industry will necessarily work in another (Beal, 1989; Rivera, 1991). This fact, compounded by the rapidly changing dynamics within a given country as it transitions from an agrarian to industrial to information-based society, suggests a need for these systems to actively evaluate their effectiveness within the communities they serve (Deshler, 1998; Misra, 1998).

The Beginnings of U.S. Extension

In the early 1800s, America was a land characterized by an expansive frontier and a drive towards democracy (Cross, 2012). Leaders such as Thomas Jefferson and Abraham Lincoln provided support for the democratizing of America through efforts designed to increase opportunities for American citizens (Cross, 2012). Though these great leaders had differing views of who should be allowed to partake in these opportunities, each believed that given the right set of circumstances, people had the power to better themselves and that government had a responsibility to assist these citizens in achieving this goal (Ban & Hawkins, 1988; Cross, 2012).

With the passage of the Morrill Act in 1862, the U.S. Congress and President Lincoln put into motion the creation of a tripartite system that would be designed to provide access to higher education for the “children of the working man” (Rasmussen, 1989, p. 3) while also generating a strong research knowledge base. Once this base was established, this tripartite system would be tasked with providing “evidence-based
science and modern technologies to farmers, consumers, and families” (NIFA, 2017a, Extension, para. 4) all while exhibiting the hallmarks of “openness, accessibility, and service” through the provision of advisory services (NIFA, 2017a, Extension, para. 4). However, as America has grown and changed so have the face of U.S. agriculture and its needed support systems (Ban & Hawkins, 1988; Rasmussen, 1989).

During the 1850s, those who lived on farms made up “50 percent of the population and 64 percent of the labor force” (Rasmussen, 1989, p. 20). The livelihood of these farmers and their families was often rooted within the self-sufficiency of the farmstead. When Congress established the U.S. extension system (forthwith Extension) in 1914, the intention was to provide greater insight and assistance with issues that were linked to these rural and agricultural communities (NIFA, 2017a). This assistance would, in turn, help residents within these communities learn to better help themselves (Ban & Hawkins, 1988; NIFA, 2017a). At the heart of such efforts was the potential to increase the democratic nature of communities, allowing citizens to become active and more equal participants in the development of their local community (Cross, 2012). These farmers shared numerous characteristics that made the informational and technological needs of the served community fairly homogenous.

To meet the needs of farmers in these rural communities, extension agents provided education, information, and technical resources that were rooted in the agricultural research of the time, but otherwise hard-to-find (Hoag, 2005). Moreover, these resources had to be tailored to the needs of a clientele group that was still relatively uneducated (Hoag, 2005). The engagement of Extension within rural communities proved to be extremely beneficial. Coupled with the increase of
technological advancements, rural communities saw a dramatic increase in farm productivity as well as an increasingly educated rural populous. However, as technologies and related information became diffused throughout the agricultural community, the resulting increase in productivity also generated an unanticipated result – a dramatic decrease in the labor needed to perform the job (NIFA, 2017b).

With fewer jobs required to produce a given yield, many citizens with generational ties to the land migrated to more urban areas in search of job opportunities created by the industrialization of nations and made possible with an increasingly educated workforce (Brown, Swanson, & Barton, 2003). This shift has often been observed as society transitions from an agrarian to industrial market (Brown, Swanson, & Barton, 2003). Currently, "fewer than 2 percent of Americans farm for a living today, and only 17 percent of Americans now live in rural areas" (NIFA, 2017b, para. 10).

Transformations in U.S. Extension

The relative decrease in the number of people living in rural communities and participating in agriculture within the United States has led to a persistent question for many including government officials: what role does Extension have left to play in the development of America? There are many, like Peters (1999), who would argue that if, or when, Extension steps outside the boundaries of the rural/agricultural realm, it is exhibiting "mission creep," and, consequently, weakening support for the system (Hoag, 2005). However, others contend that Extension is simply undergoing a context change, addressing a broader range of community-based needs for those living in both rural and urban settings, while attempting to improve the quality of life for citizens (Bull, Cote, Warner, & McKinnie, 2004). It is on this side of the divide that the National Institute of Food and Agriculture (NIFA) appears to have situated itself (NIFA, 2017a).
NIFA (2017a) contends that, using both modern research and educational technologies, Extension must continue to empower people and communities to solve problems and improve their lives on the local level, without regard to locale. In response to changing needs and landscapes throughout America, Extension currently works to:

- Translate science for practical application
- Identify emerging research questions, find answers and encourage application of science and technology to improve agricultural, economic, and social conditions
- Prepare people to break the cycle of poverty, encourage healthy lifestyles, and prepare youth for responsible adulthood
- Provide rapid response regarding disasters and emergencies
- Connect people to information and assistance available online through eXtension.org (NIFA, 2017a, Extension, para. 5)

However, if U.S. Extension hopes to continue impacting change within dynamic and divergent communities, transformations must occur (Haug, 1999; Rivera, 1991).

Transforming relationships

Part of the transformation involves retooling the interactions between the program and the participants. Historically, an extension agent operated as an expert in the field (Jones & Garforth, 1998; Swanson & Rajalahti, 2010; Umali & Schwartz, 1994). In the U.S., these experts were responsible for transferring knowledge generated from the land-grant institution to users in the community (Bennett, 1990). However, this transfer of knowledge was usually characterized by one-way communication (Bennett, 1990) and often neglected indigenous knowledge in favor of knowledge produced within the institution (Jones & Garforth, 1998; Swanson & Rajalahti, 2010). Additionally, the knowledge that these experts shared was often limited to the research produced within the land-grant system and failed to account for information generated by other private entities in the industry (Bennett, 1990).
As the served population became increasingly educated and the cultural context of programming efforts was gradually embraced, the role and relationships of extension agents began to change. Many agents throughout the U.S. have worked to integrate participants into the development process through interactive involvement at all levels of programming and decision making, as suggested by Swanson and Rajalahti (2010). Such steps at a two-way communication channel (Bennett, 1990) provide extension systems with a greater understanding of both local needs and current knowledge, and hopefully results in sustained action by the community, even after completion of any programming efforts (Jones & Garforth, 1998; McKenzie-Mohr, 2011; Swanson & Rajalahti, 2010). Using such methods, Extension has the power to form a bridge between the research realm and members of the community, while providing a way for additional community development to occur even beyond the agriculturally-defined walls of past Extension endeavors. However, this task relies on agents to carefully balance the use of modern technologies and tools with the relational skills needed to gain the attention and trust of the communities being served (NIFA, 2017a).

There has also been a call for extension systems worldwide to acknowledge and participate in a sharing of research and information among different actors associated with the industry (Bennett, 1990). Such a transformation suggests a new appreciation for the interdependence of the relationships and networks that are present when attempting to meet the needs of those working within agriculture (Bennett, 1990). Some even suggest that the role of extension in today’s world should shift from expert informant and input provider to knowledge broker (intermediary) and facilitator (Gebremedhin, Hoekstra, & Tegegne, 2006). In the context of a knowledge system, an
intermediary has been defined as “an organization that functions in the midst of the users and producers of knowledge” (Smedlund, 2006, p. 210). As it applies to agricultural innovation systems, these intermediaries act as

an agent or broker in any aspect of the innovation process between two or more parties... helping to provide information about potential collaborators; brokering a transaction between two or more parties; acting as a mediator, or go-between, bodies or organizations that are already collaborating; and helping find advice, funding and support for the innovation outcomes of such collaborations. (Howells, 2006, p. 720)

Such brokers have been found to provide support for small and medium-sized enterprises [SMEs] as they seek to function within the changing context of agricultural knowledge infrastructures, specifically as the systems shift from being publicly-funded into more privatized systems (Klerkx & Leeuwis, 2008). Brokers assist SMEs with articulating their requests, forming linkages with support services, and managing the innovation processes necessary for success (Klerkx & Leeuwis, 2008). By assuming this role, agents have the potential to make weak networks and additional external relationships accessible to SMEs (Cooke & Willis, 1999; Klerkx & Leeuwis, 2008).

**Transforming funding**

A second part of the transformation rests in assessing the prudence of a publicly-funded extension system. Throughout the world, extension services are continually faced with a persistent struggle to identify the most efficient and effective delivery system for addressing the needs of the citizenry (Davis, 2008). Prior to the 1980s, many extension systems worldwide depended solely on public funds to meet the needs of their clientele (Ban, 2000; Rivera & Cary, 1998). Following World War II, many countries with publicly-funded systems displayed increased fiscal commitments centered on enriching agricultural output with scientific and technological transfers to farmers (Rivera
& Cary, 1998). However, the structure and scope of agricultural EAS worldwide have undergone significant transformations due to the dynamic effects of social, political, and economic factors over the past few decades (Rivera, 1998; Swanson & Rajalahti, 2010).

With increasing global competition, rising costs and limited resources, and changes in public perception towards the role of government in the everyday life of its citizens, many nations have begun to investigate alternative structural arrangements (Ban, 2000; Davis, 2008; Klerkx & Leeuwis, 2008; Rivera & Cary, 1998; Umali & Schwartz, 1994). Some extension systems have been subjected to systemic reorganization in response to national and global economic instabilities, regardless of success (Klerkx & Leeuwis, 2008; Wilson, 1991). As such, public agricultural extension has come under increased scrutiny over the past twenty to thirty years (Hanson, Just, & Lainez, 2006; Rivera & Cary, 1998).

However, this is not simply an issue facing extension systems within the developing world. Faced with “the declining relative importance of agriculture for economic growth, the increasing education and affluence of smaller populations of rural producers, and the increasing use of externally purchased inputs,” (Rivera & Cary, 1998, p. 1), extension services within developed nations have also been forced to reassess the nature, role, and place of public extension, with increasing “emphasis on ‘value for money’ policies” (Cawley, Heanue, O’Donoghue, & Sheehan, 2015, p. 3). This movement from centrally-controlled to decentralized or privatized extension systems has resulted in four principle restructuring reform trends: “(a) sub-government enhancement (decentralization), (b) public-private partnerships, (c) public-sector delegation, and (d) market-oriented approaches” (Rivera, 1998, p. 37).
Among each of these reform trends has emerged one or more structural changes within a given institution. These changes, increasing from least to most radical in level of transformation, include: “(1) public sector reinvention, (2) structural deconcentration, (3) structural devolution, (4) power-sharing, (5) delegation, (6) public funding/private delivery arrangements, (7) commercialization, and (8) privatization” (Rivera, 1998, p. 39). While each of these alternative arrangements is unique in structure, all seek to reduce, recover, or shift the burden of costs from the government onto either the private sector or the consumer itself (Rivera & Cary, 1998). Yet an argument remains for maintaining services for meeting the needs deemed “the public-good” (Anderson & Feder, 2007).

It is commonly agreed that today’s farmers have a need for diverse sets of knowledge and information. When examining how these needs factor into economic discourses, it is useful to categorize the need based on excludability and rivalry (Umali-Deininger, 1997). Rivalry occurs “when one person’s use or consumption of a good or service reduces the supply available to others” (Umali-Deininger, 1997, p. 208). An example would be the purchase of a plow, since the purchase reduces the available supply to other local farmers. Excludability exists “when only those who have paid for the product or service benefit from it” (Umali-Deininger, 1997, p. 208). Thus, the usage rights for the purchased plow are now exclusively held by the farmer who has paid. It is within this interplay between rivalry and excludability that the public nature of the knowledge can be found.

Goods or information that are neither rival nor excludable are deemed as being a purely public good; goods or information that are both rival and excludable are deemed
as being a purely private good (Umali-Deininger, 1997). Toll goods (those that are excludable but not rival) and common-pool goods (those that are rival but not excludable) exist between these extremes. According to Picciotto and Anderson (1997), one way for determining the responsibility for delivery of this knowledge diffusion relies on examining the embeddedness of the advices with the current marketplace. The closer the association between the diffusion and the market, the stronger the recommendation for delivery of advisory services by a regulated private entity. However, knowledge deemed non-excludable (purely public or common-pool) is still often believed to be best left solely to public-sector providers or through cooperation with non-government institutions or voluntary groups (Picciotto & Anderson, 1997).

Both the U.S. and Scotland have a history of attempting to meet the needs of the public good by conducting federal extension programming through university-based agricultural institutions (the U.S. Land-Grant University system and Scotland’s Rural University College [SRUC], respectively). The extension service in the U.S. is currently funded through a combination of federal, state and local tax dollars. However, extension services in Scotland have transitioned from being publicly funded to a more privatized system within the last 30 years. A comparison of the two systems is apropos given many who question continued public funding for extension programming in the U.S. are looking to alternative funding sources to offset the perceived economic burdens to taxpayers (Anderson & Feder, 2004; Birner et al., 2009; Nagel, 1998).

Privatization in the Context of a Developed Country

Within a publicly-funded system, the costs of administration remain solely fixed within the pockets of the government and, thus, the taxpayer (Rivera & Cary, 1998). In the U.S., taxpayers support the National Institute of Food and Agriculture with
approximately $1.4 billion in discretionary funding annually, with just over one-third of these funds earmarked for Extension activities (USDA, 2017). These federal dollars are then paired with state and local dollars to support research and Extension activities in each U.S. state (see Figure 1-1).

Figure 1-1. Modeled interactions between the three governmental layers (federal, state, and local) within the Research, Education, and Extension mandate (NIFA, 2017c).

However, within a privatized system, the various responsibilities and costs associated with them shift either to privately-funded enterprises or directly on to users (Rivera & Cary, 1998). In such a system, the government can either maintain a presence within the extension system or extension can exist independent of present governmental entities (Rivera & Cary, 1998). Several privatization solutions are available to meet a variety of situational constraints (e.g., revitalization, cost-recovery,
commercialization, voucher systems and gradual privatization) (Rivera & Cary, 1998). Regardless of which solution is selected, the shift in responsibility onto an external entity has the potential to free government to redirect funds to better address needs which deal solely with the public good rather than those focused on individual or private interests (Anderson & Feder, 2007). The constrained financial, material, and personnel resources that many publicly-funded extension programs experience when attempting to meet the diverse needs of the local community may also be alleviated by such a redirection of funds (Anderson & Feder, 2007).

Public systems that exhibit constrained resources often find themselves accused of inefficiency or poor quality in service delivery (Ameur, 1994; Rivera, 1991). Public systems have been criticized for “not doing enough, not doing it well, and for not being relevant” (Rivera, 1991, p. 5). In sharp contrast, it is argued that a privatized system can more efficiently deliver services and more effectively provide quality, individualized services (Knutsen, 1986; Rivera & Cary, 1998). Privatized systems often result in a structure oriented towards a client’s needs and focused on identifying and producing results (Hercus, 1991; Labarthe, Gallouj, & Laurent, 2012; Rivera & Cary, 1998).

Despite the potential benefits associated with privatization, system weaknesses also exist. In the minds of many extension researchers, a payment-for-services-rendered system goes against the very nature of extension – freely available knowledge transference (Ban, 2000; Rivera & Cary, 1998). Unlike the cooperative, free exchange of information characteristic of a publicly-funded system (Rivera & Cary, 1998), a privatized system by its very nature focuses on the commercial nature of the exchange.
Numerous privatization options cater to those who are in a position to pay for services rendered, possibly at the expense of those who need the services most (Prager, Labarthe, Caggiano, & Lorenzo-Arribas, 2016; Rivera & Cary, 1998). This structure has the potential to create a perpetuating divide that separates poorer clientele from the resources and information that could assist them in overcoming the food security issues which they currently face in many countries (Rivera & Cary, 1998). Privatization also tends to promote large-scale rather than small-scale farm enterprises (Prager, Labarthe, Caggiano, & Lorenzo-Arribas, 2016).

The clientele of privatized systems is often comprised of middle to large-scale producers who are provided resources and opportunities that are not equally accessible to their small-scale or subsistence counterparts (Ban, 2000; Rivera & Cary, 1998). However, some programs that have shifted to a semi-privatized system have negotiated with the government to provide subsidies to farmers who are less able to afford private services (e.g., Scotland). Such public investments in private services that support small-scale farmers are necessary to “develop capacities of service providers and establish markets for services” (Anderson & Feder, 2007, p. 2352).

Furthermore, with so many potential outlets for information, coordination among groups and governmental departments can create linkage problems between the governmental policy, public research organizations, and the local community (Prager, Labarthe, Caggiano, & Lorenzo-Arribas, 2016). Research on this topic shows a growing reluctance in those who are paying for services to share pertinent information with other local farmers (Ban, 2000) or with extension workers who rely on an open knowledge and information system between the farmers, extension service, and research facilities.
Such reluctance creates an even greater access issue. These findings point to the disintegration of linkages, between farmers who have adopted a privatized mindset and extension agents, as well as between research agencies that provided those farmers with sound scientific findings regarding practices and products (Labarthe, Gallouj, & Laurent, 2012; Rivera & Cary, 1998).

**Current Study**

**Problem Statement**

History suggests that systems which rely solely on either public or private funding are largely unsustainable, while those systems which attempt to combine the two are faced with a delicate balancing act between financial power and political vision (Rivera & Cary, 1998). Within each system the struggle to meet the needs of all the citizenry persists. Therefore, the ultimate issue within this discussion of privatization as suggested by Rivera and Cary (1998) “may not be whether a certain function should be entrusted to public or private organizations, but, rather, what configuration of organizations, both public and private is needed and what arrangements between them provide the most effective outcomes” (p. 8). From this suggestion, the question of how such an arrangement might exist within an existing university-based extension system becomes even more intriguing. This study begins to explore such an idea as it applies to university-based extension within state of Florida and Scotland, especially as it applies to the needs, interests, and capabilities of the local small-scale farmers in creating their small-scale enterprises.
Context

Understanding Extension as an organization

To have an effective university-based extension system, strong linkages between the research, teaching, and extension components of the institution, as well as productive ties out into the community, must exist (Ban & Hawkins, 1988; Rasmussen, 1989; Seevers, Graham, & Conklin, 2007). From this tripartite relationship, a system designed to help people become empowered decision-makers can emerge (Ban & Hawkins, 1988). Two notable examples of the university-based extension system in a developed country are the U.S. land-grant system and the Scottish advisory service. Since the organizational components within a system hold within themselves the power to either enhance or hinder the success of the system, it is crucial to gain a better understanding of the organizational system as it currently exists. In this study, two organizations (the Florida Cooperative Extension Service [FL-CES] and the Scottish advisory service [SAC Consulting]) have been included for examination.

According to SAC Consulting (2017a), their mission is: “to enhance the rural economy and environment” (para. 1) by translating the results of research into “understandable and practical solutions to match our customers’ requirements” (para. 2). The mission of UF/IFAS, and FL-CES, is “to develop knowledge in agricultural, human and natural resources and to make that knowledge accessible to sustain and enhance the quality of human life” (para. 1). Though the mission for both the FL-CES and the SAC Consulting include the same components – community development, enhancing capital, and serving the “public good” – both systems have also grown quite complex in their organization. The following sections provide a brief overview of the organizational structure of the advisory components within each of the two systems.
Florida Cooperative Extension Service

Florida has a rich agricultural history that includes a deep connection to the land-grant system. The Morrill Act of 1962 provided “each state with 30,000 acres of public land for each senator and representative” listed on the 1860 census (Institute of Food and Agricultural Sciences [IFAS], 2015a, History, para. 2). In response, the Florida College of Agriculture was established in Lake City, Florida in 1884 (IFAS, 2015a). Four years later, Florida’s first Agricultural Experiment Station was established in 1888 following the mandates of the Hatch Act of 1887 (IFAS, 2015b). Both the College of Agriculture and the Agricultural Experiment Station moved to Gainesville in 1906 and became the University of Florida [UF] (IFAS, 2015). Florida is also home to a second land-grant university, established with the passing of the Second Morrill Act in 1890. This university, Florida Agricultural and Mechanical University [FAMU], served as the historically black land-grant university for Florida, though it did not receive resources to carry out the mission of the tripartite system until 1966 (FAMU, n.d.).

The Florida Cooperative Extension Service, like many of the state systems in the U.S., began on a very small scale, limited mainly to demonstrations held on farms by extension agents (Cooper, 1976). However, the first extension activities in the state can be traced back to 1899 when the Farmers’ Institutes were first held in Florida. According to Cooper (1976), the Farmers’ Institutes brought “directly to the workers of the soil the discoveries of the Agricultural Experiment Station and the latest teaching of the College of Agriculture, and [presented] them so that they can be easily understood” (p. 6). These institutes were staffed by members of the experiment station and the state’s land-grant college (now the University of Florida), though many other entities (state
horticultural societies, women’s clubs, and crop improvement associations) provided invaluable assistance (Cooper, 1976).

State monies were appropriated in 1909 for incorporating Florida into the national demonstration program, thus establishing the first state-funded and legislated agricultural extension work in Florida (Cooper, 1976). These state funds were administered by “the director of the Agricultural Experiment Station and were primarily for farmers’ institutes” (Cooper, 1976, p. 4). After the Smith-Lever Act was passed in 1914, the Florida Legislature accepted the provisions, establishing the Florida Agricultural Extension Service in May 1915 (Cooper, 1976). The first annual report of the Florida Cooperative Extension Service reported 18 state staff, 39 county agricultural demonstration agents, and 24 county home demonstration agents (Cooper, 1976).

Most male agents and state specialists worked from the Gainesville campus (Smith, 1971). However, women state specialists and supervisory staff worked out of Tallahassee from the Florida State College for Women (now Florida State University [FSU]), while black agents were assigned to the Florida Agricultural and Mechanical College (FAMU) (Smith, 1971). Thus, extension activities were managed from three different state universities, causing great administrative and organizational issues for the Florida Cooperative Extension Service (Smith, 1971).

To address these issues, the Florida Agricultural Extension Service underwent several changes. In 1964, Florida’s governing body for higher education reorganized UF’s College of Agriculture, School of Forestry, Agricultural Experiment Station and the Cooperative Extension service into a single unit, the Institute of Food and Agricultural Sciences (IFAS 2015a). In 1968 all home economics specialists who previously worked
out of the FSU campus were relocated to UF, Extension directors assumed greater responsibilities under the new designation of dean, county offices were distributed under four supervisory districts, and district supervisors were headquartered at UF to enhance overall programming effectiveness (Smith, 1971).

**Today's FL-CES**

The activities of the Florida Cooperative Extension Service take place under the supervision of the Institute of Food and Agricultural Sciences (IFAS) (Florida Board of Regents, 1988). The IFAS unit is under the supervision of the President of the University of Florida and holds a senior vice presidency over agriculture and natural resources (see Figure 1-2). Currently, IFAS “is a separate budgetary unit within the university, receiving its appropriated funds from the legislature through the Board of Governors, Board of Trustees and the President” (UF Faculty Handbook, 2017, para. 6).

![Organizational Chart](image_url)

*Figure 1-2. Institution-level organizational chart, Office of the President, University of Florida (UF Office of Institutional Planning and Research, 2014).*

IFAS has three fundamental areas of activity: teaching, research and extension (Florida Board of Regents, 1988). Each area has an appointed dean to oversee and coordinate
statewide efforts: Dean for Academic Programs, Dean for Research who also serves as Director of the Florida Agricultural Experiment Station, and Dean for Extension who also serves as Director of the Florida Cooperative Extension Service (UF Administration, 2017). Figure 1-3 provides an overview of this organizational structure. Both domestic and international students are able to participate in numerous IFAS-based degree programs at the University of Florida, many which extend through to the PhD level (Florida Board of Regents, 1988).

Figure 1-3. Organizational chart for the Office of the Senior Vice President for Agriculture and Natural Resources, IFAS, University of Florida (UF Office of the Senior Vice President of Agriculture and Natural Resources, 2012).

IFAS also oversees both basic and applied research through laboratory and field research projects throughout the state (Florida Board of Regents, 1988).
UF-IFAS maintains extension offices in the 67 counties throughout the state, as well as with the Seminole Tribe (IFAS, 2017b). There are 14 Research and Education Centers as well as six additional demonstration sites utilized for teaching and research throughout the state (IFAS, 2017a). Within the Florida Cooperative Extension System, FAMU also continues to serve citizens within 18 of the 67 counties: Bay, Calhoun, Columbia, Gadsden, Gulf, Hamilton, Jackson, Jefferson, Leon, Liberty, Madison, Manatee, Suwannee, Wakulla, Duval, Hillsborough, Orange, and Escambia (FAMU, n.d.). The organizational complexity of a county office is provided in Figure 1-4.

Figure 1-4. County-level organizational chart for St. Lucie County, IFAS, University of Florida (Alberts, Wirth, Gilmore, Jones, & McWaters, 2004).
The number of personnel is constantly changing. However, according to the 2016 UF/IFAS annual report shows that at the local level, 390 agents are available to provide advice to citizens on a wide range of concerns through the county office (IFAS, 2017a). Most of the 67 county extension offices provide support through multiple agents. All agents hold a Bachelor’s degree in an agriculturally-related field and most are either working to obtain or have already obtained a Master’s or Doctoral degree. These agents are part of a larger resource base which includes 245 academic faculty with Extension appointments located on and off-campus (IFAS, 2017a), who perform research to enhance practices across a number of disciplines.

Scottish Advisory System

In the United Kingdom (U.K.), the earliest allocation of funding for agricultural education came in 1896 when revenue from whisky sales was made available to county councils for investment into technical education, which throughout most of the U.K. meant agricultural education (Blaxter & Robertson, 1995). This period in time saw current agricultural colleges expanded and new colleges established (Blaxter & Robertson, 1995), while growing an association between agricultural education and the provision of advice from agricultural specialists (Blaxter & Robertson, 1995).

In addition to lecturing responsibilities, staff at the agricultural colleges began to be used as advisers to local farmers as well as researchers, carrying out simple field experiments to solve various agricultural problems (Blaxter & Robertson, 1995). By 1936, a strong relationship was established among the advisers, specialists, and departments of the main agricultural colleges who provided services to the farming community throughout the U.K. (Blaxter & Robertson, 1995). Following the World Wars,
much of the U.K. moved from this college-based system to a ministerial system, controlled by the National Agricultural Advisory Service (Blaxter & Robertson, 1995).

From this time, agricultural education and training in England were delivered by separate organizations from the advisory services, while agricultural research was carried out by both research institutes as well as in the universities (Bunney, 1998). However, the advisory service in Scotland continued to utilize its colleges of agriculture to provide agricultural education, research, and advisory services (Blaxter & Robertson, 1995), and thus exhibited striking similarities to the land-grant system found in the United States (Bunney, 1998). The connection to the colleges remained in effect even after privatization of the services took place in the 1980s (Blaxter & Robertson, 1995). Research continued to be conducted and those findings remained the base for the unbiased advice presented to those seeking consultancy services (Blaxter & Robertson, 1995).

While all advisory services had previously been available at no direct cost to the farmer, the 1980s onward saw a gradual introduction of charges for advice, which led to the privatization and commercialization currently seen throughout the U.K. (Blaxter & Robertson, 1995). Privatization of services came about as a result of governmental funds becoming more and more restricted during the 1970s. “Triggered by a combination of the pressure to reduce U.K. government funding support for agriculture and the recognition that policy objectives had changed” (Bunney, 1998, p. 223), this move to convert extension into the private sector was just another step in the government’s reduction of all levels of public expenditure at the time (Bunney, 1998). The privatization process was initially based on simply charging customers to recover
costs; however, the objective has since become the total transfer of the governmental advisory services into the private sector (Bunney, 1998). The transition “from state-controlled, production oriented policies towards market-driven, customer-oriented policies for the agricultural industry” (Bunney, 1998, p. 223) is based on the simple premise that those who benefit from the services should be willing to pay for them (Bunney, 1998).

Beginning in 2007, Member States of the European Union were required to set up a system for advising farmers on land and farm management (European Commission, 2010). The Farm Advisory System is a flexible requirement, allowing the system to be operated by one or more designated authorities or by private advisory bodies within the country (European Commission, 2010). According to the European Commission (2010), the designated advisory bodies for Scotland include the Scottish government and the Scottish Agricultural College [SAC]. The Scottish Agricultural College was established in 1987 through the merger of the three main agricultural colleges in Scotland: North of Scotland College of Agriculture (Aberdeen), East of Scotland College of Agriculture (Edinburgh), and West of Scotland Agricultural College (Ayr) (Silva, 2015). In addition to the three campuses, the SAC provided Scottish agriculture with access to 26 local advisory offices, eight veterinary centers, and five research farms (Silva, 2015).

The SAC had three main roles: education, research, and consultancy (under which the advisory services fall). The advice provided to clients included all activities involved in the development and transfer of information and technology, as well as on-farm advice (Bunney, 1998). The extension process utilized a combination of
techniques including the demonstration of technologies, farming systems, and techniques on experimental and commercial farms; advisory campaigns designed to encourage adoption through discussion groups, conferences, agricultural shows, bulletins, and leaflets; and one-to-one, on-farm advice direct to individual farmers (Bunney, 1998). Through the use of a contracting scheme, SAC was able to provide services to farmers throughout Scotland.

In 2012, the Scottish Agricultural College underwent another transformation, merging with three additional agricultural campuses to create Scotland’s Rural University College (SRUC). As of August 2012, Barony College, Elmwood College, Oatridge College, and the three campuses of SAC merged (Silva, 2015) to create an organization designed to form “a pioneering academic and consultancy organization which would strengthen Scotland’s support for sustainable agriculture, food production and land use in the UK and abroad” (“SRUC Launch,” 2012, para. 1).

**Today's SAC Consulting**

The activities of Scotland’s Rural College are conducted through two main companies: SRUC and SAC Commercial Ltd (SRUC, 2016). SRUC is considered a registered charity, undertaking SRUC’s public good activities through Grant-in-Aid money from the Scottish government (SRUC, 2016). Commercial activities in the areas of consultancy, education, and research are under the jurisdiction of SAC Commercial Ltd (SRUC, 2016). A third company, SAC Corporate Trustee Ltd, operates as the trustee of The SAC Foundation which handles profits from SAC Commercial Ltd for investments in SRUC (SRUC, 2016). Each of these companies has appointed directors which represent their respected company on the SAC Board (SRUC, 2016). The SRUC
Board is composed of a mixture of Non-Executive and Executive Directors from the three companies (SRUC, 2016).

![Organizational chart for SRUC (SRUC, 2016).](image)

In addition to the duties of the SRUC Board, several sub-committees have also been established. The four main committees include: Appointments and Remuneration, Audit & Risk, Finance & General Purposes, and Academic Advisory (SRUC, 2016).

![Organizational chart for SRUC subcommittees (SRUC, 2016).](image)

Both the Board for the SAC Commercial Ltd and the SAC Corporate Trustee Limited are made up of Directors appointed to SRUC (SRUC, 2016). In addition to the boards, the SAC Council provides consultation and input to the SAC from a body of stakeholders which are comprised of two Consultative Committees and the Learning and Skills sub-committee (SRUC, 2016). The two Consultative Committees include: agriculture and the environment, and rural development (SRUC, 2016).
At the local level, over 90 consultants, plus veterinarians, technicians, and support staff, provide advice on a wide range of concerns through contracts with clients ranging from the small-scale farmer to the Scottish government (SRUC, 2017a). Each of the 25 SAC Farm Business Service locations provides support from multiple consultants, who have also been certified through the Farm Business Adviser Accreditation Scheme for Scotland [FBAASS], which has been mandated by the Scottish government’s Whole Farm Review Scheme (SRUC, 2017b). Each local office provides a set of general services (such as strategic farm management advice, budget preparation and monitoring, feasibility studies, grant applications, single payment scheme and cross compliance advice, and contract farming and joint venture agreements), as well as some specialist services (e.g., in Kendal, specialist services include renewable energy systems; services for soil & forage analysis; premium health schemes for cattle, sheep and goats; and beef, sheep and dairy enterprise advice) (SRUC, 2017c).

Furthermore, local advisers have access to the several hundred science and production specialists located on the SRUC Campuses who are available to provide back-up for the local adviser or to provide services directly to the client when appropriate (Gilmour, 1996). SRUC also works closely with other organizations throughout the rural sector in Scotland. Commercially, SRUC has created strong ties with many of the Local Enterprise companies and trusts sponsored by the Scottish Enterprise and the Highlands and Islands Enterprise (Gilmour, 1996).

**Small-scale farmers as a target audience for Extension**

In both the U.S. and Scottish EAS, there has always been the underlying mandate to meet the needs of the citizenry. Given the consistently changing dynamics
within each given country as members of an increasingly global system, it, therefore, becomes imperative that each organization actively evaluate their effectiveness within the communities they serve (Deshler, 1998; Misra, 1998). One audience that persists as an audience of interest is the small-scale farmer.

Within America, small-scale farms account for 91% of the farm count, but only 23% of agricultural production (Hoppe, MacDonald, & Korb, 2010). These farms range from very small noncommercial farms where income only supplements off-farm income to small commercial farms (Hoppe, MacDonald, & Korb, 2010). When determining the “size” of a farm, the United States Department of Agriculture [USDA] utilizes the Gross Cash Farm Income [GCFI], that when calculated represents

the sum of the farm’s cash and marketing contract revenues from the sale of livestock and crops, Government payments, and other farm-related income, including fees from production contracts…excluding returns to share landlords and contractors. It includes all farm-related revenue, not just crop and livestock sales, and is based on annual sales, not the value of annual production. (Hoppe, MacDonald, & Korb, 2010, p. iii)

Using this definition, small-scale farms include those U.S. farms that report a GCFI of less than $250,000. Of these farms, about 60% of all U.S. farms generate a GCFI of less than $10,000, and 22% of all U.S. farms report a GCFI of less than $1,000 (Hoppe, MacDonald, & Korb, 2010). The “small farm” distinction is further broken down between point farms (GCFI less than $1,000), noncommercial farms (GCFI less than $10,000), and small commercial farms (GCFI less than $10,000-$249,999) (Hoppe, MacDonald, & Korb, 2010). This distinction becomes important when exploring the informational, management, and delivery needs required by the various operators. For the purpose of this study, the USDA’s use of the Gross Cash Farm Income will be used both in the Florida case (Case 1) and estimated for use in the Scottish case (Case 2).
Florida

According to the 2007 and 2012 Agricultural Census, a fairly consistent number of farms have been reported within Florida between census years 2002 (44,081 farms), 2007 (47,463 farms), and 2012 (47,740 farms) (USDA, 2009; 2014). Of the 47,463 farms captured in Florida’s 2012 census, 91% of farms are considered “small farms” by the above-mentioned USDA definition. These farms only account for 15% of all farm product sales in the state (IFAS, 2006). As of the 2012 census, 65% of all Florida farms report a GCFI of less than $10,000, with 50% of those farms reporting a GCFI of less than $1,000 (USDA, 2014). Compared to the 2002 census, where 63% of all Florida farms report a GCFI of less than $10,000, and 25% of all Florida farms report a GCFI of less than $1,000 (USDA, 2009), it is clear to see an increasing trend for smaller-scale farms in Florida over the past decade, though reported GCFI and average acreage are decreasing across the same time period (Gaul, Hochmuth, Israel, & Treadwell, 2009; USDA, 2009; 2014). Comparable data taken from the 2008 Florida Small Farm Survey, indicates an 8% increase in the number of small-scale farms in Florida between 2002 and 2008 (Gaul et al., 2009).

These farms also represent a diverse group of informational needs. A high proportion (61%) of respondents to the 2008 Florida Small Farm Survey reported engaging in only one to two enterprises within their operation. However, over 35 different enterprises were reported (Gaul et al., 2009). Of those enterprises,

The most common enterprises were beef cattle (33% of small farmers), horses (17%), goats (16%), vegetables (14%), and flowers and bedding plants (11%). Production strategies also varied among the farmers who grew crops: 40% producers used conventional practices, 23% followed organic principles with some conventional inputs, 19% followed organic
principles but were not certified, 8% were certified organic, and the remainder used other production strategies. (Gaul et al., 2009, p. 3)

A fairly well-educated group, many of the 2008 Florida Small Farm Survey respondents reported being fairly new to farming, favoring multiple sources and channels of information over a single source, while maintaining a desire for traditional delivery experiences as well (Gaul et al., 2009). With such diversity in content, experience, and delivery requests, it is difficult for a county agent to have all the necessary areas of expertise needed to fully satisfy this audience (Gaul et al., 2009).

**Scotland**

According to the 2015 economic report, about 80% (or 6.2 million hectares) of Scotland’s land mass is used for agricultural production (Scottish Government, 2016b). The output generated by Scotland’s 52,303 holdings, made up of farmers, crofters, and growers, is worth around £2.9 billion (or approximately $3.6 billion USD) a year (Scottish Government, 2016b). Crofts, a landholding system unique to Scotland, are small agricultural landholdings that are found in the Highlands and Islands of Scotland (Crofting Commission, 2017). These landholdings are normally tenanted, though 5,668 of the 20,566 registered crofts are currently owner-occupied (Crofting Commission, 2017). The average croft size is about 5 hectares and often comes with an entitlement share for hill grazing in common areas held by all crofters in the area (Scottish Crofting Federation, n.d.). Most crofts are not strong enough to support a family or provide full-time employment, so most crofters have other occupations (Scottish Crofting Federation, n.d.).

In Scotland, small-scale farms are often defined by size (less than 20.2343 hectares (ha) or 50 acres) rather than farm income (Scottish Government, 2017a).
Small-scale farmers, who produce at semi-subsistence to subsistence levels, represent a particular interest for the Scottish Government (Scottish Government, 2017b). In 2004 the Scottish Government conducted the Small Farm Survey, aimed at uncovering potential changes to farms and crofts as a result of [CAP] reform and the Single Farm Payment [SFP] (Scottish Government, 2005). Unlike other definitions, small-scale farms within this survey were defined as holdings with a standard gross margin of less than 9,600 European Currency Units (approximately $11,989) (Scottish Government, 2005). Results from this 2004 survey suggest that just over 50% of the farms in Scotland are considered small-scale farms, and over 30% of farms are considered crofts (Scottish Government, 2005).

In 2016, small-scale farms in Scotland, excluding crofts, continued to account for almost 35% of the farm count throughout Scotland, but only made up 1.8% of the useable agricultural area (Scottish Government, 2016a). Of those farms, over 60% hold less than 5 ha (12.36 acres) per farm (Scottish Government, 2016a). Though not as substantial as the percentage in Florida, census data shows that the number of small-scale holdings in Scotland (those under 10 ha/24.71 acres) increased by 13% from 2000 to 2011, with a quarter of the holdings identified as crofts (Sutherland, Matthews, Buchan, & Miller, 2014). This category of landholding represents the fastest growing of any, both in terms of count and overall land area (Sutherland et al., 2014). Such growth trends suggest that small-scale farmers may be an important target audience for advisory staff in Scotland as well.
**Barriers**

Many researchers acknowledge the impact that human capital has on a farmer's performance (Anderson & Feder, 2007). A farmer possesses both innate and learned skills that ultimately impact the way in which he or she engages in farming practices (Anderson & Feder, 2007; Jamison & Lau, 1982). Extension service providers can offer access to capital-enhancing innovations, as well as additional skill sets and relevant flows of knowledge that aid in further improving the welfare of these farmers (Anderson & Feder, 2007). However, research suggests that small-scale farmers face distinct barriers that must be taken into consideration when designing programs for this audience. Small-scale farmers often do not have access to extension resources for a number of reasons: resource limitations, failure of programs to meet their needs, lack of interest in program offerings, and inappropriate methods to reach the audience (Goodwin & Gouldthorpe, 2013; Tubene & Holder, 2001).

Acknowledging yet setting aside for a moment the preponderance of the cultural idea that for many farming is a "way of life," farms are also a business venture in which deliberate inputs are acquired and managed to produce an output that will either be consumed by the producer or traded based on an assessed value (Anderson & Feder, 2007). This truth applies not only to large-scale operations, but to all who choose to farm. To find success, farmers require a host of information that can assist them in the management of this venture (Anderson & Feder, 2007). If the information is perceived to be of great value to the business's success, a farmer may be more inclined to pay for the service as they would for any other inputs needed on the farm (Dinar as cited in Anderson & Feder, 2007).
Small-scale farmers have diverse and varying information needs when compared to their large-scale counterparts. Small-scale farmers often create diversified rather than homogenous enterprises, and, therefore, are often in need of information concerning different crops and livestock issues under a variety of circumstances (Manganyi, Hartmann, Hildebrand, McGuire, & Russo, 2006; Robotham & McArthur, 2001). This need for diverse information can often place increased strains on extension agents who may or may not hold an adequate level expertise on the diversity of topics desired by the clientele (Gaul et al., 2009).

Unlike larger farm producers, small-scale farmers often face issues with obtaining the necessary technological resources and knowledge, as well as management skills, for creating a resilient and sustainable operation (Kendrick, 1984; Uko & Miller, 1987). Furthermore, technologies that have been developed for large-scale farmers are often inappropriate for small-scale farmers (Ikerd, 2000). Instead, farmers on diversified, integrated small-scale farms need research and technology that will allow them to enhance their capacity to manage more sustainably and intensively (Ikerd, 2000). Researchers in Florida identified several critical issues specific to Florida small-scale farmers which could be addressed through programming, including identifying and accessing profitable markets, developing business skills, and maintaining easy access to technical information (IFAS, 2006). Failure to address these issues often exacerbates problems for the small-scale farmer, especially when faced with a lack of access to the credit, governmental support, and other financial resources necessary for investing in their operations (Kendrick, 1984; Schofer, Holmes, Richardson, & Connerly, 2000).
Additionally, time-based issues specific to management and production are also more prevalent with small-scale farmers than with their large-scale counterparts (Cantor & Strochlic, 2009; Robotham & McArthur, 2001). Small-scale farmers are more likely to be driven by market conditions towards exploring alternative crop opportunities and potential marketing options designed to enhance income (Ilbery, 1991; Kendrick, 1984; Schofer et al., 2000). However, household members are oftentimes employed outside the farm, thus limiting participant availability for extension programming efforts, regardless of the information being offered (Hoppe, MacDonald, & Korb, 2012; Kendrick, 1984; Robotham & McArthur, 2001; Schofer et al., 2000).

Small-scale farmers in the southeast U.S. also represent an array of backgrounds, including urban and/or minority backgrounds as well as those backgrounds that are more often associated with traditional agriculture (Schofer et al., 2000). While such diversity in backgrounds creates a rich mixture of abilities, values, and aspirations, it also influences the types of information and preferred delivery methods desired by a particular audience (Hollier & Reid, 2007; Kendrick, 1984; Manganyi et al., 2006; Schofer et al., 2000).

Such a range of diverse needs requires a system to have well-constructed and accessible information pathways. However, the creation of this type of channel can present a systematic challenge within itself. Therefore, if Extension identifies small-scale farmers as a targeted audience, and hopes to successfully meet their needs, then agents must be prepared to assist these farmers in overcoming each barrier that presents itself (Gaul et al., 2009).
Extension personnel need to become well-acquainted with their local clientele in order to understand their specific needs and to engage them in the process (Bernet et al., 2001; Dougherty & Green, 2011; Gaul et al., 2009). Once the needs which are deemed of interest to local small-scale farmers are identified, extension personnel must present their message in a way that will catch the small-scale farmers’ attention and engage them in the learning process (Kroma, 2003; Richardson, Stephenson, Riddick, Caldwell, & McAlister, 1996). Furthermore, extension agents must understand the role that clientele feel they have in establishing the messages being purported by Extension, as well as Extension’s response to the voice of their perceived needs in order to increase efficacy of the participants (Brain, Irani, Hodges, & Fuhrman, 2009; Klair, Boggia, & Richardson, 1998; Richardson et al., 1996). This dissertation hopes to provide some new insights into the current nature of the relationship between Floridian and Scottish small-scale farmers and their respective extension system, thereby providing a starting point for relevant future discourse.

**Overview of Research Design**

To contribute to this discussion, a descriptive study has been conducted using case study methodology. Case study research is preferred “when (a) “how” or “why” questions are being posed, (b) the investigator has little control over events, and (c) the focus is on a contemporary phenomenon within a real-life context” (Yin, 2009, p. 2), and is therefore appropriate in this research context. By using case studies, a researcher is able to maintain the characteristic integrity of real-life events (Yin, 2009), while allowing space for the complexities of such social interactions to unfold. In order to capture data in a rigorous fashion, multiple sources of evidence (in-depth interviews from both sides of the interaction and multiple theories/perspectives) were used to triangulate findings.
Due to limitations in time and resources for this two-nation case study, it was not possible to sample using a theoretical sampling model. Instead, this research study employed a modified constant comparative method (Corbin & Strauss, 1990), designed to generate theoretical ideas that represent “new concepts and their properties, hypotheses and interrelated hypotheses” (p. 437) as they apply within a set of four pre-existing theoretical frameworks, discussed in detail in Chapter 2.

Data Sources

To collect the broadest understanding of relationships and dynamics between the actors in these groups and to ensure that communities with a positive bias towards Extension, SAC, or agriculture in general were not the only sources included in study findings, locations were purposively sampled. A detailed description of the selection process is presented in Chapter 3.

Ten sites were selected in each case. The cases were built utilizing perspectives from four primary data sources. These sources included:

- Florida small-scale farmers who either live in FL counties that have agriculture as a top income source in the county, or whose county fails to have agriculture as a top income source or demonstrate less favorable agricultural characteristics.
- FL-CES agents who either serve in FL counties that have agriculture as a top income source in the county, or whose county fails to have agriculture as a top income source or who demonstrate less favorable agricultural characteristics.
- Small-scale farmers who live in Scotland’s main agricultural corridor (who may receive limited governmental support towards receiving services) or who live in the Highlands and Islands of Scotland (a less-favorable area).
- SAC consultants who serve in Scotland’s main agricultural corridor or who serve in the Highlands and Islands of Scotland (a less-favorable area).

Perspectives from both local small-scale farmers and local extension (advisory) agents were collected during the course of this study since the researcher believed that the
attitudes and perceptions of both sets of actors are capable of enhancing or undermining the effectiveness of the service relationship (Andreassen & Olsen, 2012; Miller & Peterson, 2004) as well as providing diverse points of view for triangulation (Patton, 2002). These perspectives were used to create the “within” case analysis points (Case 1 and Case 2). Since the researcher believed it was also possible for the organizational structure and payment schemes required for receiving services to impact service, multiple organizations (FL-CES and SAC Consulting) were examined. These perspectives were added to the “within” case perspectives to create the “between” case analysis points used to generate the cross-case comparison (Case 3).

Purpose and Objectives

The purpose of this research is to investigate the perceived dynamics between small-scale farmers of Florida and Scotland and their respective university-based agricultural extension/advisory system. This study examines how the structure and organization of two university-based extension systems, and the associated processes and perceptions used to do work, correspond with the perceived needs, interests, and capabilities of the local small-scale farmers in creating their small-scale enterprises.

To assist with understanding the research objectives below, a brief description of the process follows, with greater detail presented in Chapter 3. Using the triadic, cyclical coding scheme of the constant comparative method (open coding, axial coding, and selective coding), the data from each case was analyzed. The findings are presented in Chapter 4.

These findings have been organized in such a way as to accommodate discipline preferences within the agricultural branch of social sciences. First, the foundation is laid by presenting the “within” cases with findings at the axial coding level. Then, the
argument towards theory builds with the presenting of the “between” case with findings presented at the selective coding level. Finally, the theoretical conclusions, practical implications, and research recommendations are presented in Chapter 5. With this in mind, the five key objectives that drove this study were:

“Within” cases

**Case 1: Florida**

- Objective 1: To describe the various actors (Florida small-scale farmers and FL-CES agents) that participated in this study.
- Objective 2: To explore the processes and perceptions that these agents in Florida use with regards to meeting the needs of their respective small-scale farmers in creating and maintaining small-scale operations.
- Objective 3: To explore the perceptions that these small-scale farmers in Florida have with regards to the university-based extension system and their personal relationships with extension (FL-CES).

**Case 2: Scotland**

- Objective 1: To describe the various actors (Scottish small-scale farmers and SAC consultants) that participated in this study.
- Objective 2: To explore the processes and perceptions that these consultants in Scotland use with regards to meeting the needs of their respective small-scale farmers in creating and maintaining small-scale operations.
- Objective 3: To explore the perceptions that these small-scale farmers in Scotland have with regards to the university-based extension system and their personal relationships with extension (SAC).

“Between” case

**Case 3: Florida-Scotland**

- Objective: Using data from the Florida and Scotland cases, identify the key concepts that arise from the data and elaborate on how those concepts related to one another within a theoretical frame.
Significance of the Study

Results from this study are expected to be valuable for a number of reasons. First, the findings provide valuable information to staff and faculty within the Florida land-grant system and Scottish Rural University College regarding the current nature of the relationship between the institution and small-scale farmers. Since this study examines both publicly-funded and privatized systems, and the manner in which they serve a significant, but often overlooked, audience, the results may also bring to light relevant issues for decision-makers including topics such as the potential marginalization of subgroups or likelihood for privatization to work for previously unattended audiences. Such revelations may assist decision-makers when discussions about privatization occur. Finally, though the findings are not generalizable, the cases do exist across multiple defined regions of Florida and Scotland; thus, the results can be used to inform local county agents of topics of interest for small-scale farmers, current attitudes and concerns that some small-scale farmers have regarding the extension system in Florida and Scotland. Such information will also assist extension specialists at the university level in specializing educational programs for county-level agents as they work with this audience.

Limitations of the Study

As with any study, there are a number of study limitations to consider. The following items are acknowledged as being potential limitations of this study:

- As a qualitative study, subjectivity and the assumed role of the researcher will impact collection and interpretation of findings. However, transparency of role and subjectivity will be included in any discussion and conclusions to follow.

- The results of this study are specific to only a select few representatives within each of the cases and as such do not provide findings that are generalizable
towards a population. However, the implications may still provide fruitful direction for both systems when dealing with the identified audiences.

- Respondents were asked to share past experiences, some that have occurred over great periods of time. The potential for maturation effect is high and may impact the dependability of recall on experiences shared. However, in this qualitative study it is believed that the stories shared, and the perceptions linked with those stories, are of value and therefore included in analysis.

- Due to issues beyond the researcher’s control, respondents were recruited over a three-year time-period (2013-2016). The potential for history effect is high and may impact the consistency of shared experiences shared with the researcher within and between groups. However, in this qualitative study it is believed that the stories shared, and the perceptions linked with those stories, are of value and therefore included in analysis.

- Respondents were recruited from a variety of regions throughout Scotland and Florida with a hope of garnering 10 interview sessions from each of the data sources listed above. The only group that did not satisfy that recruitment objective were Florida small-scale farmers (7 out of 10 interviews completed). The three counties that were not represented by small-scale farmers were all urban areas in Florida; therefore, the voice for farmers in these counties is likely diminished or missing in the findings.

- Florida has a large Hispanic population. All 4,459 farms reported in the 2012 Ag Census as having a Spanish, Hispanic, or Latino Origin Principal Operator are considered by USDA standards as a “small” farm. However, being unable to personally speak Spanish, language was assumed to be an insurmountable barrier for this study. Therefore, no farmers of Spanish, Hispanic, or Latino origin were intentionally sought out for this study. Thus, their voice is acknowledged as missing from these findings.

Chapter Summary

The initial chapter has provided an introduction for the present study. A definition and overview of Extension Advisory Services was provided, followed by pertinent historical references for U.S. Extension. With this foundation in place, the problem statement, context, and overview of the research design for this study were presented. Significance and possible limitations for this research were delineated.

Subsequent chapters will present the theoretical and conceptual frameworks used to situate the study, an articulation of the methodologies utilized to collect and
analyze the data, and the subsequent findings. Finally, the main results will be summarized and discussed, with implications and recommendations for practice and research addressed.
CHAPTER 2
CONCEPTUAL AND THEORETICAL FRAMEWORKS

This research seeks to uncover the existing relational dynamics between small-scale farmers and the respective university-based agricultural extension or advisory system in Florida and Scotland. The foundation for this study was provided in Chapter 1 and included an introduction to the role of extension advisory systems [EAS], a discussion about the organizational complexities of the Florida and Scottish EAS and the rationale behind their selection for this study, followed by the study purpose statement, research objectives, and brief summary of the elected research design.

Chapter 2 presents the theoretical and conceptual frameworks used in constructing this study and in subsequent analyses. The chapter begins with the theoretical perspective taken throughout this study. A review of theoretical frames relevant to this study are then provided, along with supporting research and literature. Finally, a conceptual model that weaves the frames together as a possible lens through which to consider the findings is presented.

Conceptual and Theoretical Frameworks

Grand Study Frame: Social Constructionism

Constructionism sits in stark contrast to the objectivist epistemology commonly held in the scientific realm. An epistemology is about “how we know what we know” (Crotty, 1998, p. 8). Objectivism holds that truth and meaning reside within an object, lying in wait for a researcher to come along and discover it (Crotty, 1998). Here, existence of meaning occurs whether anyone consciously processes it or not (Crotty, 1998) and is simply waiting for a researcher with the proper tools to come along and uncover that truth. Learning occurs, therefore, once the truth is revealed and the mind
processes the symbols that it receives in a way that mirrors reality (Jonassen, 1991; von Glaserfeld, 1995).

Constructionism, on the other hand, holds quite the opposite understanding – there is no objective truth waiting for discovery (Crotty, 1998). According to Crotty (1998), constructionism is the view that “all knowledge, and therefore all meaningful reality as such, is contingent upon human practices being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context” (p. 42). Such a description reveals that truth and meaning are not discovered, but constructed as one interacts with the realities of the world (Crotty, 1998). Therefore, learning is a product of the mind’s building of reality through both physical and social experiences (Jonassen, 1991; von Glaserfeld, 1995).

Furthermore, within the constructionist epistemology, all understandings are just that, constructions, and therefore equal in weight but failing to be objective, absolute, or truly generalizable (Crotty, 1998). Therefore, a researcher that holds to constructionism must carefully convey claims made regarding scientific findings (Crotty, 1998), since the power to generalize is impacted significantly. Despite this limitation on generalizability, this study assumes a constructionist epistemology since it is believed that the data that provides answers to the posited research questions lies within the constructed interactions of the participants and their worlds.

**Social constructionism**

Moreover, this study adopts the theoretical perspective of social constructionism. *Social constructionism* focuses on identifying and clarifying “the processes by which people come to describe, explain, or otherwise account for the world (including themselves) in which they live” (Gergen, 1985, p. 266). This world in which the research
participant lives can be captured within the reality of everyday life (Berger & Luckman, 1967). Within social constructionist literature, three central arguments exist: a) knowledge originates in communal interchange (socialization), b) language (grammar and content) are central to the exchange and are used to construct the world in a variety of ways, and c) a social constructionist perspective creates a space for questioning the ideological saturation of knowledge found in objectivist scientific pursuits, thereby allowing for a construction of knowledge from multiple perspectives rather than from a single objective truth (Gergen & Gergen, 2003). Since it is also posited that the proper data sources for this study exist in multiple dimensions and between multiple participant sets, a social constructionist perspective is most appropriate.

Specifically, social constructionists concentrate their research interests on the “intersubjectively shared, social constructions of meaning and knowledge” (Crotty, 1998, p. 58). Such investigations might explore common understandings of current social phenomenon or prior understandings of these phenomena from historical perspective among a social group (Gergen, 1985) using a lens that considers the collective generation and transmission of meaning (Crotty, 1998). Furthermore, social processes, such as communication, negotiation, and conflict may be of interest since it is through such processes that understandings are sustained across time (Gergen, 1985). Thus, a researcher may choose to explore any exchanges between actors that may occur during these processes, as well as the dialogues created.

The terms in which people understand the world and the language they use to transfer that understanding are actually social artifacts, constructed throughout the process of time (Gergen, 1985). Therefore, a researcher may also seek to better
understand the origin of such linguistic artifacts, current uses of the artifact within a given community or social group, or compare uses and understandings across various groups. However, within such a study, the role of history and culture remain a huge contributor to such world construction (Gergen, 1985). A constructionist perspective also allows for a construction of knowledge from multiple perspectives rather than from a single objective truth, so a social constructionist researcher may choose to investigate the story that a previously marginalized group has to offer regarding some given truth (Gergen & Gergen, 2003). This realm of exploration opens the door for a more critical examination of power, gender, and alternative voices (Gergen & Gergen, 2003). Since there is no one truth, each story shared provides an equally relevant piece of the picture in better understanding a given phenomenon.

**Socialization and roles**

Human beings are social creatures, sharing a social world with one another. However, this social world is created by individuals that inhabit the world while simultaneously impacting the individuals within the world (Alvesson & Sköldberg, 2009). Part of this creative exchange is contained in socialization - “the social influence through which individuals internalize social norms and knowledge” (Alvesson & Sköldberg, 2009, p. 28) about this created world. Two levels of socialization may occur within the created world: primary and secondary socialization.

Within the primary socialization, a child learns the basics of what society deems as important (Alvesson & Sköldberg, 2009). In secondary socialization, the process fine-tunes identity within the adult (Alvesson & Sköldberg, 2009). Within this theoretical perspective, identity is not the result of the natural world, but is, instead, a relational achievement (Gergen, 1999). Within the ‘base-world’ of a child (Berger & Luckman,
1967), identity is built up over time both through the eyes of ‘significant others’ and through role-taking (Alvesson & Sköldberg, 2009). Within the ‘sub-world’ of an adult (Berger & Luckman, 1967), identity is consistently adjusted against the social reality, taking into account both significant and peripheral others (Alvesson & Sköldberg, 2009).

In addition to the creation of identity through socialization, individuals also create roles for themselves and others within social exchange (Alvesson & Sköldberg, 2009). The roles that a person develops are important in the development of the individual’s self-identity, since all the roles combined together create a whole self (Alvesson & Sköldberg, 2009). Furthermore, institutions cannot exist outside of humans engaging in their roles (Alvesson & Sköldberg, 2009; Berger & Luckman, 1967). Therefore, roles have the potential to illustrate and mediate the relationships between the individual and the institutions (Alvesson & Sköldberg, 2009).

**Dialogue**

Language has already been established as having a crucial role in the social constructionist perspective. This importance not only exists in how the data is captured and analyzed, but within the actual conceptualization of the perspective itself. Within the social constructionist perspective, conversation (dialogue) plays an important part in allowing a person to maintain their subjective reality (Alvesson & Sköldberg, 2009). “Through conversation with others, and perhaps above all through what is not said in conversation but is implied, we continually confirm our picture of reality” (Alvesson & Sköldberg, 2009, p. 29). Individuals who are retelling the past are interpreting it based on their constructions of reality rather than reproducing the past as it was (Riessman, 2013). Furthermore, Gergen, Gergen, and Barrett (2004) cite the importance of dialogue in uncovering underlying assumptions that may exist within collective knowledge. Thus,
the study design may shift to focus instead on the role of conversations in establishing a participant’s constructed world.

**Transformation**

Finally, social realities are not static, but rather dynamic and evolutionary. According to Alvesson and Sköldberg (2009), “the need for an individual to maintain a subjective reality of course also means that it can change” (p. 29). This change can sometimes be harnessed to create change within the constructed world. Realities and practices can be reconstructed in order to generate cultural transformation (Gergen, 1997). Within a created world, “all that is natural, normal, rational, obvious, and necessary is – in principle – open to alteration” (Gergen, 1997, p. 59).

In order for social transformations to take place, established patterns and values must be challenged and new visions, vocabularies, possibilities, and practices must be generated (Gergen, 1997). However, due to its social nature, this challenge of established norms must still take place within the confines of the social world. Transformation, therefore, is “inherently a relational matter, emerging from myriad coordinations among persons” (McNamee & Gergen, 1992, p. 5).

In such a situation, the study design would focus on challenging the established constructed world for the participant. “When transformation has a priority, the researcher may approach the borders of absurdity, unsettling the sedimented presumptions, and arguing critically and audaciously” (Gergen, 1997, p. 92). Using this approach can lead to fresh images and alternatives to conceptualizations that are often taken for granted (Gergen, 1997), creating a space for social change (McNamee & Gergen, 1992).
Theoretical Frames

Frame 1: Organizational systems using the Burke-Litwin model

Several theorists have created models to provide guidance for understanding organizations. Exploring the individual level (e.g., Maslow, Herzberg, Hackman & Oldham), the group level (e.g., Lewin, Argyris), and the system level (Likert, Levinson), each of these theories builds a foundation for exploring how individuals function within and as the system (Burke, 2002). From such theories, others have created models, linking these levels together in order to provide stronger explanations of the interchange between organizational components (Burke, 2002). One such model is the Burke-Litwin Model of Organizational Performance and Change (1992) (Figure 2-1).

Figure 2-1. Model of organizational performance and change (Burke & Litwin, 1992).
Understanding the model

The Burke-Litwin model posits that the impact of change on an organization can be better understood by examining 1) the type of change that is occurring, 2) where that change enters the organization’s system, and 3) how that change disrupts the status quo within and throughout the various organizational constructs identified by the researchers (Burke, 2002; Harder, Gouldthorpe, & Goodwin, 2015). The model is causal in nature, suggesting that constructs within the model have a certain order and represent a set of complex relationships within a given organizational system (Burke, 2002). However, Burke and Litwin (1992) suggest that not all constructs are created equally. Some carry more weight within the model, and therefore are situated above others (Burke, 2002). For example, *organizational culture* has been placed above *systems* because it is believed that “culture…helps to determine the type of reward system senior managers deem appropriate” (Burke, 2002, p. 201).

Furthermore, two dimensions exist within the model – a set of constructs that are seen as transformational in nature (*external environment, leadership, mission & strategy, and organizational culture*) and a set of constructs seen as transactional (*management practices, structure, work unit climate, systems, motivation, task requirements & individual abilities, and individual needs & values*). These 12 constructs represent what Burke and Litwin (1992) suggest are primary components to consider when attempting to analyze and understand an organization. In order to provide clarity around these concepts, key terms and their definitions are presented in Table 2-1.

A closer examination of Figure 2-1 reveals bi-directional arrows between the various constructs, signifying not only a linkage but the nature of multiple impacts that
exists within the open systems principles upon which the model was created (Burke, 2002). Such an open system suggests a multiple effect, where change in one construct will ultimately impact the remaining 11 constructs through a causal ripple effect (Burke, 2002). According to the theory, changes that are transformational would impact the entire system and would result in systemic change that is deemed “discontinuous and revolutionary” (Burke, 2002, p. 202). But not every change has to originate at the transformational level.

Change can also occur at the transactional level, creating shifts in the day-to-day operations and resulting in change that is more “evolutionary and selective” (Burke, 2002, p. 202). Together, these constructs work together to help uncover why change may (or may not) be occurring within an organization. Since this model provides a solid frame for gaining insight into organizational structure, performance, and change processes, it can, therefore, be considered a useful tool for evaluating the structure of each organization within this study.

**Use of Burke-Litwin model in extension-based organizational studies**

Though not extensive, research has been conducted to explore the usefulness of the Burke-Litwin model within the context of agricultural advisory services, such as Cooperative Extension. One useful venue for the model has been found within the evaluation of Extension programming. According to Lamm and Israel (2011), the Burke-Litwin model provides a solid foundation for considering evaluation measures and behaviors within an organizational setting such as Cooperative Extension. Using data from across eight different Extension services, this national study revealed that transformational and transactional level factors (as well as individual performance) had
an effect on evaluation behavior choices (Lamm & Israel, 2011). At the transformational level, leadership and organizational culture were shown to have a significant effect, while at the transactional level, structure and work climate were fundamental influencers of evaluation behavior choices (Lamm & Israel, 2011).

Additionally, the Burke-Litwin model has been found helpful when attempting to understand current issues within the organization itself. Harder, Gouldthorpe, and Goodwin (2015) used the Burke-Litwin model to frame a study of agent burnout within the Cooperative Extension system of Colorado. The model, again, provided a sturdy frame through which this phenomenon could be considered. Though researchers found that changes were present at both the transformational and transactional levels, it was the transactional factors (systems, individual needs, and values) that were seen by Colorado State faculty as being more problematic rather than the issues present in leadership and the organizational culture, which are transformational level constructs (Harder, Gouldthorpe, & Goodwin, 2015). This finding supported prior research conducted in Ohio (Rousan & Henderson, 1996) and in Florida (Arnold & Place, 2010), and paralleled those findings seen in the evaluation research conducted by Lamm and Israel (2010).

Some researchers have even integrated the Burke-Litwin model into an exploration of how changes within the organization may impact the future of Extension. In a study of the impacts that downsizing may have on an Extension service, Manson (2000) explains the importance of the “human variables” that are situated in the Burke-Litwin model. The author contends that, by ignoring the contribution that these human variables provide within an organization in the face of downsized or restructured
organizations, productivity will suffer while employees’ morale and motivation diminish (Manson, 2000). “If change is inevitable, organizations need to be able to effectively manage it” (Manson, 2000, p. 9). The author goes on to present the reasons that change within Extension are imminent and why keeping these human variables in mind is crucial for the success, and future, of Cooperative Extension.

Though not directly associated with Cooperative Extension, some research in the field of customer service has also demonstrated the impact of several related “human variables” of interest including: commitment of management, empowerment of employees, reward for excellent service, and established practices that facilitate service delivery (Parkington & Schneider, 1979; Rogelberg, Barnes-Farrell, & Creamer, 1999; Schneider & Bowen, 1992). Additionally, Waclawski (2002) found that organizations seeking large-scale organizational change must consider and attend to all four of the transformational constructs (mission & strategy, culture, leadership, and structure) over the course of the change process, rather than a subset of the four, in order for change to occur. Waclawski (2002) also posits that

in order for an organization to move from its present state to the desired future state, organization members (such as leaders, managers, and employees) must actively work to change their behavior accordingly. The importance of changing managers’ behaviors as a primary means for driving organizational performance improvement is clearly supported in the results of this study. (p. 301)

Beyond the constructs that define the internal working of an organization and how that organization may respond to change exists another layer. There are relationships that are generated within and throughout interactions between extension and advisory services and those they serve. These relationships cross the defined boundaries created by the constructs of the Burke-Litwin model, though they can also
directly act as an external environmental force. According to Wilkinson (1991), organizations can also be conceptualized as social fields due to those interactions as they occur around specific and well-defined interests. To capture this possible interaction within the study, a social field lens will also be integrated to address this aspect for both organizations.

Frame 2: Organizational/actor interactions using field theory

The roots of field theory can be found across several disciplines within the work of Maxwell (physics), Bernard and Cannon (biology/ecology), Lewin and Murphy (psychology) (Wilkinson, 1970). According to Wilkinson (1970), field theory developed within the discipline of psychology out of a concern for “the multiplicity of forces which influence human perception and lead the individual to experience his environment in terms of completed, meaningful patterns” (p. 312). To explore this area, Lewin (1951) applied his understanding of Gestalt tradition to individual behavior, characterizing his new theory by:

- the use of a constructive rather than classificatory method; an interest in the dynamic aspects of events; a psychological rather than physical approach; an analysis which starts with the situation as a whole; a distinction between systematic and historical problems; a mathematical representation of the field. (p. 60)

Lewin (1951) defined a field as “a totality of coexisting facts which are conceived of as mutually interdependent” (p. 240); furthermore, a field is not influenced by “any past or future field and its time perspectives” (p. 240). This latter notion, which suggests fields exist in a rather static nature, untouched by past or present events, has generated numerous critiques from other notable field scholars (Fagan, 1964; Wilkinson, 1970).

A second influential field theorist in the 1940s was Gardner Murphy. According to Wilkinson (1970), Murphy integrated three major assumptions into his field theory:
(1) the individual and his environment constitute an inseparable unity or field; (2) a field is a continually changing, loosely bounded phenomenon operating through time in a state of "endless becoming"; and (3) novelty, whether ascribed to creativity or random happening, is an integral feature of the field. (p. 313)

Unlike Lewin, this notion of "endless becoming" suggests that fields are not static, but rather are “in a state of perpetual redefinition” (Wilkinson, 1970, p. 313), and thus apt to change as a result of variable conditions. However, the changing nature of the fields has not left this framework without critics. The dynamic nature of the field suggested by Murphy creates issues with defining and distinguishing one field from another in a way that may be useful for research (Wilkinson, 1970). However, Wilkinson (1970) suggests this concern may be addressed by imposing artificial boundaries on the interactions between the elements themselves, rather than on the undefined external borders.

As a result of Lewin and Murphy’s work, four main characteristics can be attributed to a field (Wilkinson, 1970):

(1) a field is a holistic interaction nexus meaning that the parts influence one another and include both causes and consequences of focal objects or events, (2) a field is unbounded in any strict sense, but is distinguishable from other fields according to its characteristic focus or core of field-relevant properties, (3) a field is dynamic in the sense that it is in a continuous state of change..., and (4) a field is emergent, meaning that its character is not governed entirely by the collective properties of its parts, but is the outcome of the interaction of the parts and is thus novel. (pp. 313-314)

These characteristics have aided rural sociologists and community development researchers in exploring a number of phenomena and the fields which dynamically emerge from them (Wilkinson, 1970). The field of particular interest within this study is the social field.
Social field theory

According to social field theory, a social field captures “a process of interaction through time, with direction toward some more or less distinctive outcome and with constantly changing elements and structure” (Wilkinson, 1970, p. 317). One key characteristic of a social field is the ability of the field to exist within the context of other phenomenon while still maintaining a distinct and novel existence (Wilkinson, 1970). From such a position, the concept of a social field is able to derive strength, capable of dealing directly with “the emergent, variable, and contrived aspects of social life” (Wilkinson, 1970, p. 315).

Based on the theoretical frames established by field, interaction, and social organization theorists, several components of a social field can be delineated. First, a social field captures both the social and cultural aspects of social organization, which can be found within the context of phenomena at other levels (Wilkinson, 1970). Within this theory, culture consists of shared ideas, while social addresses the actual social interaction itself (Wilkinson, 1970). Together, the culture and social aspects of social organization clarify the concept of the social field as it specifically refers to a phenomenon being examined at the social level (Wilkinson, 1970).

Paralleling the social/culture aspect of social organization, the second component of a social field can be identified through the roles and positions assumed by actors within the social field (Wilkinson, 1970). According to social field theory, position is considered to be primarily cultural, with shared norms and ideas manifested through behaviors expected of an individual within a given social field (Wilkinson, 1970). Position is sharply contrasted, then, to role which examines the actual behaviors of an
individual within the field (Wilkinson, 1970). Both position and role are able to be influenced by the other as well as other external factors (Wilkinson, 1970).

Within the social field, roles often serve as the principle element; however, it is the interaction between the roles that gives a social field its unique character (Wilkinson, 1970). These interactions have two characteristics of note: direction and structure. According to Wilkinson (1970), *direction* is often generated by interests that may include “wishes, stimuli, or objectives of the interaction” (p. 316). When these interests are manifested, they create an interactional phenomenon, or direction (Wilkinson, 1970).

*Structure*, on the other hand, can refer either to the relationships among actors during interaction or relations among positions throughout the process (Wilkinson, 1970). In this interactional setting, “role analysis is directed toward identifying and classifying behavioral contributions of participants and beyond that toward identifying the pattern of associations, both formal and informal, which link the contributions of actors and give continuity and direction to the process” (Wilkinson, 1965, pp. 54-55). These components suggest that a social field may be defined using either a social or interactional lens, though certain characteristics (such as individual-level interests and shared ideas) must also be accounted for at other levels (Wilkinson, 1970).

Though rooted in the individualistic traditions of psychology, several theorists have purported the applicability of field theory for both individual and organizational level. In the tradition of Lewin, Cartwright (1951) argued that “one may speak of the field in which a group or institution exists with precisely the same meaning as one speaks of the individual life space in individual psychology” (p. xi). Others, such as Carr and Cottrell, promoted the concept of situation fields (Wilkinson, 1970).
Thus, in the context of this study, the social fields model serves a two-fold purpose. First, use of the social field lens provides greater insights into the roles, positions, boundaries, culture and interactions within the organization itself. Second, this model provides insights into the boundary permeation that occurs as small-scale farmers act as part of the social field. Both Extension and small-scale farmers can be viewed as part of a social field, created between the extension system and the community in which it exists. The field that is created between the two sets of actors represents “a process of interaction through time, with direction toward some more or less distinctive outcome and with constantly changing elements and structure” (Wilkinson, 1970, p. 317). In order to build upon the roles, positions, boundaries, culture and interactions captured within a social field analysis, an additional theoretical frame will be used within this study – social capital.

**Frame 3: Organizational-actor networks using social capital**

Social capital refers to the collective set of supportive interactions that exist between individuals within a given community (Putnam, 2000). Within every community it is possible to identify some level of social capital, though the level has the potential to be quite miniscule (Flora & Flora, 2003). Communities that express high levels of social capital are marked by highly cooperative transactions since people in such an environment have the level of confidence necessary to invest in participating in collective activities (Pretty, 2003). These collective activities, in turn, provide benefits to the members within the social network from which the collective activities originated. This idea captures the four elements of social capital suggested by Pretty (2003): networks, norms, trust and reciprocity.
Within social capital theory, social networks create the setting in which social activity occurs. These networks are established through individual or group efforts aimed at creating relationships that are perceived to be of use, either in the short, medium, or long term (Bourdieu, 1986). Through membership in these embedded social networks, individuals are able to secure social benefits (Portes, 1998). However, membership is not enough to access these benefits; network members must also be active contributors and partakers in the norms established by the group in order to gain the benefits of association (Bourdieu, 1986). Based on Bourdieu’s (1986) notion of capital, the benefits from such associations are not merely limited to social benefits, but to cultural and economic benefits as well (Portes, 1998).

These networks are held together by invisible bonds (social ties), created through the interactions of one individual with another (Granovetter, 1973; 1983). There are two main forms in which social ties exist: strong ties and weak ties (Granovetter, 1973; 1983). The strength of the tie is determined by the amount of time, emotional intensity, level of intimacy, and reciprocal services that are embedded within the tie (Granovetter, 1973; 1983). Strong ties are most often associated with immediate family members and close friends, since these ties are most often characterized by high levels of time investment, emotional intensity, intimacy and assumed reciprocal services (Granovetter, 1973; 1983).

Weak ties, on the other hand, are most often associated with causal or social relationships, such as colleagues or acquaintances (Granovetter, 1973; 1983). It is the level of weak ties that most often characterizes and brings strength to a community (Granovetter, 1983). The strength that exists in weak ties comes from the ability of a
loosely-woven (low-density) network to act as a channel for dissemination of information and opportunity (Granovetter, 1983). According to Granovetter (1983), weak links provide individuals with access to information that would most likely not have been accessible through strong ties. Therefore, the conclusion that a person with numerous weak ties in the community is more likely to have greater opportunities to receive potentially beneficial information than one with fewer weak ties can be drawn.

In addition to considering the type of networks present in a community, it is prudent to also consider the existing norms, level and types of trust, and perceived expectations for reciprocity present within the system. These three elements are closely linked together (Coleman, 1988; Pretty, 2003; Putnam, 2000). First, within every system exists a certain set of social norms – the rules and roles that a group has defined and that, in turn, define the group. When people in a network act according to the established rules and roles the level of trust is increased (Pretty, 2003).

One of those acts is found in the expectation of reciprocity. With greater trust comes greater likelihood of the person to engage in collective activities, even though the result of the activity is dependent on others within the group as well (Pretty, 2003). This expression of trust through action leads to greater levels of trust and reciprocity within the social network, solidifying the social norms of the group. However, if this cycle is exposed to acts against the norm or which break the trust of other members, it is possible for the social capital of the community to be impacted.

Several forms of social capital have been defined by theorists (Putnam, 2000; Woolcock, 2001). The three forms of social capital include: bonding, bridging, and linking. *Bonding social capital* refers to the social capital that exists in groups of
homogenous individuals (Putnam, 2000). These individuals are characterized by similar backgrounds, locales, demographic attributes, or interests (Putnam, 2000). Local neighborhoods are often characterized by high bonding social capital (Putnam, 2000).

Bridging social capital, on the other hand, refers to the horizontal link of relationships that exists between individuals who differ on multiple levels (Putnam, 2000). These relationships are often used to connect organizations, communities, or groups in order to accomplish a collective goal (Putnam, 2000). As with the weak ties, bridging social capital tends to widen the exposure of individuals to information and resources that may not be available if they remained confined to their own homogenous groups (Putnam, 2000).

Both bridging and bonding capital represent horizontal linkages. According to Putnam, Leonardi, and Nanetti (1993), “Intense horizontal interactions...are an essential form of social capital...A vertical network, no matter how dense and no matter how important to its participants, cannot sustain social trust and cooperation” (pp. 173-174). Putnam (1996) further touted the strength of certain horizontal networks, demonstrating that groups that provide members with frequent face-to-face contact are able to generate more social capital than those whose contact is tertiary in nature, such as those maintained through mailing lists.

Finally, linking social capital is used to describe the extent to which an individual creates connections with institutions who have some level of relative power (e.g., access to services, jobs, or resources) (Woolcock, 2001). This form of social capital takes into account the impact of macro-level organizations and institutions on the public sector. Individuals with high levels of linking social capital are able to use the social
capital of the network to influence policy or to extract necessary resources from the macro-level (Woolcock, 2001). Linking social capital “is the result of the weakest relationship but the most valuable outcome, as linking provides access and connection to power structures and institutions” (Hawkins & Maurer, 2010, p. 1780).

**Use of social capital within the organizational-actor networks**

Though the concept of social capital is widely discussed, there are few studies that actually provide insight on the creation of social capital at the actor and network level (Sutherland & Burton, 2011). However, there are some findings of importance with regard to social capital as it pertains to the context of this study. The following studies all align with the fundamental principle – “that economic and social transactions are promoted through the quality of interactions within a community or network” (Sutherland & Burton, 2011, p. 239).

First, social capital has been shown to be important in the economic development of Western countries. Part of that economic development has been rooted in the Agricultural advancement that has occurred over the past century. Coleman (1990) concluded, “In a farming community...where one farmer got his hay baled by another and where farm tools are extensively borrowed and lent, the social capital allows each farmer to get his work done with less physical capital in the form of tools and equipment” (p. 307). This conclusion is supported by both Martinez-Brawley and Blundall (1989) and by Sutherland and Glendinning (2008). Both sets of researchers found that farmers prefer relying on informal systems of support in times of need, by providing either physical support (Martinez-Brawley & Blundall, 1989) or through pooling their resources to collectively endure the potential impact of events such as extreme
weather (Sutherland & Glendinning, 2008). However, Sutherland and Burton (2011) found that willingness to informally share more resources for common, daily activities was limited due to a desire of the interviewed Scottish farmers not wanting to jeopardize the base-level relationship between neighbors, and with that, the trust that did exist.

Ostrom, Gardner, and Walker (1994) also spoke to the importance of social capital within their findings on using cooperative efforts in managing resources that exist as part of a common-pool resources. Norms of behavior, such as extending trust out to others, are one form of social capital that can be used to form the foundation for common-pool resource management (Ostrom, Gardner, & Walker, 1994). This is especially true in “relatively homogeneous communities where individuals repeatedly interact with one another along many different dimensions” (Ostrom, Gardner, & Walker, 1994, p. 45). Therefore, one would expect communities with shared common-pool resources to exhibit high levels of trust and reciprocity among its members. However, this trust does not always require formal association.

Findings from Knack and Keefer (1997) suggest that while trust and cooperation remain closely linked to strong economic performance, participation in associational activities does not appear to be related to the trust. “Horizontal networks – as measured by membership in groups – are unrelated to trust and civic norms...Promoting horizontal associations through encouraging the formation of and by participating in groups may be counterproductive” (p. 1284). However, these associations may not be as consistent as the researchers present them to be. Stolle and Rochon (1998) were able to conclude from their three-country study that

...groups with high diversity levels in homogenous cultures [such as Sweden’s or Germany’s] are much more trust producing...These relations
look different in countries with more diverse populations...In the United States [with a more heterogeneous culture] homogeneous groups generate more generalized trust, and not the ones that accommodate people from diverse backgrounds. (28-29)

Moreover, Stolle and Rochon (1998) found that an association that is homogeneous in nature is less likely to produce “high levels of generalized trust and community reciprocity” (p. 47) among its participating members. Therefore, attempts to understand the role of social capital within a country must consider the nature of the culture itself. In order to further refine the understanding of exchanges generated through exploring the network interactions, norms, trust, and reciprocity of social capital, one final set of frames will be used – social versus economic exchange.

Frame 4: Exchange theories

Some researchers attribute the beginning of social exchange theory with Homan’s 1961 essay on social behavior as exchange (e.g. Cook & Rice, 2006; Emerson, 1976; 1981). Though many theorists were critical of Homan’s work (e.g., Abrahamson, 1970; Bierstedt, 1965; Deutsch, 1964; Ekeh, 1974; Simpson, 1972), it spurred on a dynamic dialogue that sought to differentiate between economic and social exchange theory while providing theoretical extensions beyond an individualistic dyad and into corporate groups and network structures (Emerson, 1981). An exchange approach “takes as its first focus of attention the benefits people obtain from, and contribute to, the process of social interaction” (Emerson, 1981, p. 31).

According to Emerson (1981), there are three core assumptions in exchange theory. The first assumption is that any and all beneficial events, regardless of kind, are valuable in exactly the same way: “people for whom they are beneficial act in a way that tends to produce them” (Emerson, 1981, p. 31). This form of behavior is often referred
to as rational or operant behavior and implies that people will continually act in a way that produces some type of self-perceived benefit (Emerson, 1981). Furthermore, all benefits exhibit both psychological and material properties for the beneficiary (Emerson, 1981). Therefore, both the psychological and material nature of perceived benefits should be examined when exploring an exchange process.

The second assumption of exchange theory is that “every class of beneficial (valued) events obeys a principle of satiation, value adaptation, or diminishing marginal utility” (Emerson, 1981, p. 32). This assumption implies that two beneficial events (say eating and drinking) are members of the same class of events if both result in satiating the actor for the other (drinking for hunger and eating for thirst) (Emerson, 1981). Such an assumption provides a decisive way to distinguish and define various classes of benefits (Emerson, 1981).

The third, and final, assumption of exchange theory is that “benefits obtained through social process are contingent upon benefits provided ‘in exchange’” (Emerson, 1981, p. 32). From this assumption, in its most simple form exchange then occurs between two individuals, each of whom will provide a benefit to the other, contingent upon the benefits received from the other (Emerson, 1981). This ability of one to provide a benefit to another is often called a resource (Emerson, 1981). From these three assumptions, it is possible to discern that the focus of exchange theory, then, revolves around this “flow of benefits through social interaction” (Emerson, 1981, p. 33). Furthermore, when benefits “enjoyed by exchange partners can be identified as paired events, they are often treated together as a social entity called a transaction” (p. 33).
Within these interactions, two primary transaction types have been identified. First, a *negotiated transaction* takes place when two, mutually contingent contributions are made within the exchange process, subsequently evolving in some social process (Emerson, 1981). An example of this might be the completed sale or purchase of a negotiated real estate venture. This type of transaction is most closely aligned with the concept of private good as described in Chapter 1.

A second type, the *reciprocal transaction*, takes place when two contributions are made, but only one contribution is contingent upon the other (Emerson, 1981). If the contingent contribution does not occur, then the likelihood of the original contribution recurring is diminished; however, if the contingent contribution occurs, then a reciprocal transaction has occurred (Emerson, 1981). This transactional reciprocity is the same construct as that defined in social capital theory and can be used to define both short-term and long-term partnerships. Often long-term partnerships experience a loss in paired contingency, meaning that contributions may be made in honor of the relationship itself, rather than in response to an immediate and specific benefit to be received known as a third type of exchange: *generalized reciprocity* (Emerson, 1981).

A final exchange relationship lies in what Emerson (1981) referred to as *incorporation or productive exchange*. Barth (as cited in Emerson, 1981) argues that the interaction between two people can occur in two different modes: a transactional mode and a mode of incorporation. The *transactional mode* exists when each party “provides the other with benefit” (Emerson, 1981, p. 34). The *incorporation mode* exists when “both (or all) parties contribute to collective gain” (Emerson, 1981, p. 34).
The distinction between these two modes occurs because of the social processes enacted during the exchange as well as the participant motivations (Emerson, 1981). While transactions involve separate, yet reciprocal, exchanges where each contributing person is motivated to reap some individual benefit (Emerson, 1981; Johnson & Selnes, 2004), incorporation exists when separate benefit gain cannot occur (Emerson, 1981). Instead, motivation within incorporation results from an emphasis “on the emergence of group gain rather than individual maximization” (Barth, as cited in Emerson, 1981, p. 34). Thus, such gain would be most closely aligned to the concept of a public good described in Chapter 1.

**Exchange relations within research**

Granovetter (1985) demonstrated that the efficacy of economic transactions, such as contracting for services or job searches, increase when rooted in social networks. Furthermore, the freedoms associated within many market economies are impossible to conceive without also acknowledging the existence of a set of community norms within which the transactions take place (Granovetter, 1985). According to Granovetter (1985), the trust within these transactions comes about either through repeated personal experiences or through expectations based on reputation. Within the context of an organization, repeated contacts over time provide the opportunity for long-term relationship building (Powell, 1990).

It is also important to explore the dynamics that occur within the exchange relation. Unlike neo-classical economic theorists who examine transactions as independent occurrences, social exchange theorists situate the relationship as a “series
of transactions between the same actors over time” (Emerson, 1981, p. 42). The longitudinal nature of such a perspective is crucial since

the temporal aspects of exchange relations allow the development of “emergent” aspects of the relation, such as trust, commitment, solidarity, “investments,” concerns about “justice” and equity, and contractual agreements...[as well as] the most important single feature of the exchange process is the tendency for actors to become – through exchange – drawn into patterns of more or less lasting mutual dependency. (Emerson, 1981, p. 42).

Thus, without considering the effect of time, it is difficult to examine the dynamics within a social exchange relationship. These conclusions are supported Ballard-Reisch and Weigel’s (1991) in their examination of social exchange within the intergenerational family farm. Within the family structure, dynamics of established goals, commitments to those goals, and attractiveness to available alternatives help determine the level of dependency on one another (Ballard-Reisch & Weigel, 1991).

In addition to the importance of time, a discussion of power should also occur. In a simple actor-actor exchange, power discussions are very limited (Emerson, 1981). This limit is due to the lack of advantage that occurs when one person, being more powerful chooses to assert that advantage to gain benefits, in reality becomes more dependent and the advantage is lost (Emerson, 1981). Instead, power is better examined as a function of position among three or more actors, either within a group or network (Emerson, 1981). Since the university-based extension system is a group of actors working together to provide service, the discussion becomes more relevant.

As a collective actor, an extension agent is a member of a group whose “group-relative conduct is prescribed by collective mandates that are more or less consensually valid across the membership of the group” (Emerson, 1981, p. 46). The value that a group gives an exchange is based on the perceived objective importance of the need
and the degree of uncertainty that exists around obtaining a certain input (Emerson, 1981). That uncertainty results as a function of two variables:

1. incompetence of role-occupants (as a set) to master the tasks assigned to that role; and
2. the power of role-occupants based upon:
   a. their alternative group affiliations, and
   b. their degree of organization as a class-conscious division of labor.
(Emerson, 1981, p. 49)

This conclusion is also supported by the research conducted by Ballard-Reisch and Weigel (1991). In the family farm structure, assigned or assumed roles and the way power manifests within the family unit each have the ability to impact negotiation within the exchange environment (Ballard-Reisch & Weigel, 1991). Each member possesses a set of skills and knowledge that are directed towards the need (in this instance, the common defined goal). Power manifests to the extent that Family Member B is dependent on Family Member A to accomplish that goal, the perceived importance of the goal to each member, and the availability for alternative methods of achievement (Hocker & Wilmot, 1985). Thus, power plays a critical role in an exchange.

Moreover, within an exchange relationship housed in a service-based market, value can take on a variety of additional factors that impact the understood meaning. To the supplier, value becomes a product of understanding “customer needs, developing products…, to fill those needs, and matching customers to products through marketing activities in competition with other suppliers” (Johnson & Selnes, 2004, p. 2). To the customer, value is assessed by determining which supplier will provide “the highest expected benefits less any associated costs and risks” (Johnson & Selnes, 2004, p. 2). A customer’s ability to adequately evaluate the options available affects his or her relationship with the supply chain (Johnson & Selnes, 2004). “The more heterogeneous
the demand, the greater is the benefit of finding an alternative that better fits customer
needs relative to the costs and risks incurred” (Johnson & Selnes, 2004, p. 2).

Furthermore, exchange relations can develop over time, existing at varying levels
of satisfaction and commitment based on perceived value. According to the typology
presented by Johnson and Selnes (2004), four levels of exchange relations may exist
between supplier and customer: strangers, acquaintance, friend, and partners. Within
this typology, strangers are “customers and suppliers in a preawareness and/or
pretransaction period” (Johnson & Selnes, 2004, p. 3). Such a relationship would exhibit
no known ties, strong or weak, or any level of linking capital between the two parties.
However, individual capital for each of the parties (bonding and bridging) would be
present based on the party’s own social network.

An acquaintance occurs once an initial transaction has taken place that
exhibits parity value, or value on par with industry competitors (Johnson & Selnes,
2004). In an acquaintance scenario, the relationship remains beneficial as long as the
“supplier provides the product in a satisfactory way at a price that is perceived as fair”
(Johnson & Selnes, 2004, p.3). Within this level of relationship, weak ties would begin to
form, with linking capital beginning to be established between the two parties. Individual
capital (bonding and bridging) for each of the parties would likely remain unchanged
through the initial contact, though the bonding and bridging capital may be influenced
over time depending on the positive or negative nature of the interactions.

An exchange relation can either transition from acquaintance to friendship, or
from stranger to friendship (skipping acquaintance altogether) (Johnson & Selnes,
2004). Friendships exist when differentiated offerings that have been adapted to meet

the needs of specific market segments are provided to customers which has the potential to elicit a paid premium for the superior offerings (Johnson & Selnes, 2004). This transition requires “the development of trust in the relationship...be it to a brand, an individual...or an entire organization” (Johnson & Selnes, 2004, p. 3). Within this level of relationship, it is likely that weak ties have formed and linking capital between the two parties has begun to grow. Individual capital (bonding and bridging) for each of the parties has likely been influenced as time has progressed, again depending on the positive or negative nature of the interactions.

Once this trust is established, it is possible for more long-term commitments to be made, making a shift from friend to partner. The partnership level occurs when suppliers provide a customized product with dedicated resources that have been individualized for a specific customer’s needs (Johnson & Selnes, 2004). Within a partner relationship, “trust is a necessary, but not sufficient condition” (Johnson & Selnes, 2004, p. 3). Instead, as posited in the discussion of social exchange theory and generalize reciprocity above, “trust breeds trust, which ultimately increases commitment and results in a shift from short-term exchanges to long-term relationships” (Johnson & Selnes, 2004, p. 3). Within this level of relationship, strong ties have replaced the previous weak ties and the linking capital between the two parties is now well established, with new weak ties being created between each party’s network. Individual capital (bonding and bridging) for each of the parties has likely been influenced as time has progressed, again depending on the positive or negative nature of the interactions. A full summary of characteristics for Johnson and Selnes’ (2004) typology is provided in Figure 2-2.
<table>
<thead>
<tr>
<th>Source of competitive advantage</th>
<th>Acquaintances</th>
<th>Friends</th>
<th>Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parity product as a form of industry standard</td>
<td>Differentiated product adapted to specific market segments</td>
<td>Customized product and dedicated resources adapted to an individual customer or organization</td>
<td></td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Satisfaction + trust</td>
<td>Satisfaction + trust + commitment</td>
<td></td>
</tr>
<tr>
<td>Satisfaction facilitates and reinforces buying activity and reduces need to search for market information.</td>
<td>Trust in supplier is needed to continue the buying activity without perfect information.</td>
<td>Commitment in the form of information sharing and idiosyncratic investments is needed to achieve customized product and to adjust product continuously to changing needs and situations.</td>
<td></td>
</tr>
<tr>
<td>Familiarity and general knowledge of customer (identification) facilitates selling and serving.</td>
<td>Specific knowledge of customer's connection to segment need and situation facilitates selling and serving.</td>
<td>Specific knowledge of customer's need and situation and idiosyncratic investments facilitates selling and serving.</td>
<td></td>
</tr>
<tr>
<td>Low: Generally low but depends on industry factors such as market growth, satisfaction with competing alternatives, distribution, and media availability.</td>
<td>Medium: Acquisition and/or conversion costs increase with degree of differentiation in product (perceived risk), established preferences for competing alternatives, and availability of segment specific channels and media.</td>
<td>High: Acquisition and/or conversion costs increase with degree of customization and level of idiosyncratic investments from one or both sides.</td>
<td></td>
</tr>
<tr>
<td>Short: Generally short because the buyer can shift supplier without much effort or cost.</td>
<td>Medium: Generally longer than acquaintance relationships because trust in a differentiated position takes a longer time to build and imitate.</td>
<td>Long: Generally long because it takes time to build and replace interconnected activities and to develop a detailed knowledge of a customer's need and the unique resources of a supplier to commit resources to the relationship.</td>
<td></td>
</tr>
<tr>
<td>Low: Generally low, but competitors can vary in how they build unique value into selling and serving even if the product is a form of industry standard.</td>
<td>Medium: Generally medium but depends on competitors' ability to understand heterogeneity of customer needs and situations and the ability to transform this knowledge into meaningful, differentiated products.</td>
<td>High: Generally high but depends on how unique and effective interconnected activities between customer and supplier are organized.</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2-2. Typology of exchange relationships (Johnson & Selnes, 2004, p. 5).
Early Conceptual Framework of Current Study

The theoretical frames above were central to several educational explorations and studies performed over the course of the researcher’s master and doctoral programs. They were, therefore, impossible to separate from the creation and development of this study. To wit, the following conceptual model (Figure 2-3) developed over the early stages of data collection and analysis for use as a roadmap in this descriptive study. Each of the frames represented below (organizational, social field, social capital, and exchange) is based on the theoretical frames discussed above and played a limited role in the development of the study and the instruments used. During the early stages of data collection and analysis, each frame was used as a lens against the data, resulting in the following basic model.

Figure 2-3. Early stage conceptual model for current study.
In basic terms, this conceptual model posits that in any given setting there are social fields at work, establishing a culture through a variety of interactions between the actors within the setting. During these exchanges, positions and roles are defined, and the direction and structure of the interactions are manifested. Moreover, within any given community, many social fields exist.

Within the numerous social fields in a community exist those created by an organization. A social field is established within the organization itself. However, it is possible to better understand the richness of interactions within an organization when a secondary theoretical lens is also applied; in this study, the Burke-Litwin model. By examining the impact of both transformational and transactional variables within the context of an organization it is possible to understand how a shift or change within an organization can impact not only the organizational processes, but social fields as well.

Beyond the organization’s internal social field exists a social field that manifests between the organization and external actors at the local level. These actors may be clients, volunteers, or simply members in the community. Within this social field, each external actor brings with them a certain level of social capital wherein lay established community norms, varying levels and types of trust, and perceived reciprocity within their relationships. These relationships may be with others in their community (bridging or bonding), or they may be with established institutions (linking). Moreover, these interactions are confounded by additional social fields that exist since Extension is not only a local, but a state- and national-level organization.

Further, it is believed that in addition to the social capital held by the external actor, any exchanges (social or economic) between the organization and an external
actor can also be impacted by the type of exchange (negotiated transaction, reciprocal transaction, generalized reciprocity, or incorporation) and the level of relationship already established between the external actor and the organization (stranger, acquaintance, friend, or partner). In order to understand the fullness of this relationship, it is crucial to consider these interactions through all four lenses.

The researcher believes that by presenting this model readers are presented with a finer lens through which to understand the chosen methodology, presented findings, and drawn conclusions. A final model that includes conclusions from the data analysis is presented in Chapter 5.

**Chapter Summary**

Chapter 2 provided an overview of the conceptual and theoretical frameworks used throughout the entirety of this study. The researcher provided the reader with a synopsis of social constructionism - the theoretical perspective that drove multiple decisions throughout the study. The concepts of socialization and roles, the importance of language, and transformations were also presented to facilitate the transition between the grand theory frame of social constructionism and the theoretical frames selected for this study. A discussion of the Burke-Litwin model, social field theory, social capital, and exchange theories followed. Finally, the reader was provided with a conceptual model through which the present study was conducted. Chapter 3 will elaborate on the methodologies selected and utilized throughout this study. Once established, the final two chapters will present the study findings from each of the three cases, drawn conclusions, perceived implications, and recommendations for practice and research.
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CHAPTER 3
METHODOLOGY

Chapter 1 provided the groundwork for this study, presenting an overview of the role of extension systems, the study’s purpose, objectives, and significance. Chapter 2 provided the conceptual and theoretical frames, and appropriate supporting literature, used both in the design of this study and in subsequent analyses. The conceptual model, which served as a theoretical roadmap for this study, was then presented.

The purpose of Chapter 3 is to clearly articulate the research design for this study, as well as the collection and analysis methods selected for use in this study. The chapter begins by reaffirming the study’s purpose and objectives. A statement of subjectivity and bias is provided to inform the reader of potential subjective lenses through which the study was conducted. Finally, the chapter concludes with an overview of the research methodology utilized for collection and analysis throughout this study.

Purpose and Objectives

Review of Problem Statement

Under the premise that systems which rely solely on either public or private funding are largely unsustainable, it is believed that any system attempting to meet the needs of all the citizenry must find some configuration of organizations, both public and private, that will provide the most effective outcomes (Rivera & Cary, 1998). Believing that the science-based knowledge and expertise generated within a university-based system is too invaluable to completely discard, the question of how such an arrangement might exist within a university-based extension system has been selected for exploration.
Purpose and Objectives

As a contribution to this effort, it is believed that an examination of the current structure and organization of two university-based extension systems (one which is still publicly funded and one that has transitioned to a commercialized system) and the perceived dynamics that exist between local agents and local small-scale farmers will be of use. Key objectives that drive this study included:

“Within” cases

Case 1: Florida

- Objective 1: To describe the various actors (Florida small-scale farmers and FL-CES agents) that participated in this study.
- Objective 2: To explore the processes and perceptions that these agents in Florida use with regards to meeting the needs of their respective small-scale farmers in creating and maintaining small-scale operations.
- Objective 3: To explore the perceptions that these small-scale farmers in Florida have with regards to the university-based extension system and their personal relationships with extension (FL-CES).

Case 2: Scotland

- Objective 1: To describe the various actors (Scottish small-scale farmers and SAC consultants) that participated in this study.
- Objective 2: To explore the processes and perceptions that these consultants in Scotland use with regards to meeting the needs of their respective small-scale farmers in creating and maintaining small-scale operations.
- Objective 3: To explore the perceptions that these small-scale farmers in Scotland have with regards to the university-based extension system and their personal relationships with extension (SAC).

“Between” case

Case 3: Florida-Scotland

- Objective: Using data from the Florida and Scotland cases, identify the key concepts that arise from the data and elaborate on how those concepts related to one another within a theoretical frame.
Researcher’s Subjectivity Statement

Within the context of a qualitative study, one where there is deemed no singular truth waiting to be uncovered, it is important for the researcher to clearly articulate the subjective lenses through which he or she may be viewing the various interactions and phenomena (Denzin & Lincoln, 2011). A researcher’s subjectivity statement is designed to capture relevant experiences, beliefs, worldviews, and cultural and professional predispositions that have the potential to impact all stages of the research (Denzin & Lincoln, 2011). Having such a statement provides the reader with a critical advantage when viewing the study’s construction, implementation, and conclusions, as he or she can then apply a similar lens utilized by the researcher.

I am a Caucasian, American woman. I have been fortunate in my life, so much more than others who grew up on the east side of Gainesville, FL. Born into a family full of love and faith, my life has always been marked by deep, meaningful relationships. However, growing up in a university town also meant that I have experienced the impact that short-term relationships can have on a life. A transient community, most friends I had during my school-aged and young adult years have come and gone. Many left a mark – some faint from time, others remain indelible.

Within this community, my father created a life for his family. We were not rich, but we were not poor either, at least not that we as his children ever knew. My father was a hard-working, middle-class, self-employed, small businessman who sold and serviced technology-based equipment for many businesses throughout North Central Florida. Many people in Gainesville knew my dad and his undeniable reputation for fairness and quality of service. I would often hear, “Oh, you’re Ike’s daughter,” to which I would proudly reply, “Yes! Yes, I am.” The connections my father forged within this
small, university town often snuck up on me, but were always met with a positive exchange. The exchanges between my father and his clients, though initially built on an economic exchange, exhibited high levels of social capital. While money mattered, so did the relationships. I believe this concept, that within an economic exchange a strong level of social capital can both be produced and maintained, significantly impacted my perspective as I conducted this study. I also believe my father learned this perspective on living life from his parents, faithful community members of a small township in Ohio.

The lineage of my paternal grandparents is rooted deeply in the United Kingdom. My grandmother came to the states from England as a young adult; my grandfather’s family emigrated from England before his birth. Both settled in Ohio and built a life together on the family dairy farm which remains in the family to this day. While notable in the county, this farm would be considered a small farm by today’s definition. My grandfather was far more focused on building relationships than building an empire. This fact is evidenced by the numerous stories of exceeding friendship in times of immense trials that are shared by strangers I meet whenever I have a chance to visit the township. Though he was the youngest of six children, my father never shirked at his responsibility as a member of the “team,” at least no more than any young boy might. He brought that discipline with him as he served in the Air Force, and then entered the civilian world and served those around him.

What I learned of relationship-building from my father is complimented by the love of learning I received from my mother. Education can be a lifelong process, if you allow it to be. I, obviously, took that lesson to heart, still being a student at 40. From an early age, I watched my mother embody this passion for learning and helping others
learn as well. I started my higher education career in formal education, focused on Elementary Education with a specialization in Middle Grade Science. After graduating with my Bachelors, I taught at a private, Christian school for almost six years before realizing that I had more questions than answers when it came to my discipline. I decided to return to school, this time entering the world of non-formal education. My desire was to more fully understand education as it existed outside of the traditional classroom through both a Masters' Degree and subsequent PhD. It was this desire, and a job opening with the Florida 4-H state office in curriculum development, that paved the way into my becoming a part of Extension.

Though my history had an agricultural component, I considered myself ag-adjacent. Before joining the 4-H staff, I believed that Extension was only something taken advantage of by those living in rural communities. I lived near and travelled through rural communities, but believed I was only ever adjacent to the world of Extension. And then I learned. I learned about the mission, the vision, the mandates that make Extension something that serves all Floridians, not just the traditional farmer. I learned about the techniques needed for teaching those who are not required to sit through a given lesson. I learned about the many ways that information can, and should, be presented to a diverse set of audiences. I learned about the necessity of assessing the preferences of the intended audience in order for successful learning to take place. I learned far more than I ever thought I would. I also learned how few people know what Extension does within the communities it serves. I learned many people are surprised that they receive services as well. I learned that, many times, this lack of knowing is detrimental to those who are attempting to provide services to communities.
they passionately care about as budgets are cut or eliminated altogether. I learned there might be a need for change.

Change theory often drives many Extension efforts. Numerous graduate classes have expounded on the value of such theories and practices. Yet change is hard, even for an organization that promotes change itself. The success or failure of a service-based organization often comes at the hands of deciding to change in order to meet the needs of those paying for those services. I’m old enough to remember Blockbuster’s decline as Netflix rose in popularity; or the decline of the American mall scene as Amazon took front stage. But I also remember my dad having to decide, at 65 years of age, whether or not to learn both the hardware and software demands of computers in order to continue serving his clientele. Though a daunting task, he chose to try because the business of relationships he had built in the community were that important to him.

It is at this same crossroads, this same decision point, that I believe Florida Cooperative Extension Service finds itself at today. Does Florida Cooperative Extension Service need to change in order to better meet the needs of its clientele, and if so, what does that change need to entail? Moreover, I selected the small-scale farmer as an audience for consideration because of my personal history as well. As mentioned, my father was a self-employed, small businessman. Money was carefully considered when utilized, but investment was not out of the question. With these concepts and experiences in mind, I decided to focus my doctoral research effort on attempting to better understand what the needs of small-scale farmers are, and would they also be able and willing to invest in services deemed important for business growth, including advisory services provided through a university-based system.
Selected Research Paradigm: Interpretive

All researchers, whether consciously or not, align themselves with a particular ontological and epistemological paradigm that ultimately defines the research that is conducted. In the qualitative arena, researchers must explore beliefs about the nature of reality, the relationship between the knower and the known, and how the knowledge that exists can be gained (Denzin & Lincoln, 2008). Misalignment or misidentification of these principles can cause serious issues throughout the research process (Denzin & Lincoln, 2008). The following statements clearly articulate the selected interpretive paradigm held by the research, thus enacted within the realm of this study.

Ontology

An ontology refers to the “study of being” (Crotty, 1998, p. 10) or the “nature of reality” (Lincoln & Guba, 1985, p. 37). In this study, the researcher holds that there is no one “truth” to be known. Instead, the researcher believes that social research produces “multiple constructed realities that can be studied holistically” (Lincoln & Guba, 1985, p. 37). Furthermore, because of this multiplicity, “inquiry…will inevitably diverge” (Lincoln & Guba, 1985, p. 37), generating more questions than answers. Regardless, it is believed that the conclusions and further questions will provide new insights into this area of study. Thus, this research assumes a relativist ontology.

Epistemology

Concurrent to the ontology, an epistemology refers to “how we know what we know” (Crotty, 1998, p. 8). For this study, the researcher assumed that, in addition to the existence of multiple constructed realities, the “investigator and the object of investigation are…interactively linked so that the ‘findings’ are literally created as the investigation proceeds” (Lincoln & Guba, 1985, p. 207). Furthermore, “all knowledge,
and therefore all meaningful reality as such, is contingent upon human practices being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context" (Crotty, 1998, p. 42); thus, this research assumes a constructionist epistemology.

**Methodological Procedures**

An elected ontology and epistemology drive the methodological decisions of the researcher. Such choices are made to elucidate beliefs on “how we know what we know” (Crotty, 1998, p. 8). Within this study, a naturalist set of methods have been selected. Methods within similar studies tend to situate themselves in the natural world, prompting several conditions. First, the primary data collection instrument should be the researcher, since the researcher alone has the ability to fully comprehend, reply, and formulate a description of the complex dynamics that may be occurring during the interaction (Lincoln & Guba, 1985). Second, it is critical that the research participants be as close to the natural setting as possible since “their realities are wholes that cannot be understood in isolation from their contexts” (Lincoln & Guba, 1985, p. 39). Finally, the end goal of the research lies in the production of a collaborative response that results from the reconstruction of the multiple points of view captured over the course of the collection and that represents the multiple realities that exist (Guba & Lincoln, 1989).

**Design Selection: Case Study**

The methods most often associated with the constructionist epistemology are qualitative, due to the stance toward having no single, objective “truth” (Gergen & Gergen, 2003). In a social constructionist study, since knowledge is generated and shared among community participants, the methods used to capture that essence must be contingent upon the particular conventions shared within the community (Gergen &
Both design and method choices are intricately linked to both epistemologies and theoretical perspectives, and bring with them certain sets of assumptions (Gergen & Gergen, 2003). One such method, case study research, is preferred “when (a) “how” or “why” questions are being posed, (b) the investigator has little control over events, and (c) the focus is on a contemporary phenomenon within a real-life context” (Yin, 2009, p. 2), and is therefore appropriate within this study.

Furthermore, by using case studies, researchers are able to maintain the characteristic integrity of real-life events (Yin, 2009), allowing space for the complexities of such social interactions to unfold. In a study which attempts to capture social interactions not only in varying communities, but in different countries as well, such a method becomes a strong choice. Case-study design also provides the opportunity for capturing a thick, rich description of an observed phenomenon, which is important when attempting to understand a phenomenon (Merriam, 1998). The complexities that exist within a service-based exchange, such as the ones between EAS agent and clientele, are of such a dynamic nature that it is crucial for such a rich description to be captured while maintaining the integrity of the exchange events.

Case studies are also useful in allowing the researcher to explore the phenomenon across multiple individuals, groups, places, sites, or settings (Patton, 2002). Properly done, this allows the researcher to capture this complex data in a rigorous fashion, with multiple sources of evidence being used to triangulate findings (Patton, 2002). Merriam (1998) also stated that within the context of a study “the interest is in the process rather than outcomes, in context rather than a specific variable, in discovery rather than confirmation” (p. 19). Therefore, due to the nature of the research
objectives and the real-life context of the relevant data within this study, the decision to conduct this research as a qualitative, descriptive study using case studies was made.

Population and Sample

Data Sources

The population of interest in this study included all agricultural extension agents who work for the respective university-based extension program and the small-scale farmers who live in the areas served by those agents. In attempting to collect the broadest understanding of relationships and dynamics between these groups, and to ensure that communities with a positive bias towards Extension, SAC, or agriculture in general were not the only sources included in study findings, primary data were collected from small-scale farmers and extension agents who fit the following criteria:

- Florida small-scale farmers who either live in FL counties that have agriculture as a top income source in the county, or whose county fails to have agriculture as a top income source or demonstrate less favorable agricultural characteristics.
- Florida extension agents who either serve in FL counties that have agriculture as a top income source in the county, or whose county fails to have agriculture as a top income source or who demonstrate less favorable agricultural characteristics.
- Small-scale farmers who live in Scotland’s main agricultural corridor (who may receive limited governmental support towards receiving services) or who live in the Highlands and Islands of Scotland (a less-favorable area).
- SAC consultants who serve in Scotland’s main agricultural corridor or who serve in the Highlands and Islands of Scotland (a less-favorable area).

Location Selection

Participant recruitment locations were determined using a purposive selection process. Purposive (or purposeful) sampling allows the researcher to intentionally identify participants based on characteristics of interest based on the study’s purpose and resources (Patton, 2002). A similar purposive process was used for selection in
both Florida and Scotland. Again, the intention in this purpose sample was to collect the broadest understanding of relationships and dynamics between these groups and to ensure that communities with a positive bias towards Extension, SAC, or agriculture in general were not the only sources included in study findings. Areas in Scotland were divided in two, based on the Scottish Government’s denotation of less favoured areas [LFA] within the Economic Report on Scottish Agriculture 2012 (see Figure 3-1).

Figure 3-1. Less Favoured Areas (LFAs) in Scotland (Scottish Government, 2014).
LFA lands in Scotland are defined by,

(i) The presence of poor land of poor productivity, which is difficult to cultivate and with a limited potential which cannot be increased except at excessive cost...
(ii) lower than average production, compared to the main indices of economic performance in agriculture. (iii) a low or dwindling population predominantly dependent on agricultural activity, the accelerated decline of which could cause rural depopulation. (Scottish Government, 2011, para. 1)

Areas in which agriculture is a top income source and falls into a non-less favored area constituted one half of the sample frame, while those that exist within the LFAs of Scotland constituted the other. Locations for interviews were then based on locales that hosted one of the 26 SAC field offices.

Due to limitations both in time and resources for this two-nation case study, it was not possible to sample using a theoretical sampling model. Instead, the researcher identified a total of 10 locations in Scotland and 10 locations in Florida. This number of locations was selected in an attempt to generate saturation among and between the cases. With 10 farmer interviews and 10 agent/consultant interviews, conducted using a dyadic interview approach, the estimated number of potential voices captured for each data set exceeds the 12-15 cited by many qualitative researchers who purport an established point of saturation (e.g., Guest, Bunce, & Johnson, 2006; Mason, 2010).

Within the Scottish case, five areas were deemed LFA, and five were non-LFA. These areas were subdivided further based on SAC office services. Two of the five locations in each half (a total of four within Scotland) were deemed limited-service offerings (having only one service offered – general consultancy services). Two of the five were deemed moderate-service offerings (having two services offered), while the remaining one provided extensive-service offerings (having three or more services
offered on site). Therefore, the whole Scottish case represents four limited-service offices, four moderate-service offices, and two extensive-service offices (Table 3-1).

Using a similar framing process, counties in Florida were assessed using both county value of agricultural products sold in dollars and percentage of county income generated by agricultural industry that have agriculture as a top income source for the county, and those that do not, based on data from the 2007 Census of Agriculture (USDA, 2009) and Census 2000 (U.S. Census Bureau, 2002). From those counties, an assessment of soil quality, location within the state, distance to major urban center, and various historical and cultural considerations was conducted in order to align as closely with the Scottish LFA criteria as possible. Five counties from each category (LFA and non-LFA) were selected, for a total of 10 out of the 67 Florida counties served by Florida Cooperative Extension Services. Three of these counties were located in the Florida Panhandle (orange), four were located within Central Florida (blue), and three were located in South Florida (green) (see Figure 3-2).

Figure 3-2. Regions of selected counties in Florida.
These areas were subdivided further based on available agricultural Extension services. Since Florida has a more diverse agricultural set of services offered throughout the state, the researcher adjusted the categories accordingly. Three of the five locations in each half were deemed limited-to-moderate service offerings (having one or two agriculturally-related service offered). The remaining two provided extensive service offerings (having three or more services). Therefore, the whole Florida case represents six limited-to-moderate service offices and four extensive-service offices (Table 3-2).

Participant Selection

Small-scale farmer recruitment - Scotland

Small-scale farmers who lived in and around the selected Scottish offices were contacted using network contacts. Farmers in Scotland were identified and initially contacted through either the National Farmers’ Union (NFUS) regional representative or the local Scottish Crofting Federation administrator using a criterion selection method. The criterion included: 1) the farm was a “small” farm based on the USDA designation of GCFI, 2) the farmer lived on the farm that he/she operated, 3) the farm was within 50 kilometers of the nearest SAC office, and 4) the small-scale farm was representative of other small-scale farms in the area. It was clearly stated that a farmer need not have a relationship with SAC in order to participate. This stipulation was vital for gaining as diverse perspectives about SAC as possible from small-scale farmers. Once farmers provided consent to be directly contacted, the researcher initiated a follow-up contact (Appendix A) using either phone or email determined by participant preference. Each farmer was provided with an overview of the research study as well as an Informed Consent prior to committing to participation. A sample of the informed consent language
used in this study is provided in Appendix B. All farmers who received an initial contact from the researcher participated in the study.

**Small-scale farmer recruitment - Florida**

Unlike Scotland, there is no overarching social network (such as NFUS) that could provide member lists or recommendations. Instead, Florida small-scale farmers were recruited in each of the 10 selected counties using a farm-focused, web-based search engine (LocalHarvest). Again, the researcher applied the same criterion sampling method: 1) the farm was a “small” farm based on the USDA designation of GCFI, 2) the farmer lived on the farm that he/she operated, 3) the farm was within 30 miles of the nearest Extension office, and 4) the small-scale farm was representative of other small-scale farms in the area. The researcher contacted farmers directly to gauge interest and schedule interviews. Each farmer was provided with an overview of the research study as well as an Informed Consent prior to committing to participation. There were three counties in the sampled frame where none of the farmers contacted agreed to participate in the study. The researcher attempted to contact multiple farms using multiple contact methods, to no avail. Therefore, the voices of small-scale farmers in these three counties are not included in this study.

**Agent/consultant recruitment - Scotland**

After gaining organizational approval and support from the Director of SAC Consulting, SAC consultants that served the selected locales were contacted by email. They were asked to identify a time during the nine-week Scottish data collection period that they and at least one other person who is part of the advisory team that works with local farmers (as determined by the consultant) could meet and participate in the
interview process. Even with the support of the director, the researcher provided each consultant with the freedom to participate or decline.

**Agent/consultant recruitment - Florida**

After gaining organizational approval and support from the Dean of UF/IFAS Extension, Director of the Florida Cooperative Extension Service, agricultural extension agents that served the selected counties were contacted by email. They were asked to identify a time during the data collection period that they and at least one other person who is part of the agricultural Extension team that works with local farmers (as determined by the agent) could meet and participate in the interview process. Even with the support of extension director, the researcher provided each agent with the freedom to participate or decline. All offices that received an initial contact from the researcher participated in the study, though several of the offices required multiple contacts and rescheduled meeting times due to events beyond participant or researcher control.

An overview of the research study as well as an Informed Consent were provided to each participant. Basic demographics for each case are presented in Table 3-3.

**Data Collection**

**Instrumentation**

Since social constructionism sees the individual within the social context as the sense maker (Berger & Luckman, 1966; Gergen, 2001), the researcher must use collection methods that provide insight into the participants’ understandings of their socially-derived world. Language and the discourses created through that language play a crucial role (Gergen & Gergen, 2007). Personal narratives serve as the “meaning-making units of discourse” (Riessman, 2013, p. 182). Therefore, to capture the rich, thick description necessary for proper analysis, a researcher would need to use
collection methods that resulted in such data. Collection methods that focus on capturing such language include in-depth interviews (Spradley, 1979), life stories or narratives (Gergen & Gergen, 1988), focus groups (Krueger & Casey, 2009), and conversational documents such as interactive researcher-participant journals (Janesick, 1999) or transcripts of conversations held during relevant exchanges (Gephart, 1993). These verbal or conversational data serve as evidence of interactions within the naturally occurring social setting (Gephart, 2004). Furthermore, when entering a research space defined by a constructionist perspective, the researcher’s role becomes one, not of a distant observer, but as a co-participant (Hosking & Shamir, 2012). To facilitate these two positions within the current study, elements from dyadic interview methodology were integrated into the instrument’s design and implementation.

Dyadic interview is a burgeoning methodological field (Eisikovits & Koren as cited in Morgan, Ataie, Carder, & Hoffman, 2013); however, the strengths this methodology provides in the context of communicating a shared experience were too valuable to ignore. According to Morgan et al. (2013), dyadic interview methodology embraces the interdependence within a relationship and seeks to capture it as a valuable source of information, rather than a variable to control for. With such a dynamic feature, it was anticipated that comments made by one participant would generate additional thoughts, comments, and feelings from others in the same interview. Since this research was founded on the premise that valuable information lays in the socially constructed world within and between relationships, this feature was viewed as being an advantage rather than a disadvantage (Morgan et al., 2013). Furthermore, since an intentional effort of the research was to enter the “real-world” of participants, a two or three-person
conversation would more closely imitate real life exchanges (Morgan et al., 2013), thus providing greater comfort for participants and a closer alignment to entering their world. These participants were all encouraged to bring with them a person who works with them, either on the farm or in the office. When these partners were present, the conversations would often role seamlessly from one person into another, both sharing similar stories yet providing different insights and points of view. In addition to becoming a co-participant, the interviewer attempted in each collection setting to establish a relationship of equity between the interviewees and self to diminish any potential power concerns that may exist.

The interview guide (Appendix C and D) was loosely constructed around main topics with supporting probes, to generate a dialogue between the co-constructors – the interviewees and the interviewer. The researcher attempted to craft the instrument in a way that explored the social interactions and creation of meaning using the conceptual roadmap developed for this study. However, the protocol was simply a guide and the ultimate direction of the conversation was left to evolve between the researcher and the participant based on participant responses.

**IRB Review**

Before any data was collected, a formal review of the study’s protocol was conducted by the University of Florida Institutional Review Board [IRB]. The IRB approved the proposed research, assigning this study IRB protocol number (2013-U-0200). The protocol included the rationale for the study, an overview of the research process, required participant investment in the process, potential risks and benefits to participants, as well as all resources including recruitment script, informed consent form, and interview protocols. Once formal approval by the IRB was obtained, the data
collection process began. Due to the time-period of this project, two Requests for Continuation have been made and approved.

**Collection Process**

Throughout the collection process, the data for the “within” cases were established. These “within” cases were designed to present two sets of perspectives (farmer and agent) within each country. These perspective sets include:

- Florida small-scale farmers who either live in FL counties that have agriculture as a top income source in the county, or whose county fails to have agriculture as a top income source or who demonstrate less favorable agricultural characteristics.

- FL-CES agents who either serve in FL counties that have agriculture as a top income source in the county, or whose county fails to have agriculture as a top income source or who demonstrate less favorable agricultural characteristics.

- Small-scale farmers who live in Scotland’s main agricultural corridor (who may receive limited governmental support towards receiving services) or who live in the Highlands and Islands of Scotland (a less-favorable area).

- SAC consultants who serve in Scotland’s main agricultural corridor or who serve in the Highlands and Islands of Scotland (a less-favorable area).

Audio recordings were transcribed and both written and audio files for each case were grouped into separate folders throughout the collection period. During these experiences, a code book with participant identities and repeated concepts or ideas was created. Respondents were assigned a code (FA1 – Florida Agent 1; SF5 – Scottish Farmer 5) to maintain anonymity while keeping case members together.

The data collection process for this study ran from March 2013 through April 2016. Data was collected from all participants using semi-structured dyadic interviews, involving two or more people. Dyadic interviews were conducted with small-scale farmers and at least one other person who was deemed essential to the management of the farm as determined by the small-scale farmer, and with EAS agents who served the
farmers in those same locales. To situate the interview sessions in such a way that the interviewees felt safe sharing with the interviewer about their identity (at least as it is perceived by them), the interviewer took steps to ensure comfort, privacy, confidentiality, and anonymity. To minimize discomfort and to enhance the real-world considerations of this study, all farmers were interviewed at their respective farm, while agents were interviewed at their respective extension office. Additionally, farmers were assured that agents would never be provided with any identifying details about the interviewed small-scale farmer as maintaining anonymity and confidentiality for the small-scale farmer were of the utmost importance for the researcher. To that end, in each country, agents were interviewed prior to farmers to ensure the researcher’s ability to limit exposure of what local small-scale farmers were sharing. Furthermore, each participant was assigned a pseudonym for use in data collection and analysis. These steps were taken simply to ensure trustworthy (valid) responses, but to also enhance the level of thick, rich description that result if the interviewees feel at ease in sharing their story since this topic was deemed potentially sensitive in nature.

Interviews sessions lasted between 60 and 120 minutes (1-2 hours). Interviews were audio recorded and later transcribed. The interview session began with a central problem, but evolved as the interviewer and interviewees co-constructed the narrative (Charmaz, 2003). The interview session was considered an open space, with little pre-established order determined by the interviewer (Hosking & Shamir, 2012). Questions were designed to create a space for the interviewees to tell their story in their own words as a response to some broader questions (Hosking & Shamir, 2012). During the session, the interviewer attempted to maintain a connection between the interviewees
and the contexts from which the data is being shared, including the contexts of the specific interview, the individual’s life, and aspects of the study and their connection to society and history (Charmaz, 2003; van der Lans, 2002). However, the discussion was always free to follow any pathway deemed important by the interviewees.

**Data Analysis**

One common method for analyzing qualitative data is the constant comparative method. According to Glaser (1965), the constant comparative method was developed as an approach to assist qualitative analysts in generating theoretical ideas using a more systematic protocol of coding and analysis. At the core of its design, the constant comparative method is “concerned with generating and plausibly suggesting…many properties and hypotheses about a general phenomenon” (p. 438). Glaser and Strauss (1999) stated that the four stages of the constant comparative method include “1) comparing incidents applicable to each category, 2) integrating categories and their properties, 3) delimiting the theory, and 4) writing the theory” (p.105).

Due to limitations in time and resources for this two-nation case study, it was not possible to sample using a theoretical sampling model. Thus, this study did not employ a complete grounded theory methodology, of which constant comparative method is a vital component. Instead, this research study employed a modified constant comparative method (Corbin & Strauss, 1990), designed to generate theoretical ideas that represent “new concepts and their properties, hypotheses and interrelated hypotheses” (p. 437) as they apply within a set of four pre-existing theoretical frameworks.

The elements of the constant comparative method included within the analysis of this data are as follows (Corbin & Strauss, 1990):
1. Analysis of data began as soon as the first interview was conducted. Since this study was conducted from a social construction perspective, the researcher and the interviewees each played a role in the development of the data collected. As the details in the conversation shifted, so did the thoughts and interpretations of the participants and researcher.

2. During the interview process, incidents of note were made within the researcher's notes as they occurred. The researcher returned from each interview and immediately listen to the interview, again, to identify any additional incidents that may have existed worth adding to the interview notes. As the data collection process continued, the incidents were compared against other incidents for similarities and differences.

3. From these incidents, concepts were generated. Within this method, concepts represent the basic unit of analysis. In addition to these concepts, others began to be developed using open coding. In the constant comparative method, open coding represents the initial phase of coding. Using the transcripts, key words and phrases were identified and then linked together into concepts. For a concept to be created, it had to have both identifiable properties and dimensions.

4. As additional concepts were developed, they were compared with other concepts both for consistency and variability. Those that were similar conceptually were grouped together to form categories.

5. These categories were then related to sub-categories through axial coding. This level of coding applies questions such as when, why, and where to create sub-categories within each category developed from the open coding process.

6. The final stage of this analysis resulted from the selective coding process. “The core category represents the central phenomenon of the study” (p. 14). It is from this stage in the analysis that the theoretical framework from within the four theoretical frames emerged.

Though the conceptual roadmap was used to help guide the research process, the researcher intentionally allowed ample space for the data to speak for itself during both the collection and analysis stages, allowing patterns and themes to emerge rather than superficially imposing them onto the data prior to collection (Patton, 2002). Such a decision resulted in having only some of the elements from the roadmap addressed by participants within the findings.
As stated above, due to the nature of this methodology, data began being analyzed as soon as the first interview was started. As the conversation shifted between participants and researcher, so did the thoughts and interpretations. During this interaction, conceptual incidents were written down by the researcher along with additional notes that the researcher believed may assist with directing subsequent interview questions or the reflection process to come. Such notes were invaluable as they provided points of clarity throughout the analysis and writing processes. To keep track of these notes and the codes identified within the data, the researcher computer software commonly utilized within qualitative studies – MaxQDA® and Microsoft Excel®.

Since this process of triadic coding (open, axial, and selective) is cyclical rather than linear (LaRossa, 2005), each set of data were read multiple times, often while listening to the recording for enhanced understanding of participant intonation and voice. As concepts, patterns and themes emerged, supporting data were placed into a separate file for review and meaning-making. Member checks were conducted with participants at various points over the course of the study period in an attempt to maintain the constructionist nature of the study and to enhance trustworthiness as the researcher confirmed intended meaning of words, phrases, or interpretations the researcher had made (Lincoln & Guba, 1985). In Chapter 4 - Findings, individual codes have been further collapsed into county or regional area (C1-C10 and R1-R10) due to the dyadic, socially constructed nature of the collection process.

**Open Coding**

While coding within this triadic coding scheme may not be linear, the most common place to start is with open coding. Strauss and Corbin (1998) described open coding as a process where “the data are broken down into discrete parts, closely
examined, compared for similarities and differences, and questions are asked about the phenomenon reflected in the data” (p. 102). Within this study, the researcher made sure to record incidents of note as they occurred during the interview process. Once the researcher returned from each interview, the interview was again listened to so the researcher could identify any additional incidents that may have existed worth adding to the interview notes. This also allowed the researcher the opportunity to elaborate on the notes started during the interview itself.

Once the audio recordings of the interviews were transcribed, key words, phrases, or sentences were identified. These data bits are what Strauss and Corbin (1998) referred to as indicators. These indicators were noted using tools in MaxQDA®. As an example, one indicator found in numerous data points within the Florida case (Case 1) was the term community supported agriculture (CSA). As the number of indicators grew, the linkages between several of them became evident. These indicators were then grouped into a concept. Indicators such as CSA, local, resilient, nearby, and food system were combined into the concept of the local movement. As the concepts accumulated, they too were able to be grouped into unique categories.

**Axial Coding**

Strauss (1987) described axial coding as the stage in the process where “intense analysis is done around one category [i.e., variable] at a time, in terms of paradigm items (conditions, consequences, and so forth)” (p. 32). It is in this stage that the subcategories that answer the “when, where, why, who, how, and with what consequences” exist around the examined category are also elaborated (Strauss & Corbin, 1998, p. 125). It is important to note that within Strauss and Corbin’s version of grounded theory methodology, subcategories are not considered a subclass of the focal
category. Instead, the subcategory simply refers to a category that is related to that focal category (like spokes on a wheel rather than a ladder). The researcher used both MaxQDA® and Microsoft Excel® to manage and track the incidence of categories and subcategories from the data sets. Continuing the above example, the concepts of the local movement, young entrants, generational farmers, hunters, market farmers, retired couples, and returning to the land emerged from the data. These concepts created categories and subcategories defining how small-scale farmers are viewed and categorized within the local community. Analysis for these categories can be found in Chapter 4. As concepts accumulated, they too were grouped into unique categories.

Selective Coding

The final stage of this analysis resulted from the selective coding process. “The core category represents the central phenomenon of the study” (Corbin & Strauss, 1990, p. 14). This core category emerges as the story that the data has to tell; it’s the main story underlying the analysis (LaRossa, 2005). The core category can be identified by asking questions such as: “If my findings are to be conceptualized in a few sentences, what do I say? What does all the action/interaction seem to be about? How can I explain the variation that I see between and among the categories?” (Corbin & Strauss, 1990, p. 14).

Trustworthiness

Since the interviewer is a co-constructor of the data, it was crucial for the interviewer to practice reflexive journaling throughout the interviewing process and memoing during analysis (Charmaz, 2003). By being aware of and transparent with one’s own thought processes, it is possible to create a narrative that represents the many voices rather than just the voice of the researcher (Charmaz, 2003). To also
enhance the trustworthiness of this study and its findings, triangulation of sources was used. Patton (2002) provides four kinds of triangulation that “contribute to verification and validation of qualitative analysis: methods triangulation, triangulation of sources, analyst triangulation, and theory/perspective triangulation” (p. 556). This study utilized triangulation of sources (examining different data sources at different points in time and from differing points of view for consistency using the same method) and theory/perspective triangulation (use of multiple theories or perspectives when interpreting data) (Patton, 2002).

Chapter Summary

Chapter 3 provided an explanation of the research design selected for this study, as well as the collection and analysis methods that were used. The chapter began by restating the study purpose and objectives, and then provided an additional lens through with this study’s methodological decisions and findings can be viewed – the researcher’s personal statement of subjectivity and bias. Finally, the chapter concluded with a summary of research methodology utilized throughout this study for collection and analysis of the data. This descriptive study has been conducted using case study methodology, used “when (a) “how” or “why” questions are being posed, (b) the investigator has little control over events, and (c) the focus is on a contemporary phenomenon within a real-life context” (Yin, 2009, p. 2), and is therefore appropriate in this research context. Numerous methodological decisions were made in an attempt to maintain the characteristic integrity of real-life events (Yin, 2009), while allowing space for the complexities of such social interactions to unfold. In order to capture data in a rigorous fashion, multiple sources of evidence (in-depth interviews from both sides of the interaction and direct observations as well as multiple theories and perspectives for
interpreting the data) were used to triangulate findings. The researcher chose to employ a modified constant comparative method for analyzing the data. The four stages of the constant comparative method include comparing incidents, creating categories, distilling the theory, and formulating the theory (Glaser & Strauss, 1999). Despite having created a conceptual roadmap for guiding the research process, the researcher created space for the data to speak for itself during the analysis stage, allowing patterns and themes to emerge rather than superficially imposing them onto the data prior to collection (Patton, 2002). Chapter 4 will now present the study findings from each case.

Table 3-1. Services provided by participating SAC Consulting offices.

<table>
<thead>
<tr>
<th>On-site Services</th>
<th>R1</th>
<th>R2</th>
<th>R3</th>
<th>R4</th>
<th>R5</th>
<th>R6</th>
<th>R7</th>
<th>R8</th>
<th>R9</th>
<th>R10</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Consultancy</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Crop Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy and Renewables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forestry &amp; Estate Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Rural Business Management</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Veterinary Disease Services</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Service Provided</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 3-2. Services provided by participating FL-CES offices.

<table>
<thead>
<tr>
<th>On-site Services</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
<th>C5</th>
<th>C6</th>
<th>C7</th>
<th>C8</th>
<th>C9</th>
<th>C10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horticulture</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Livestock</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Natural Resources</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Small Farms</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Total Service Provided</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 3-3. Demographics of participants.

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Case</th>
<th>FL Agent</th>
<th>FL Farmer</th>
<th>SC Consultant</th>
<th>SC Farmer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>13</td>
<td>6</td>
<td>16</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>11</td>
<td>8</td>
<td>10</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>19</td>
<td>12</td>
<td>26</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Non-White</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Total Individual Case Contributions</strong></td>
<td>24</td>
<td>14</td>
<td>26</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td><strong>Hours of recorded interviews (hr:min:sec)</strong></td>
<td>15:35:25</td>
<td>8:16:15</td>
<td>13:11:48</td>
<td>11:30:38</td>
<td></td>
</tr>
</tbody>
</table>
Chapter 1 through Chapter 3 have laid the foundation for the present study. An overview of the role of extension systems, the study’s purpose, objectives, and perceived study significance were presented. The conceptual and theoretical frames used to design this study were discussed, followed by the conceptual model that served as a theoretical roadmap for this study. The selected research design, collection and analysis methods, and intended points of triangulation were shared.

Specifically, this study employed a case study methodology to capture the data necessary for addressing the stated research objectives. Multiple sources of evidence were collected to triangulate findings within each case. The researcher elected to use a modified constant comparative method for analyzing the data. Despite constructing a conceptual roadmap, space was created so the data could speak for itself throughout the analysis, allowing conceptual patterns and linkages to emerge (Patton, 2002; Strauss & Corbin, 1998). Chapter 4 has been formatted to present the findings from within each case and then between the two cases. First, the foundation is laid by presenting the “within” cases with findings at the axial coding level. Then, the argument towards theory builds with the presenting of the “between” case with findings presented at the selective coding level. Finally, the theoretical conclusions, practical implications, and research recommendations are presented in Chapter 5.

“Within” Case - Florida

The set of findings that follows is presented at the axial coding level – the stage in the process where “intense analysis is done around one category [i.e., variable] at a time” (Strauss, 1987, p. 32). It is in this stage that the subcategories that answer the
“when, where, why, who, how, and with what consequences” exist around the examined category are also elaborated (Strauss & Corbin, 1998, p. 125). Therefore, in this section, relevant categories and subcategories identified through the constant comparative method have been identified and presented. To assist the reader, major concepts have been identified by bold title case headings (e.g., **Diverse Identities**), while categories and subcategories that have emerged from the axial-level coding within this case have been identified by bold italics (e.g., *Farmer diversity*).

**Diverse Identities**

*Diversity of areas served by Extension*

Within the ten counties selected to participate in the interview process, five counties represented areas in Florida where agriculture is a top income source in the county (C2, C5, C6, C8, C9) and five whose county failed to have agriculture as a top income source or who demonstrated significant less favorable agricultural characteristics (C1, C3, C4, C7, C10), based on the 2007 USDA Census of Agriculture and Census 2000. These counties were selected since, collectively, they represent the rich diversity of characteristics held throughout the state including soil quality, level of agricultural productivity, physical location within the state, distance to a major urban center, and various historical, cultural, and ethnic considerations. From the ten counties selected, all ten county agencies agreed to participate. However, due to issues identifying willing small farm participants in three Florida counties (C4, C6, C9), only seven of the ten counties are represented in the findings below.

**Diversity of local-level actors**

To gain a richer understanding of the relevant dynamics and perceptions that define the FL-CES and small-scale Florida farmer relationship, both agents and farmers
were asked to share the insights they held with regards to farming in Florida, the university-based extension system in Florida, and their personal perceptions on the interaction between FL-CES and small-scale farming in their local area. The findings below represent the 24 FL-CES voices, captured over 15:35:25 hours, and represented here by county (C1-C10) and 14 Florida small-scale farmer voices, captured over 8:16:15 hours, and represented here by county (C1, C2, C3, C5, C7, C8, and C10). These findings are presented at the county level rather than by individual voice due to the dyadic, socially constructed nature of the collection process. Basic demographics for Florida participants are provided in Table 4-1. Beyond demographics, the data also provides insights into both agent and small-scale farmer diversity. From the data, the following categories emerged: 1) FL-CES agents represent a diverse workforce, and 2) small-scale farmers in Florida are an even more diverse group than the agents that serve them.

**Agent diversity**

FL-CES has a diverse set of agents working for the organization. Several of the agents that agreed to participate in the interview process reported not being Florida natives, having come from elsewhere to work in Florida agriculture. Some came from states far away, others from just across the state line. Then there are some agents that are native Floridians who have returned to serve in their home state, and even their home county. They come from across the agricultural-background spectrum; from having no family agricultural background to coming from families of generational farmers. Each agent had a Bachelor’s degree or higher degree in an appropriate agricultural field. Some agents were fairly new to FL-CES (the newest having been an
agent for approximately 2 years). Many of the agents have been with Extension for ten to fifteen years. And then there are a few that have been with FL-CES for their entire career (the most seasoned having reported being with FL-CES for over 40 years).

**Farmer diversity – Non-participants**

The agents working for Extension represent a diverse group. However, it was also important to understand the possible levels of diversity that small-scale farms in counties served by these agents also present. As part of the interview session, agents were asked to describe the types of small-scale farmers that exist within their counties. These small-scale farmers could either be farms they had served through their Extension activities or that they knew personally from living and working in the county. These descriptions generated the five unique categories captured in Table 4-2.

As is apparent in the table, many agents discussed having multiple small-scale farm types within their county. This finding begins to suggest moderate levels of diversity within small-scale farms in these counties. In exploring what this diversity looks like, it is plausible to think that small-scale farms in Florida are less likely to be considered *small generational farms* since less than half the county agents (4 of 10) described having small-scale farms of that type. Instead, it is more plausible that small-scale farmers would fall into one of the remaining four categories (*retired and returning to the land, market gardeners, ‘hunters,’* or *young and ‘local’ movement*) since each of the remaining categories was found in 5 of the 10 counties.

The small-scale farmers were also asked to describe the types of small-scale farmers that they saw within their counties. Except for the “hunters” group identified by FL-CES agents, descriptions provided by the farmers paralleled those provided by the
agents, generating the same categories of farm types. However, discrepancies in which counties these categories exist were evident in the data. These differences are presented in Table 4-3.

The table displays agreement of small-scale farm type by county for both agent and farmer in **bold** and discrepancies between agent and farmer perceptions in *italics*. Also, since C4, C6, and C9 had no farmer participation, those counties have been removed from the agent side of the table for comparability sake. As shown in the table, the farmers knew of other local small-scale farmers who would be considered *retired* and *returning to the land* or *market gardeners* (4 of 7), which also represented the groups with the most consistency or agreement between agent and farmer. This was followed by the *young and ‘local’ movement* and *small generational farms* (2 of 7), which represented little to no agreement between the agents and the small-scale farmers, though both types did appear in the data.

**Farmer diversity – Participants**

Each of the small-scale farms that agreed to participate in the interview process also fell into one of the five generated categories in a fairly even manner, though some overlap did occur. Some of the small-scale farmers defined themselves as *retired and/or returning to the land* (C2, C7), while others portrayed themselves as *market gardeners* (C1, C3, C5, C8). A few identified themselves as members of the *young and ‘local’ or hunter movement* (C5, C10), and one farm was a *small generational farm* (C1).

Beyond farm type diversity, these farmers also brought with them a diverse set of background knowledge and experiences. Similar to the FL-CES agents serving them, these farmers come from across the agricultural-background spectrum. Some farmers
had no family agricultural background, while others came from families of generational farmers (Table 4-4). Some were native Floridians and some, though transplants, have been here quite some time. None of the farmers interviewed were new to the area (in this study considered less than five years), though it is widely recognized that this group exists in Florida small-scale farming.

These farmers have built eclectic operations, with no two farms alike. These farms represent a wide range in agricultural interests including livestock (dairy cows, goats, pigs, sheep, and poultry), vegetables and fruits (heirloom items, potted plants, raised-bed and tilled gardens, and a range of organic items), and other farm-related items (honey, milk, and eggs). Their farm-based endeavors also extend past the farmgate with participation in farm stands, farmers’ markets, CSAs, and agritourism ventures. A brief description of these small-scale farms, as told in the words of the farmers themselves, is provided in Table 4-5.

**Agricultural Industry in Florida**

These small-scale farms exist within the larger agricultural sphere of Florida. The data support a conclusion that Florida is extremely varied when it comes to the types of agriculture that exist throughout the state. Known nationally for its diverse agricultural contributions, Florida produces everything from oranges and sugarcane to poultry and cattle. From this data the following categories emerged: 1) Florida agriculture is quite varied throughout the state, 2) there is a consistent concept of the “traditional” farmer, and 3) regardless of size, all Florida farmers face similar challenges.

**The agriculture that surrounds**

The counties that participated in this study represent that diversity well. From row crops and timberlands to cattle, poultry and vegetables, Table 4-6 presents brief
summaries of the major agriculture present in each of the counties that participated from the perspective of the local FL-CES agent.

The “traditional” farmer

One important perspective that was presented by agents and farmers across the majority of counties in the sample frame occurred in the description of who farms in those communities. The findings (C1, C2, C3, C4, C5, C6, C8, C9, C10) suggest that the typical farmer was likely to be in his or her late 40s to 60s, Caucasian, and farming lands likely passed down through succession.

C3: Older, Caucasian, not dissimilar from a national demographic….late 50s-60s on average….More likely passed down through succession.

Three of the counties that were selected to be in the sample frame due to their unique historical or cultural characteristics demonstrated that unique variability as agents intentionally brought to light some of the historic and cultural distinctions they perceived with respect to farming in that community.

C2: The large-scale producers are mostly white, family farms where fathers and sons are involved…There are some African American families that have land through the years, but there’s not very many. whether it’s cattle, hogs, hay, row crops. I think they are more on the small farms type.

C4: This is a multi-cultural, multi-ethnic county…but not all of them are accessing or using the Extension services.

C9: It’s someone who appreciates the value of land, who appreciates the values of self-sufficiency. And many of the farmers and ranchers in this county are on state and national boards. We’re not just producing cattle. We are also producing leaders for the ag industry.

Florida farming’s biggest challenges

Farmers are always faced with a number of challenges. These challenges will impact the success of a farm, but may or may not be issues that can be addressed by members of an Extension service. When asked to share the biggest challenges faced
by Florida farmers, several subcategories emerged. According to FL-CES agents, some of the greatest challenges Florida farmers face include the availability of land (cost per acre, as well as physical availability); land and soil quality; water quality; current regulations and regulatory changes; costs associated with farming; lack of processing facilities for small-scale farms; and limitations in business and/or marketing skills.

Participating Florida small-scale farmers agreed that some of the greatest challenges Florida farmers face include the availability of land (cost per acre, as well as physical availability); land and soil quality; and limitations in business and/or marketing skills (including understanding current regulations and applying regulatory changes). However, they also felt that there was a lack of access to local farming knowledge (those details that make farming unique in that part of the state). Table 4-7 demonstrates the range of those challenges and the counties (C1-C10) represented.

Farming and the Local Community

Even though Florida’s agricultural sector contributes more than 8% of the state’s gross domestic product (Florida Department of Agriculture and Consumer Services [FDACS], 2016), farming can range from being the center of the community to non-existent depending on the community. From an examination of the data, the following categories emerged: 1) three types of roles farming plays in the participating communities (base of the economy, cultural identity, or unseen then unheard), and 2) a range of relationships exist both between farmers and with members of the non-farming community (disconnected, connected, making the connections).

Agriculture’s community contribution

The sample frame was constructed in such a way that responses would be captured across a range of settings – from areas where agriculture was part of the
cultural norm to areas where agriculture exists on the periphery. Three distinct
categories emerged from the data as agents and farmers described the role farming or
agriculture plays in the local community: 1) agriculture is the base of our economy; 2)
agriculture is part of our culture; and 3) if agriculture’s not seen, it’s likely unknown.
There was some overlap noted in four counties, where the perspectives presented were
dependent on the individual’s perceived relationship to the farming community.

**Agriculture is the base of our economy**

The perspective “Agriculture is the base of our economy” was found only in
counties: C2, C5, C9. These counties represent rural communities with long and intense
agricultural histories. The economic contributors were both described by agents and
were visually apparent while driving to the multiple interviews.

C2: I would say that agriculture is the number one employer for the county.
Agriculture, in generating money, is also probably the largest (industry) in the county. I’d say that agriculture *defines this county*, because of the
diversity of it.

**Agriculture is cultural**

The perspective “Agriculture is cultural” was found in counties C3, C5, C6, C8,
C9, C10. Like Perspective 1, this perspective emerged in communities with stronger
agricultural histories. Often the cultural connections were described by agents or
apparent during both the drive to the interviews as well as during the interview process
itself. Such evidence included visible community support for agriculture, agriculturally-
related high school mascots, large FFA or 4-H programs, and active livestock and
farmers’ markets.

C9: This is a farming community and the county government here knows it and
so does everybody else, pretty much. Everything in this county revolves
around agriculture. That’s what we do here. It is an integral part of this
county. The movers and the shakers here are all ag people.
If agriculture is not seen, it’s likely unknown

The perspective of “If agriculture’s not seen, it’s likely unknown” was found in counties C1, C4, C6, C7, C10. This perspective was most often found in communities with or near a large urban center. The residents closest to that urban center were perceived by both agents and farmers as significantly less likely to know about the agriculture that existed within the more rural areas of the county.

C7: A lot of people in [nearby large city] wouldn’t believe that we exist unless they’ve done a lot of travelling around the area, going to the Civic Center, or if they’ve gotten lost coming off the exit.

Relating with others in the local community

Agents and farmers were also asked to share their perceptions on the various relationships that may exist with the local community. From these data, several categories emerged: 1) disconnected, 2) connected, and 3) making the connections.

The non-farming community – I feel a disconnect

According to the FL-CES agents, there are some communities throughout Florida where a significant disconnect between farmers and others in their community seems to exist (C1, C2, C4, C8, C9, C10). In these communities, the disconnects appear to occur most often with those who are relatively new to the county.

C10: No, they wouldn’t say this is a farming community. They wouldn’t say [redacted] is either. Any resident who has been here less than 20 years, they’d say no. And there’s a lot of turnover in this area…so few know.

There were some farmers who agreed with agent perceptions regarding the disconnect between the farmer and the community (C1, C2, C7, C8). However, from the small-scale farmers’ perspectives, the disconnects actually seemed to occur most often between the small-scale farmers and those who view farming in a more normative way.

While some of these farmers were new to the area, others were not. Part of the “norm”
of the farm community came from length of time one (or one’s family) had been a part of that local farming community.

C5: In this small town, you are an outsider forever until you’ve been here for several generations. So, we will always be outsiders. It’s not like we aren’t welcomed; it’s just harder.

While this timeframe was relevant, it did not solely define “otherness.” Each of these farms would have been considered part of the “other” type of farming due to their use of non-normative farming techniques on site rather than choosing methods, inputs, and stock that had been historically established throughout the region. These non-normative farms were each known to use natural, organic, or non-conventional techniques such as the Salatin method to raise chickens (e.g., Salatin, 1993) and tended to produce non-traditional livestock or plant varieties. Though each shared a disconnect, the intensity level varied across the farms. The most severe disconnect was found in C2:

C2: Organic – there’s nearly zero interest in the community. It’s very hard to find. We are trying to grow naturally in an environment where most people grow conventionally. We’ve had produce rot because we couldn’t even give it away for free here.

The non-farming community – I feel a connection

While some communities display disconnects, several agents reported that other communities have strong, well-established relations between their farmers and members within their community (C4, C5, C7, C9). Communities where stronger relations seemed apparent tended to occur when community members demonstrated an understanding for the contribution that agriculture makes to the local community, often through providing increasingly visible support. From an increase in connection with the local consumer to large-scale agricultural events hosted by county
commissioners, communities that reported stronger ties had clearly identifiable and visible signs of support.

C7: There has been a greater interface between farmers and consumers. People who never knew a farmer in their life, who have now retired in this county are bringing their kids to the market or their grandkids to the market to get that kind of experience. They’re getting to know their farmers and knowing where their food is being produced and that kind of trust that is growing is actually helping to create a situation where the consumer trusts the farmer to give him wholesome foods.

These findings were corroborated by a number of the interviewed farmers. These farmers (C1, C3, C5, C8, C10) shared that they have been able to build strong, well-established relations with other members of their community. Paralleling agent perceptions, farmers shared that better relations are most often present when community members demonstrate a desire to engage with farmers as they go about attempting to meet their own, personal needs. Whether that means that they would be interacting with the farmers at the farmers’ market or CSA, or using connections previously established off-farm to now build a local food network for restaurants or grocers, farmers feel these community members are becoming more and more aware of the contribution they make to the local food scene. The stronger ties exist as those residents seek them out to help them fulfill their agricultural needs (whether with foodstuffs for the week or ornamental plants for the home).

C3: Now that I’ve shifted markets, my offerings have had to change too. [Market 1] bought more flower plants from the plants that I sell. Now, I’ve found that [Market 2] buys a lot more vegetables. They’re a lot more interested in what can be grown in a pot, because it’s a more urban area than [Market 1]’s area.

The non-farming community – I help make the connection

A number of the farmers have also realized that the relationships require them to also reach back into the community to enhance those relationships. Some farmers and
their families have worked diligently in their communities to build up external
relationships with local non-farmers (C1, C3, C5, C10). They have employed efforts to
enhance trust and transparency between the customer and farmer. Whether through
group associations, civic outreach, or on-farm exposure and education, these farmers
have spent time building weak ties with locals throughout different network points in the
community. This effort, in turn, has impacted the level of social capital they possess
while also enhancing their own exchange environment.

C1: I want to develop a relationship with my customers. I invite them to come
by the farm so they’ll feel comfortable with how we do things and why.
That way they’ll be invested in the farm and me.

C5: We also don’t have as much waste as we did, but when we do have a lot
of extra, we take it to the shelter in [nearby large city]. I make it a
conscious part of what we are doing, rather than just passing off leftovers.

C10: Once we got here and got established, I tried to get more involved in the
community. I belong to the Camelia Club. I’m now on the County advisory
committee. I’m on a Farm Bureau board. I’m part of [other] boards. Now
that’s my social life.

Some farmers also shared how they have worked to build external relationships
specifically with the next generation of potential farmers (C1, C3, C5, C7). These small-
scale farmers shared their passion for passing their agricultural knowledge onto the
youth in their lives. Such transference has the potential to impact the future of cultural
norms within a given community over time as well as continuing to enhance the local
exchange environment.

The non-farming community – Farmer as educator

Within this study a number of the farmers interviewed saw themselves not only
as farmers, but as educators as well. As stated above, this connection back into the
community and with potential future farmers has the ability to enhance not only the
farmer’s personal social capital, but the community norms and exchange environments as well. Some quotes have been re-presented within this new thematic lens, while new quotes have been included to enhance this thematic finding.

C1: [Tours are held for] Kindergarten, first grade, some pre-K, some mom’s groups with two to three-year-old kids, third grade. Occasionally some of the ag classes will come by and look at some alternative agriculture. I work with some of the livestock judging teams from the high schools.

C3: I’m no expert. But, when people buy my plants, and they ask for suggestions, I’ll tell them exactly what worked for me. Why not pass those tips along? So, I see there’s an education factor to it as well as making a little money. If it was just about the money, I don’t think I’d be doing this.

C5: The NewLeaf Tour – one weekend in the fall, hordes of people drive around and come visit farms, and go look at what they are doing, and buy produce. It’s far more a consumer farm tour than a farmer-to-farmer tour. And then, the farm alliance has piggy backed that on the week following that with “Seven Days of Local Delights.” That’s a week of educating mostly the public, but some farmer workshops too, so we are really trying to make it about understanding your local food system.

Other farmers – I feel a disconnect

Beyond the non-farming community, agents and farmers were asked to describe the relationships that farmers have with other farmers in their local community. Agents perceived that farmers, especially small-scale farmers, can and do experience a disconnect from other farmers in their community (C1, C2, C3, C4, C9, C10). Based on the information these agents shared, these disconnects appear most often when farmers were not engaged in group activities or memberships that the other, often more large-scale farmers, engage in such as Farm Bureau or Cattlemen’s Association. This creates, in the mind of the agents, a limited exposure and ability to be “known” as part of the local farm community.

C9: A lot of small producers, here, especially the newer ones, they aren’t involved in a lot of things yet. So, these other guys don’t really know them to help them. They’re not really involved with things like the Cattlemen’s
Association, Farm Bureau, Ag Council, so that these people really know them. Once they get to know them, then sharing of information can occur.

Farmers also cited difficulties they’ve experienced in their local farming community. However, these conversations usually revolved around interactions they had with generational or large-scale farmers. As was seen when disconnects occurred with community members, the disconnects between farmers seemed most common between those in the small-scale farming community who tend to farm outside the normative way and those in the traditional farming realm. All three of these farms (C2, C8, C10) presented themselves as part of the “other,” non-normative farming styles where organic or non-conventional methods are applied rather than the agricultural norm established throughout the region’s history. One story from C2 seemed to capture this disconnect most succinctly:

C2: My neighbor, he’s a good guy, but he just doesn’t understand. The other day, he pulled up to the fence and told me I was doing things all wrong. Not wanting to brush off local advice, I asked him what he meant. He told me I was ruining my fence with all those vines and the quickest way to take care of them was to spray them. I told him I wasn’t going to use chemicals and he looked at me, mouth wide open, like I was stupid. He finally looked at his wife and she said, “You know, some people do that for health reasons.” He just shook his head, mumbled “OK” and drove off. We just have to agree to disagree I guess.

Other farmers – I feel a connection

There are some communities, however, where agents reported seeing established, solid connections between local small-scale farmers and other farmers in their community (C4, C5, C6, C7, C8, C9, C10). These stronger connections were present most often when the farmers share attributes (e.g., small-scale to small-scale, commodity to commodity, etc.), or when farmers were not perceived by one another as direct competition within the local market. In fact, agents from two counties were able to
share specific examples of groups of farmers who, through the encouragement of Extension, worked together to address county-wide agricultural issues. While it is evident that some hesitation in the sharing of knowledge due to possible competition risks remains, in the end local farmers put aside those concerns to work together and address local issues. One story from C4 seems to capture this interaction best:

C4: I’ve got some growers who are willing to work together with the problems we are having with avocados. There’s a disease that is attacking avocados, so this is a chance for all the avocado growers to come together to battle it. And I would say, for the most part, they are trying to work together, but there is definitely some bumping of heads…and remember, they’re all competing against each other. They’ll share some information, but they need to keep a lot of it [guarded] because you can’t tell your neighbor who is trying to sell the exact same product your tricks.

The farmers also shared a range of experiences they’ve had with other farmers in their county. Every farmer (C1-C10) was able to share having at least one close, local connection within the farming community. This did not describe every relationship; rather, these were some connections the farmers felt important enough to share. As was perceived in the FL-CES case, these stronger connections seemed to be present most often when the farmers either share physical attributes (e.g., small-scale to small-scale); mental or psychological challenges (dealing with crisis, intense struggles or doubts); or when farmers are not seen as direct competition within the market. One of the most poignant stories was shared by C2:

C2: They’re struggling like we are. One divulged to us at dinner that she was pushing $40,000 in debt trying to make this work. She’s shared how she’s been struggling, she’s done everything right. She’s connected with the community, and she is still not getting enough support to make a living.

Other farmers – I help make the connection

However, recognizing the lack of connection tying them together, some of these farmers (C5, C8, C10) have worked to build up local, small-scale farm networks. They are
working with other farmers to provide both social and technical supports for others throughout the local community.

C5: I’m involved in the small farms alliance. One of the biggest things we do is ask, “Oh, do you know this person? No? Talk to them.” So, we work on creating that web between who we have, because there are a lot of people who know a lot, but you have to find them.

C10: I’ll host seminars out here, from time to time, and invite anyone who’s interested. “Do you want to come out to the farm and learn how to improve hooves, or learn how to read a microscope?” We thought maybe we’d have 15-20 people show. We had like 57 people here. These are farmer-generated seminars that are farmer or rancher-oriented and people come.

**Extension and Small-Scale Florida Farmers**

Looking at the data it is evident that both sides of the relationship (agent and farmer) agree that the FL-CES – small-scale farmer relationship is not a healthy one.

Exploring this relationship, the following findings emerged: 1) in some counties, agents do not understand the small-scale farming clientele that are expected to serve (number is unknown, they represent an extreme diversity of needs and goals), 2) there are numerous ways that Extension is already attempting to meet those needs (some successfully and some instances where meeting those needs require improvement), and 3) there are some organizational characteristics that have impacted agent-farmer relations (both negatively and positively).

**Local small-scale farmers**

The data suggests that, in some counties, FL-CES agents do not really have a comprehensive understanding of the state of small-scale farming in their local area. The following categories emerged from the data: 1) the small-scale farmer is an unknown, 2) small-scale farmers represent a diverse set of needs and goals, and 3) small-scale
farmers have specific ways that they believe FL-CES can assist them in building and maintaining their operations.

The unknown farmer

Multiple counties (C1, C3, C4, C6) within the sampled group explicitly stated that they did not know the number of small-scale farmers that existed in their county. Others referred to the most recent agricultural census, but could not generate a reasonable guess. This lack of knowing is potentially devastating when attempting to serve a whole citizenry. Without clearly knowing the members of a potential audience, or sub-group within that audience, the linking capital between the organization and the community actors who could benefit from such capital is greatly reduced.

C3: It’s difficult from an Extension standpoint…finding these people. If they don’t contact me, how do I know they are out there? Sometimes I’ll be someplace else and I’ll see them and maybe or maybe I do a cold call… so if they contact me I know what they are doing. Things would be better if things were tighter.

Extreme diversity

As was shared by agents from multiple counties (C1, C3, C4, C5, C6, C7, C8, C9) and demonstrated in the previous sections, small-scale farms in Florida have the potential to be an extremely diverse group. When these farmers contact Extension, their requests can display a wide range of backgrounds and needs.

C6: I get questions across the board on sheep, goats, pigs, aquaponics, hydroponics, organic gardening, fruit trees, what can I grow instead of citrus? So, it’s all over the board. They can call up with any question on any topic, and they do. “My chickens are pecking the feathers out of each other. What do I do?” You get calls on biofuel production, on agritourism, the list goes on.

This diversity of needs and agricultural backgrounds can cause issues for the agents. From unrealistic expectations and desired levels of investment to technical advice on
crops not traditionally raised in Florida, but that “somebody said would grow here,”
these challenges can be difficult for some agents to navigate.

C1: It can be frustrating at times because you have people with big expectations without knowledge that want immediate results with low input. It takes a lot of investment, upfront, and knowledge.

C8: I mean olives. We get so many questions about olives, and we just don’t have the info on it. We have information from other Extension services, but that doesn’t translate well to here. We are a sub-tropical climate.

**Help me help myself**

Moreover, these farmers have expressed a wide range of goals they have for their small-scale endeavors. Some have dreams of building the operation into something that can be passed down to future family members (C1, C5, C7, C10). Others balance this operation with full-time employment and hope to grow the business side once retirement arrives (C3). Still others are unsure, acknowledging that this is the life they intended and enjoy, but seeing no real future for the farm past meeting their own needs and desires in the present (C2, C8). The farmer from C1 summed it up well:

C1: We have 30 acres, but are trying to get more because of the cows. We are trying to not go into further debt and try to do this as we have cash. Because a bad day on the farm is better than a good day at the office.

Each of these goals are attainable, given proper planning. However, as was presented in the biggest challenges facing farmers today, there is a desperate need for better business-building and succession materials for small-scale operations.

Florida farmers also shared specific ways the university or FL-CES might be able to better meet their needs. The majority of their responses involved creating and providing Florida-specific resources similar to those of other state Extension systems (i.e., North Carolina and Wisconsin) that were more client-, rather than agent-, friendly.
Wisconsin and their Extension program, I think, have worked together to create this thing called VeggieCompass. They’re now working on some free software called TEND that will be released soon. That’s the kind of stuff I feel like Extension should be doing.

The resources that I have looked at are the resources that North Carolina Extension has, and when I do talk to some of the more progressive agents in Florida, they reference North Carolina. They say, “They’re doing this, and it’s really cool. We’d like to replicate it here. How do we do that?”

With IFAS, it is not user-friendly unless I know exactly what keywords someone somewhere used. And then I enter the rabbit hole. But there are also a bunch of publications that are put out by Florida A&M. Now, I find their stuff on small ruminants very helpful.

Meeting small-scale farmers’ needs

Every agent who serves in the Extension service comes with their own set of individual experiences, background knowledge, and intentionally-honed skill set that are used to meet the needs of their clientele. When a group of diverse needs presents itself within a target audience, that agent must either personally possess the needed information/skills or have the intra- or inter-organizational capital to identify and produce the information needed by the audience. Without this internal ability, the linking capital between organization and community actors can again be greatly impacted.

The data suggests that FL-CES agents have varying levels of capacity when it comes to meeting the needs of small-scale farming in their local area. The following categories and subcategories emerged: 1) agent-farmer interactions vary in respect to exchange level (both in type of exchange and level of relationship), 2) some agents have been able to successfully meet small-scale farmers’ needs, and 3) other agents demonstrate room for improvement (at the moderate and significant level) in meeting small-scale farmers’ needs.
**Exchange levels**

Multiple counties discussed the levels of exchange that exist in their interactions with small-scale farmers. Exchanges between FL-CES and the community have been found to be both social and/or economic. These exchanges are impacted by the type of exchange (negotiated transaction, reciprocal transaction, generalized reciprocity, or incorporation) and the level of relationship that has already been established between the two (stranger, acquaintance, friend, or partner). The quotes below show the two extremes uncovered in the data, from least developed [stranger] to most developed [friend/partner].

C6: It may be that they didn’t have anyone doing this before...after [redacted] left...if somebody called, they’d just say “Sorry, we don’t have anybody here that does that.” [Stranger]

C3: I can have all this information that I wanted to give him. I could have mailed it to him, or I could have done it over the phone, but that can be problematic with older clients too. So, I just made another trip. Yes, that’s another 1.5 hours out of my day. But that’s OK; that’s my job. [Friend]

A number of agents also discussed the importance of building social capital with farmers in the local community. These efforts have the ability to not only impact the farmer’s individual social capital, but can also directly impact the linking capital between the organization and the community actors who benefit. The quotes below have been selected to add to the understanding of Extension-farmer interactions discussed above. Again, these quotes have been ordered from least developed [stranger] to most developed [friend/partner].

C4: We do have some growers, many of those little nurseries over there are hidden. They are grown by, most likely, a Hispanic grower, but they are not accessing Extension. They don’t trust government. They don’t want to be bothered. They see us as government, most of the time. They’re afraid that as Extension educators, we might just help others, telling that good recipe that they did. I was told that once, that in the past they felt that way,
that some professor shared their recipe [with others]. So, they built up this shield to protect their profits. [Stranger]

C3: With small farms, I see part of my job hinges on the non-agricultural conversation I have with the farmer as far as their comfort level. I went to this guy’s place. He has weeds. He calls me up and he’s an older gentleman, and I go out there. He takes me to his back porch and we just talked, not about the weeds. We had to have a relationship first. For about a half hour we talked, then he reaches over, pats my arm, says OK, let’s go out in the field and look at the weeds. That HAD to happen in order for him to establish a trust level. And it’s that relationship…it’s what has traditionally ALWAYS been at our base. [Friend]

Successful exchanges

Many Extension agents in Florida have been attempting to meet the needs of small-scale farmers. However, the ability of agents to immediately provide the requested information or to possess the inter-organizational capital to identify and produce the information needed differs dramatically across the organization.

C6: We have to know where resources are and know you don't know everything. You pick your specialty that you like or are good at already, and you know a lot about that. Otherwise you know the resources. It’s doing research. For me, it’s connecting people to the resources where they can get a good answer.

Some agents (C2, C4, C6, C7, C8) are successfully meeting certain small-farmer needs using resources at the local, regional, or state organizational level. From online resources such as the University of Florida Small Farm Alternative Enterprise or Forages for Florida websites, to creating local and regional small farmer networks, to hosting annual small farm conferences, a number of agents and counties have attempted to meet their small-scale clientele where they were at.

C8: In general, a vast majority of our farmers are going to actually work at another job to pay for their farming activities in a lot of cases. That is the particular reason that all my classes are held after work is so that we can actually get those [farmers].
Complementing the perceptions from FL-CES agents, some farmers agree that FL-CES seems to have recognized small-scale farmers as a potential target audience. However, some agents are more successful at meeting certain small-farmer needs than others. Some farmers (C1, C2, C3) were able to name and talk about specific times they had worked with certain FL-CES (and other state Extension) agents, suggesting a close working relationship between the two. Others shared various Florida and other states’ (North Carolina, Georgia, Alabama, Wisconsin) Extension resources they had relied on for advice. A few (C1, C5, C8, C10) even shared a willingness to go across county and/or state lines to access Extension information or personnel they knew to be worthwhile. There are FL-CES agents who are seen by small-scale farmers as successfully meeting their needs.

C10: Our agents who are here now, they really support our endeavors. That’s really where I started getting a lot of information.

**Room for improvement - Moderate**

Responses from some agents and farmers suggest that there is definitely room for improvement when attempting to meet other small-farmer needs. This “room for improvement” may be a result of the perceived position and roles that agents use to situate themselves and the information seeker. When an internal propensity for “being the expert” exists, rather than one of information broker, it is difficult to shift the exchange to anything greater than the “acquaintance” level. In attempting to describe the challenge of meeting the diverse needs of small-scale farmers, one agent said that “it takes a lot of investment, upfront, and knowledge” (C1); others agreed (C4, C9). As one agent summarized:

C7: So, you see how we need to change? We have to serve the people who are looking to raise goats. And we have to serve the people who are
looking to eat rabbit. We have to serve the people who are interested in mushrooms. We can't just be concerned with the traditional type of ag.

A number of the farmers agreed that there is definitely room for improvement when attempting to meet other small-farmer needs. This “improvement” seems to be directly connected to the fact that their requests represent an extreme diversity of backgrounds and needs. Sometimes the farmers (C5, C7) don’t see the local Extension agent as having anything to offer; so, they do not seek out their services.

C5: I have to say that Extension hasn’t been really involved. Had there been some organic program that we knew about at the time, if Extension had said, “We have this farm business management” course,” we would have gone. I get that it’s the demands of the people in your area. And small farmers are not the majority. And I understand that. But that doesn’t mean the need is not there.

Room for improvement - Significant

However, there were also farmers who shared examples that displayed significant breakdowns in the linking capital between the organization and local community actors. This breakdown may, again, be a result of the perceived position and roles that agents use to situate themselves and the information seeker. If the role of “expert” is assumed, rather than one of information broker, it is difficult to shift the exchange to anything greater than an “acquaintance” level. However, as demonstrated by these two stories, it seems like such positioning may have shifted some of these local clients back to being “strangers.”

C2: Calling Extension here [in this county], I’d have no interest. I’ve done it and I won’t do it again. There was a seminar coming up with this almost world-renowned bee-guy…I called the Extension office, because it was going to be offered in other nearby counties but it was at night and I don’t like driving at night, and I called and said, “Hey, is there any chance that the Extension office is going to be provided for [County]?” I was told, “There’s not enough interest. I’ll talk to someone, but I doubt there’s enough interest.” I said, “If I get a few people?” I was told, “I’ll think about
it, but I doubt it.” Our friend said, “Yeah, I never call the Extension office anymore.” It’s a dead end.

C8: I don’t work that much with our county Extension agent. I think we have lousy agent. I will actually go to a different county to seek out information for help on a problem. Their knowledge of organic is so far behind, in my opinion; the first thing out of their mouth on every recommendation is “apply a chemical.” At least now, when I ask, “What recommendation do you have for an organic alternative?” at least they don’t throw up their hands and say, “I can’t help you.”

Without the ability to assess and meet these needs, the linking capital between organization and community actors can again be greatly impacted and future exchange relationships damaged or lost.

Organizational elements and agent-farmer interactions

Exploring the ways in which the data suggests that the organizational nature of Extension creates barriers and benefits within the agent-farmer interaction, the following categories emerged: 1) concerns at the transactional level, 2) strengths at the transformational level, and 3) payment as a part of the exchange process.

Transactional troubles

Several of the counties also referred to the impact that certain organizational elements were having on how agents interact with clientele and their local community. Examined within the context of the Burke-Litwin model, two of the three constructs that emerged from the data exist at the transactional, or day-to-day, level. Elements of concern at this level include: limitations in individual skills and abilities which impact the ability to perform tasks (task requirements & individual abilities) and the structure of various agent positions within the organization (structure). These two elements were actually tied together for a number of counties. There were some agents (C1, C3, C5, C6, C10) who conveyed having issues meeting the needs of their local small-scale
farmers (task requirements & individual abilities) because of changes that had occurred within the local and regional structure of FL-CES (structure).

C5: When I first came here, we used to have Ag Economists. They used to prepare enterprise budgets so that we could tell the farmers “these are the inputs it will cost you per acre,” they could see what break-even is. We don’t have that anymore.

C6: I just don’t have the hours in the week. When you are already working 50-55 hours a week; there’s only so much more I can do. There are many things I would like to do; but, you have to pick and choose what you do.

C10: I work in 4 different counties. Some counties expect me to be in the county X number of hours because that’s how much of my time they paid for, but that doesn’t mean that I am in the fields with the farmers.

Transformational triumphs

Another element that emerged from the data (C1, C3, C4, C5, C8, C10) exists at the transformational level. At this level, there was an element of organizational culture that was consistently lauded throughout the counties – the inter-organizational social capital rooted within the culture of Extension. Every county had connections with agents and specialists in other locales that they could rely on to help them meet their client needs. This social capital not only reaches across county lines, but state lines as well.

C1: I mean we have ALOT to do with Alabama and Georgia - Ag does. Auburn is right there, and it’s so much closer. Sometimes, you have really good from the "north specialists" and some in Gainesville, but Gainesville is FAR. And so, you need to rely on Alabama.

C3: A call comes in and it’s a weed I’m not really sure about, so I will touch base with some of the people on the beef/livestock agents’ group, which covers ten counties. We have a variety of expertise within that area, people that have been here for years. Knowing who knows what. And having those connections. If we didn’t have those connections, then that would really hinder my response time to my guy’s question.
Pondering payments in the process

As was discussed in Chapter 1, the concept of payment for service within the extension field is a common talking point. The data provided insight into 1) payment schemes that currently exist within Florida’s publicly-funded Extension system, 2) agent perceptions on moving to a more commercialized model, and 3) small-farmer perceptions on what such a move would mean for them.

All of the counties reported charging for soil samples and lab work. These tests are sent on to the university for processing. Some counties (C3, C6, C7, C8, C10) also provide specialized workshop sessions, CEU courses, and other services (such as specific local weather forecasting) that is made available at a cost. Most of the agents who spoke on the matter of payment for services during this study made sure to clarify that if payment for programming is sought, they only charge what is minimally needed for covering costs of the materials provided to participants.

Agent perceptions on payment

At the time of this study, FL-CES agents had varied opinions of whether the organization should move to a commercialized model similar to that of Scotland. Over half of the respondents (C1, C2, C3, C4, C5, C8, C9) were against this type of shift. The agents who seemed to be most ardently against a fee-based Extension service cited concerns about violating Extension’s core values.

Against payment

C3: There’s been a lot of conversations within in Florida about charging more. I think that’s getting away from our core mission is. That whole community service part of it shouldn’t cost money. But I think in some cases, too, you have to look at it as sort of undermining that faith that the community has in us. Well, you are Extension, why am I paying for the information?
Agents who seemed more willing to support a payment scheme each referred to seeing not only a value in the product that they were providing, but a perceived increased value of the product in the eyes of the participant when a payment was required.

**Pro-payment** (C6, C7, C10)

C7: Every class I do, I charge. People recognize that. I have done things where I have done a class, and I say “No charge.” And when people come into those classes, they’ll stay for an hour and then they’ll leave because there’s no value attached in staying. And, I’ve found that every time I charge a fee, the people actually pay more attention and sit through it. Because they’ve attached value to it, value that comes from them.

**Current small-scale farmer perspectives**

On the other side of the relationship, small-scale farmers also had varied opinions of whether FL-CES should move to a commercialized model similar to that of Scotland. However, unlike the agent perspectives, none of the opinion were negative. Instead, the opinions varied from a neutral “it wouldn’t bother me, because I don’t use them” (C5) to “I see my farm as a business worth investing in” (C10). One of the most consistent findings (C1, C2, C5, C8, C10) was that the farmers noted that there would be a definite shift in expectations were payment to be rendered.

C8: If I paid for a service, then I would have very high standards. I would need them to be able to tell me something I don’t already know. How do I control for this particular erosion in a practical way? How can I turn my operation into a CSA? I pay for my membership to [organization], and the reason I pay is because I learn something from them. I would be willing to pay, but it would need to be revamped.

Each of the farmers provided insights into the types of information they would need and some specifically defined the way in which their expectations would shift. One farmer in particular captured this concept of expectation shift (from technical expert to information broker) most succinctly:
I was in a heavy-duty service business for years, I knew that I don’t have to know everything; I just have to know how to find it for you. And that’s the position they take here [in this Extension office]. They’ll say, “I don’t know, but I know who does, so I’ll get you that information.” That’s exactly what they do. My daughter is in a different Florida county and she’s called and not gotten returned calls, or the things they do answer all have to do with “how many chemicals can we put on this?” She’s actually gone, instead, to farmers’ markets to try and find someone who’s doing what she wants to do and they have given her the information.

“Within” Case - Scotland

As with the Florida case, this set of findings is presented at the axial coding level. In this section, relevant categories and subcategories identified through the constant comparative method have been identified and presented.

Diverse Identities

*Diversity of areas served by SAC Consulting*

Within the ten locales selected to participate in the interview process, five represented areas in Scotland where agriculture is a top income source for the area (R1, R3, R7, R8, R10) and five did not (R2, R4, R5, R6, R9). These locales were selected since, collectively, they represent the rich diversity of characteristics held throughout the nation including soil quality, level of agricultural productivity, physical location within the country, distance to a major urban center, and various historical, cultural, and ethnic considerations. From the ten locales selected, all ten local SAC agencies as well as small-scale farms in those areas agreed to participate. Basic demographics for Scottish participants are provided in Table 4-8.

*Diversity of local-level actors*

As was structured in the Florida case, this Scottish case was designed to gain a richer understanding of the relevant dynamics and perceptions that define the SAC Consulting and small-scale Scottish farmer relationship. Both consultants and farmers
were asked to share the insights they held with regards to farming in Scotland, the university-based advisory system in Scotland, and their personal perceptions on the interaction between SAC Consulting (known locally as “the college”) and small-scale farming in their local area. The findings below represent 26 SAC consultant voices, captured over 13:11:48 hours, and represented here by county (R1-R10) and the 20 Scottish small-scale farmer voices, captured over 11:30:38 hours, and represented here by county (R1-R10). These findings are, again, presented at the regional level rather than by individual voice due to the dyadic collection process.

The data provides insight into both consultant and small-scale farmer diversity. From the data, the following categories emerged: 1) SAC consultants represent a more homogeneous workforce, and 2) small-scale farmers in Scotland are simply smaller representations of the large agriculture that surrounds them (both those identified by the participating actors and those farmers who participated themselves).

**Consultant diversity**

The ethnicity and gender of SAC consultants and administrators that participated in this study’s interview process aligned with national statistics from 2011. Though this group does not represent a diverse group like those in Florida, it does parallel the residents that they will most likely serve. All of the consultants came from the United Kingdom, with most having a Scottish heritage, though a few came from England and Northern Ireland as well. All of the consultants had some family background in farming. Each consultant held a Bachelor’s degree or higher degree in an appropriate agricultural field. Some consultants were fairly new to SAC Consulting (the newest having been a consultant for approximately 2.5 years), while a couple have been with
SAC for over ten years. A few have been with SAC Consulting since it transitioned from publicly-funded to a commercialized entity (the most seasoned having reported being with SAC Consulting for over 35 years).

Farmer diversity – Non-participants

It was also important to understand the possible levels of diversity that small-scale farms in areas served by these consultants also present. As part of the interview session, consultants were asked to describe the types of small-scale farmers that exist locally. These small-scale farmers could either be individuals they had served through their advisory activities or that they knew personally from living and working in the area. These descriptions generated the four unique categories captured in Table 4-9.

As is apparent in the table, a number of the consultants discussed having multiple small-scale farm types within their county. Less than half the consultants (4 of 10) described having small-scale farms that would be considered small generational farms. The most bountiful category, found in 5 of the 10 regions, was the crofter/tenant, with four of the five regions (R2, R4, R5, R9) located in LFA areas of Scotland. One group, the young or new entrants mentioned in R1, R3, R6, R7, seem to have the lowest chances of getting a small-scale farm started due to limited land availability and high costs associated with starting and running even a small-scale farm. This is similar to the challenges faced by young farmers in Florida.

To provide a juxtaposition to the consultant perspective, the small-scale farmers were also asked to describe the types of small-scale farmers that they saw within their local areas. The descriptions provided by the farmers paralleled those provided by the consultants, generating the same categories of farm types. However, discrepancies in
which areas these categories exist were evident in the data. These differences are presented in Table 4-10. Again, the table displays agreement by both consultant and farmer in **bold** and discrepancies between consultant and farmer perceptions in *italics*.

As shown in the table, the farmers knew of other local small-scale farmers who would be considered *crofters or tenants* (6 of 10), which also represented the groups with the most consistency or agreement between consultant and farmer. *Small generational farms* followed, representing high agreement between the consultants and the small-scale farmers (3 of 4 in agreement). Finally, *young or new entrants* and *smallholding/hobby farmers* represented moderate to low agreement between the consultants and the small-scale farmers.

**Farmer diversity – Participants**

Each Scottish farm fell into one of the categories created by consultant perceptions, while some are represented in two (e.g., generational crofters). Some farmers were *crofters or tenants* (true for R2, R4, R5, R6, R9), *smallholding/hobby farmers* with off-farm employment (R1, R7, R10). One couple represented *young or new entrants* (R8), and four were *small generational farms* (R3, R4, R6, R9).

Beyond their farm type diversity, these farmers also brought with them a diverse set of background knowledge and experiences. While the majority were similar to the consultants serving them, these farmers did represent the entire agricultural-background spectrum. Some of the farmers had no family agricultural background, while others came from families of generational farmers (Table 4-11).
Some of the participants were native to Scotland and even to their specific region. Some participants, though transplants, have been in that area quite some time. None of the farmers interviewed were new to the area (again, not less than five years).

Florida does not have a direct counterpart to the crofting farms. However, this group remains included in the study since they are an audience directly served by SAC. Unlike their Florida counterparts, small-scale Scottish farms tended to be smaller representations of the traditional farms seen throughout Scotland. These farms included a glimpse into livestock (dairy cows, cattle, sheep, and poultry), vegetables and fruits, row crops for silage and haylage, and other farm-related items (milk and eggs). On these farms, farm-based ventures rarely extended past the farm gate with participation limited to farm stands and agricultural markets. A brief description of these small-scale farms is provided in Table 4-12.

**Agricultural Industry in Scotland**

The data supports the fact that the agriculture of Scotland is well defined, clearly identifiable industry throughout the nation. From this data the following categories emerged: 1) Scotland agriculture is well defined and consistent throughout the nation, 2) as in Florida, there is a consistent concept of the “traditional” farmer, and 3) regardless of size, all Scottish farmers face similar challenges.

**The agriculture that surrounds**

Scotland is a nation that produces numerous types of agriculture throughout the nation. Though not as diverse in number as Florida, the Scottish regions in this study represented Scotland’s own diversity well and actually parallel Florida quite a bit. With row crops and vegetables, grasslands and hay, cattle, dairy, poultry, and sheep, each of
the regions brings its own unique contribution to Scottish agriculture as a whole. These small-scale farms exist within this larger agricultural sphere of Scotland.

Moreover, a region that one consultant office serves may possess all of that diversity within its scope; thus, consultants must be prepared to serve a diverse set of requests as well. One of the most notable differences from findings in Florida was not in what was being produced or the diversity of audience needs, but rather the status of the producer – whether owner occupier or tenant on land. Table 4-13 presents brief summaries of the major agriculture present in each of the regions that participated.

**The “traditional” farmer**

One important perspective that was presented by consultants and farmers across the majority of counties in the sample frame occurred in the description of “who” farms in those communities. Similar to the Florida case, the findings (R1-R10) agreed that the “typical” farmer was likely to be in his or her late 50s to 70s, Caucasian, and farming lands likely passed down through succession.

R1: Typically, they are now being farmed by 3rd, 4th, 5th generation farmers. They are relatively old. The average age of farmers in Scotland is probably nearly 60. But there are enough younger farmers coming through, succeeding that will keep farming viable.

**Scottish farming’s biggest challenges**

As in Florida, farmers in Scotland are also faced with a number of challenges. These challenges will impact the success of a farm, but may or may not be issues that can be addressed by members of an advisory service. When asked to share the biggest challenges faced by Scottish farmers, several subcategories emerged. According to SAC consultants, some of the greatest challenges Scottish farmers face include the availability of land (cost per acre, as well as physical availability); land and soil quality;
weather and climate issues; current regulations and regulatory changes; costs associated with farming; and securing financial capital and support.

Participating Scottish small-scale farmers agreed with on all of the perceived challenges faced by Scottish farmers. Specifically, the farmers discussed in detail concerns with the availability of land (physical availability); weather and climate issues; current regulations and regulatory changes; and costs associated with farming (both inputs and financial support structures). However, they also felt that there was a lack of labor that was impacting the agricultural industry. Table 4-14 demonstrates the range of those challenges as well as the region (R1-R10) represented in that particular finding. Quotes that provide perspective on these challenges are also provided, with the contributor indicated in italics below the quote – (farmer) or (consultant).

Farming and the Local Community

As seen in Florida, farming can either be at the center of a community or non-existent; though, unlike Florida, communities were far more likely to be agriculturally-focused than not even though the agricultural industry only accounts for 1% of the total economy of Scotland (Scottish Government, 2016). From an examination of the data, the following categories emerged: 1) two types of roles farming plays in the participating communities (deep part of the community’s identity, or present but doesn’t define us), and 2) a range of relationships exist both between farmers and with members of the non-farming community (disconnected, connected).

Agriculture’s community contribution

As with the Florida case, the sample frame for Scotland was constructed in such a way that responses would be captured across a range of settings – from areas where agriculture was part of the cultural norm to areas where agriculture exists on the
periphery. In this case, two distinct categories emerged from the data as consultants and farmers described the role farming or agriculture plays in the local community: 1) agriculture is a deep part of our community identity; and 2) agriculture is present, but doesn’t really define the community itself.

**Agriculture is a deep part of our community identity**

The perspective “Agriculture is a deep part of our community identity” was found in regions R2, R3, R4, R5, R6, R7, R9. Interestingly, this perspective was found in regions that were located farther away from the main agricultural heart of Scotland which, geographically, runs through the center of the country.

**R6:** Farming plays a big role in the community. There’s a large connection still between the local community member and the farmers. If you were to ask anyone if they knew a farmer, the likelihood of them knowing a farmer personally if not 100% would be very high. There is an appreciation in the community for what our local farmers do in the community.

**Agriculture really doesn’t define the community itself**

The perspective of “Agriculture really doesn’t define the community itself” was only found in three regions: R1, R8, R10. This perspective was presented in regions situated within the main Scottish agricultural corridor and were often found in communities with or near a large urban center. As was found in Florida, the residents closest to that urban center were perceived as significantly less likely to know about the agriculture that existed within the more rural areas of the county.

**R10:** [Being close to city], I don’t think it’s really that substantial in defining the community. We’ve seen a change in agriculture itself, the relationship to the community has changed. The social side disappeared.
Relating with others in the local community

Consultants and farmers were also asked to share their perceptions on the various relationships that may exist with the local community. From these data, several categories emerged: 1) disconnected and 2) connected and 3) making the connections.

The non-farming community – I feel a disconnect

According to the SAC consultants, some communities appear to experience a disconnect between farmers and others in their community (R1, R8, R10). In these communities, disconnects appears to occur most often between the farming community and those who are at work in another industry, such as oil.

R1: Mostly, they’re not regarded highly at all. It’s a shame. Here in the industrial belt, where we really are, they’re small, insignificant. There’s really a significant disconnect between the community and the people who feed them. Large farmer, small farmer – doesn’t matter.

There were some farmers who agreed with consultant perceptions regarding the disconnect between the farmer and the community (R1, R2, R3, R5, R8). From the small-scale farmers’ perspectives, the disconnects seemed to occur most often between the small-scale farmers and “the Department” (referring to the regulatory side of the Department of Agriculture) and those who are in the area due to a different industry, such as oil.

R5: People outside the farming community aren’t as amorous towards farming as they used to be. Everything used to revolve around agriculture. Oil came in and, while oil’s been grand and employed a lot of folk, tourism would have done the same thing – it’s all generates a lot of money – they’re not so closely tied to agriculture anymore.

The non-farming community – I feel a connection

While some communities display disconnects, several consultants reported that other communities have strong, well-established relations between their farmers and
members within their community (R2, R4, R5, R6, R9). Communities where stronger relations are apparent seemed to be present when the community is smaller, close-knit, where everyone knows everyone. Still other communities seem to have mixed interactions between their farmers and other members of their community, depending on the distance to the larger city centers (R3, R7).

R3: [Town] has grown a huge amount in the last 10 years. It's probably doubled in size in the last 10-15 years. So, they probably would have a hard time identifying a local farmer. But, if you went over to [nearby local villages], then almost everyone you talked to would know a farmer. There's bound to be some grey in there in the middle, but the end of the spectrums are where the majority of people in the community tend to be.

The farmers (R3, R4, R9) shared that they have been able to build strong, well-established relations with other members of their community. Community relations seem to be stronger when community members demonstrated a willingness to abide by established community norms.

R9: The local community get along quite well with the farmers…except for the city dwellers who move out to the country without really understanding anything about living near a farm with silage and such. For them it's a real shock to come up from London and see that. But, for most people, it's pretty good.

Other farmers – I feel a connection

Again, consultants and farmers were asked to describe the relationships that farmers have with other farmers in their local community. Though, naturally a range of relationship levels will exist within a community, none of the consultants reported a perception of disconnect between the small-scale farmers and other farmers in their community (R1-R10). Unlike in Florida, there appears to be greater involvement by farmers of all size in local discussion groups and association meetings. These networks
seem to provide a tie that keeps those connections strong and builds the social capital of members in the group. The quotes below demonstrate the range of the perceptions.

R3: I think there is a general farming community rather than any real divide. They have the same issues and are willing to work together to solve them.

The farmers in this study also shared a range of experiences they've had with other farmers in their region. In this case, as with Florida farmers, all Scottish farmers who participated in this study revealed having close local connections within the farming community. This did not describe every relationship; rather, these were some connections the farmers felt important enough to share. These stronger connections seemed to be present most often when the farmers either share attributes (e.g., crofter to crofter; generational to generational) or are viewed as part of the “farming community” rather than as outsiders.

**Other farmers – I help make the connection**

There were also farmers who worked to enhance the connections tying them together with other farmers (R1, R6, R10). Together with like-minded farmers, they have worked to build up local, small-scale farm networks (both in-person and virtual). They are working with other farmers to provide both social and technical supports for others throughout the local community.

R10: We started, in 2007, a smallholder group. We wanted to provide a line of support but also a way for people to get together and organize events for smallholders. We have the website and forum where we stay connected. From the forums, people do choose to meet up, like at local festivals and such. We don’t organize the meetings, it’s mainly online, but they do informally plan to meet up.

**Other farmers – I feel a disconnect**

However, some farmers did cite difficulties they've experienced in their local farming community, especially with generational or large-scale farmers (R1, R2, R10).
As seen in the Florida case, the disconnects appeared to occur most often between the small-scale farming community and those who view “farming” in a more normative way. All three of these farms represent part of the “other” type of farming – non-normative farming versus one that is perceived to be “the better way” to farm in the area.

R1: The larger farmers, we found, kind of scoffed a wee bit when we started because we’re “not farmers” but we had a few sheep. You know, “what are ‘ya doing?” But as time has gone on, and they’ve seen we’re really serious about what we were doing, and you know what you’re dealing with and talking about. Then, they change their perception of you.

SAC Consulting and Small-Scale Scottish Farmers

Looking at the data it is evident that both sides of the relationship (consultant and farmer) agree that the SAC – small-scale farmer relationship may not be thriving, but it is a relationship where needs and expectations are met, when a relationship exists at all (a relationship exists versus SAC is known, but services are not used). Exploring the two relationship types, the following findings emerged: 1) there are numerous ways that SAC is already attempting to meet those needs and these relationships are as diverse as the farmer deems necessary, and 2) there are some organizational characteristics that have impacted consultant-farmer relations (both negatively and positively).

Meeting small-scale farmers’ needs

Exploring the relationship between the local small-scale farmers and SAC Consulting, which many refer to as “the college,” two categories appeared: 1) the relationship between SAC and farmer exists, or 2) SAC is known, but no service relationship exists. Furthermore, when a relationship exists, 1) the importance of building relationship rather than just building business is present between consultant and farmer, and 2) there are numerous ways that SAC Consulting is working to meet
the needs of small-scale farmers including addressing a significant push by farmers to identify and implement renewable energy as part of their on-site schemes.

**A relationship exists – Relationship + business**

Several SAC consultants explicitly stated how important it was to continue focusing on building relationships with farmers rather than just on building business for the SAC group. Exchanges between SAC and the community have been found to be both social and economic. The exchanges are known to be impacted by the type of exchange (negotiated transaction, reciprocal transaction, generalized reciprocity, or incorporation) and the level of relationship that has already been established between the two (stranger, acquaintance, friend, or partner). However, some consultants have continued focusing on building relationships with farmers rather than just on building business for SAC. These efforts have the ability to not only impact the farmer’s individual social capital, but can also directly impact the linking capital and exchange environment between the organization and community actors.

R2:  
We’re not here to judge anyone or penalize anyone. We’re just here to help them. Many of our farmers are phoning to talk to us as individuals rather than me as the SAC consultant because of the relationship that we’ve worked to establish with them.

R10:  
Right now it’s lambing time. So [consultant] is actually going to the farms to help with IACS forms, just to try help alleviate the need for them to stop and come in to the office. Some offices may not do that, but we will try to make it easier on them if we can. [Regarding a personal relationship with clients] If you don’t have that, you’ve got nothing.

**A relationship exists – Meeting needs**

There are numerous ways that SAC Consulting is working to meet the needs of small-scale farmers. SAC recognizes small-scale farmers as a current, and still growing, group of their clientele. The ability of consultants to immediately provide the requested
information or to possess the inter-organizational capital to identify and produce the information needed differs dramatically across the organization. Some consultants are successfully meeting certain small-farmer needs, including helping farmers complete the daunting paperwork needed for the Integrated Administration and Control System [IACS] mandated by the EU’s Common Agricultural Policy, using resources at the local, regional, or national organizational level.

R1: We’ve been asked by small-scale farmers to help draw up business plans to see if the business is going to be valid. We approach a small-scale farm the same way we would a large one. It can sometimes do them the world of good to have the consultant looking in with a fresh pair of eyes and offering advice. They don’t always take it, but that’s their choice of course. We are coming up to IACS, we will do 550 IACS. A large proportion of these are small farmers.

R7: We have several small-scale farms we serve. They tend to be on the lowest level of subscription - the basic subscription. That’s £180 per annum for about two hours of our time for anything they need. Most of our small-scale farms are coming to us for help with paperwork – the IACS or they get letters coming in from the government department and they just don’t understand them and so they are looking for advice on what that means. A number of them also do annual soil samples, so you’ve got a bit of advice on the back of that, but not so much as a large-scale farmer would be needing technical advices in addition to the paperwork.

Several of the small-scale farms who use SAC’s services agreed with these assessments of need.

R2: The college [SRUC] is very good. The paperwork today is just crazy. They make sure we’ve got everything done right and there’s no comeback, because the penalties are outrageous.

R9: I use SAC for advisory. Basically, we started off with a subscriptions scheme and paid up for a few years. Then we stopped paying it because we were not using them enough to justify it. So, they came back and said we can do it without a subscription, just pay as you go. So, that’s what we do. They do all our government forms, IACS forms, to make sure they are right. Because there’s so many penalties and you make one little mistake or miscalculation or maybe there’s things we should be doing that we are not doing. So, we take their advice and try to utilize them best as we can.
There were also multiple areas within the sampled group explicitly stated a desire by small-scale farmers to explore renewable possibilities on-farm. This request by small-scale farmers to SAC has created a richer opportunity for a exchange to be more individualized, moving clients from “acquaintances” to “friends” or “partners.” Such endeavors increase the linking capital and exchange environment between the organization and community actors.

R7: The wind, going back maybe three years ago, really picked up tremendously. So much it was hard to keep up with it. That has since dwindled away because those with good sites applied and built turbines, or they looked into and realized they haven’t got a good site or they’ve little chance of planning permissions. With the renewable heat incentive, there is still a good, strong demand for that.

**Services not utilized**

There were also farmers (R1, R5, R6, R8, R10) that selected not to engage SAC for services. Each of these farmers cited cost as the prohibitive factor in not seeking out services from SAC Consulting. One farmer (R6) admitted to utilizing services from the seed company “since they were free, though I know it’s probably worked into the cost of something I’ll pay for later on.” While this farmer went on to share that he utilized SAC for filling out the IACS form, the other four farms cited that it was the cost, rather than the quality or perceived bias level within information, that kept them from engaging them in services.

R1: If you don’t need to speak with them, you just don’t bother. The only time you really seek them out is if you have a real problem. We’ve never actually used their services because our neighbors tell us we have to pay for their services, so the scale we work to, we couldn’t afford to pay for that. We’ve not found anything that they have that we need to access. Maybe the IACS, it’s a minefield.

R10: I’ve taken soils samples to the office to get them analyzed. But, it’s £15 per shot and I took 4 samples. It just gets really expensive. Everything seems geared for the big farm.
In fact, these same farmers did recognize that what SAC offers hold potential value for their farming operations.

R1: We might be eligible for things and we don’t even know about it. But we can’t afford to find out from them either. That advice may be worth its weight in gold, but to get that advice, I assume, would be very expensive to do.

R10: I do have to say, it seems in the last 12 months, the college has started to catch up. There does seem to be more training coming on the market now for training for smaller-scale operations. It may be a recognition that small-scale farmers actually make a contribution to the local food agenda.

Organizational elements and consultant-client interactions

Exploring the ways in which the data suggests that the organizational nature of SAC Consulting creates barriers and benefits within the consultant-farmer interaction, the following categories emerged: 1) concerns at the transformational level and 2) payment as a part of the exchange process.

Team troubles

One category that emerged from the data referred to the impact that certain organizational elements were having on how consultants interact with clientele. Specifically, consultants discussed issues that existed at the transformational level. The element of concern at this level is completely opposite that found in Florida. At this level, there was an element of organizational culture that was consistently mentioned as problematic – inter-organizational social capital. While consultants recognized that other offices house consultants and specialists that could be contacted to help them meet their client needs, many pointed out limitations in that level of teamwork.

R1: Our main weakness is not working as a team – all 25 offices. We should work more as a team. I don’t think we do.

R3: We do have regional meetings. But, between regions, I don’t think we are very good at sharing ideas and things.
Though many consultants have the things they prefer, I’ve always felt I needed to know about a lot of different things. True specialists tend to be more on a regional basis. There’s a beef specialist in [other regional office]. There are two sheep specialists, but they tend to be for the whole country. If we have a specific question that can’t be worked out over the phone, they’ll come out to the client.

Payment in the process

The data provided insight into the transition from publicly-funded to a commercialized model, payment schemes that are currently used in this system, consultant perceptions on this model, and small-farmer perceptions.

Historical context – Before consultancy

The first set of categories presented provide insight into the Scottish transition from publicly-funded to a commercialized entity. Three of the Scottish SAC units interviewed had consultants who worked at the time of the transition. Quite a few of the Scottish farmers remembered the transition period as well. Three consultants (R1, R3, R4) were able to share specific examples of SAC during that time.

R1: I started off in 1975, when it was an Extension service. The farmers didn’t need to pay for us. They paid for some minor services, but we were really trying to provide farmers by speaking to bigger groups and campaigns. Following former Prime Minister Margaret Thatcher, she decided there was to be major cutbacks in the free service. So, it became commercial.

R1: When it was a free, we did have loads more specialist advisors. We used to have advisors in dairy engineering, drainage, mechanization aspects because these were paid for by the government. Most of these have disappeared. It’s a service we no longer offer because they just weren’t commercially viable. And that’s a big loss to the farming industry. They now need to rely on commercial companies. So, these are specialists that the commercial field provides. And they’re good, but they are obviously biased. So that’s a big problem.

Costs for services rendered

The cost associated with service is much like the concept of a subscription service, common in the United States. There are varying levels of service (and costs)
which the client can choose from on an annual basis as displayed in Table 4-15. These levels and services cross all regions served by SAC Consulting. The level of service is determined by the user and that user’s anticipated needs for the year. There are also à la carte services which can be added on as needed. The following quote sheds further insight into this system.

R6: These services are above and beyond the three subscription levels – croft, basic, and premium. Grant scheme applications tend to stand alone. The cost is basically calculated based on consultant’s time, a bit what the value of the grant is going to be, and a bit what the marketplace will bear. Those are the three elements in costing.

**Government as client**

Another notable finding is that the government still plays a role in this process. However, rather than being a source for all funding, the government has now become a client of sorts, contracting with SAC to carry out certain duties. These duties include providing Disease Surveillance and collecting farm-related information throughout Scotland. The government also subsidizes those offices that are situated in areas where, due to the nature of the farms, it would be impossible for the office to make a profit off of service payments. Often in the Highlands and Islands, these offices contract both with the crofters, who receive a subsidized service cost, and the government.

R1: This is a group that collect information for the government. That information is collected from a cross-section of farms, lands, and holdings all over Scotland. We have to fight for that contract – it is renewed every five years. We also help manage Disease Surveillance across the nation. A lot of their funding comes from the government.

**Perspective from consultant**

This transition from a publicly-funded entity to a commercial enterprise had certain impacts on the consultants, including impacts on personal motivation, daily activities and expectations, and perceptions about the organization itself.
R1: I remember when it was free. And, from my view point, this is far better. You get up in the morning and you need to be focused. You cannot offer daft advice. In the old days, it was easy. It depends on how enthusiastic you were. There was a temptation just to get through the day. It was free advice. There were no targets to meet, there was no real accountability. Now it’s totally different. In the old days, when it was the free Extension service, there was no accountability. There were certainly advisors who were just going through the motions. So, I personally prefer this system.

R9: The unbiased nature of SAC has definitely been maintained even in light of the commercialization. Our credibility is at stake. When we do a report for a farmer, we try to make sure it’s going to work of course, but we try to give the farmer the message he wants to hear, which from SAC is an unbiased perspective. So, I’d say it hasn’t been too badly affected at all.

**Impact on farmer**

This transition also impacted the farmers who were once being served without having a direct cost who were now being required to pay, especially around perceptions about the organization itself.

R9: The main farmer on [region] when it was announced that SAC was going commercial, just shook his head…but, there were a lot of farmers in the SW of Scotland who, when they weren’t paying for our services, didn’t think much of it. But, now that they were having to pay for it, started placing a higher value of the work in their minds.

“Between” Case – Florida-Scotland Cross-Case

**The Impact of Economic Exchange on Perspectives**

The first section of this chapter presented the “within” cases for each of the relationship exchanges examined during this study. Those cases presented the findings at an axial-coded level. What follows is the “between” case – a closer examination of the way those categories work together to tell the story of the relationship between extension and the small-scale farmer and the impact of money on that relationship.

The final case presents a cross-case comparison resulting from the use of selective-level coding. Within this phase of the analysis, a core idea emerges as the
story that the data has to tell; it’s the main story underlying the analysis (LaRossa, 2005). The purpose of this case is not to discount the value of the other data present in the study, but to effectively explain the key concepts that emerged from the data, elaborating on how those concepts are related to one another within a theoretical frame.

During the early stages of collecting and analyzing the 10 FL-CES, 7 Florida small-scale farmer, 10 SAC Consulting, and 10 Scottish small-scale farmer interviews, the conceptual model discussed in Chapter 2 began to emerge. It illustrates (in a simplified version) the dynamic linkages that exist and important variables that impact an actor’s (in this case, a small-scale farmer) relationship with an organization (FL-CES or SAC Consulting).

**Setting the stage**

Both locations (Florida and Scotland) have a rich agricultural industry. Table 4-16 provides a brief comparison of agricultural commodities between the two cases. The outputs produced each year by Florida farmers ranks the state in the top five nationally for agriculture. With multiple climate zones, soil types, and intensities in farming ventures, Florida is farming year-round. This diversity is paralleled both by those who serve the industry through the university system and those who are being served.

FL-CES has a diverse set of agents working for the organization. The agents that participated in this study came from across the agricultural-background spectrum; from having no family agricultural background to generational farmers. These agents bring with them a variety of perspectives from across the U.S. They also represent a wide array of agricultural interests, knowledge, and skill sets; from ornamental horticulture and forages to cattle, poultry, and citrus. However, there is one aspect where these
agents are very homogenous. In many of the participating counties, the agents “look” like the traditional agriculture they serve – many are Caucasian, either in their 40s to 60s or young members from generational farm families, and quite connected to the traditional sense of farming. However, as a whole, these agents represent a greater level of diversity than their Scottish counterparts.

Florida small-scale farmers who participated in this study also represent a diverse group of individuals. This diversity was captured in the data as each of the farmers were able to be categorized into one of the five types of small-scale farmers generated by FL-CES agents and the farmers themselves. Beyond this diversity, each farmer had built eclectic operations, possessed unique goals for the present and visions for the future of their operations. Some of the farmers came from agricultural families while many others had no agricultural experience at all. While some chose to focus on growing plants, vegetables, or crops, others have diversified their operation, integrating livestock, market ideas, and agritourism into their operations. Some hope to pass on their work to the next generation, while others simply plan on having this see them through their retired years. All in all, these actors are defined by a diverse set of characteristics and a very diverse set of needs.

Though not as diverse as Florida, Scotland also has a rich agricultural industry. There are many communities throughout Scotland are defined by agriculture. These groups exhibit high levels of homogeneity, which again, are found both in those who serve the industry through the university system and those who are being served. The group of SAC consultants closely resembled the residents that they will most likely serve. All of the consultants came from the United Kingdom, with most having a Scottish
heritage, with a few from England and Northern Ireland as well. All of the consultants had some family background in farming as well as formal education in a number of agricultural content areas relevant to the Scottish agricultural sphere. In many ways, these consultants are highly similar to the majority of users of SAC Consulting.

Scottish small-scale farmers also represent a fairly homogeneous group. The study captured data from each of the four identified types of small-scale farmers in Scotland. All of these farmers were of Caucasian descent, like their consultant counterparts. Though differing in farm type, these farmers had very consistent goals and future visions for their operations – mainly to keep the operation sustainable enough to either pass on to future generations or to see them through their retirement years. Most came from agricultural families, though a few had no agricultural experience at all. Each farm that participated in this study was typical of Scotland agriculture, though on a much smaller scale, with a focus on producing livestock, forage, and arable crops in their operations. All in all, less diversity in both defining characteristics and perceived needs.

**Building the relationship – Getting to know one another**

Regardless of their individual areas of expertise, all of the agents and consultants interviewed were able to share the general agricultural needs within their community. Agents and consultants from both FL-CES and SAC were able to clearly identify the relevant agricultural history, common agricultural ventures, and largest challenges faced by local farmers. There was also a high level of agreement between the agent/consultant perceptions and small-scale farmer perceptions for each of these three categories. This agreement between the two sets of actors (FL-CES/Florida farmer and
SAC/Scottish farmer) provides a foundation on which a relationship between the two can be established. Both parties in the relationship demonstrated an ability to look at the local agricultural sphere and convey similar thoughts about what it looks like, areas in which agriculture has locally been successful, and what challenges it faces. However, the data suggests that beyond this foundation, Scotland has better situated itself for higher levels of exchange between the organization and the local small-scale actors. There are three suggested reasons for this conclusion: 1) there is an increased knowledge and understanding of the other actor, 2) the position and roles assumed by the consultant and the farmer within the relationship is more conducive to higher levels of exchange, and 3) power manifests itself more equally between the actors in the exchange transaction due to the clearly defined contracted services.

Where knowledge seems to be lacking on the part of the Florida agents was in a true, working knowledge about the breadth of operating small-scale farms in their county, what those farms looked like, and how Extension could work to improve relations between them. There were a number of counties that did not know, or could not provide, even a ballpark figure for the number of small-scale farms.

C1: I don’t know how to even gauge how many small farms we have.

C3: It’s difficult from an Extension standpoint, finding these people. If they don’t contact me, how do I know they are out there? If they contact me I know what they are doing.

More than a simple headcount, these agents were unsure of what characteristics these farms might possess beyond generalizations or what needs they may have in building and maintaining their operation.

C1: They can be frustrating at times because you have people with big expectations without knowledge that want immediate results with low input, and it’s difficult. It takes a lot of investment, upfront, and knowledge.
This lack of understanding severely limits the capacity for a relationship between the two to develop.

These findings also seem to suggest that two distinct social fields may actually exist within Florida’s agricultural sphere. FL-CES agents seem most comfortable working with farmers that function normatively within in the social field that has been historically established around the traditional agricultural sphere. Being small-scale, non-conventional farmers rather than traditional farmers has led to these operations being seen as outsiders or the “other.” Thus, when it comes to small-scale farms, the diversity of backgrounds, needs, and goals seem to position them within their own social field, making the building of relationship between Extension and small-scale farmer far more complicated. This high level of diversity means that, in addition to their agricultural knowledge base, Florida agents must develop additional skills to work with a variety of groups that may be vastly unlike the traditional farmer and even unlike themselves. So, while there are opportunities for these two social fields to interact, and possibly even intertwine, they each have distinct interests, only one of which FL-CES seems prepared to fully meet.

This did not seem to be the case in Scotland. Consultants used language that suggested a high comfort level working with farmers that function normatively within in the social field, historically established around the traditional agricultural sphere, as well as those that have small-scale operations. An argument can be made that this comfort is a result of smallholdings in Scotland simply being small-scale versions of the larger, more traditional farms and therefore do not represent the diversity seen in Florida small-scale farms and that these, instead, represent a single social field rather than the two
posited in Florida’s agricultural sphere. The data suggests that the second sphere in this case actually exists between those who are cultural insiders and those who are seen as outsiders. In Florida, this “otherness” tended to be related to being small-scale, non-conventional farmers rather than traditional farmers. In Scotland, the “otherness” was also related choice against established cultural norms, but the scale of the operation had nothing to do with the decision.

A second argument can be made that these consultants are far more familiar with the nature of local small-scale farms because they themselves were members of this farm type. Since most consultants have either been brought up on, or own, a small-scale operation themselves, they were far more likely to know what those holdings looked like. Thus, unlike their Florida counterparts, the skills that these consultants would need for working with high levels of diversity among their served clientele is actually quite limited.

However, simply gaining a richer understanding of the nature and needs of the other actor in the relationship will not result in an optimal relationship. It is necessary to also consider that each of these relationships exists through a series of exchanges. Furthermore, it is important to consider the nature of these exchanges: the benefits each actor obtains from, and the way each contributes to, the process of the social interaction (Emerson, 1981). One factor that contributes to strengthening or weakening this relationship is the position and role assumed by both actors in the relationship.

**Building the relationship – Assumed roles**

Beyond differing abilities in articulating what small-scale farming looks like in local communities, agents and consultants also took on dramatically different roles
within the relationship itself. These positions and roles speak to the ways these actors contribute to the social interaction process. The concept of position is considered primarily cultural in nature, having shared norms and ideas that manifest through expected behaviors (Wilkinson, 1970). Roles, on the other hand, examine the actual behaviors of an individual within the social field (Wilkinson, 1970).

The history of Extension, in both the United States and Scotland, situated the agent in the role of technical expert for many generations (Swanson & Rajalahti, 2010). This role conveyed a position that “in this matter, I (or We) know better than you.” This position also minimized or ignored indigenous knowledge in favor of organizationally-generated information (Swanson & Rajalahti, 2010). In such a setting, communication tends towards a one-directional conveyance, with information being provided without space for input or feedback from the other actor (Bennett, 1990). As such, this type of position and role within a social field would greatly impact the potential growth and development of a relationship between the two actors. However, as time has progressed both client requests and organizational demands have changed. It now appears that agricultural agents find themselves working along a spectrum of roles, rather than just within a singularly assumed role.

Within the Florida case, a proclivity for assuming this position and role, especially when it came to dealing with small-scale farmers, was still evident in several of the Florida counties as the FL-CES interviews took place. Though none of the agents specifically said, “I’m the expert,” more than half of them used language suggesting high levels of discomfort at not knowing 1) what information that may be sought by a diverse
clientele, and 2) how to provide that answer to them. One farmer’s experience echoed that positioning:

C10: I had called up with a question and instead got a lecture. I think that’s kind of the way they approach people, most of the time, talk to them like they are a bunch of dummies. I may be inexperienced, but I am not stupid.

The agents did recognize that they do not often know off the cuff answers to the questions that small-scale farmers are looking to have answered. They also are aware of the resources that exist to help them meet the need. Such findings suggest an openness to finding, or brokering, information needed by the requestor. However, the language they used displayed concern and, in some cases, extreme discomfort at the idea of not being the expert in the moment.

C1: Extension has gotten to the point where we are expected, now, to be a specialist on EVERYTHING. It’s hard. I don’t know all this. How can you be recognized for any one thing when you have to be a ‘Jill of all trades and a mistress of none’?

C8: I mean olives…we get so many questions about olives, and we just don’t have the info on it. We have information from other Extension services, but that doesn’t translate well to here. We are a sub-tropical climate.

This discomfort came through in the farmer perspective as well, when a farmer shared this story:

C10: My daughter is in a different Florida county and she’s called and not gotten returned calls, or the things they do answer all have to do with “how many chemicals can we put on this?” My friend in [other Florida] County, she tried to call about goats and told me she got the impression that if it’s not about horses, they don’t want to talk to you.

Comparatively, the language used when discussing fields focused around their own educational interests expressed high levels of comfort and confidence.

C1: I am much more proactive in row crop stuff because I know that clientele. I can find them. And there’s a finite amount of them. They’re not just people coming out of the wood work. They grow cotton!
These findings add to the suggestion that FL-CES agents seem far more comfortable working with farmers that function within in a known social field, often rooted in the traditional agricultural sphere. In these instances, agents were more likely to shift on the role spectrum, assuming a position and role of information broker rather than technical expert. They were able to find the information easily through personal resources or their own inter- or intra-organizational capital. Thus, the agents in Florida have numerous roles they may assume as they provide extension services. It is possible that FL-CES agents desire to work in the role of information broker, but when faced with a question or issue that challenges their knowledge base or known resource pool, may resort to the more comfortable role of technical expert.

Unlike their Florida counterparts, the consultants within SAC tended to assume along the spectrum a role of broker rather than technical expert in many of the shared cases. As was stated in Chapter 1, the concept of the information or knowledge broker has grown in the past several years. In the role of information broker, the consultant works as an intermediary to help SMEs (in this case, small-scale farmers) form linkages with various support systems, build requests for grant scheme and business financing, and help manage the innovation processes necessary for success as determined by the SME (Klerkx & Leeuwis, 2008). Such a role suggests that the position of the agent has shifted from simply expert informant and input provider to knowledge broker and facilitator (Gebremedhin, Hoekstra, & Tegegne, 2006).

R1: In the good old days, financial lending institutes would be dead keen to lend more money to farmers. Things have changed. Money is tighter, it’s harder to get. They need to build up a good case to get a loan. So, we draw up business plans, to show that they are a viable business.
Thus, the Scottish consultants have the ability to establish weak networks and to add to the external relationships accessible to SMEs (Cooke & Willis, 1999; Klerkx & Leeuwis, 2008). However, there was also evidence that SAC consultants also resorted to technical experts when that expertise was needed.

R7: A number of them also do annual soil samples, so you’ve got a bit of advice on the back of that.

Evidence of consultants assuming this role was found in multiple regions where SAC interviews took place. Several consultants used language that would suggest high levels of comfort working in fields where their own educational interests exist as well as in identifying information that may be sought by a less traditional clientele. Other consultants also used language to make it very clear that they were there to answer the questions of those who had established relationships with SAC, regardless of the complexity of the question.

R1: There’s only two or three farms who have not enquired about wind energy. Nearly every farmer has looked into this because the subsidies are so good for wind farms. And even just one or two wind-powered generators, it’s so financially viable, other forms of green energy too.

R7: We have several small-scale farms we serve. Most of our small-scale farms are coming to us for help with paperwork – the IACS or they get letters coming in from the government department and they just don’t understand them and so they are looking for advice on what that means.

Small-scale farmers also took on dramatically different roles within the relationship itself. Again, these positions and roles speak to the ways these actors contribute to the social interaction process. In both Florida and Scotland, the participating farmers assumed a role of information seeker/requestor when accessing advisory or extension services. However, the Florida data suggested that several farmers also assumed a role of educator through either direct educational efforts with
others in their community (C1, C3, C5, C8, C10), or by becoming the face of the farmer, re-establishing or creating a new, visible and tangible connection between the community at large and agriculture through farmers’ markets and CSAs (C1, C3, C5, C7). This contribution has the power to create numerous weak ties between agriculture and the local community. The organization has the ability to be a part of that exchange, if the needs of the small-scale operator is being met. Otherwise, many participating farmers indicated a willingness to make those connections to linking capital elsewhere.

**Building the relationship – A look at the exchange**

Beyond considering the varying positions and roles assumed by the organizational actor, it is necessary to also consider the benefits obtained by the actors as well as the position and roles assumed by the community actor (in this case, the small-scale farmer). Considering Emerson’s (1981) exchange theory, an assumption is made that any and all beneficial events, regardless of kind, are valuable in exactly the same way: “people for whom they are beneficial act in a way that tends to produce them” (Emerson, 1981, p. 31). This behavior implies that people will continue to act in such a way that some type of self-perceived benefit will be produced (Emerson, 1981). Therefore, using that same logic, if an action is not perceived as producing a high-enough benefit, then the actor will cease to behave in that manner.

Furthermore, the benefits that are received through the social process are also contingent on the implication that benefits are received ‘in exchange’ (Emerson, 1981). This exchange results in one of two primary transaction types: a negotiated transaction or a reciprocal transaction. A *negotiated transaction* takes place when two, mutually contingent contributions are made within the exchange process, subsequently evolving
in some social process (Emerson, 1981). A *reciprocal transaction* takes place when two contributions are made, but only one contribution is contingent upon the other (Emerson, 1981).

Within the two extension settings, both types of transactions were found to occur, though inverse in frequency to one another. The main transaction found in the Florida system is the reciprocal transaction. This form of transaction, which is often situated either within an altruistic or no-cost scenario or relies heavily on high levels of social capital between the actors, tends to be characterized by “less transparency and more uncertainty…unspecified obligations, uncertain time horizons, and the possible violation of reciprocity expectations” (Portes, 1998, p. 4). Unfortunately, it is this type of transaction that is more commonly seen in FL-CES because of the characteristics of publicly-funded extension services in the states.

A small-scale farmer approaches an Extension agent with a question or set of questions. The contribution they are making to the exchange is a request for information, an opportunity for the agent to perform their job. There is a hope of a return on their contribution, an answer to their question. However, in this form of transaction, there may or may not be a returned contribution. The existence of such a scenario in the FL-CES system was shared both by small-scale farmers and agents, as this agent quote demonstrates:

C6: It may be that they didn’t have anyone doing this before. After [redacted] left, if somebody called, they’d just say “Sorry, we don’t have anybody here that does that.”

When failure to reciprocate occurs, then the likelihood that the original contribution (in this instance a farmer seeking Extension’s help) is diminished.
C2: Calling Extension here, I'd have no interest. I've done it and I won't do it again. There was a seminar coming up with this almost world-renowned bee-guy...I called the Extension office, because it was going to be offered in other nearby counties but it was at night and I don't like driving at night, and I called and said, “Hey, is there any chance that the Extension office is going to be provided for [County]?” I was told, “There's not enough interest. I'll talk to someone, but I doubt there's enough interest.” I said, “If I get a few people?” I was told, “I'll think about it, but I doubt it.” Our friend said, “Yeah, I never call the Extension office anymore.” It's a dead end.

Such a diminishing of exchange relations does not seem to hold much impact on the FL-CES system, however, due to the apparent power dynamic within the exchange.

Power manifests to the extent that one actor is dependent on another actor to accomplish a goal, the perceived importance of the goal to each actor, and the availability for alternative methods for achieving that goal (Emerson, 1981; Hocker & Wilmot, 1985). The FL-CES system is set up in such a way that there is very little negative consequence for the organizational actor if they tell a small-scale farmer “I'm sorry, we don’t do that” because the “success” of FL-CES agents is not typically dependent on the “success” of small-scale farmers. However, a larger consequence exists for the farmer when he or she hears that response. A number of the FL-CES agents referred to the original mandates within Extension to provide services to those in the community through the support of the local, state, and federal tax dollars provided.

C3: In my opinion, they are already paying for it. Their state and county tax dollars pay. Yeah, we get a lot of “my tax dollars paid for your job.” And I don’t disagree with that.

Even though these farmers have paid for services through their taxes, those who participated either did not seem to know that FL-CES’s funding comes from their tax dollars, or they were so far removed from the exchange that it did not occur to them. So, within this type of transaction (reciprocal), the community actor (small-scale farmer)
seems to exhibit no substantial power and very limited expectations. However, this is not always the case in FL-CES-farmer exchanges.

Medium- or large-scale farmers with ties to agricultural networks such as Farm Bureau or the county commission may bring with them higher levels or expectation or power due to the collective power and social capital held by membership in those organizations. The data from this study suggests that small-scale farmers may not often be members of these types of groups; therefore, they would not benefit from such collective power when attempting to create change or generate consequences for Extension failing to meet their needs. There are various avenues of recourse for a less-than-positive Extension experience within the FL-CES system; however, this procedure was unknown to most of the small-scale farmers who participated in the study. Such a lack of knowledge has the power to, again, stifle the development of a strong relationship between the organization and the small-scale farmers looking to FL-CES for assistance with their operations.

If the small-scale farmers did have established expectations, they were most likely a result of positive experiences with previous Extension personnel and the trust built within those relationships. Trust exists within these transactions and comes about either through repeated personal experiences or through expectations based on reputation. Within the context of an organization, repeated positive, beneficial contacts over time provide the opportunity for long-term relationship building (Powell, 1990). However, these expectations, which are rooted in this trust dynamic, are damaged when the exchange is not as anticipated.

C2: We are trying to grow naturally in an environment where most people grow conventionally. They didn’t even try to help find resources outside of that.
So, I was very discouraged right out of the gate that there was not more support. But coming from [other Florida] county, where [other Extension agent] was organic, from that experience, we expected all Extension offices to be that way and we were very disappointed.

Based on this data, it becomes an apparent issue of identifying the mission of FL-CES.

If FL-CES is truly dedicated to serving the entire citizenry, then there needs to be a change in the organization. That change may require adjustments in policy, a redefining of the FL-CES mission, alterations in staffing duties or hiring criteria, or types of professional development that would be needed to support current and future faculty and staff. If, however, the mission is not to serve the entire citizenry of Florida, but rather those farmers who make up the bulk of Florida’s agricultural sphere, then one alternative may be to assume a more prolific use of a negotiated transaction, like that of Scotland.

In the Scottish system, the two actors (consultant and farmer) make mutually contingent contributions to the exchange. This transaction type attempts to provide more transparency and accountability, as well as reduced uncertainty due to specific obligations and better-defined time horizons articulated through a contract of services.

In the commercialized setting, the farmer not only brings their request but also brings their checkbook. They provide a direct payment to the organization. With that direct payment also comes a shift in power and expectation.

R7: We have several small-scale farms we serve. They tend to be on the lowest level of subscription - the basic subscription. That’s £180 per annum for about two hours of our time for anything they need.

Dependency for success now sits more firmly on those in the organization who have been tasked with meeting the needs of those who have contracted services. The consultant now shares a higher level of dependency on the other actor (small-scale
farmer) to accomplish a goal; thus, power is more evenly distributed. There is also more value perceived by the farmer when a cost is assigned to a product or service.

R9: I use SAC for advisory. Basically, we started off with a subscriptions scheme and paid up for a few years. Then we stopped paying it because we were not using them enough to justify it. So, they came back and said we can do it without a subscription, just pay as you go. So, that’s what we do. They do all our government forms, IACS forms, to make sure they are right. Because there’s so many penalties and you make one little mistake or miscalculation or maybe there’s things we should be doing that we are not doing. So, we take their advice and try to utilize them best as we can.

This phenomenon has even been seen in FL-CES.

C7: Every class I do, I charge. People recognize that. I have done things where I have done a class, and I say “No charge.” And when people come into those classes, they’ll stay for an hour and then they’ll leave because there’s no value attached in staying. And, I’ve found that every time I charge a fee, the people actually pay more attention and sit through it. Because they’ve attached value to it, value that comes from them.

Aside from the exchange type, it is also important to consider the levels of relationship that may evolve out of the exchange. According to Johnson and Selnes (2004), there are four levels of exchange relations that may exist in such a setting: strangers, acquaintance, friend, and partners (Johnson & Selnes, 2004). Here, strangers are “customers and suppliers in a preawareness and/or pretransaction period” (Johnson & Selnes, 2004, p. 3). An acquaintance occurs once an initial transaction has taken place that exhibits parity value, or value on par with industry competitors (Johnson & Selnes, 2004). In an acquaintance scenario, the relationship remains beneficial as long as the “supplier provides the product in a satisfactory way at a price that is perceived as fair” (Johnson & Selnes, 2004, p.3).

In the Florida case, most of the participating small-scale farmers existed at this stranger or acquaintance level of exchange relation with FL-CES. They were either completely unaware of the services and information that Extension can provide, they
saw no value in even starting a relationship with Extension, or they have had an initial transaction with Extension that is, at least, on par with what they could get elsewhere for the same price. Trust between the actors is limited and the linking capital is minimal. Agents only need to be able to provide services at a level that is comparable to others at their price point. Since farmers are not providing a direct payment for most (if not all) services, this comparison to other providers’ offers could mean anything. Power is on the side of the agent and the organization. However, with the limited linking capital established between the actors, the ability for the organization to act as a conduit for access to and the development of connections with other community structures and institutions is severely impacted (Hawkins & Maurer, 2010).

*Friendships*, on the other hand, exist when differentiated offerings that have been adapted to meet the needs of specific market segments are provided to customers which has the potential to elicit a paid premium for the superior offerings (Johnson & Selnes, 2004). This transition requires “the development of trust in the relationship…be it to a brand, an individual…or an entire organization” (Johnson & Selnes, 2004, p. 3). Once this trust is established, it is possible for more long-term commitments to be made, making a shift from friend to partner.

The *partnership* level occurs when suppliers provide a customized product with dedicated resources that have been individualized for a specific customer’s needs (Johnson & Selnes, 2004). Trust between the actors is higher and the linking capital between the actors and organization is better established. In this setting, agents need to be able to provide services at a higher level, with differentiated offerings adapted to meet the needs of specific market segments. Several of the FL-CES agents expressed
concerns that moving to a commercialized or pay-for-services model would impact the level of trust between the client and Extension. However, after 30-plus years in a commercialized model, farmers in Scotland were likely to still share confidence and trust in the advice they would receive from the college, regardless of whether they used the service or not, often due to the attention SAC consultants gave to maintaining the building of relationships with those served.

This is not to say that FL-CES has never established friendships. An argument can be made that FL-CES has made friendships over the decades, but these friendships would most likely occur in the traditional agricultural sphere where agents possess greater comfort, familiarity, and expertise. Power may still be on the side of the agent and the organization. However, these farmers have often established other linkages to access other community structures and institutions, so the perceived impact of power is negligible. Unfortunately, these friendships were not found within the small-scale farmers interviewed in this study.

It is important to note that many of the interviewed small-scale farmers stated a willingness to pay for services from Florida Cooperative Extension Service if that meant that the transaction would be better suited to meet their needs.

C8: If I paid for a service, then I would have very high standards. I would need them to be able to tell me something I don’t already know. How do I control for this particular erosion in a practical way? How can I turn my operation into a CSA? I pay for my membership to [organization], and the reason I pay is because I learn something from them. I would be willing to pay, but it would need to be revamped.

As it stands, the exchanges shared by these respondents kept the small-scale farmer in the acquaintance level of relationship at best, and at worst, strangers. To change this limited relationship, shifts in the organizational culture, structure, and task requirements/
individual skills and abilities would be required. This shift would need to be designed to align with the higher expectations of a more diverse clientele, resulting in a shift in position and role of the actors within the social field. Small-scale farmers would then move from potential information seeker/receiver with limited expectations and trust to a more confident, specific information contractor; the agent would shift from a general information provider to an information broker. However, if things remain the same, some small-scale farmers may avoid utilizing Extension direct services and instead seek out other sources of information.

**Building the relationship – My friends are your friends**

It is also important to understand how the level of relationship within the exchange environment can impact the social capital of the actors involved. When linking capital is high between the organization and local actors, the organization assists the local actor by providing access to and the development of connections with other community structures and institutions that may assist with their endeavors (Hawkins & Maurer, 2010). In the case of Extension and the small-scale farmer, a high level of linking capital would provide these often less connected farmers with additional resources to build, maintain, and diversify their operations to meet their needs.

Studies have shown that the level of social capital that is both held by an individual and that exists within that individual’s social network can mean the difference between surviving and not when faced with personal, emotional, or economic hardships (Bassuk, Mickelson, Bissell, & Perloff, 2002; Edin & Lein, 1997; Hawkins & Abrams, 2007). Since farmers are often faced with significant challenges, many beyond their
control, it is crucial for high levels of social capital (bonding, bridging, and linking) to be present in the social network in order to see them through those challenges.

Within the Florida case, the farmers demonstrated varying degrees of social capital. Those farmers who had been in the area for quite some time, who had established numerous social connections with those in the local farming community as well as other members of the community used language that would suggest also having high levels of perceived reciprocity and trust (C1, C6, C10). Each of these operations are known entities in their local community. These three farmers are leading the way, building not only their own social capital, but the social capital of others around them within the local farming community through small farm networks and community events.

Other farmers used language that suggested that their social capital is positive and growing (C3, C5, C8). There are both close connections that these operations have built within nearby communities through the development of weakly bonded relationships, as well as developing bridging social capital through networking in local groups and organizations. The main limitation in these operations is the potential to be seen as, and overcome the perception of, an outsider. The outsiders (C2, C5, C8) struggled with existing within their local communities, often failing to adhere to established local norms. This perception of being an outsider was also found to be a barrier in the Scottish case as well (R3, R8, R10). This is one situation where the social capital of an organization (Extension or SAC) who is seen as an insider in the agricultural sphere could be used to help establish additional weak ties and bridging connections to help these farms continue to succeed.
However, data from one operation used language outright stated a lack in social capital that was impacting their ability to operate successfully (C2). Choosing to speak carefully even as the researcher was interviewing, checking to see if neighbors were within listening distance, the level of trust in this farmer’s perspective has been deeply damaged. Using language that expressed difficulties adapting to community norms (a tradition around conventional, intensive agriculture), it is apparent that this operation was, as stated by the participant, “the wrong farm.” This farm was not only seen as an outsider in the local community, they also seemed removed to the sideline of the social field. They were not engaged in social activities, either within the local community or the farming community at large. For these farmers, the limitation or absence of social interaction impacted the direction of the exchange, impeding the exchange of desired information. Homogeneous communities, such as the one this farm is a part of, are known to exhibit higher levels of bonding social capital but less bridging and linking social capital (Costa & Kahn, 2003; Lin, 2001). The challenge of building this bridging and linking social capital is even greater when the community is economically and racially segregated, as this one also is (Beaudouin, 2007; Leonard, 2004; Mathbor, 2007). So, being a transplant and an outsider, it is no wonder that this farmer shared, “We kind of feel like an island and it’s become disheartening” (C2).

However, FL-CES agents not only possess the linking capital of the organization, but also possess their own personal social capital with those in their local communities. Agents in this study who had served in the county for quite some time, and who had established high social connections with those in the more normative farming community as well as other members of the community, used language that would
suggest also having high levels of perceived reciprocity and trust between the farming community and themselves.

C3: One of my growers, the only reason that he did it was I said, “hey this is a good thing to do and these are the reasons and this is what is going to happen if we don’t do it.” And he was good with it. He said right off, the reason I am doing this is because you gave it the thumbs up. Without that relationship, that doesn’t happen.

These agents could use this connection to help establish additional weak ties and bridging connections to help this farm identify alternative marketing solutions or endeavors. Unfortunately, the relationship between some farmers and the local Extension service is non-existent due to the issues discussed in the previous sections.

To say that all consultants or agents were in one camp or another would be untrue to the data collected. There were a number of agents and consultants who are diligently attempting to meet the needs of those small-scale farmers who contact the Extension or SAC office. Many of the agents in Florida and Scotland discussed the value of building relationships and trust between themselves and their clientele. One notable example where the relationship between small-scale farmer and FL-CES agent has truly blossomed can be found in a community where urban farming has become a driving force. This agent has gone to great lengths to meet the needs of small-scale farmers and those of the local community where those needs situated them.

C7: Since this is an urban county, it was well understood there was a need for determining what kind of agriculture could be done here, because over the past two decades agriculture has continually been pushed to the periphery. We needed an urban-kind of approach to agriculture.

At the same time people from the south migrating to this county were looking for ethnic foods, while people migrating from the north were in search of healthier things, sustainable sources of food. They wanted to see farmers’ markets and a place where they could know their farmer. So, we started doing distinct urban farming programming.
We’ve grown community gardens. We did urban small farms. We encourage people to become part of community gardens. We have a number of school gardens. It’s a different kind of agriculture, but it is agriculture.

So, you see how we need to change? We have to serve the people who are looking to raise goats. And we have to serve the people who are looking to eat rabbit. We have to serve the people who are interested in mushrooms. We can’t just be concerned with the traditional type of ag.

**Chapter Summary**

This study utilized the Glaser and Strauss (1999) constant comparative method for analyzing the data captured within the in-depth dyadic interviews. This chapter presented the findings regarding participant perceptions for both the Florida and Scottish cases. Following the two “within” cases, a cross-case comparison was provided which demonstrated the emergent differences identified between the publicly-funded Florida case and the Scottish case, which has transitioned to a commercialized system. Chapter 5 will summarize the study, providing theoretical conclusions, practical implications, and recommendations for future research.

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Agent</th>
<th>Farmer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>Female</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Latino/a</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Age Range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-35</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>36-50</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>51 and older</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Total Individual Case Contributions</td>
<td>24</td>
<td>14</td>
</tr>
</tbody>
</table>
Table 4-2. Agent-defined small-scale farm categories in Florida.

<table>
<thead>
<tr>
<th>Types of small-scale farms</th>
<th>County code</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Hunters&quot; (those hunting for something to do with their farm)</td>
<td>C2, C4, C6, C8, C9</td>
</tr>
<tr>
<td>Market gardeners (farmers’ markets or CSAs)</td>
<td>C1, C2, C3, C4, C7</td>
</tr>
<tr>
<td>Young and “local” movement</td>
<td>C3, C4, C7, C8, C10</td>
</tr>
<tr>
<td>Retired and returning to the land</td>
<td>C1, C2, C5, C6, C8</td>
</tr>
<tr>
<td>Small generational farms</td>
<td>C3, C4, C9, C10</td>
</tr>
</tbody>
</table>

Table 4-3. Agent- and farmer-defined small-scale farm categories in Florida.

<table>
<thead>
<tr>
<th>Agent perception</th>
<th>Types of small-scale farms</th>
<th>Farmer perception</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1, C2, C5, C8</td>
<td>Retired and returning to the land</td>
<td>C1, C5, C8, C10</td>
</tr>
<tr>
<td>C1, C2, C3, C7</td>
<td>Market gardeners</td>
<td>C1, C2, C3, C5</td>
</tr>
<tr>
<td>C3, C10</td>
<td>Small generational farms</td>
<td>C7, C10</td>
</tr>
<tr>
<td>C3, C7, C8, C10</td>
<td>Young and “local” movement</td>
<td>C1, C5</td>
</tr>
<tr>
<td>C2, C8</td>
<td>&quot;Hunters&quot;</td>
<td></td>
</tr>
</tbody>
</table>

Table 4-4. Range of agricultural backgrounds for Florida farmers.

<table>
<thead>
<tr>
<th>Range</th>
<th>Types of small-scale farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>No background</td>
<td>C10: I have no background in agriculture. We were in the corporate world and just looking to retire.</td>
</tr>
<tr>
<td></td>
<td>C3: Ten years ago, I thought, “I need to pick a hobby.” They had a book sale at work and I found two books: one on gardening and another on braided rag rugs.</td>
</tr>
<tr>
<td></td>
<td>C1: I grew up on a small, diversified farm; mostly cattle and some row crops.</td>
</tr>
<tr>
<td>Generational farms</td>
<td>C7: We’ve been in this area about ten years, but I grew up in a farming community in Ohio. We had about 350 acres.</td>
</tr>
</tbody>
</table>
Table 4-5. Participating small-scale farm operations.

<table>
<thead>
<tr>
<th>County</th>
<th>Farmer-generated description of their farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>We are mainly meats, eggs, and milk. We have the laying hens, chicken, turkey, hogs, small, raw milk dairy (milking 10 cows). Ag-tourism is a pretty good chunk of our farm.</td>
</tr>
<tr>
<td>C2</td>
<td>We have 47 acres, though only about an acre is being used for vegetable production right now. We grow Asian long beans, shiitake mushrooms, heirloom tomatoes, heirloom lettuce, arugula, baby greens, all sorts of fun veggies.</td>
</tr>
<tr>
<td>C3</td>
<td>I have over 30 beds with over 1,000 different plants growing. I realized I would have to have something very specific and unique, like young turnip greens. I take eggs, cut vegetables, and potted vegetable plants to market.</td>
</tr>
<tr>
<td>C4</td>
<td>No Farmer Data Collected</td>
</tr>
<tr>
<td>C5</td>
<td>We grow only vegetable, some fruits. All annuals. Our market runs from October through June. We just grow a little bit of everything under the sun, that way we can have the variety to do farmers’ markets and CSAs.</td>
</tr>
<tr>
<td>C6</td>
<td>No Farmer Data Collected</td>
</tr>
<tr>
<td>C7</td>
<td>We got 13 acres. We have chickens out there in our little red barn…right now we have about 50-some out there, but we’ve had as many as 500…and we have pigs. We have seven now, but we’ve had as many as 78.</td>
</tr>
<tr>
<td>C8</td>
<td>We have some meat goats and some ducks and chickens. We sell meat fed 100% organically. Pig we have year-round (about 25). Lamb is seasonal (about 10). Right now, goat is also seasonal (about 12). We generally have about 80 to 100 layers. A handful of quail (for meat and eggs). We do have a garden, but that represents very little of our farm output.</td>
</tr>
<tr>
<td>C9</td>
<td>No Farmer Data Collected</td>
</tr>
<tr>
<td>C10</td>
<td>We mainly raise goat (around 50 now); we have sheep and lambs, I think we have 30 or so; and poultry, I think we have 50 adults and we just got 75 chicks, so we’ll be full…we sell goats for pets or for meats. We sell either live or I am set up so we can do USDA products. And we sell eggs. We have the farm stand where people can come get things…We are also a distributor for feed for a company in Georgia.</td>
</tr>
</tbody>
</table>
Table 4-6. Local agriculture as described by agents.

<table>
<thead>
<tr>
<th>County</th>
<th>Agent-generated description of agriculture in their county</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Primarily row crops. Mostly cotton. Peanuts…and they raise a lot of corn and soybeans still, and small grains. But it's always been that way. I'd say in the past at least five years, small farms have really started to take off. People are trying, the whole &quot;local,&quot; &quot;buy local&quot; movement.</td>
</tr>
<tr>
<td>C2</td>
<td>Older families – it's row crops or cattle and hay or trees. A newer movement of people who have lived here for 5-15 years that are learning about different things. There is also a huge population of absentee landowners.</td>
</tr>
<tr>
<td>C3</td>
<td>It's always been family farms or small farms. The primary products we have: a lot of timber and then grass-based livestock. No real numbers, and it's all pasture based. Fruits and vegetables – it's a growing area.</td>
</tr>
<tr>
<td>C4</td>
<td>It's a very complicated system of farming, almost like hydroponic because farmers have to supply most of the nutrients and soil quality is pretty low. Still, we have close to 60,000 acres of farm land and some of the areas are double or triple cropped with vegetables and tropical fruit groves and ornamental growers.</td>
</tr>
<tr>
<td>C5</td>
<td>We grew the last crop [of tobacco] in 1976. So, the farming community had to switch to something else, because our cattle industry was based on the tobacco crop. Tomatoes came in but now they are on the decline. Field crops went out and now they are back full force, but they're not county farmers for the most part; they're commuter farmers who are coming from Georgia.</td>
</tr>
<tr>
<td>C6</td>
<td>Agriculture is a huge industry for this county. We have the strawberries, watermelon, cantaloupe, tomatoes, peppers, but most of those are larger farms.</td>
</tr>
<tr>
<td>C7</td>
<td>Over the past two decades agriculture has continually been pushed to the periphery. We needed an urban-kind of approach to agriculture. People from the south were looking for ethnic foods, while people from the north were in search of healthier things. They wanted to see farmers' markets and a place where they could know their farmer. So, we started doing distinct urban farming programming.</td>
</tr>
<tr>
<td>C8</td>
<td>I think of citrus, huge egg production. It used to be a lot of smaller family farms, and now it's pretty much all integrated into huge corporate types. There was always some beef cattle, a few dairies.</td>
</tr>
<tr>
<td>C9</td>
<td>Largest beef cattle and dairy producing county in the state of Florida. Vegetable production has taken off in the last 15 years. We are also the largest goat producing county in the state of Florida. That's happened in the last 10 years or so.</td>
</tr>
<tr>
<td>C10</td>
<td>Winter vegetable production. It became a center of both citrus and vegetables because of the St. John's River being right there. Cabbage came along later…stayed around until the mid '80s. Anything after that pretty much became small farms.</td>
</tr>
</tbody>
</table>
Table 4-7. Greatest challenges facing Florida farmers.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Agent perceptions</th>
<th>Farmer perceptions</th>
<th>Supporting quote(s)</th>
</tr>
</thead>
</table>
| Land availability            | C2, C3, C4, C5, C7, C9 | C2, C5             | C3: Land. The ability for someone who would like to start farming to get into farming. That starts at land. Availability and the cost. (Agent)  
C4: We’ve lost farming land due to federal purchases but also due to development, growing houses. (Agent) |
| Land quality                 | C1, C4, C7, C8, C9 | C1, C2, C3, C5     | C4: The soil is extremely poor down here; it’s almost all solid limestone rock, calcium carbonate. High pH, trouble with the minor elements. (Agent) |
| Marketing/Business skills    | C3, C5, C8, C9, C10 | C1, C3, C5, C8     | C5: What our community is really lacking, is record keeping. How to use QuickBooks, how to be a legit business. Information about the organization of the business as a whole – that’s a piece that is hugely missing. (Farmer)  
C8: Unless you have someone in your family or in your employ that can do great marketing... I think that’s a big problem. (Farmer) |
| Water quality                | C4, C6, C7, C9    | C9                 | C9: We are particularly concerned with phosphorus in the water. We are in a basin management action plan. That means that all of our water is highly regulated. (Agent) |
| Regulations                  | C3, C4, C5, C6, C8, C9, C10 | C3: From a small farms’ standpoint, here in Florida we have several regulations that limit. It basically says what you can’t do, not what you can do. (Agent) |
| Costs of farming             | C2, C8, C10       | C2                 | C2: Equipment costs keep competition down between the small and larger farms. (Agent) |
| Lack of processing facilities| C4, C5, C6, C9    | C4                 | C4: The problem is processing. There’s no meat processing facility nearby. (Agent) |
| Lack of access to local farming knowledge | C2, C3 | C2: There are such different climates in Florida. The learning curve has been tremendous for us. (Farmer) |
### Table 4-8. Demographics of Scottish participants.

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Consultant</th>
<th>Farmer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>Female</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White (ALL)</td>
<td>26</td>
<td>20</td>
</tr>
<tr>
<td>Age Range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-35</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>36-50</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>51 and older</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Total Individual Case Contributions</td>
<td>24</td>
<td>14</td>
</tr>
</tbody>
</table>

### Table 4-9. Consultant-defined small-scale farm categories in Scotland.

<table>
<thead>
<tr>
<th>Types of small-scale farms</th>
<th>Regional code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crofter or tenants</td>
<td>R2, R3, R4, R5, R9</td>
</tr>
<tr>
<td>Small generational farms</td>
<td>R1, R6, R7, R10</td>
</tr>
<tr>
<td>Young or new entrants</td>
<td>R1, R3, R6, R7</td>
</tr>
<tr>
<td>Smallholding/hobby farmers</td>
<td>R1, R8</td>
</tr>
</tbody>
</table>

### Table 4-10. Consultant- and farmer-defined small-scale farm categories in Scotland.

<table>
<thead>
<tr>
<th>Consultant perception</th>
<th>Types of small-scale farms</th>
<th>Farmer perception</th>
</tr>
</thead>
<tbody>
<tr>
<td>R2, R3, R4, R5, R9</td>
<td>Crofter or tenants</td>
<td>R2, R3, R4, R5, R6, R9</td>
</tr>
<tr>
<td>R1, R6, R7, R10</td>
<td>Small generational farms</td>
<td>R1, R6, R7</td>
</tr>
<tr>
<td>R1, R3, R6, R7</td>
<td>Young or new entrants</td>
<td>R6</td>
</tr>
<tr>
<td>R1, R8</td>
<td>Smallholding/hobby farmers</td>
<td>R8, R10</td>
</tr>
</tbody>
</table>

### Table 4-11. Range of agricultural backgrounds for Scottish farmers.

<table>
<thead>
<tr>
<th>Range</th>
<th>Types of small-scale farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>No background</td>
<td>R10: We’re three years here. Before, we were in the central belt on an acre before we retired.</td>
</tr>
<tr>
<td></td>
<td>R1: We’ve been farming approximately 15 years. I’ve always stayed here in the country, when I was younger I always worked in farms.</td>
</tr>
<tr>
<td></td>
<td>R5: I’ve been here all my life...and almost all my family has been in farming and is still in agriculture in some way.</td>
</tr>
<tr>
<td>Generational farms</td>
<td>R3: I’ve been in farming all my life. I come from ten generations of farmers.</td>
</tr>
</tbody>
</table>
Table 4-12. Participating small-scale farm operations.

<table>
<thead>
<tr>
<th>Region</th>
<th>Farmer-generated description of their farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>Now we farm just under 50 acres on which we do sheep. We’ve got about 64 now, and poultry. We have a few shops that buy our eggs and we have our farm gate customers as well.</td>
</tr>
<tr>
<td>R2</td>
<td>Now on the croft, we have both sheep and cattle. We have ‘bout 45 cows, heifers that are coming in, about 12, and now the calves. We have about 73 head of sheep, plus a strong lambing this year.</td>
</tr>
<tr>
<td>R3</td>
<td>We’ve got 70-odd acres here of land and then normally take on 40-odd acres of grass parks. Normally we run 2-ton acre here in spring barley. I can usually stock four to the acre – four to four and a half ewes with lambs to the acre – and I’m grazing coos (cows) here on these fields.</td>
</tr>
<tr>
<td>R4</td>
<td>Our croft was about 30 acres of land and then hill land which was shared between 11 other crofts. We got out of the cattle and sheep right before BSE hit. Now we have about 14 horses on the croft.</td>
</tr>
<tr>
<td>R5</td>
<td>I had 40 acres, it was a tremendous farm. At peak, I was keeping breeding ewes, and about 50 young cattle on top of that.</td>
</tr>
<tr>
<td>R6</td>
<td>We’ve got 170 acres of land. We run barley and some winter crops. We have about 40 coos on these fields. We also have about 65 sheep with the recent lambing.</td>
</tr>
<tr>
<td>R7</td>
<td>Cattle, sheep. I also have very healthy, arable land - I grow barley and oats.</td>
</tr>
<tr>
<td>R8</td>
<td>Fourteen years, we’ve been here. But we’ve only been working the land. It’s just this year we were granted the tenancy. We’ve got 900 sheep this year.</td>
</tr>
<tr>
<td>R9</td>
<td>We don’t own the land here, it’s all tenanted. Here it’s a private landlord, not the government. We’ve only 175 acres. We’re growing about 100 acres of cereals and the rest is grass. On that we keep roughly 30 coos.</td>
</tr>
<tr>
<td>R10</td>
<td>We’ve got about 80 laying hens. We sell the eggs at the end of the road. We keep sheep. We’ve only got nine lambing this year, so we’ve got 15 lambs. We have a few Shetland cows and a bullock. We’ve got veg under the poly tunnels.</td>
</tr>
</tbody>
</table>
Table 4-13. Local agriculture as described by consultants.

<table>
<thead>
<tr>
<th>Region</th>
<th>Consultant-generated description of agriculture in their region</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>Historically, this area was mainly in milk production. Most of the farms would be fairly small family farms with a dairy herd and then a whole range of other enterprises. Because of economics and profitability there’s been a move away from milking into beef and sheep. Arable crops are grown on a smaller extent. There are pockets that are considered non-LFA; but, the bulk of the land is LFA.</td>
</tr>
<tr>
<td>R2</td>
<td>Farming in this area is very diverse. There’s some very hard ground, wee crofts, and heather hills. You’ve some areas where there’s some really good arable land. And then you’ve got everything in between. There’s a bit of everything.</td>
</tr>
<tr>
<td>R3</td>
<td>We really are a bit of a mixed area. Up towards the hills we’ve had hill farming for as long as you can imagine. And then, the rest is quite mixed with livestock and arable. There’s not many farms that don’t have some arable; there’s not many farms that don’t have some livestock. The majority of the land in this area are owner-occupied, but there are big pockets where tenancy does occur.</td>
</tr>
<tr>
<td>R4</td>
<td>It’s very different than it would be in a lot of places across Scotland. There are people who are full-time, but their full-time would be having multiple crofts work together. So, you’ll either find someone who has aggregated lots of crofts and run that at the bigger level or they’ll do contracting for other people. There’s quite a bit of communal working. Like the big mooring areas managed in common.</td>
</tr>
<tr>
<td>R5</td>
<td>Farming is the main industry. It’s the most important industry. Because they’ve been long in the unit, there’s not been a lot of debt here at all. If they make money, the first thing they’ll spend money on is the livestock, second, concrete to build sheds or facilities for the stock, then machinery, and then themselves. There’s 30,000 cows up here. We’ve sheep here as well and spring cereals.</td>
</tr>
<tr>
<td>R6</td>
<td>Beef, sheep, business, and a variety of grant schemes and anything associated with that. There’s a splotting of crofters in between. Farms are getting bigger, and smaller ones are giving up and being amalgamated into the bigger farms.</td>
</tr>
<tr>
<td>R7</td>
<td>Farming is very mixed. We have a wide range of crops and high value crops round in this lowland area. Rising up toward the hills you’ve got cattle and sheep and permanent pasture. Over time, farms have gotten slightly bigger, but employing less people. Also, a general trend towards less livestock. There’s also quite a bit of tenanted land.</td>
</tr>
<tr>
<td>R8</td>
<td>We are really, quite a varied area. We’ve got some of the best arable land in the country and then we rise up to some of the highest hills. So, we range from high-hill sheep farming to low-ground, intensive arable fruit and veg farms, and then everything in between.</td>
</tr>
<tr>
<td>R9</td>
<td>It’s very much livestock-based agriculture. We have a couple areas of better ground, in some of the mainland is better quality, as are some of the islands, and therefore can support some cropping. But it’s used for animal feeds more than anything else, so there’s some barley and oats grown out in some of the areas. The bulk of it’s just grassland for silage or just to graze. Half of our clients are farmers, half are officially crofters.</td>
</tr>
<tr>
<td>R10</td>
<td>We have a mixture of farming types. We have mixed farming in this area, with arable, cattle and sheep all the way through here. And then you have sheep and cattle up here in the higher land. Closer to the coast, we have more cropping land. You’ve also got quite a splattering of owner-occupier as well as tenanted land.</td>
</tr>
<tr>
<td>Issue</td>
<td>Consultant perceptions</td>
</tr>
<tr>
<td>------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Land availability</td>
<td>R1, R2, R3, R7</td>
</tr>
<tr>
<td>Weather &amp; climate issues</td>
<td>R1, R3, R6, R10</td>
</tr>
<tr>
<td>Regulations</td>
<td>R1, R2, R3, R7</td>
</tr>
<tr>
<td>Costs of farming</td>
<td>R1, R2, R3, R6, R7, R10</td>
</tr>
<tr>
<td>Lack of labor</td>
<td>R2, R5, R6, R9</td>
</tr>
</tbody>
</table>
Table 4-15. SAC Consulting Services as of 2017 (FAS, n.d.; SRUC, 2017d).

<table>
<thead>
<tr>
<th>Level</th>
<th>Price per annum (year)</th>
<th>Services provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Croft and Smallholder</td>
<td>£69.65 + value added tax (VAT)</td>
<td>• Telephone advice from a local consultant</td>
</tr>
<tr>
<td>Subscription</td>
<td></td>
<td>• Office consultations with a consultant, up to a maximum two hours per annum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Regular locally-produced newsletters and relevant publications</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Priority for any services required</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Invitations to meetings and other local events</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reduced rated for Croft Development Plans</td>
</tr>
<tr>
<td>Subscription</td>
<td>£199 + VAT</td>
<td>ALL Croft Subscription services plus…</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Notification of any local pest and/or disease problem</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Subscriber group visits to SAC Consulting farms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Attendance at subscriber only meetings and demonstrations, and free or reduced admittance to charged events</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Free subscription to FarmText</td>
</tr>
<tr>
<td>Premium Subscription</td>
<td>£495 + VAT</td>
<td>ALL Subscription Services plus…</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Office and farm consultations with a consultant, including two visits a year</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Telephone, office and farm consultations up to a maximum of six hours a year</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Access to specialist consultants through local consultant</td>
</tr>
</tbody>
</table>

Table 4-16. Commonly produced commodities in Florida and Scotland.

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Florida</th>
<th>Scotland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef cows</td>
<td>Just over 1.59 million head in 2016: beef (non-dairy) cows (790,000); calves born during 2015 (800,000).</td>
<td>Just over 436,000 breeding beef cows in 2016.3</td>
</tr>
<tr>
<td>Dairy cows</td>
<td>About 125,000 milk cows in 2016; 2.58 billion pounds of milk produced worth more than $549 million.1</td>
<td>About 176,000 dairy cows in 2015; 3.41 billion pounds of milk produced worth more than $467 million.3</td>
</tr>
<tr>
<td>Pigs</td>
<td>Over 16,000 hogs on farm in 2016; 2,228 tons of pig meat were marketed worth $2.581 million.1</td>
<td>Over 330,000 pigs on farm in 2016; 64,960 tons of pig meat was produced worth $117 million.3</td>
</tr>
<tr>
<td>Sheep</td>
<td>Around 10,000 sheep.2</td>
<td>Around 2.6 million ewes; 3 million finished lambs produced meat worth $234 million in 2015.3</td>
</tr>
<tr>
<td>Poultry</td>
<td>Approximately 9.17 million poultry in 2016; tonnage of chicken produced valued at $203 million and egg production valued at over $316 million.1</td>
<td>Approximately 14 million poultry in 2016; tonnage of chicken produced valued at $78 million and egg production valued at over $117 million.3</td>
</tr>
<tr>
<td>Commodity</td>
<td>Florida</td>
<td>Scotland</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Other livestock</td>
<td>Consists mainly of horses (500,000), goats (30,000); minimal numbers of other livestock can also be found.²</td>
<td>Minimal numbers; consists mainly of horses, deer, goats, camelids (alpacas, llamas, etc.) and donkeys.⁴</td>
</tr>
<tr>
<td>Cereals, oilseed rape, &amp; other field crops</td>
<td>Around 1.06 million total acres harvested: sugarcane (408,000), hay (290,000), peanuts (180,000), cotton (83,000), corn (50,000), soybeans (31,000), and wheat (15,000) in 2015.¹</td>
<td>Around 1.13 million acres harvested: barley (706,720), wheat (271,815), oats (76,603), and oilseed rape (74,132) in 2016.³</td>
</tr>
<tr>
<td>Potatoes</td>
<td>Just under 29,600 acres of potatoes grown with an output of over 340,400 tons valued at $108.247 million in 2015.¹</td>
<td>Just under 69.190 acres of potatoes grown, with an output of over 1.15 million tons valued at $234 million in 2015.³</td>
</tr>
<tr>
<td>Fruits and vegetables</td>
<td>Over 200,400 acres of vegetables and soft fruit and 501,300 acres of citrus.¹</td>
<td>Over 51,892 acres of vegetables and soft fruit³,⁴</td>
</tr>
<tr>
<td></td>
<td>161,071,428 cwt of citrus</td>
<td>4,100,598 cwt of carrots</td>
</tr>
<tr>
<td></td>
<td>9,499,000 cwt of tomatoes</td>
<td>1,201,519 cwt of turnips &amp; swedes</td>
</tr>
<tr>
<td></td>
<td>5,880,000 cwt of watermelons</td>
<td>701,070 cwt of strawberries</td>
</tr>
<tr>
<td></td>
<td>5,166,000 cwt of sweet corn</td>
<td>679,024 cwt of peas</td>
</tr>
<tr>
<td></td>
<td>4,392,000 cwt of bell peppers</td>
<td>273,373 cwt of brussels sprouts</td>
</tr>
<tr>
<td></td>
<td>2,706,000 cwt of cabbage</td>
<td>66,139 cwt of raspberries</td>
</tr>
<tr>
<td></td>
<td>1,107,000 cwt of sweet potatoes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2,442,000 cwt of strawberries</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,696,000 cwt of cucumbers</td>
<td></td>
</tr>
<tr>
<td>Horticulture</td>
<td>Just over 6,850 acres of open ground and 289 million sq. ft. covered area with an expanded wholesale value of $1.039 billion in 2015.¹</td>
<td>A small number of farmers also grown bulbs and flowers (including daffodils).³</td>
</tr>
<tr>
<td>Forestry</td>
<td>Just over 15.4 million acres of timberlands with a generated output valued at $16.09 billion in 2013.¹</td>
<td>Just over 3.55 million acres of timberlands with a generated output valued at $1.024 billion in 2012.⁵,⁶</td>
</tr>
<tr>
<td>Aquaculture</td>
<td>Over 400 operations reported $69 million in aquaculture sales in 2012.¹</td>
<td>Over 448 registered active finfish sites and 335 registered active shellfish sites reporting $430.5 million in aquaculture sales in 2009.⁷ Specific sales figures by product unavailable.</td>
</tr>
<tr>
<td></td>
<td>$27.3 million of ornamental fish</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11.9 million of mollusks</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.9 million of alligator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.3 million of aquatic plants</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.0 million of other food fish</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.2 million of tilapia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>390,000 of catfish</td>
<td></td>
</tr>
<tr>
<td></td>
<td>373,000 of live rock</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11.3 million of all other aquaculture</td>
<td></td>
</tr>
</tbody>
</table>

Sources

¹ FDACS (2016)  
² FDACS (n.d.)  
³ NFUS (n.d.)  
⁴ Scottish Government (2016b)  
⁵ Tatchell-Evans (2016)  
⁶ CJC Consulting (2015)  
⁷ Scottish Government (2009)
CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

Chapter 1 provided the introduction for the present study. An overview of Extension Advisory Services was presented, followed by the relevant historical references to consider for U.S. Extension within the context of the proposed study. With this foundation in place, the problem statement, context, and overview of the research design for this study were presented.

Chapter 2 presented the theoretical and conceptual frameworks used in constructing this study and in subsequent analyses. The chapter presented the theoretical perspective taken throughout this study. A review of theoretical frames relevant to this study were then provided, along with supporting research and literature. Finally, the early-stage conceptual model linking the frames together as a possible lens through which to consider the findings was presented for consideration.

Chapter 3 articulated both the research design selected for this study, as well as the collection and analysis methods utilized throughout. The chapter began by reaffirming the study’s purpose and objectives. A statement of subjectivity and bias was then provided to inform the reader of potential subjective lenses through which the study was conducted. Finally, the chapter concluded with an overview of the research methodology utilized for collection and analysis throughout this study.

Chapter 4 presented the findings from each of the cases. First, the foundation was laid by presenting the “within” cases with findings at the axial coding level. Then, the argument towards theory was built with the presenting of the “between” case with findings presented at the selective coding level.
Finally, the theoretical conclusions, practical implications, and research recommendations are presented in Chapter 5. First, an overview of the study including the problem statement, objectives, and design choice is presented. A discussion follows, offering the researcher’s theoretical conclusions that are believed to exist between the data presented and the conceptual and theoretical frameworks identified. Finally, implications for practice and recommendations for future research are offered.

**Study Summary**

It has been suggested that systems funded solely through public or private funding are largely unsustainable. This study, acknowledging the invaluable contribution that the science-based knowledge and expertise provided within a university-based system provide, sought to begin examining the question of how some configuration of organizations, both public and private, might exist within a university-based extension system in order to provide the most effective outcomes.

**Purpose and Objectives**

This study undertook an examination of the current structure and organization of two university-based extension systems (one that is publicly funded and one that has transitioned to a commercialized system) and the dynamics that exist between local agents and local small-scale farmers. Key objectives that drove this study included:

**“Within” cases**

**Case 1: Florida**

- Objective 1: To describe the various actors (Florida small-scale farmers and FL-CES agents) that participated in this study.
- Objective 2: To explore the processes and perceptions that these agents in Florida use with regards to meeting the needs of their respective small-scale farmers in creating and maintaining small-scale operations.
• Objective 3: To explore the perceptions that these small-scale farmers in Florida have with regards to the university-based extension system and their personal relationships with extension (FL-CES).

Case 2: Scotland

• Objective 1: To describe the various actors (Scottish small-scale farmers and SAC consultants) that participated in this study.

• Objective 2: To explore the processes and perceptions that these consultants in Scotland use with regards to meeting the needs of their respective small-scale farmers in creating and maintaining small-scale operations.

• Objective 3: To explore the perceptions that these small-scale farmers in Scotland have with regards to the university-based extension system and their personal relationships with extension (SAC).

“Between” case

Case 3: Florida-Scotland

• Objective: Using data from the Florida and Scotland cases, identify the key concepts that arise from the data and elaborate on how those concepts related to one another within a theoretical frame.

Design Selection

Methods used when a constructionist epistemology is applied are most often qualitative. When the researcher assumes the position that there is no single, objective truth (Gergen & Gergen, 2003), and knowledge is believed to be generated and shared among community participants, the methods used to capture that essence must attempt to the integrate those conventions as they are shared within the community (Gergen & Gergen, 2003). To achieve this requirement within this study, case study methodology using dyadic interviews was selected. By using case studies, the researcher was able to maintain the characteristic integrity of real-life events (Yin, 2009), allowing space for the complexities of social interactions within multiple communities and countries to unfold. Further, the case-study design provided the opportunity to obtain a thick, rich
description, important when attempting to understand a phenomenon (Merriam, 1998). The complexities that exist within a service-based exchange, such as the ones between EAS agent and clientele, are of such a dynamic nature that it is crucial for such a rich description to be captured while maintaining the integrity of the exchange events.

**Theoretical Conclusions**

**Early Conceptual Stages**

The original conceptual model (Figure 5-1), established during the early stages of data collection and analysis suggested that within any given setting there are numerous social fields at work, establishing culture through a variety of interactions between actors within the setting. During these exchanges, positions and roles are defined, and the direction and structure of the interactions are manifested.

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**Figure 5-1. Early stage conceptual model.**
Within the numerous social fields of a community also exist those created within a given organization. The richness of interactions within an organization can be better understood when a secondary theoretical lens is also applied; in this case, the Burke-Litwin model. By examining the impact of both transformational and transactional variables within the context of an organization it is possible to understand how a shift or change within an organization can impact not only the organizational processes, but social fields as well.

Beyond the organization’s internal social field exists a social field that manifests between the organization and external actors. Within this social field, each external actor brings with them a certain level of social capital wherein lay established community norms, varying levels and types of trust, and perceived reciprocity within their relationships. These relationships may be with others in their community (bridging or bonding), or they may be with established institutions (linking).

In addition to the social capital held by the external actor, any exchanges (social or economic) between the organization and an external actor can also be impacted by the type of exchange (negotiated transaction, reciprocal transaction, generalized reciprocity, or incorporation) and the level of relationship already established between the external actor and the organization (stranger, acquaintance, friend, or partner).

The final conceptual models (Figures 5-2 and 5-3) were established in the final stages of data analysis. Larger versions of the Florida and Scotland models can be found in Appendix E and F respectively. These two models will be used to convey the theoretical conclusions gained as a result of this study.
Florida

First, both models spoke to the initial idea that there are numerous social fields at work. Within the Florida model, there was evidence to suggest that two fields were present – one where the actor was the “traditional” farmer and one where the actor was the “small-scale” farmer. Within each of the social fields, a certain culture was created through the various interactions between actors within the setting. In both social fields, Florida Cooperative Extension Service serves as the organization, while the farmer serves as the actor.

Figure 5-2. Theoretical model for Florida.

Between the organization and the actor, positions and roles were assumed rather than formally stated, as were the direction and structure of the interactions. According to
Wilkinson (1970), *direction* is often generated by interests that may include “wishes, stimuli, or objectives of the interaction” (p. 316). In the Florida case, the objective of the interaction from the role of the agent (information broker/technical expert) is to provide the farmer (receiver) with the information that is needed, while the objective from the role of the farmer (requestor) is to build their operation through the information provided by the Extension agent. When this objective is met, an interactional phenomenon, or *direction*, occurs (Wilkinson, 1970). This finding supports the historical extension agent-farmer relationship (Jones & Garforth, 1998; Swanson & Rajalahti, 2010; Umali & Schwartz, 1994). In the U.S., these experts were responsible for transferring knowledge generated from the land-grant institution to users in the community (Bennett, 1990).

*Structure*, on the other hand, can refer either to the relationships among actors during interaction or relations among positions throughout the process (Wilkinson, 1970). One of the most telling relations to consider with regard to position is the way that power manifests itself throughout the process. In both the Florida and Scotland models, power refers to the extent that once actor is dependent on another actor to accomplish a goal, as well as the perceived importance of the goal to each actor, and the availability for alternative methods for achieving that goal (Emerson, 1981; Hocker & Wilmot, 1985). Regardless of whether the service is being paid for using a publicly-funded or commercialized model, the demand that any farmer will have for the use of the extension service depends on the expected net benefits (Umali & Schwartz, 1994). However, since there is no clearly established contract between the two parties, as there would be in a negotiated transaction, the expected net benefits may be hazy. The receiving party may not fully understand exactly what services Extension can provide;
thus, expectations may wildly vary. In addition to these uncertainties, the way that the power manifested in the two systems differed dramatically.

There are many in agricultural development that will attribute the lackluster performance of a publicly-funded extension service to the fact that, in most agencies, agents “are nominally accountable to their superiors…and are only indirectly (if at all) accountable to their farmer-clients.” (Feder, Anderson, Birner, & Deininger, 2010, 187-188). This finding supports the suggestion that the agents’ dependency on the small-scale farmer is negligible, reinforcing the idea that there is very little negative consequence for the organizational actor if they tell a small-scale farmer “I’m sorry, we don’t do that.” This places the power to access the linking capital of the organization squarely, and unequally, in the agents’ hands.

In Florida, there is some mediation of this effect, since FL-CES and UF-IFAS utilize a tenure, permanent status, and promotion [T/PS/P] system. This system allows for a greater degree of accountability than in other extension systems. However, the ability for an agent to successfully navigate the T/PS/P system rarely depends on engagement with small-scale farmers. In fact, some agents may perceive the time required to meet the needs of such a diverse group of farmers as hindering their progress in other areas mandated by the T/PS/P system and, thus, focus their attention on more productive activities.

Placing this power dynamic within a reciprocal transaction, which is used by FL-CES more frequently than a negotiated transaction, the community actor in this case (small-scale farmer) has no substantial power and may have very limited expectations. If the farmers do have established expectations, they are most likely a result of positive
experiences with previous Extension personnel and the trust built within those relationships. Medium- or large-scale farmers with ties to networks such as Florida Farm Bureau or county commissions may exhibit higher degrees of power than their small-scale counterpart, but that power likely comes more from the collective power and social capital held by membership in those organizations. As shared in Chapter 4, small-scale farmers were often not members of such groups and, thus, would not benefit from such power when attempting to create change or generate consequences for Extension failing to meet their needs. Though recourse for a less-than-positive Extension experience exists within the FL-CES system, this procedure was unknown to most of the small-scale farmers who participated in the study, thus minimizing their expectations further.

According to Johnson and Selnes (2004), when a reciprocal transaction occurs, the actor moves from stranger to acquaintance or friend. However, this data suggests that two additional relationship types should be considered when considering this theoretical frame within the context of Extension. First, there is the intentional stranger. According to Johnson and Selnes strangers are “customers and suppliers in a preawareness and/or pretransaction period” (Johnson & Selnes, 2004, p. 3). Acquaintances occur once an initial transaction has taken place that exhibits parity value, or value on par with industry competitors (Johnson & Selnes, 2004). However, there have been documented evidence that there are times when the actor intentionally makes him or herself a stranger to Extension again because of the disintegration of trust that occurred when expectations consistently went unmet in the exchange process. Such a transfer of knowledge was, as was historically found, characterized by one-way
communication (Bennett, 1990) and often neglected indigenous knowledge in favor of knowledge produced within the institution (Jones & Garforth, 1998; Swanson & Rajalahti, 2010).

There was also enough data to warrant the suggestion of the *accommodated acquaintance*. Again, the level of *acquaintance* occurs when the initial transaction has taken place and it exhibits a value on par with industry competitors while *friendships* exist when differentiated offerings that have been adapted to meet the needs of specific market segments are provided to customers which has the potential to elicit a paid premium for the superior offerings (Johnson & Selnes, 2004). Though the data from this study is limited, it is suggested that, within the Extension realm, the *accommodated acquaintance* occurs when the organization provides differentiated offerings based on the needs of the audience they are most comfortable in serving. These acquaintances are provided resources that may not be completely individualized, but are contextualized beyond a general informational level. This appeared to result in an increase in trust since superior service is being provided and expectations are met in the exchange process without the need for a premium to be paid.

There are also times that FL-CES will conduct negotiated transactions. Within this data set, agents shared that during the times where an audience has been charged a fee for participation, they observed a greater focused interest in the content and an increased personal valuing of the time and material for many of the participants. This observation was enriched as several agents and farmers relayed that when they have attended the paid programs through Extension, they see the same people over and over. This suggests that these farmers have moved from the *acquaintance* level to the
level of friend. Trust and relationship have been established, and they were willing to pay for the service since they had addressed the needs of a specific market segment (Johnson & Selnes, 2004). Unfortunately, this tended to be the exception, rather than the rule in this case.

Each interaction between the organization and the actor impacts the linking capital. There were several organizational factors that agents attributed concerns to: organizational culture, structure, and task requirements & individual skills/abilities. Each one of these factors impacted the linking capital. The two transactional level factors (structure and task requirements & individual skills/abilities) had a detrimental impact on the linking capital, while the social capital within the organizational culture had the potential to reverse some of that damage. When there was a large gap between the farmer’s requested information and the individual skills/abilities of the agent, the farmer’s needs often went unmet and the relationship was damaged. However, when there was enough positive interaction between the organization and the actor, the linking capital was able to connect the farmer to the needed external resources. This connection had the ability to impact not only the actor but, subsequently, the actor’s bridging and bonding capital with others in their community. Such connections are necessary for the small-scale farmer in creating a sustainable operation (Wolz, Fritzsch, & Reinsberg, 2005; The World Bank, 2012).

Scotland

Within the Scotland model, there was evidence to suggest that two fields were present. However, unlike the Florida model where one field help the “traditional” farmer and one held the “small-scale” farmer, the two fields constructed in the Scotland case centered around the concepts of being an “insider” versus being an “outsider”. It is
interesting to note that even though these social fields were constructed within the data set, the impact did not occur within the organization-actor interactions. Instead, the negative impacts were generated when the social fields collided at the community level. It was within the bridging and bonding capital between the farmer and others within the local community that the greatest impact was reported. Regardless, as is the nature of a social field, each generated a certain culture through the various interactions between actors within the setting. And, as in the Florida case, SAC serves as the organization, while the farmer serves as the actor.

Figure 5-3. Theoretical model for Scotland.

Again, as in the Florida case, the positions and roles of the organization and actor were assumed rather than formally stated, as were the direction and structure of
the interactions. In the Scotland case, the objective of the interaction from the role of the agent (information broker) is to provide the farmer (contractor) with the information or advice that has been specifically contracted, while the objective from the role of the farmer (contractor) is to build their operation through the information provided by the SAC consultant. Since, in this case there is a clearly established contract between the two parties, the expected net benefits become much clearer. The receiving party is clearly informed on exactly what services SAC Consulting can provide; thus, expectations are far more likely to align to the end result.

In both the Florida and Scotland models, power refers to the extent that once actor is dependent on another actor to accomplish a goal, as well as the perceived importance of the goal to each actor, and the availability for alternative methods for achieving that goal (Emerson, 1981; Hocker & Wilmot, 1985). Unlike the Florida case where agents “are nominally accountable to their superiors…and are only indirectly (if at all) accountable to their farmer-clients” (Feder, Anderson, Birner, & Deininger, 2010, 187-188), the SAC consultants are directly accountable both to their superiors and to the farmer that they serve. This finding supports the suggestion that the consultants’ dependency on those small-scale farmers that have elected to pay for service is more substantial than in the Florida case. And though they have maintained a level of expertise, they have shifted their position to one of knowledge broker (intermediary) and facilitator (Gebremedhin, Hoekstra, & Tegegne, 2006).

The reason this power dynamic exists is because of the negotiated transaction that is most commonly used by SAC. By bringing their checkbook and providing a direct payment to the organization, there is a shift in power and expectation. In the negotiated
transaction, the community actor (farmer) has tangible power and may have very high expectations. If the farmers already have established expectations, they are most likely a result of positive experiences with previous SAC personnel and the trust built within those relationships. Unlike the reciprocal transaction, this transaction type attempts to provide more transparency and accountability, as well as reduced uncertainty due to specific obligations and better-defined time horizons articulated through a contract of services. Dependency for success now sits more firmly on those in the organization who have been tasked with meeting the needs of those who have contracted services.

Another possible reason for this dynamic is the fact that the content areas served by SAC Consulting are far more limited than they are in Florida. Unlike their counterpart, SAC Consulting only sees to agricultural and natural resources advices. Florida, on the other hand, expanded its mission beyond agriculture and natural resources to include areas such as youth development, family and consumer sciences, and residential lawn and gardens. This diversity in content areas causes the understanding of what services may be offered by a county office to become even more challenging for someone outside of the Extension service, since each county office has a different set of agents and, therefore, service offerings. Scottish farmers, however, know that when they go to the college, they will have someone there who can directly address their needs.

Each interaction between the organization and the actor impacts the linking capital. There was only one consistent organizational factor that agents attributed concerns to: organizational culture. Any of the factors within the Burke-Litwin model may impact the linking capital between an organization and the actor. In this case, the limitations felt in the inter-organization social capital within the organizational culture
had the potential to cause some damage within the organization itself, and possibly even the capital between the two. However, there was not enough evidence to determine whether a detrimental impact on linking capital had been made. There was evidence, though, to support the presence of linking capital between the organization and the farmer. Every small-scale farmer who had used the SAC service spoke quite highly of the college and their advisors. Trust appears to be present and the linking capital is high for those who access the services.

There was, however, evidence to support the existence of a barrier between the actor and his or her access to the linking capital of SAC – money. The cost of the subscription or other services provided was substantial enough for several of the small-scale farmers to share they’d stopped using, or had never used, SAC’s service. Such a distancing, again, results in intentional strangers. However, unlike their Florida counterparts, the distance is a result of the cost being too high or the product being deemed not worth the associated cost rather than expectations being unmet in the exchange process. Having, or losing, this connection impacts both the actor along with the actor’s bridging and bonding capital with others in their community. One other notable contribution to the insider’s social field was the increase in bonding capital that is built through the incorporation and generalized reciprocity transactions that occur through the commons management in the hills and on the islands.

**To the Future**

There are small-scale farmers who value the information that the university generates, both in Florida and in Scotland. However, there are barriers to getting access to these resources. In Florida, that barrier is often the culture itself, either in FL-CES or in the community. To generate change and meet these needs, Extension will
need to undergo intentional shifts at the both transformational and the transactional level. In Scotland, the largest barrier between consultant and farmer is the cost associated with the services provided. Without being able to access these services, small-scale farmers will continue to seek resources on their own, which may or may not be based on a sound research base, while their vulnerability for being bought out by larger farms or simply folding increases.

If FL-CES truly sees its mission is to serve all those who come for answers, then more needs to be done to meet these small-scale farms where they are at – limited backgrounds in agricultural knowledge, business skills, and marketing. These farmers need Extension to be ready to connect them to answers for questions that are outside of the traditional agricultural box, whether through personal knowledge or information brokering. These small-scale farmers see themselves as legitimate businesses and are willing to invest in resources that will generate a return. However, the products provided by FL-CES were not fitting the demands of at least some small-scale farmers at the time of this study.

If the mission of SAC Consulting is to enhance the rural economy and environment, then failing to price services at a level that any and all contributors to the local food system can reasonably pay becomes a significant barrier to achieving that mission. These farmers need alternative payment options or greater access to available resources to provide them with answers for their questions. As in Florida, these smallholders see themselves as legitimate businesses and are willing to invest in resources that will generate a return. However, the prices of services were viewed as too costly for several small-scale farmers at the time of this study.
Implications for Practice

This research sought to not only gather information for comparison between two systems, but to also suggest areas for possible changes in practice as well as future research. This study was a small-scale, qualitative study, thus no generalizable conclusions about the relationship between the organizations and their local small-scale farmers can be made. Additionally, since the collection of this data, both organizations have made some shifts that may have resulted in different data being collected had the study been conducted in 2017. However, transferability of these findings to recommendations for practice and further research can still be made.

FL-CES has been working towards addressing some of the concerns laid out above. With recent hires, 22 of the 67 Florida counties now have either an agricultural, horticultural, or sustainable food systems agent with a direct responsibility for small farms extension programming (T. Obreza, personal communication, November 1, 2017). These positions are charged with assisting in the establishment of community-supported agriculture, community gardens, farmers’ markets, agritourism opportunities, and other marketing efforts in their local county. Four of these 22 counties exist in the sampled counties of the current study; therefore, it is possible that different perceptions now exist. Regional agents have also been working to strengthen Florida’s Small Farms & Alternative Enterprises Program which provide workshops, trainings, and online resources for small and medium-sized enterprises (T. Obreza, personal communication, November 1, 2017).

In addition to staffing and programming shifts, Florida has begun exploring revenue enhancement efforts with an increased emphasis on grantsmanship, contracts, gifts, sponsorships, and cost recovery (user) fees using a private to public goods ratio
for cost assessment (IFAS Revenue Enhancement Steering Committee, 2015). The administration is working to encourage county faculty and staff to “think like an ‘intrapreneur’ in the development, marketing, and delivery of educational programs (IFAS Revenue Enhancement Steering Committee, 2015, p. 1). To support this shift, the administration of FL-CES has been designing and implementing system resources, such as budgeting spreadsheets for events, agent-assigned purchase cards, and a standardized accounting system, needed by agents to achieve this new task requirement (IFAS Revenue Enhancement Steering Committee, 2015). They are providing on-site educational workshops to assist county agents and directors with accounting processes, developing program budgets, and setting appropriate fee schemes (IFAS Revenue Enhancement Steering Committee, 2015). They have also hired new state-level staff to provide additional support for these specific efforts.

About two-thirds of the county offices in Florida have been provided this training since the beginning of this transition in 2014 (K. Gouin, personal communication, November 6, 2017). In order to build agent buy-in, the administration is strongly encouraging, but not yet mandating, this shift since they recognize that there are still many agents who object to the very idea of charging for services (T. Obreza, personal communication, November 1, 2017). This reluctance appears to be tied directly to organizational culture historically present in Extension, rather than some structural concern (K. Gouin, personal communication, November 6, 2017; T. Obreza, personal communication, November 1, 2017).

SAC Consulting, on the other hand, has also made some adjustments by increasing availability of advice on organic efforts in keeping with the Scottish Organic
Action Plan of 2013 (SRUC, 2017e). This effort has focused on enhancing Scotland’s organic food sector. Courses, workshops, and online resources are available to assist operators desiring to manage their farms using a variety of organically-informed methods (SRUC, 2017e). Since the data collection process in 2013, SAC Consulting has also made the Farm Advisory Service subsidized subscription available to not only crofters, but smallholders as well. They also seem to be working to be present at and available for more functions specifically targeted to small-scale operators, such as the Smallholding Scotland Program and the Scottish Smallholder Festival. Additionally, they are providing audience-specific talks such as “How to make your smallholding climate-change proof” as well as making public good advices easily accessible through various Facebook pages such as the Scottish Smallholders Association.

Florida

With these new conditions in mind, as well as the concepts captured within the data, the following recommendations are made. First, and foremost, this research has confirmed that FL-CES needs to continue working with local county agents to identify the needs of small-scale farmers at the local level (Bernet et al., 2001; Dougherty & Green, 2011; Gaul et al., 2009). As was found in both this study, the 2008 Florida Small Farm Survey (Gaul et al., 2009), and other recent research (Manganyi, Hartmann, Hildebrand, McGuire, & Russo, 2006; Robotham & McArthur, 2001), small-scale farmers represent a diverse set of backgrounds and informational needs. Unfortunately, this study supports the findings from previous research that small-scale farmers continue not accessing Extension resources for a number of reasons: resource limitations, failure of programs to meet their needs, and low interest in programming (Goodwin & Gouldthorpe, 2013; Tubene & Holder, 2001).
By using information collected from this study, the data collected from the 2008 Florida Small Farm Survey (Gaul et al., 2009), and data collected during the annual Florida Small Farms Conference as a base, agents and specialists can collaborate on new, up-to-date resources that will fill in the informational gaps cited throughout this study. Topics of most relevance and highest demand seem to be building a small-scale business wisely, marketing strategies, and navigating regulations and seeking change within those regulations. However, a need for diverse, niche crops and livestock (e.g., goats, heirloom plants, olives) as they apply to regions in Florida were also requested.

It is also crucial that FL-CES identify a way, now that Ag Economists are not regionally located, for agents to access enterprise budgets that are sustainably managed and kept up-to-date. Without such information, it is difficult for agents to provide farmers, regardless of size, accurate economic advice for inputs and yield profit expectations.

FL-CES should work to build additional regional sites for small-scale farm support, such as the one that exists in Suwannee County, as well as small-farm networks, such as the one developed in the NW and SW Florida regions. Counties that were close to one of these resources mentioned using it consistently; however, this radius of impact only extended to about 10 of the 67 counties served by FL-CES. Further, these small-farm networks could be useful assets in helping improving the available online resources, making them more user-friendly and less cumbersome to navigate through.

The findings in this study support the idea that the needs of small-scale farmers for diverse information have placed increased strains on extension agents who feel they
do not hold an adequate level expertise on the diversity of topics desired by the clientele (Gaul et al., 2009). Therefore, for both current and future FL-CES agents, the administration should build up the resources and trainings available that specifically target working with the niche markets or other desired content areas (e.g., marketing, small-scale business management, CSA development) that appear to be commonly targeted by Florida small-scale farm operations. Furthermore, Extension personnel must also be provided with additional support in presenting their message in a way that will catch the small-scale farmers' attention and engage them in the learning process (Kroma, 2003; Richardson, Stephenson, Riddick, Caldwell, & McAlister, 1996).

Additionally, by building a better working relationship with FAMU, FL-CES could expand the knowledge of small ruminant and crops common to North Florida that could be used more extensively throughout the state than just the 18 counties served directly by FAMU. These two institutions are supposed to be united under one Extension banner, yet this study seemed to still reveal a significant disconnect between the two entities. The research conducted by FAMU, and the knowledgeable faculty and staff who work therein, are valuable resources for the entire state. More should be done to create an integrated presence across Florida.

Findings from this study support the belief purported by Ban and Hawkins (1988), Rasmussen (1989), and Seevers, Graham, and Conklin (2007) that intrinsic, invaluable resources are generated from the tripartite university extension system. Therefore, it would be a mistake to completely privatize the Florida Cooperative Extension System. However, the findings do suggest that the move by FL-CES to a fee-for-service scheme would be a viable option within the Florida agricultural landscape.
Small-scale farmers who were interviewed in Florida acknowledge a willingness to pay for service. This finding does not suggest that every small-scale farmer would be willing, or as argued by Prager, Labarthe, Caggiano, and Lorenzo-Arribas (2016) and Rivera and Cary (1998) able to pay for such services. However, as Florida considers such a move, a number of approaches may be useful considerations. The first is a stratified client market where public sector resources are used to provide resources for vulnerable or minority communities (including small-scale farmers) with fee-for-service extension being reserved for larger-scale farms.

A second option would be similar to the one found in the Scottish system wherein the state and/or federal government becomes a client of the extension system. In such a case, the government could provide direct resources for particular service delivery that maintains the public good (veterinary/ horticultural disease surveillance) or supports areas that would be deemed economically non-viable. The governments (both state and federal) could also continue shoring up grant schemes that provide support for various small-scale farm groups throughout the state. Such public investments in private services that support small-scale farmers would “develop capacities of service providers and establish markets for services” (Anderson & Feder, 2007, p. 2352). These two options could work in tandem to enhance the revenue enhancement efforts currently in place within FL-CES.

As stated before, the ultimate issue within this discussion of privatization “may not be whether a certain function should be entrusted to public or private organizations, but, rather, what configuration of organizations, both public and private is needed and what arrangements between them provide the most effective outcomes” (Rivera & Cary,
So then, what configuration is best for Florida’s agricultural sphere? To begin answering this question, FL-CES needs to honestly reassess and reaffirm throughout each level of their leadership and organizational culture what their true mission is and what the appropriate strategies for accomplishing that mission are. If it is to 1) serve the entire community, 2) by extending the knowledge generated at the university out to the community, 3) as a completely publicly-funded organization, then resources need to be better allotted for meeting the needs of un- or under-served groups within Florida’s non-traditional agricultural sphere. There is a public value associated with serving small-scale farmers. These farmers are often the ones who are seen by the local public. They become the face of farming that many in Florida will see on a consistent basis, thus continuing to reconnect the citizenry back to the value of agriculture and the land.

But, if FL-CES cannot meet the needs of small-scale farmers in Florida, then who should these farmers be referred to? Private companies who often present information biased in their favor and usually come with a cost? Online resources that may be free or low cost, but are infinite in number and vary widely on accuracy and reliability? If the cultural argument that “they [members of the public] are already paying for services” (C3) continues to be made throughout FL-CES as a reason to avoid a discussion of alternative payment schemes, then FL-CES agents should be more diligent in providing every taxpayer with the resources being asked for, whether common to the area or not. It seems just as much an issue of the roles and positions assumed within the exchange relationship as it is where the money to pay for services should be coming from.
A decision by FL-CES to move towards a more market-driven approach will require specific, intentional transformational shifts in the organizational culture and overall mission & strategy of the organization as well as transactional shifts in the structure, systems, task requirements, and individual & organizational performance, ultimately impacting the entire matrix of FL-CES. However, simply changing to a pay-for-services model would not create an ideal state. Agents will also need to assume a position of information broker rather than technical expert, allowing for a transfer of power over the information to the hands of the requestor. Moreover, as FL-CES makes this transformation, it will need to work in tandem with the agents rather than through a top-down approach, assuring that agents are prepared to assume this new position and role within their community since the FL-CES administration has already noted agent reluctance at accepting such a transition (T. Obreza, personal communication, November 1, 2017).

Burke and Litwin (1992) asserted that in order to generate a change within an organization, it is necessary to first identify the behaviors that would be related to the desired state and then focus on creating change around these behaviors. The desired behaviors must first be acquired by organization members (Burke and Litwin, 1992). FL-CES will need to clearly define and articulate how public and private good is determined within the new organizational structure and mission. The administration will need to continue working with agents on building the skills and resources necessary for not only effectively using a fee-for-service model, but also in brokering information in a demand-based arena rather than simply acting as the content expert. Agents also need work with local actors to ensure that their voices are being heard in order to increase
efficacy of those participants within the exchange environment (Brain, Irani, Hodges, & Fuhrman, 2009; Klair, Boggia, & Richardson, 1998; Richardson et al., 1996). Therefore, such a decision should be made with much consideration and proactive effort.

**Scotland**

This research has confirmed that while SAC Consulting does meet the needs of those small-scale farmers who choose to contract for services, not every farmer sees the service as being worth the associated price. Since small-scale farmers who produce at semi-subsistence to subsistence levels represent a particular interest for the Scottish Government (Scottish Government, 2017b), SAC Consulting should continue their efforts to enhance the connections that they have with small-scale farmers at a reduced cost. Providing public good resources through association Facebook pages, blogs, or other online resources is a valuable way to maintain or promote connection between the organization and local actor without incurring a high cost to either party.

It is recommended that local consultants be contacted to help identify the needs of their small-scale farmers at the local level (Bernet et al., 2001; Dougherty & Green, 2011; Gaul et al., 2009). By using information collected from this study, consultants and specialists can collaborate on additional resources that provide smallholders with scale-appropriate advice discussed in this study. Topics of most relevance and highest demand seem to be filling out the required paperwork and identifying qualifying schemes; however, farmers also referred to topics such as building a small-scale business wisely, marketing strategies, and navigating regulations and seeking change within those regulations. As in the Florida case, SAC Consulting may want to consider whether it would be commercially viable to build regional sites or positions for small-scale farm support.
Recommendations for Further Research

Florida

Because this study’s purpose was to begin the understanding process, much can still be done. Using the concepts captured within this study’s data, and as a direct follow-up to this study, it is recommended that a quantitative or mixed method study be conducted. A survey should be designed using the data collected from this study as well as the 2008 Florida Small Farm Survey (Gaul et al., 2009) and the annual Florida Small Farms Conference to quantify the number of small-scale farmers throughout Florida and capture a clearer understanding of their informational needs, challenges, and perceptions of FL-CES. Collecting this information would provide both county and state faculty with more accurate data about the nature and condition of small-scale farming within Florida, the levels of trust and perceived relationship that exists between the two, and may also provide insight on how Extension could truly target this audience. It is also suggested that attributes such as county, district, and cultural and historical attributes unique to the agricultural community be captured to better inform local agents of specific needs to their local small-scale farmers. Additionally, it would be useful to test this conceptual model in several different U.S. Extension service systems to continue informing the theoretical conclusions.

Next, it is suggested that a comparative study regarding the relationship between traditional farmers and their Extension agents. This study found indications of two spheres working within the Florida case – the traditional agricultural sphere and those who represent the “other.” Conducting a comparative study with traditional, normative farmers would be beneficial in terms of confirming or refuting some of the hypotheses
regarding level of exchange and strength of linking capital set forth in the theoretical model generated during this study.

Additional studies, using qualitative or mixed methods, would also be recommended. One recommended study would target urban centers in Florida that show exceptional promise in the development of small-scale farm-Extension relations. Three urban counties that may be of interest based on findings within the current study would be Leon County (Tallahassee), Lee County (Fort Myers), or Miami-Dade County.

Since there are some activities (workshops, CEU trainings) that farmers in Florida currently pay for, research should be conducted on clients’ willingness to pay for services, both those who attend the workshop and those in the community who do not. This study may also examine the impact that the economic exchange has on the clients’ and agents’ expectations, and the potential power dynamics at play within the exchange process. The research may convey that a shift in client expectations would occur if payment is directly rendered. Such a finding would bring with it the possibility of a transformational shift within FL-CES. Therefore, the nature of this dynamic should also be explored. A study could also be conducted that focuses on the impact of receiving a particular response (met expectation, neutral, expectations unmet) from Extension as it pertains to customer request, level of satisfaction, and intention to use services again.

Scotland

Using the concepts captured within this study’s data, and as a direct follow-up to this study, it is recommended that a quantitative or mixed method study be conducted to capture a more in-depth understanding of the informational needs, challenges, and perceptions of small-scale farmers in Scotland. This information, coupled with the findings from the Small Farm Survey (Scottish Government, 2004), would allow SAC
Consulting to create a targeted marketing effort directed at better meeting the needs of this audience. In addition to data about the nature and condition of small-scale farming within Scotland, SAC Consulting could explore what levels of trust and perceived relationships exists between the two, allowing for a more definitive, rather than speculative, response to the question of whether SAC Consulting is still perceived as unbiased and trustworthy following commercialization.

Next, it is suggested that a comparative study regarding the characteristics of traditional farmers and their small-scale counterparts, including their relationship to SAC Consulting. This study found indications of two spheres working within the Scotland case – the traditional agricultural sphere where both large and small-scale normative farms exist and those who were considered outsiders. Conducting such a comparative study would be beneficial in terms of confirming or refuting some of the hypotheses regarding the similarity of farmers, regardless of size, as well as the access to and the strength of linking capital set forth in the theoretical model generated during this study.

Research should also be conducted on clients’ expectations and perceived role and power when paying for services. Such a study would examine the impact that the economic exchange has on the clients’ and consultants’ expectations, and the potential power dynamics at play within the exchange process. These findings would further clarify some of the hypotheses regarding the impact of payment on roles and positions set forth in the theoretical model generated during this study. Additionally, follow-up study could also be conducted on the impact of receiving a particular response (met expectation, neutral, expectations unmet) from SAC Consulting as it pertains to customer request, level of satisfaction, and intention to use services again.
Recruitment Script – Florida-farmer

Hello.
My name is Jessica Gouldthorpe, and I am a doctoral student at the University of Florida. I am currently conducting an investigation into the relationship between small-scale farmers in Florida and the UF-IFAS Extension Service and I would like to ask for your assistance.

In order for me to adequately explore this topic, I first need to better understand the perceptions small-scale farmers in Florida regarding the current agricultural services being provided through the university-based extension system. This information will be valuable information for staff and faculty within the UF-IFAS Extension Service as they work to meet the needs of small-scale farmers. This study will also serve to inform local agricultural agents of topics of interest for small-scale farmers, current attitudes and concerns that small-scale farmers have regarding UF Extension, and preferred methods for communication throughout the small-scale farming communities of Florida. Such information will assist specialists at the university level in creating appropriate educational programs for small-scale farmers.

Each participant will be asked to participate in an interview that will last between one and two hours. Unfortunately, we cannot provide any compensation. However, through this research we hope to generate knowledge that will build the relationships between the small-scale farming community in Florida and its local extension office, while improving specialized programming efforts. Your input, therefore, is needed to help us determine how we can best serve these valuable, but underserved farming communities.

If you are interested in participating in an interview, please reply as soon as possible to:
Ms. Jessica Gouldthorpe
   Email: [researcher’s email]
   Phone: [researcher’s phone number]

Thank you for your consideration.
APPENDIX B
SAMPLE OF INFORMED CONSENT PROTOCOL

Informed Consent (Florida-Farmer)

Protocol Title: Understanding the University-Based Extension and Small Farmer Interaction: A Cross-Case Analysis between the Extension Systems of Florida and Scotland

Please read this consent document carefully before you decide to participate in this study.

Purpose of the research study: We are attempting to investigate the relationship between small-scale farmers in Florida and Scotland and their respective university-based agricultural extension system. Specifically, we would like to examine how the structure and organization of the university-based extension system corresponds with the needs, interests, and capabilities of local small-scale farmers in creating enterprises that are economically, environmentally, and socially sustainable.

What you will be asked to do in the study: We ask that you invite at least one other person (two at the most) to participate with you and the researcher in a discussion about small farms in your local community.

Time required: Between 60 and 120 minutes (1-2 hours)

Risks and Benefits: No more than minimal risk. There is no direct benefit to the participant in this research. However, this study will help researchers understand the perceptions small-scale farmers in Florida regarding the current advisory services being provided through the university-based extension system. This information will be valuable information for staff and faculty within the university-based extension system as they work to meet the needs of small-scale farmers. This study will also serve to inform local agricultural agents of topics of interest for small-scale farmers, current attitudes and concerns that small-scale farmers have regarding Extension, and preferred methods for communication throughout the small-scale farming community in Florida. Such information will assist specialists at the university who work with agricultural agents.

Compensation: There is no compensation for participating in the study.

Confidentiality: Your identity will be kept confidential to the extent provided by law. Names of participants will not be used in any research reports or presentations. A pseudonym, rather than your name, will be used to identify your responses once our interview is over. Your information will become part of a larger data group, and your personal information will remain unidentifiable in all final products. The final results will be presented in a paper for an international conference on extension studies as well as relevant journals for publication.

Voluntary participation: Participation in this study is completely voluntary. There is no penalty for deciding not to participate.

Right to withdraw from the study: You have the right to withdraw from the study at any time without consequence. You also do not have to answer any questions you do not want to answer.

Whom to contact if you have questions about the study:
Jessica L. Gouldthorpe, PO Box 110540, Gainesville, FL 32611-0540; 352-273-2614; jlgould@ufl.edu

Whom to contact about your rights as a research participant in the study:
UFIRB Office, Box 112250, University of Florida, Gainesville, FL 32611-2250; Ph 352-392-0433.

I have read the procedure outlined above. I voluntarily agree to participate in this study and have received a copy of this description.

Participant’s signature and date

Principle investigator’s signature and date
APPENDIX C
SEMI-STRUCTURED INTERVIEW PROTOCOL - SMALL-SCALE FARMER

Thank you for agreeing to participate in this interview about your small farm. I would like to start our discussion by asking you to tell me why you agreed to participate. What do you hope comes out of our time together or was there something you really wanted to share with me? Now, let’s talk farming.

1. Not being from the area, would you tell me about the history of farming in [case area]?
   a. Does that hold true in [city/town]?
   b. Would you tell me about the history of [city/town]?

2. Tell me more about farming here in [city/town].
   a. What role does farming play in the community? Does farming help define the community as a whole?
   b. Who farms? How do you characterize these people? How do others in the community characterize them?
   c. How would you describe relationships within the local farming community?
   d. What agricultural or natural resource topics are most important to this area?
   e. What are the biggest challenges faced by farmers?

3. How has farming changed for this area over the past several decades?
   a. Describe similarities to the past
      i. Describe how farming has changed for you over your lifetime.
      ii. What used to work well that doesn’t anymore?
      iii. What didn’t work then but now does?
   b. Describe any memorable transitions
      i. What changes were made?
      ii. Who was involved in making those changes?
      iii. Who got lost in the process?

4. Tell me about small-scale farming in this area
   a. Perceived distribution of larger farms to smaller farms
   b. What is the relationship between small-scale farmers and larger producers?
   c. Can you tell me about a time you worked with other farmers to accomplish some goal?

5. Often, we tap into different resources to help us accomplish certain goals. If I asked you to think about different resources available to help small-scale farmers, what resources comes to mind?
   a. Where do these resources come from?
   b. What expectations do you have concerning these resources?
   c. Why do you trust these resources?
   d. How does a farmer go about accessing these resources?
   e. What are the biggest struggles this community has with accessing resources to make their farms successful?

6. Now, let’s talk about your farm. Who do you most often turn to for help on your farm?

7. Describe the vision that you have for your farm over the next few months and years.
   a. What do you want for your farm – sustainable, generational, etc…
   b. What might keep you from accomplishing those goals?
   c. How might the university help you accomplish your goals?
   d. What resources do you need that the university may not be able to offer you?
   e. Who would you go to in order to access those resources?

8. Is there anything else you would like to add?
APPENDIX D
SEMI-STRUCTURED INTERVIEW PROTOCOL – AGRICULTURAL AGENTS

Thank you for agreeing to participate in this interview about your relationship with local farms. I would like to start our discussion by asking you to tell me why you agreed to participate. What do you hope comes out of our time together or was there something you really wanted to share with me? Now, let’s talk about the local community.

1. Not being from the area, would you tell me about the history of farming in [case area]?
   a. Does that hold true in [city/town]?
   b. Would you tell me about the history of [city/town]?

2. Tell me more about farming here in [city/town].
   a. What role does farming play in the community? Does farming help define the community as a whole?
   b. Who farms? How do you characterize these people? How do others in the community characterize them?
   c. How would you describe relationships within the local farming community?
   d. What agricultural or natural resource topics are most important to this area?
   e. What are the biggest challenges faced by farmers?

3. How has farming changed for this area over the past several decades?
   a. Describe similarities to the past
      i. Describe how farming has changed for you over your lifetime.
      ii. What used to work well that doesn’t anymore?
      iii. What didn’t work then but now does?
   b. Describe any memorable transitions
      i. What changes were made?
      ii. Who was involved in making those changes?
      iii. Who got lost in the process?

4. Tell me about small-scale farming in this area
   a. Perceived distribution of larger farms to smaller farms
   b. What is the relationship between small-scale farmers and larger producers?
   c. Can you give me an example of a time you worked with a small farmer to accomplish some goal?

5. What does/should the relationship between Extension and small-scale farmers look like?
   a. Extension often provides resources to help farmers accomplish their goals.
   b. How do the issues you believe are most important to this area or biggest challenges faced by farmers align with the resources offered by Extension?
   c. How can farmers go about accessing these resources?
   d. What are the biggest struggles this community has with accessing resources to make their farms successful?

6. Now, let’s talk about the vision that the university has for helping small-scale farms over the next few months and years.
   a. What do you think the best way to accomplish those goals?
   b. What might keep you from accomplishing those goals at the local level?
   c. What resources do you think extension cannot or should not try to offer small-scale farmers? Why?
   d. Who would they go to in order to access those resources?

7. Is there anything else you would like to add?
APPENDIX E
THEORETICAL MODEL FOR FLORIDA GENERATED FROM STUDY DATA
APPENDIX F
THEORETICAL MODEL FOR SCOTLAND GENERATED FROM STUDY DATA

SCOTLAND

ROLES / POSITIONS - Broker/Contractor
DIRECTION - Provide/Receive Information
STRUCTURE - Power more evenly distributed

TRANSFORMATIONAL

Mission & Strategy
Leadership

External Environment
Organizational Culture

Management Practices
Systems (Policies Procedures)

Structure
Task Requirements & Individual Skills/Abilities
Work Unit Climate
Motivation

Individual Needs & Values
Individual & Organizational Performance

Reciprocal Transaction
Negotiated Transaction

ACQUAINTANCE
FRIEND
PARTNER

STRANGER

OUTSIDER

INSIDER

Generalized Reciprocity
Incorporation

Higher Perceived Reciprocity
Trust in "The College"
Existing Community Norms

BRIDGING & BONDING CAPITAL

OTHERS WITHIN LOCAL COMMUNITY

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LIST OF REFERENCES


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BIOGRAPHICAL SKETCH

Jessica L. O’Leary (née Gouldthorpe) was born in Gainesville, Florida in 1977. A Gator from birth, Jessica was raised in Gainesville and graduated from Eastside High School in 1995. Jessica completed her Bachelor of Arts in Education degree with a specialization in middle grade science from the University of Florida College of Education in May 1999. Following graduation, Jessica took a full-time teaching position at The Rock School as a member of the middle grade team.

After teaching for six years, Jessica returned to pursue a master’s degree. By August 2010, Jessica graduated with a Master of Science degree from the Department of Family, Youth, and Community Sciences at the University of Florida. That same year, Jessica received a doctoral fellowship from the University of Florida Department of Agricultural Education and Communication. Her areas of study included international extension systems (specifically those of the U.S. and U.K.), program development and evaluation, and research methodology. During that same time, Jessica advanced from graduate assistant to full-time lecturer, teaching undergraduate courses on a number of topics including program development, community sociology, community development, and community issues. She completed her Doctor of Philosophy in December 2017.

Jessica currently resides in Virginia with her husband, Sean. She serves as a Prevention and Youth Services Coordinator for a local domestic violence/sexual violence organization, though her love of Extension is not lost. She looks for every opportunity to integrate Extension into her daily work, building bridges between local organizations and Extension as often as possible.