Civic Agriculture and the Community Experience:

The Relationship of Local Food System Participation to Community Sentiment and Local

Social Ties

THESIS

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ABSTRACT

Recent decades have seen a rising popularity of local food as a commodity, consumer movement, scholarly interest, and community development tool. Civic agriculture is a valuable framework for encapsulating each of these dimensions of local food systems. The theory of civic agriculture emphasizes the building of community and social networks around local food production and consumption. This paper seeks to explore that potential of civic agriculture through an understanding of the relationship of local food system participation to community sentiment—including community attachment, community satisfaction, and local social ties. Using data from the 2012 *Ohio Survey of Food, Agriculture and Environmental Issues*, I construct a local food system participation scale based on respondents' reports of their frequency of participation in civic agriculture activities. Then, I apply multivariate regression analysis to correlate this scale with four dimensions of community sentiment and four types of local social ties. I find that local food system participation is significantly correlated with density of acquaintances, level of organizational involvement, and interest in goings-on within the community. However, local food system participation appears to have no significant relationship to the affective dimensions of community attachment, community satisfaction, or the formation of strong ties. The theoretical justification and models used

in this analysis are built primarily on the narratives and empirical traditions of the community attachment and satisfaction literature. The findings can be used to understand the role of local food system participation in the interactional field theory of community development, the dialectical tensions between local food systems as a feature of community and global/industrial food systems as a feature of mass society, as well as the strength and practical nature of the claims made by the civic agriculture frame. Suggestions are made for future research and policy based on the findings.

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CHAPTER 1: INTRODUCTION

1.1. Study Background and Goals

Recent years have seen a rise in popularity of local food and its accompanying social movements (Allen 2004; Bean and Sharp 2011; Holt Giménez and Shattuck 2011; Martinez et al. 2010; G.W. Stevenson et al. 2007). No longer is local food simply a staple of alternative back-to-the-land culture or a luxury item for those fortunate enough to have a farmers' market in their community. On the contrary, local food activities have become a lens for addressing various associated issues, such as economic development, ecological sustainability, cultural preservation, and community quality of life (Allen 2004).

While there are many frames for conceptualizing alternative agrifood system development, one that successfully blends concepts from Sociology of Agriculture and Community Sociology is the concept of *civic agriculture*. When Thomas Lyson first introduced civic agriculture in 2000, he defined it as "a locally-based agricultural and food production system that is tightly linked to a community's social and economic development" (2000:42). Lyson's earlier writings on civic agriculture primarily focused on operationalizing and identifying manifestations of the concept, but his later works (2004; 2005) highlighted the relationship of local food systems to multiple dimensions of community engagement. According to Lyson, civic agriculture is a model of local food

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system development that takes community welfare as its central goal, ties in participants' sense of place, encourages extramarket relationships, helps to engage citizens in the civic community, and generally contributes to community vitality and strength (2004).

This research aims to explore some of Lyson's implications about the relationship of local food system development to community development. Using data from the 2012 *Ohio Survey of Food, Agriculture, and Environmental Issues*, I explore the degree to which participation in local food activities is tied to measures of local social ties and community sentiment. To do this, I construct a scale that assesses levels of local food system participation, using items intended to measure the extent of respondents' tendencies to purchase local foods in various contexts. Then, I examine the statistical correlations between that scale and measures of community experience including four categories of local social ties and four dimensions of community sentiment. The models used to explore these correlations are based on models that have been repeatedly tested by community sociologists over the last four decades.

I expect that, as Lyson implies (2000, 2004, 2005), local food system participation will have a positive relationship with each category of local social tie, as well as each dimension of community sentiment. Based on prior research, I suspect that these effects will be tempered by community and individual-level factors, such as population density, length of residence, life-cycle stage, socioeconomic status, race, and gender (Brown, Geertsen, and Krannich 1989; Brown 1993; Flaherty and Brown 2012; Goudy 1982, 1990; Kasarda and Janowitz 1974; O'Brien and Hassinger 1992; Sampson 1988; Sundblad and Sapp 2011; Theodori 2004, 2005, 2000).

1.2. Significance of Study

Over the course of the 20th century, agriculture underwent a major transition (Bonanno and Constance 2001; Buttel 2003; L. Lobao and Meyer 2001; McMichael 2009). At the turn of the 20th century, agriculture was labor intensive and land extensive, with 41 percent of the U.S. workforce employed in agriculture and just under 6 million farms at an average size of about 150 acres (Dimitri et al. 2005). Throughout the next 100 years, agriculture became increasingly mechanized and regionally centralized until the number of farms dropped to just over 2 million with the average size increasing to just over 400 acres (National Agricultural Statistics Service and United States Dept. of Agriculture 2009). By the turn of the 21st century, less than 2% of the nation's population was employed in agriculture, with 94% of those farms grossing under $250,000 annually—a sum determined to be inadequate for supporting an average family without off-farm income (L. Lobao and Meyer 2001). Additionally, farms on average have become more mechanized and higher-producing, with the total number of tractors increasing by about 500% since the machine's popularization in the 1930's and average yields more than doubling since the 1950's (Dimitri et al. 2005; National Agricultural Statistics Service and United States Dept. of Agriculture 2009).

This change in agriculture is associated with a shift toward a more globalized society. Food production has become more outwardly focused as neoliberal capitalism has come to dominate production and consumption on the world stage (Bonanno and Constance 2001; Bonanno 2012; Busch and Bain 2004; Busch 2010; Buttel 2003; Goodman 2004; Holt Giménez and Shattuck 2011; McMichael 2004). In fact, the number

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of U.S. crops produced for export has increased eightfold since 1915 (Dimitri et al. 2005). Meanwhile, food commodity chains are increasingly controlled by a smaller number of agribusinesses (James, M. K. Hendrickson, and Howard 2013) and stretched over longer transnational distances as hypermobile capital seeks cheaper and cheaper inputs in the forms of land and labor (Bonanno and Constance 2001; Buttel 2003; Kloppenburg, Jr., J. Hendrickson, and G. W. Stevenson 1996; Magdoff, Bellamy Foster, and Buttel 2000; McMichael 2009). This "rule governed structure of production and consumption of food on a world scale," has been called the "Food from Nowhere Regime" (McMichael 2009).

One way to conceptualize of the "Food from Nowhere Regime" is as an element of mass society. Larry Lyon defines mass society as "a standardized, homogenous, society devoid of major ethnic and class divisions and, most importantly for the community, devoid of substantial regional and local variation" (1989:14). This definition is closely reflected in an explanation of modern food systems offered by Kloppenburg, et. al.: "the objective of the [transnational agribusinesses] is to restructure this marvelously diverse world into a homogenous plain free of physical or social obstacles to the free flow of money and agricultural commodities" (1996:35). With regards to this homogenized and globalized food system, Kloppenburg et. al. also raise the following points:

> What is eaten by the great majority of North Americans comes from a global everywhere, yet from nowhere that they know in particular. The distance from which their food comes represents their separation from the knowledge of how and by whom what they consume is produced, processed, and transported. If the production, processing, and transport of

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what they eat is destructive of the land and of human community—as it very often is—how can they understand the implications of their own participation in the global food system when those processes are located elsewhere and so are obscured from them? How can they act responsibly and effectively for change if they do not understand how the food system works and their own role within it? (1996:34)

In opposition to these issues associated with food distancing, Kloppenburg et. al. propose a reorientation of food production and consumption to the local community, terming that ecologically-based community a "foodshed" (Kloppenburg, Jr. et al. 1996).

This notion of responding to a transnationally elaborated food system that is economically and regionally centralized constitutes dialectical resistance to the neoliberal "food regime" (Friedmann and McMichael 1989; Friedmann and Mcnair 2008; Holt Giménez and Shattuck 2011; McMichael 2009). While consumer-driven food system localization may have the power to shift food dynamics on a local level, the effects of this shift on global food dynamics is more questionable (Friedmann and Mcnair 2008; Holt Giménez and Shattuck 2011; McMichael 2009). In fact, the emerging popularity and persistence of locally-oriented food systems (Bean and Sharp 2011; Inwood and Sharp 2012; Martinez et al. 2010) may be reflected in an agricultural bifurcation, whereby small farms make up the majority of operations while large farms reap the benefits of the profits (Hoppe et al. 2010). Some would even argue that local food systems and their accompanying political support serve to reinforce global food regimes by perpetuating the illusion of agency as capital accumulation and neoliberal globalization continue to thrive (Bonanno and Constance 2006; Buttel 1980).

These dialectical tensions between local and global food systems beg the questions: While scholarly rhetoric holds that food system localization represents a shift toward a stronger sense of community and global food systems a shift away, what are the relative effects of each on an individual living simultaneously in both spheres? To what degree can the effects of local food systems on community quality of life endure in the context of a neoliberal/global and ostensibly homogenized mass society? Do community-oriented food systems truly support the individual's relationship to the community, or do they simply provide an alternative to the perceived lack of choice imposed by the neoliberal food regime? A practical examination of the community claims set forth by the civic agriculture frame can help to address some of these questions.

This thesis aims to fill the gap in quantitative research on the community development implications of civic agriculture by employing models for exploring community sentiment, which has a rich quantitative tradition in Community Sociology (Brown et al. 1989; Brown 1993; Flaherty and Brown 2012; Goudy 1982, 1990; Kasarda and Janowitz 1974; O'Brien and Hassinger 1992; Sampson 1988; Sundblad and Sapp 2011; Theodori 2004, 2005, 2000). This work also attempts to extend the rural sociological tradition of examining the effects of agricultural scale on community quality of life by considering the degree to which civic agriculture fulfills its promises in the face of an industrialized food system that has articulated with the rise of mass society. Finally, this research extends the findings on the relationship between civic agriculture and community attachment to the question of community development, using connections

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that have been hypothesized and explored by the community sentiment literature

(Theodori 2000, 2004).

CHAPTER 2: LITERATURE REVIEW AND HYPOTHESES

2.1. Defining and situating civic agriculture

In order to understand the relationship between civic agriculture and the community experience, it is first necessary to define what is meant when referring to Lyson's concept of civic agriculture. Once that parameter is established, it is helpful to understand where civic agriculture falls in the evolution of literature related to dominant and alternative food systems, as well as its application to describing ongoing phenomena. In this section, I present a definition of civic agriculture, followed by an analysis of its literary, theoretical, and practical roots. The purpose of this section is to elucidate the utility of examining the concept and some of its implications.

2.1.1. Defining civic agriculture

Civic agriculture refers to a model of agricultural development introduced by Thomas Lyson at the turn of the new millennium. According to Lyson, manifestations of civic agriculture include the following enterprises: farmers' markets, community and school gardens, small-scale organic farms, community supported agriculture (CSA) operations, grower-controlled marketing cooperatives, agricultural districts, community kitchens, specialty producers, on-farm processors, and small-scale, off-farm, local processors (Lyson 2005). Lyson bases this operationalization on a set of contrasts between conventional agriculture and civic agriculture, detailed below.

Social theory: Rather than taking neoclassical economics as its theoretical framework, civic agriculture is guided by pragmatism. While the former is a dominant paradigm that emphasizes humans as rational actors constantly engaged in cost-benefit analyses, the latter is an alternative framework that emphasizes the interplay between on-the-ground solutions, democracy, and informed decision making. Lyson points out that the former leads to solutions framed by modernization and globalization, while the latter leads to solutions oriented toward building civic community and enhancing sustainability (2004).

Biological theory: Lyson argues that conventional agriculture is grounded in experimental biology, which is outcomes-focused and emphasizes the manifestation of certain traits over the sustenance of a healthy environment throughout the production process. Civic agriculture, on the other hand, is guided by "ecological biology," which is holistic and emphasizes the importance of practice in producing a viable food supply (Lyson 2004).

Operational model: While conventional agriculture follows a "production model" that emphasizes economic efficiency, productivity, growth, profit, and a globalized market, civic agriculture follows a "development model" that emphasizes social and economic equity, household and community welfare, and locally-oriented markets (Lyson 2004).

Organizational model: Lyson describes the conventional agriculture organizational model as the "corporate model," which is characterized by "large vertically or horizontally integrated multinational corporations competing in a global

market" (2004:70). The organizational model of civic agriculture, on the other hand, is labeled by Lyson as the community model, characterized by "smaller, locally controlled enterprises organized into industrial districts, regional trade associations, [and] producer cooperatives" (2004:70).

Class positions: Lyson holds that conventional agricultural development involves individuals who represent the corporate middle class, i.e. professional, managerial, and administrative occupations. Rather than fall into a corporate hierarchy, individuals practicing civic agriculture represent the independent middle class, or small business owners, farmers, and self employed professionals (Lyson 2004). The latter is what would be referred to by Marxist social theorists as the *petite bourgeoisie*, or the class of small business proprietors who control the means of production while remaining members of the working class (Marx and Engels 1998).

Political Processes: Conventional agriculture is a stratified system that places consumers at the end of a supply chain in which their choices are limited to the products of corporate decision-making. Civic agriculture, on the other hand, transforms individuals from food consumers to "food citizens," meaning that those who eat also have the agency to make informed choices and therefore influence the way their food is produced (Lyson 2004).

Power: Lyson identifies the conventional agriculture model as one in which economic and political power are concentrated among large corporate agribusinesses. He contrasts civic agriculture as a system where economic and political power are dispersed among those participating in all sectors of the system (Lyson 2004).

Motors for Change: Finally, Lyson sees the conventional model as one that depends on individual actions and assets, such as knowledge, connections, and financial capital to create change in the food system. He sees civic agriculture, rather, as a model that relies on collective action, such as civic engagement and social movements to foster systemic change (Lyson 2004).

Lyson sums up this set of contrasts with the following statement:

> Civic agriculture… is a locally organized system of agriculture and food production characterized by networks of producers who are bound together by place. Civic agriculture embodies a commitment to developing and strengthening an economically, environmentally, and socially sustainable system of agriculture and food production that relies on local resources and serves local markets and consumers. The imperative to earn a profit is filtered through a set of cooperative and mutually supporting social relations. Community problem-solving rather than individual competition is the foundation of civic agriculture (2004:64).

Ultimately, the primary qualities that set civic agriculture apart are its emphasis on ecological sustainability, its orientation toward local economic development, its incorporation of social equity issues, and its potential to both influence and be influenced by the local community.

2.1.2. Situating civic agriculture

Given that civic agriculture is both a practical and theoretical framework—as it both describes existent activities and gives social meaning to those activities—it can be situated among various strands of literature. Among these strands are the bodies of literature on social movements surrounding food, agricultural scale and community quality of life, and descriptive accounts of local food activities. This section seeks to

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situate civic agriculture among the ongoing discussions in the social movement, rural sociological, and descriptive market-based literature.

Civic Agriculture as Social Movement

Civic agriculture can be characterized as a form of resistance to the dominant food system. As such, it is helpful to situate civic agriculture among the milieu of resistance strategies that are taken against global food regimes. In order to do this, a handful of frameworks that have emerged over the past decade to characterize forms of resistance to the dominant agrifood system that can be employed. Of these frameworks, some of the most useful were developed by Patricia Allen (2004), G.W. Stevenson et. al. (2007), and Holt Giménez and Shattuck (2011).

Allen's framework for characterizing alternative agrifood movements is discourse-based, meaning that it was developed by analyzing and categorizing alternative food rhetoric used by movement leaders. According to Allen, concerns about food can be divided into two broad-based movements: sustainable agriculture and community food security. Allen purports that the movement for sustainable agriculture calls for decentralization, independence, community orientation, harmony with nature, diversity and restraint in the formation of cropping systems. The movement for community food security, on the other hand, calls for community development, individual empowerment, local production, fair prices for farmers, and community planning (Allen 2004). Thus, sustainable agriculture advocates may be concerned primarily with encouraging organic production, while community food security advocates might focus their attention on reducing the distance between production and consumption.

Stevenson et. al. (2007) present a framework more oriented toward the activities of food system change agents than Allen's discursive analysis. According to the authors, social change activities in the modern agrifood system can be divided among 3 strategic orientations. These orientations include warrior, builder, and weaver work. Warrior work describes activities of resistance to the corporate food trajectory, such as protests and legislative work. Builder work describes the creation of new agrifood initiatives and models, such as alternative food entrepreneurship and the building of new collaborative structures (farmers' markets and cooperatives, for example). Finally, weaver work describes the development of strategic and conceptual linkages, such as coalition building and the development of mass messaging, as in the work of food policy councils or land-grant university extension programs (G.W. Stevenson et al. 2007).

The work of Holt Giménez and Shattuck (2011) builds off of the food regimes concept (McMichael 2009). The authors present a four-category framework that is divided into two arms of the corporate food regime and two types of food movements used to combat that regime. The schema separates corporate food regimes into neoliberal and reformist efforts. According to Holt Giménez and Shattuck, neoliberal efforts are those built around food enterprise, transnational corporations, unregulated global markets, industrialism, and biotechnology. Reformist efforts, on the other hand, emphasize food security, development, food aid, mainstreaming of niche markets (such as organic or fair trade), and the inclusion of underserved population into the neoliberal system. To combat the work of the corporate food regime, two types of food movements have emerged, according to the authors. Progressive movements are those that call for

food justice, empowerment, sustainably produced local food, economic development in underserved communities, and better safety nets. Radical movements, however, represent direct opposition to the neoliberal food regime, calling for food sovereignty, entitlement, redistribution, dismantling agri-food monopolies, cultural propriety of food, and the democratic control of localized food systems. To name a few examples of entities that can be classified under this schema: neoliberalism is represented by large seed companies like Monsanto and Cargill, reformism can be seen in organizations such as food banks and some Fair Trade certifiers, progressivism can be found among community supported agriculture operations (CSAs) and farmworker rights organizations, and radicalism is represented in transnational movements for agrarian rights (Holt Giménez and Shattuck 2011).

Situating civic agriculture among these social movements proves a bit tricky, as often Lyson's discourse takes a more radical form than the pragmatic solutions that he prescribes. However, at the core of civic agriculture activities is an orientation to the development of community resources and empowerment of the local community. Given that the activities identified by Lyson as manifestations of civic agriculture are typically locally-oriented alternatives to the dominant food system, rather than complements or attempts to dismantle that system, civic agriculture can be identified as a community food security movement in Allen's eyes (2004), a builder movement in the eyes of Stevenson et. al. (2007), and a progressive movement in the eyes of Holt Giménez and Shattuck (2011).

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Civic Agriculture as Theoretical Framework

While a number of social science theories can be identified that comprise the backbone of the civic agriculture framework, one theoretical tradition that is especially pertinent to the study of rural sociology, and of civic agriculture in particular, is the *Goldschmidt hypothesis*. Here, I will focus on the role the Goldschmidt hypothesis has played in the development of the civic agriculture framework. Additional theories that support the framework will be addressed in section 2.4 of this chapter.

In his exploration of the relationship between agricultural scale and community quality of life, Lyson draws directly on the rural sociological tradition of exploring the Goldschmidt hypothesis. Walter Goldschmidt's seminal 1948 study, *As You Sow*, explored the differential effects of large-scale and small-scale agriculture on the two California communities of Arvin and Dinuba. In comparing these two communities, Goldschmidt found that large-scale agriculture was associated with many signs of community deterioration, including increased wage laborers, low living conditions, unstable population, poor physical appearance, few and poor social services, poor public spaces, centralization of decision-making power, and social segregation. Conversely, he assessed the community dominated by small-scale agricultural operations as one that displayed higher quality of life, demonstrated by more entrepreneurship, more religious institutions, higher degrees of community loyalty, decentralization of decision-making power to community residents, and more retail trade (Goldschmidt 1978; Lyson 2004).

While much controversy and lack of clarity has surrounded the Goldschmidt hypothesis over the years (L. M. Lobao, Schulman, and Swanson 1993), a recent meta-

analysis of 51 empirical tests of the hypothesis turned up 29 studies that report largely

detrimental impacts of industrial farming, 13 studies that report some detrimental

impacts, and nine that report no detrimental impacts, for a total of 82% that report some

amount of detrimental impact (L. Lobao and Stofferahn 2007).

The Goldschmidt literature has found a new niche in the past decade due to

increased attention from both consumers and academics to local food and its associated

promises. Now, instead of focusing on the detrimental effects of large-scale agriculture

for communities, many scholars have turned their attention to the capacity of small-scale

agriculture and food enterprises to contribute to thriving local communities (Delind 2002;

Feenstra 1997; Glowacki-Dudka, Murray, and Isaacs 2012; Kloppenburg, Jr. et al. 2000,

1996; Lacy 2000; Lyson and Green 1999; Lyson 2005; Macias 2008; Ross 2007;

Saldivar-Tanaka and Krasny 2004; Trauger et al. 2009). In setting forth the civic

agriculture framework, Lyson joins a community of scholars who have sought to turn

their attention toward the community development side of the Goldschmidt hypothesis.

Civic Agriculture as Practice

From a practical perspective, Lyson's conceptualization of civic agriculture

coincides with the increasing appearance of operations that Lyson would endorse with the

civic agriculture label. In a 2004 study, Lyson and Guptill used various national-level

datasets to explore the community-level factors that co-vary with civic agriculture

enterprises, which they defined as farms selling directly to the public. The authors cite

agricultural census data from 1992 and 1997, reporting that 93,410 farms were selling

direct-to-consumer in 1997, which represented a third of a percentage point increase from the 4.49 percent of direct market farms in 1992 (Lyson and Guptill 2004).

In his book, *Civic Agriculture: Reconnecting Farms, Food, and Community*, also published in 2004, Lyson reports on his knowledge of the number of civic agriculture operations in New York State at the time of publication. The dates of his statistical knowledge span the years 1997-2002 and the operations he includes under the definition of civic agriculture consist of farmers' markets, organic farms, small wineries, community kitchens, community gardens, small-scale food processors, community supported agriculture (CSA), and farms selling directly to the public. His most up-to-date records of these enterprises reflected a total of 7,253 civic agriculture ventures operating in New York State alone (Lyson 2004).

A 2011 report by the U.S. Department of Agriculture Economic Research Service (ERS) found that, as of 2007, 5.5 percent of all U.S. farms were marketing directly to consumers through roadside stands, farmers' markets, on-farm stores, and/or CSAs. The researchers also found that between 1992 and 2007, direct marketing farms increased by 58 percent and the value of direct sales increased by 215 percent to $1.2 billion. However, gross sales of foods marketed both directly to consumers and locally through intermediated markets still only accounted for 1.9% of total gross farm sales, with around 0.5 percent of those sales coming from direct-to-consumer markets (S. A. Low, Vogel, and United States Dept. of Agriculture Economic Research Service 2011).

A more comprehensive 2010 ERS report provides national-level data on channels that Lyson would deem civic agriculture operations. The authors of this report found that

the number of U.S. farmers' markets increased by a little over 300 percent, from 1,755 to 5,274 between 1994 and 2009. The number of community supported agriculture (CSA) operations—or those that sell shares of their upcoming harvests at the onset of the season to offset some of their risks by transferring them to the consumer—was estimated to be around 2,500, also just over a 300 percent increase from an estimated 761 in 2001. However, the researchers reported little available national-level data on other civic agriculture enterprises, such as pick-your-own farms and community gardens (Martinez et al. 2010).

Civic Agriculture as Ideal Type

Lyson puts forth the following list of characteristics to identify civic agriculture and contrast it with conventional agriculture:

1. Farming is oriented toward local markets that serve local consumers rather than national or international mass markets.
2. Agriculture is seen as an integral part of rural communities, not merely as production of commodities.
3. Farmers are concerned more with high quality and value-added products and less with quantity (yield) and least-cost production practices.
4. Production at the farm level is often more labor-intensive and land-intensive and less capital-intensive and land-extensive. Farm enterprises tend to be considerably smaller in scale and scope than industrial producers.
5. Producers more often rely on local, site-specific knowledge and less on a uniform set of "best management practices."
6. Producers forge direct market links to consumers rather than indirect links through middlemen (wholesalers, brokers, processors, etc.) (2004:85)

In setting up these contrasts, Lyson takes a typological approach to the study of dominant and alternative food systems (Lyon 1989; Lyson 2004). In other words, Lyson's

conceptualization places civic agriculture in polar opposition to conventional agriculture. While scenarios may exist that fall somewhere along the continuum between conventional agriculture and civic agriculture, the construction of civic agriculture as an ideal type lends utility to the concept as a subject of study (Lyon 1989). Whether looking at civic agriculture as an ideal type of social movement, social theory, or social practice, the framework is useful for inquiry into the nature of local food systems.

While many aspects of civic agriculture as an ideal type merit exploration, it is the connection between civic agriculture and communities of place that has drawn the most attention from sociologists and other social scientists. A handful of studies that have explored the link between civic agriculture enterprises and their local communities can be broken down into three categories. The first group consists of literature that is critical of the degree to which civic agriculture enterprises actually manifest a civic orientation versus a market orientation (Delind and Bingen 2007; Delind 2002; Ostrom and Jussaume Jr. 2007). A second group takes civic agriculture as a basic good and explores factors associated with its success (Lyson and Guptill 2004; Ross 2007; Trauger et al. 2009). The topic addressed in this thesis falls into the third camp of civic agriculture literature—that which explores the expressed and potential community development characteristics of local food systems (Glowacki-Dudka et al. 2012; Lyson 2005; Macias 2008; Ostrom 2007; Saldivar-Tanaka and Krasny 2004).

Within this camp, there is a need to more fully and quantifiably address civic agriculture's community development potential using classic models from the field of Community Sociology. In order to understand these models, more theoretical background

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must be given on the relationship between dominant food systems, alternative food systems, mass society, and place-based communities.

2.2. The U.S. Food System and Communities Lost and Saved

The relationship between food systems and communities can be understood from a variety of perspectives. One of those perspectives—the Goldschmidt hypothesis—was presented in Section 2.1.2. However, testing of this hypothesis is more useful for looking at the community-level effects of agricultural industrialization or deindustrialization, and does not take into account the individual's relationship to his or her community of place. In this section, I present the background necessary for understanding the relationship of individuals to place-based communities, as well as the role that food systems can play in the formation of different types of place-based communities. First, I identify a community framework from which to conduct my exploration. Then, I explain how understandings of communities have evolved, and how that evolution relates to the emergence of dominant and alternative food systems.

2.2.1. Developing a working definition of community

Attempts to define and theorize community abound in the social sciences literature (C. B. Flora and J. L. Flora 2013; Liepins 2000; Lyon 1989). The concept of community in sociology is most frequently traced back to Ferdinand Tönnies' 1887 work, *Gemeinschaft and Gesellschaft* (Community and Society). Under Tönnies' model *gemeinschaft* and *gesellschaft* are constructed as ideal types, in which gemeinschaft represents communities that are characterized by extended families, rural villages, and *natural will*—including sentiment, tradition and common bonds driven by family or

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shared place. Gesellschaft, on the other hand, represents urban industrial capitalism and

rational will—including individualism, emotional disengagement, little identification

with the community, legalism, and viewing other members of a community as functional

means to ends (Lyon 1989; Tönnies and Harris 2001).

Although Tönnies' typological approach gave way to a variety of understandings of

community, it was not until the mid-20th century that an understanding of community was

developed that adequately explains the dynamics being studied in this thesis (Lyon 1989).

For the purpose of this thesis, it is most useful to review the line of inquiry that led to the

study of community as an *interactional field*.

The interactional field concept developed out of an understanding of society as a

social system. Talcott Parsons introduced the social system in 1951 and defined it as a

"plurality of individual actors interacting with each other in a situation which has at least

a physical or environmental aspect… and whose relation to their situations, including

each other, is defined and mediated in terms of a system of culturally structured and

shared symbols" (1951:5–6). Systems theory was not originally applied to community

studies because its rise coincided with a historical sociological emphasis on mass society

(Lyon 1989).

However, a series of studies employing the systems theory of community have

considered the role and nature of territorial versus nonterritorial communities, finding

that individuals maintain connections to both place-based communities and communities

without propinquity (Fischer 1982; Laumann 1973; Wellman and Leighton 1979). In

1978, Roland L. Warren posited that communities had both *horizontal linkages* and

vertical linkages. Horizontal linkages referred to ties between individuals and subsystems within a community, and vertical linkages referred to ties between community subsystems and extracommunity systems, or between community and mass society (Warren 1978).

In the context of food systems, horizontal linkages might be represented by a locality's food policy council, which would bring together individuals who represent diverse sectors of the local food system to represent the collective interests of those sectors (Harper et al. 2009; Warren 1978). Vertical linkages, on the other hand, would be represented by the broader governance and economic structures of those individual units, as in the relationship between corporate agribusinesses and contract farmers (James et al. 2013; Warren 1978).

Understandings of the community as a social subsystem within the context of larger social systems led to the study of communities as *social* or *interactional fields* (Lyon 1989; Wilkinson 1970b). In community sociology, the interactional or social field refers loosely to the conceptual space shared by a community (Kaufman 1959; Sutton Jr. and Kolaja 1960; Wilkinson 1970a). Drawing on the use of the field in multiple contexts, Wilkinson defined the social field concept in 1970, proposing that an interactional field could be defined in four distinct and connected ways: 1. As a *holistic interaction nexus*, with parts influencing one another and forming as cause and consequence of objects and events; 2. As *unbounded*, containing no outwardly-defined boundaries, but distinguishable from other fields in its formation around focal points and development of unique characteristics; 3. As *dynamic*, being in a constant state of change in both process

and structure, including the introduction or departure of elements and subsequent realignment; and 4. As *emergent* with properties of the field developing out of the interaction of its parts, rather than the aggregate of the parts' properties (Wilkinson 1970b). In other words, approaching community from a social field perspective assumes that communities have characteristics that change in response to interactions both within the community, and between the community and the society in which it is embedded.

In studying civic agriculture, it is useful to understand the interactional field as the space in which community-related actions—those that have a high degree of "communityness"—occurs. According to Larry Lyon (1989:57), "communityness depends on the degree to which: (1) an activity is locality related; (2) the actors are identified with a locality; and (3) local people participate in an activity." By this definition, a farmers' market serves as a fitting example of a community-related action. A farmers' market is intended to emphasize the agricultural offerings of a locality, is typically limited to producers within a certain physical proximity of that locality, and is typically frequented by consumers who identify as residents of that locality (Lohr et al. 2011; Smithers and Joseph 2009). Furthermore, applying the definition of the interactional field in this context allows us to understand that the community surrounding a farmers' market can be affected by social events outside the market's sphere, such as the ongoing interplay between food regimes and food movements (Holt Giménez and Shattuck 2011; Wilkinson 1970b).

2.2.3. Communities Lost and Saved

In 1979, Barry Wellman took note of the robust debate around the impact of mass society on quality of life at the local level. Wellman dubbed this debate the "Community Question," which he defined as being "concerned with assessing the impact of industrialization and bureaucratization on a variety of primary ties: in the neighborhood, in kinship groups, in interest groups, and on the job" (1979:1202). Thus, he argued, two orientations emerged out of this sociological debate: the *Community Lost* perspective and the *Community Saved* perspective (Wellman and Leighton 1979).

According to Wellman, the Community Lost perspective holds "that the division of labor in… societies has attenuated communal solidarities" and that "weak, narrowly defined, and disorganized ties are rarely available or useful for help in dealing with contingencies" (1979:1204). Wellman sees this argument reflected in the literature on mass society, among other literatures that examine the negative community-level effects of industrialization and bureaucratization, such as crime, poverty, and outmigration (1979). Although Wellman focuses more on the work of urban sociologists, the Goldschmidt literature can easily be placed in this camp (L. M. Lobao et al. 1993; L. Lobao and Stofferahn 2007). The erosion of community resiliency as a result of the industrialization, bureaucratization, and globalization of agriculture that accompanies mass society has also been echoed by countless scholars over the past two decades (Allen 2004; Buttel 2003; Delind and Bingen 2007; Feenstra 1997; Giménez and Shattuck 2011; Kloppenburg, Jr. et al. 1996; Lyson 2004; Magdoff et al. 2000; McMichael 2009, to name a handful). Thus, the existence of mass society and its effects on communities via

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the industrialization of U.S. agriculture falls under the umbrella of the Community Lost perspective.

The Community Saved perspective, on the other hand, posits that "neighborhood and kinship solidarities have continued to flourish in industrial bureaucratic social systems" and that "members of such networks are often important sources of assistance in mediating with formal bureaucratic structures and in coping with contingencies" (Wellman 1979:1205). According to Wellman, proponents of the Community Saved perspective tend to go beyond the basic argument that humans are inherently gregarious and reliant on communities to assert that communities can form *in opposition to* the dominance of larger social structures: "Those who have developed the Saved argument have found much evidence of solidarity networks among poorer, traditional, or ethnic minorities seeking to maintain their resources against the claims of a centralizing state" (1979:1205). Thus, proponents of the community food security movement might perceive that their communities are saved from the alienating effects of an industrialized food system through the development of community-oriented food systems, as in Kloppenburg et. al.'s assertion that one benefit of reorienting consumption to the "foodshed" is that of the "commensal community," or the formation of "sustainable relationships both between people (those who eat together) and between people and the land (obtaining food without damage)" (1996:37).

When combined with the interactional field theory of community, the relationship between civic agriculture and the Community Saved perspective becomes clear. Based on the assumption that alternative, locally-oriented markets for producing and consuming

food can act as an interactional field, Lyson's contention (2004:98) that "civic agriculture activities…, as aspects of the civic community, become a powerful template around which to build non- or extramarket relationships between persons, social groups, and institutions that have been distanced from each other" gains a considerable amount of theoretical merit. Through this statement, Lyson makes the argument that community can persist in the face of the distancing effects of mass society and agricultural industrialization via participation in local food activities.

2.4. Civic Agriculture and Communities Saved: How can Local Food Promote the Development of Community?

Several theories exist to support Lyson's notion that civic agriculture can act as a powerful tool for community development. Here, I outline these theories, with particular attention paid to the application of the theories to issues of food system localization. The section is broken down into three subsections. The first part addresses the development of community defined as the formation of an interactional field, the second part addresses the development of community defined as the formation of local social ties, and the third part addresses the development of community defined as the enhancement of community quality of life.

2.4.1. Community Development: The Social Field and Self-Help Approaches

"Among the social fields in a given locality," writes Kenneth Wilkinson, "are some which are locality-oriented, meaning that the principal actors and beneficiaries are local residents, the goals of action represent interests of local residents, and the action is public as opposed to private in that beneficiaries include persons in addition to the actors"

(1972:44). According to Wilkinson, it is within these social fields that community development occurs. Wilkinson espouses a theory of community development put forth by Kaufman (1959), which holds that development *of* community should be seen as distinct from development *in* community. The latter treats the community merely as a context for the projects of special interest groups, meaning that the construction of a food processing plant for a transnational agribusiness can be conceived as development in community. The former refers to a process that strengthens community bonds by emphasizing "the development of local groups which have skill in problem solving, strong identification with the locality, and a spirit of self-reliance" (Kaufman 1959:16). Development of community may also be thought of as strengthening a community's horizontal linkages, while development in community is more likely to strengthen vertical linkages (Theodori 2000; Wilkinson 1989).

Later theorists have referred to the purposive development of community as the *self-help approach*: "The self-help perspective emphasizes that the process is more important in the long run than the improvements, because the collaboration that derives from a strong sense of community can be the means to continuing improvement of community services and quality of life" (Littrell and Hobbs 1989:49).

It is easy to see how the establishment of a farmers' market or community garden can be characterized as the self-help approach to community development. While such projects do have an end product, that product not only can involve a process of collaboration among diverse stakeholders throughout its development, but also involves development of community as a tenet of its outcome. Starting a farmers' market or

community garden, for example, may involve both a process of initiation that brings community members together and a space in which community members may interact once the outcome has been achieved.

2.4.2. Third Places and Social Capital

Building off of the social field theory of community development allows for an understanding of certain civic agriculture enterprises as *third places*. According to Ray Oldenburg, "The third place is a generic designation for a great variety of public places that host the regular, voluntary, informal, and happily anticipated gatherings of individuals beyond the realms of home and work" (1989:16). Oldenburg argues that third places benefit community inhabitants by providing them with diversity, novelty, and mental balance. In other words, Oldenburg sees third places as the antidote to the general malaise brought about by what others have labeled "mass society" (Kasarda and Janowitz 1974; Lyon 1989; Ramon Oldenburg and Brissett 1982; Sampson 1988; Theodori 2000; Wellman and Leighton 1979).

Given the potential for sociability outside of rule-bound relationships, some have characterized farmers' markets as gathering spaces that have the potential to constitute third places (Okura Gagné 2011; Project for Public Spaces Inc. and Partners for Livable Communities 2003; Tiemann 2008). Others have conceived of community gardens as spaces that not only contribute to open space beautification and food procurement, but also as public arenas that encourage social bonding (Alaimo, Reischl, and Ober Allen 2010; Guthman 2008; Hanna and Oh 2000; Macias 2008; Pudup 2008; Saldivar-Tanaka and Krasny 2004; Schukoske 1997). While socialization may not be the primary intent of

such spaces, the potential exists for exchange relationships and food production to become secondary to the social encounters that occur around civic agriculture enterprises, transforming those enterprises into third places (Ramon Oldenburg and Brissett 1982; Ray Oldenburg 1989).

One way in which third places may function to enhance quality of life is by increasing *social capital*. Social capital is often defined as the norms of reciprocity and mutual trust between individuals and within a community (Coleman 1988; C. B. Flora and J. L. Flora 2013; Putnam 2000). The literature on social capital considers the degree to which the formation of "strong ties" and "weak ties" (or friendships/relatives and acquaintances/networks) lead to certain advantageous outcomes for individuals (Coleman 1988; Portes 1998). Sociologists have also employed *network analysis* to explore the extent and boundaries of communities and interactional fields, in effect exploring the extent of individuals' social capital (Borgatti et al. 2009; Fischer 1982; Lyon 1989).

Lyson's claims about the relationship-building potential of civic agriculture (2004, 2005) lead naturally to an exploration of the social capital built around civic agriculture enterprises. A few authors have explored civic agriculture from this perspective with mixed results (Glowacki-Dudka et al. 2012; Saldivar-Tanaka and Krasny 2004; Trauger et al. 2009). However, the variation among the research questions being asked by these authors necessitates further exploration of the possibility for civic agriculture to build extra-market relationships, either through the use of established civic agriculture enterprises as third places, or through the process of civic agricultural development activities.

2.4.4. Economic Embeddedness and Civic Economies

One theory that supports the quality of life enhancement capacity of civic agriculture is that of *economic embeddedness*. In fact, Lyson invokes the economic embeddedness concept when building the context for civic agriculture (2004). The theory of economic embeddedness has its roots in the writings of Karl Polanyi, who challenges the rational cost-benefit model of neoclassical economists that places economic decision-making at the heart of social interactions, arguing that economic decisions might be better understood as regulated by outside institutions, norms, or beliefs: "The inclusion of the noneconomic is vital. For religion or government may be as important for the structure and functioning of the economy as monetary institutions or the availability of tools and machines themselves that lighten the toil of labor" (1957:34). Economic embeddedness represents a model of production and consumption in which the two do not exist in separate spheres of agency and political action, but rather are mutually constitutive, with each being able to transform the other (Goodman and Dupuis 2002).

In the context of economic embeddedness, consumers weigh personal beliefs, values, and constraints into their purchasing decisions as they both respond to and drive a value system that they share with producers. Therefore, embedded economies have the potential to introduce higher degrees of farmer profitability, environmental preservation, and agrarian community development into local food systems through producer-consumer relationships that reflect these principles (Lyson 2004).

Lyson elaborates on the types of operations that indicate embedded economic

principles, drawing connections between embedded economies and what he calls "civic

economies":

> At the community level, farmers' markets, community-supported
> agriculture, community kitchens, and U-pick operations represent the
> organizational, associational, and institutional characteristics of the civic
> economy. Like community gardens, these enterprises bridge the economic,
> social, cultural, and political dimensions of community life. Their effects
> and benefits are not easily tallied by economists. Yet we would all be
> poorer for their absence (2004:28).

In Lyson's eyes, economic embeddedness is the backbone of the civic economies that

challenge the neoclassical producer-consumer linkages espoused by the dominant

agrifood system (2004).

The importance of locally-embedded civic economies to community quality of

life also finds empirical support in two seminal studies cited by Lyson (2004). Both

studies were commissioned in the wake of World War II, when big business was thriving

as a result of the drive for military production. Unsure of the effects this type of business

would have on workers and communities, Congress commissioned two studies on the

subject (Lyson 2004). The first study was published by C. Wright Mills and Melville

Ulmer in 1946 and titled *Small Business and Civic Welfare*. This study compared

communities with an economic base comprised of many small, locally owned firms to

those with an economic base comprised of large, absentee-owned firms and found that

communities dominated by small businesses offered a more balanced economic life and a

higher general level of economic opportunity (Lyson and Green 1999; Lyson 2004).

The second study was the aforementioned Goldschmidt study, which found that small-scale agricultural operations—as opposed to industrialized agricultural operations—were associated with more entrepreneurship, more religious institutions, higher degrees of community loyalty, decentralization of decision-making power to community residents, and more retail trade (Goldschmidt 1978).

Based on the theoretical and empirical support for the transformative power of civic economies embedded in values of localism, Lyson's assertion that "civic agriculture enterprises contribute to the health and vitality of communities in a variety of social, economic, political, and cultural ways" gains a considerable amount of traction (2004:62). The communal benefits touted by embedded and civic economies range from the personal to the political, offering localism up as a viable means to community salvation.

2.5. Measuring the Salvation of Community through Civic Agriculture: Community Sentiment and Local Social Ties in Mass Society

As part of the Community Lost/Community Saved debate that persisted throughout the 1970's, various methods of measuring an individual's relationship to his or her community were developed (Flaherty and Brown 2012). Three of these methods include the measurements of *community attachment, community satisfaction,* and *local social ties*. Given that these methods are interrelated and continue to be empirically tested through different configurations of similar models, these methods have been and will continue to be collectively referred to as "community sentiment" throughout this thesis. This section details the historical emergence and empirical application of each of these

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three dimensions of community sentiment, including their applications to the research questions put forth by this thesis. Throughout this section, I will also present concrete research hypotheses that emerge logically from these linkages.

2.5.1. Community Attachment

While several scholars have commented on the poor definitional development of *community attachment* (Cross 2003; Flaherty and Brown 2012; Koons Trentelman 2009; Lewicka 2010; Theodori 2000), it can be loosely defined as an expression of the relationship between individual residents and their communities. Community attachment is "typically used as a measure of sentiment regarding the community one lives in and an indicator of one's rootedness to one's community" (Koons Trentelman 2009:201). It has also been conceptualized as a resident's level of commitment to his or her territorial community and as a psychological or emotional dimension of experiencing place (Flaherty and Brown 2012).

The seminal attempt to measure and operationalize community attachment was Kasarda and Janowitz's study, "Community Attachment in Mass Society" (1974). The authors of this study tested the relative strength of two models, which they deemed the *linear model* and the *systemic model*. The linear model stems from Tönnies' postulation that communityness decreases as population and density of human development increases (Kasarda and Janowitz 1974; Tönnies and Harris 2001). The systemic model, on the other hand, was intended to challenge the normative and tautological assumptions of theorists working in the Tönnies tradition, reflecting more closely the narrative of Wilkinson's social field theory (1970b):

In the systemic model, community organization is treated as an essential aspect of mass society… The local community is viewed as a complex system of friendship and kinship networks and formal and informal associational ties rooted in family life and on-going socialization processes. At the same time it is fashioned by the large scale institution of mass society. Indeed, it is a generic structure of mass society, whose form, content and effectiveness vary widely and whose defects and disarticulations reflect the social problems of the contemporary period (Kasarda and Janowitz 1974:329).

It is this systemic model for which Kasarda and Janowitz found greater support. The key variable in the systemic model is length of residence, which is assumed to be associated with community attachment both directly and indirectly through its positive association with the local social ties that also display positive correlations with indicators of community attachment. In addition, the systemic model takes into consideration social position and life-cycle stage as predictors of community attachment (Kasarda and Janowitz 1974).

The systemic model has found support in numerous studies with varying contexts. Persistent indicators of community attachment include: length of residence, age/life-cycle stage, local social ties, and socioeconomic status/social position, with the effects of population size and density showing mixed results (Beggs, Hurlbert, and Haines 1996; Brown 1993; Flaherty and Brown 2012; Goudy 1982, 1990; Kasarda and Janowitz 1974; Liu et al. 1998; Sampson 1988; Sundblad and Sapp 2011).

Community attachment is most often measured with a variety of questions about survey respondents' attitudes toward their communities. While these questions may vary, it is common to break the types of responses down into affective and cognitive responses (Cross 2003; Flaherty and Brown 2012; Guest and Lee 1983; St. John, Austin, and Baba

1986; Long and Perkins 2007; Sundblad and Sapp 2011; Theodori 2000, 2005). Following in the footsteps of Kasarda and Janowitz (1974), many studies classify feeling at home and sorrow at leaving one's community as affective dimensions of community attachment, while interest in community goings-on represents a cognitive dimension (Flaherty and Brown 2012; Theodori 2000).

If civic agriculture represents a reorientation to the community in dialectical opposition to the alienating forces of industrialized agriculture, as Lyson claims (2000, 2004, 2005), it follows that participation in local food systems should be related to an increase in community attachment as it is conceptualized by Kasarda and Janowitz (1974). In other words, if industrial agriculture is treated as an aspect of the community lost to mass society, and the necessary dialectical response takes the form of civic agriculture, then it is likely that an individual's participation in local food systems would be associated with feelings of attachment to the community, or the operationalization of Community Saved.

Thus, I hypothesize that the following relationships will exist between local food system participation and measures of community attachment:

H1. Local food system participation will be positively correlated with feeling at home in one's community when controlling for all known covariates.

H2. Local food system participation will be positively correlated with sorrow at leaving one's community when controlling for all known covariates.

H3. Local food system participation will be positively correlated with level of

interest in what goes on in the community when controlling for all known

covariates.

2.5.2. Community Satisfaction

Community satisfaction is treated as both a related and distinct concept with

regards to community attachment. Although both concepts are generally taken to be

"quality of life" measures, there may be dimensional differences between the two

constructs (Theodori 2000). Guest and Lee (1983), for example, posit that, although

attachment and satisfaction are correlated, attachment represents a sentimental dimension

of one's connection to place and satisfaction represents a cognitive or evaluative

dimension of that connection. According to this distinction, high levels of community

satisfaction may be related to an area's utilitarian value, encompassed in elements such as

economic opportunity, prevalence of leisure activities, or availability of resources (Brown

1993; Matarrita-Cascante 2009). St. John et. al. (1986) argue that the sentimental

dimensions of community attachment may even be a function of the cognitive element of

community satisfaction. Regardless of the possible distinctions, much of the social

sciences literature treats the two as interchangeable concepts (Beggs et al. 1996; Buttel,

Martinson, and Wilkening 1979; Fried 1982; Stinner et al. 1990; Wasserman 1982).

It is also easy to see how participation in local food systems could be related to

community satisfaction. Assuming that—whether or not it is a dimension of community

attachment—community satisfaction represents a cognitive assessment of one's

community, the existence of civic agriculture enterprises is likely to be associated with a

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positive assessment for those who choose to take advantage of those enterprises. Plainly stated, the frequenting of a farmers' market or a roadside stand is likely to be a pleasant experience that contributes to an individual's overall positive assessment of his or her community.

Thus, with regards to the relationship between civic agriculture and community satisfaction, I make the following hypothesis:

H4. Local food system participation will be positively correlated with level of satisfaction with one's community when controlling for all known covariates.

2.5.3. Local Social Ties

Local social ties constitute an interesting dimension of community sentiment. Following the Kasarda and Janowitz (1974) model, local social ties are typically defined by community sentiment studies in terms of number, proportion, and/or density of friends, relatives, acquaintances, and/or organizational memberships. Friends and relatives are often referred to as strong ties, while acquaintances and organizational memberships are often referred to as weak ties (Flaherty and Brown 2012; Theodori 2000). However, the relationship between local social ties and community sentiment is not clearly established (Flaherty and Brown 2012). While some scholars treat local social ties as a dimension of community sentiment (Brehm, Eisenhauer, and Krannich 2004, 2006; Goudy 1990; Stinner et al. 1990), others treat ties as a cause or consequence of community sentiment (Kasarda and Janowitz 1974; Liu et al. 1998; Sampson 1988).

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For the purposes of this thesis, local social ties will be treated both as an independent indicator of communityness and as a predictor of community attachment and satisfaction. In other words, the relationship between local food system participation and local social ties will be explored in isolation, followed by the measures of local social ties being used as covariates in exploring the relationship between local food system participation and community attachment and satisfaction.

Given that the formation and maintenance of local social networks in an era of industrialization is emphasized by both the Community Saved scholars and by Lyson, another logical assumption can be made. Namely, one can assume that civic agriculture will provide an interactional field in which social ties will be formed at the local level while acting in resistance to industrial agriculture as a feature of mass society. However, neither the civic agriculture literature nor the social field literature makes references to whether the relationships formed via participation take the form of strong ties or weak ties (see, for example, Kaufman 1959; Lyson 2004; Lyon 1989; Wilkinson 1972).

Thus, with regards to the relationship between local food system participation and local social ties, I make the following hypotheses:

H5. Local food participation will be positively correlated with density of friendships when controlling for all known covariates.

H6. Local food participation will be positively correlated with density of relatives when controlling for all known covariates.

H7. Local food participation will be positively correlated with density of acquaintances when controlling for all known covariates.

H8. Local food participation will be positively correlated with level of involvement in clubs and formal organizations when controlling for all known covariates.

2.6. Civic Agriculture, Community Sentiment, and Community Development: A Review of the Research Questions and Hypotheses

In Chapter 1, three research questions were posed to guide this thesis:

1. While scholarly rhetoric holds that food system localization represents a shift toward a stronger sense of community and global food systems a shift away, what are the relative effects of each on an individual living simultaneously in both spheres?

2. To what degree can the effects of local food systems on community quality of life endure in the context of a neoliberal/global and ostensibly homogenized mass society?

3. Do community-oriented food systems truly support the individual's relationship to the community, or do they simply provide an alternative to the perceived lack of choice imposed by the neoliberal food regime?

In section 2.5, I proposed that measuring community sentiment and local social ties was a good way to approximate answers to these questions, based on prior attempts to measure the maintenance or salvation of community in mass society (Flaherty and Brown 2012; Kasarda and Janowitz 1974; Theodori 2000). In this section, I clarify the connection between the research questions and chosen methodology, and review my hypotheses with

regards to their relationships to the research questions. Table 2.1 contains an overview of the research questions and their accompanying hypotheses.

2.6.1. Civic Agriculture's Relationship to Community Development

Lyson puts forth a number of his own hypotheses in his writings on civic agriculture. While some of these hypotheses are related to ecology, others to economy, and still others to social equity, it is the community development claims that blend literary traditions from community sociology and the sociology of agriculture. These claims are also of interest in that they contain practical implications for local community and agricultural development.

In the community sentiment literature, the relationship between community-oriented actions and community attachment or satisfaction has been under-investigated (Theodori 2004). Studies that include community action as a predictor variable in community sentiment models use involvement in community organizations and community improvement projects as the measure of community action, without specifying any type of organization, project, or cause (Buttel et al. 1979; Flaherty and Brown 2012; Goudy 1990; Kasarda and Janowitz 1974; Long and Perkins 2007; V. D. Ryan and Agnitsch 2005; G. Theodori and Luloff 2000; Wasserman 1982). When community-oriented actions have been included as a predictor variable, the assumption has been that socioeconomic status is correlated with community involvement, which leads to interest in community goings-on (V. D. Ryan and Agnitsch 2005).

Three studies that have explored community action as an outcome of community attachment and satisfaction have hypothesized or proposed a positive relationship

between community attachment and action and a negative relationship between community satisfaction and action (Florin and Wandersman 1984; Rothenbuhler et al. 1996; Saegert 1989). Theodori develops a theoretical justification for community sentiment leading to community action, citing the interactional field theory and assuming that positive sentiments toward the community drive actors to develop the community via the self-help approach (Littrell and Hobbs 1989; Theodori 2000; Wilkinson 1970a, 1970b, 1972, 1989). He later tests this theory, hypothesizing that community attachment and lack of community satisfaction lead to community action—operationalized as involvement in community improvement organizations and projects—finding support for the hypothesized relationship with community attachment and no support for an inverse relationship with community satisfaction (2004). Theodori's 2004 study appears to be the only attempt among the community sentiment literature to hypothesize predictors of participation in community organizations outside of the traditional systemic and linear models. Ultimately, the relationship between community-oriented actions and community sentiments has experienced little theoretical development and mixed empirical support.

On the issue of civic agriculture, no studies exist that have investigated community attachment or satisfaction as predictors or outcomes of producing for or procuring from local markets. While other motivators have been explored for purchasing local foods, including environmental, dietary, food safety, agricultural, and economic concern (Bean and Sharp 2011; Ostrom and Jussaume Jr. 2007), and civic orientation has been qualitatively explored among farmers who produce for local markets (Ross 2007;

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Trauger et al. 2009), attitudes toward the community have neither been quantitatively assessed as predictors nor as outcomes of engagement with local food systems.

Nonetheless, local food system participation has been highly theorized as an economically embedded, community-oriented action (Allen 2004; Delind and Bingen 2007; Delind 2002, 2006; Goodman and Dupuis 2002; Hassanein 2003; Lyson 2004). Furthermore, the few studies that have examined the community development potential of civic agriculture operations have found that it contributes in various ways to social capital, human capital, and social integreation (Glowacki-Dudka, et. al. 2012, Macias 2008, Saldivar-Tanka and Krasny 2004). Thus, support exists for an understanding of civic agriculture as a community-oriented action, and community-oriented actions are assumed to play some role in community sentiments, although that role remains relatively under-elaborated (Theodori 2000, 2004). As such, the relationship between civic agriculture and community sentiments merits investigation.

It is with this gap in mind that I developed the three research questions put forth in Chapter 1. These research questions are based on interpretations of statements made by Lyson, combined with an understanding of ways to measure the "Community Question" (Flaherty and Brown 2012; Kasarda and Janowitz 1974; Lyson and Guptill 2004; Lyson 2000, 2005; Wellman and Leighton 1979; Wellman 1979). Although Lyson never directly cites the community sentiment literature, traditional measures of community sentiment can be used as proxies to assess Lyson's claims about the relationship between participation in civic agriculture and the development of bonds to individuals and the greater community within a given locality (2004, 2005). Here, I will elaborate on the

connections I see between the three research questions, civic agriculture, and my chosen methods of measurement.

2.6.2. Research Questions and Hypotheses

Research Question 1: While scholarly rhetoric holds that food system localization represents a shift toward a stronger sense of community and global food systems a shift away, what are the relative effects of each on an individual living simultaneously in both spheres?

Lyson posits that the actions of both producers and consumers participating in civic agriculture are inherently locality-oriented and that "the imperative to earn a profit is filtered through a set of cooperative and mutually supporting social relations" (2004:64). As such, according to the civic agriculture model, those participating in local food systems should perceive and act on a stronger sense of attachment to their communities.

In the community sentiment literature, attitudes toward the community are measured with regards to both an affective and cognitive dimension (Brown 1993; Flaherty and Brown 2012; Theodori 2000). In this study, traditional indicators of each dimension are used. The affective indicators include the extent to which an individual feels at home in his or her community, and the extent to which he or she would feel sorrow at the prospect of leaving. The cognitive dimension is measured by an individual's level of interest in what goes on in the community.

Thus, I posit that Lyson's belief in an inherent orientation toward community well-being among civic agriculture participators will be manifested through higher levels

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of community attachment among those who participate in local food systems more frequently. In other words, individuals who more often buy local foods, visit pick-your-own farms, and shop at farmers' markets will report higher degrees of feeling at home in their communities, sorrow at leaving their communities, and interest in what goes on in their communities. Or, with regards to my research question, I imagine that local food system participation will be associated with a relatively greater effect of the community sphere on the individual living in mass society. My hypotheses regarding these postulations are as follows:

> H1. Local food system participation will be positively correlated with feeling at home in one's community when controlling for all known covariates.

> H2. Local food system participation will be positively correlated with sorrow at leaving one's community when controlling for all known covariates.

> H3. Local food system participation will be positively correlated with level of interest in what goes on in the community when controlling for all known covariates.

Research question 2: To what degree can the effects of local food systems on community quality of life endure in the context of a neoliberal/global and ostensibly homogenized mass society?

With regards to community quality of life, Lyson claims that "civic agriculture enterprises contribute to the health and vitality of communities in a variety of social, economic, political, and cultural ways" (2004:62). As such, the assumption is made that

overall quality of life in communities is improved vis-á-vis the presence of local food enterprises.

For assessing the overall quality of life in communities, the measure of community satisfaction is most appropriate. Thus, I posit that Lyson's understanding of civic agriculture as a force that can enhance the overall vitality of communities will be manifested through higher positive assessment of the community among those who participate in food systems more frequently. In other words, individuals who more often buy local foods, visit pick-your-own farms, and shop at farmers' markets will report higher degrees of community satisfaction. Or, in terms of my research question, I believe those who participate in local food activities more frequently will perceive a higher quality of life in their communities, in spite of the potentially negative effects of industrialized agriculture and mass society. My hypothesis regarding this postulation is:

> H4. Local food system participation will be positively correlated with level of
>
> satisfaction with one's community when controlling for all known
>
> covariates.

Research question 3: Do community-oriented food systems truly support the individual's relationship to the community, or do they simply provide an alternative to the perceived lack of choice imposed by the neoliberal food regime?

Lyson holds that civic agriculture activities—such as farmers' markets, CSAs, roadside stands, pick-your-own farms, etc.—represent "a powerful template around which to build non- or extramarket relationships between persons, social groups, and institutions that have been distanced from each other" (2004:98). Thus, Lyson asserts that

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those who participate in civic agriculture strengthen their relationships to their communities through the formation of local social ties.

Literature on community sentiment explores four dimensions of local social ties: friends, relatives, acquaintances, and formal organizational ties (Flaherty and Brown 2012; Theodori 2000). While the former two categories represent what are referred to as "strong ties," the latter two constitute "weak ties" (Coleman 1988; Granovetter 1983; Portes 1998). Since Lyson does not specify which types of ties are built around civic agriculture activities, I suggest that the power of these activities to enhance social networks will be manifested through an increase in all types of social ties. In other words, I imagine that those who buy local foods, visit pick-your-own farms, and shop at farmers' markets more frequently will have denser networks of acquaintances, friends, and relatives, as well as report higher level of involvement in clubs and formal organizations. Or, with regards to my research question, I believe that participation in community-oriented food systems will indeed support individuals' relationships to their communities through the formation and maintenance of local social ties. My hypotheses regarding this assumption are as follows:

H5. Local food participation will be positively correlated with density of friendships when controlling for all known covariates.

H6. Local food participation will be positively correlated with density of relatives when controlling for all known covariates.

H7. Local food participation will be positively correlated with density of acquaintances when controlling for all known covariates.

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H8. Local food participation will be positively correlated with level of involvement in clubs and formal organizations when controlling for all known covariates.

Table 2.1 contains the three research questions and their accompanying hypotheses for ease of reference.

Table 2. 1. Summary of Research Questions and Hypotheses

Research questions	Hypotheses
1. While scholarly rhetoric holds that economic localization represents a shift toward a stronger sense of community and global neoliberalism a shift away, what are the relative effects of each on an individual living simultaneously in both spheres?	H1. Local food system participation will be positively correlated with feeling at home in one's community when controlling for all known covariates.
	H2. Local food system participation will be positively correlated with sorrow at leaving one's community when controlling for all known covariates.
	H3. Local food system participation will be positively correlated with level of interest in what goes on in the community when controlling for all known covariates.
2. To what degree can the effects of local food systems on community quality of life endure in the context of a neoliberal/global and ostensibly homogenized mass society?	H4. Local food system participation will be positively correlated with level of satisfaction with one's community when controlling for all known covariates.
3. Do community-oriented food systems truly support the individual's relationship to the community, or do they simply provide an alternative to the perceived lack of choice imposed by the neoliberal food regime?	H5. Local food participation will be positively correlated with density of friendships when controlling for all known covariates.
	H6. Local food participation will be positively correlated with density of relatives when controlling for all known covariates.
	H7. Local food participation will be positively correlated with density of acquaintances when controlling for all known covariates.
	H8. Local food participation will be positively correlated with level of involvement in clubs and formal organizations when controlling for all known covariates.

2.7. Theoretical Model

Through a review of the literature and the formation of research questions and hypotheses, I have outlined a theoretical narrative to describe the potential connections between civic agriculture and the development of community. My basic argument is that local food system participation creates an interactional field through which local social ties are formed, leading to more positive community sentiment. This narrative combines perspectives from the civic agriculture, community attachment, and community development literature to highlight the process through which community develops around civic agriculture, as well as the potential outcomes of that process. A diagram of this theoretical model can be found in Figure 2.1.
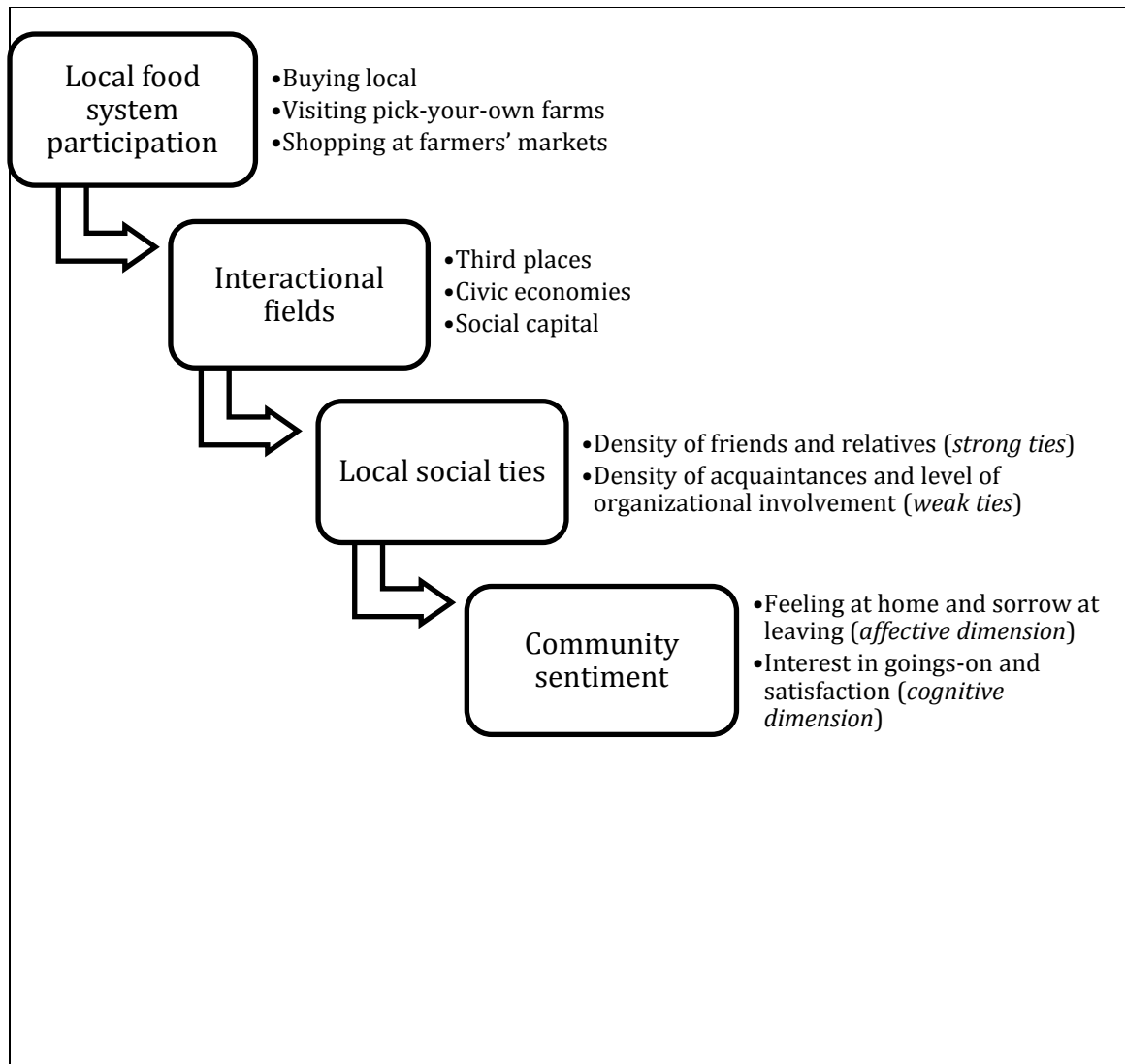
Figure 2. 1. Visual Model of the Connection between Civic Agriculture and Community Sentiment

CHAPTER 3: RESEARCH METHODS

3.1. Data

This section presents the source of data used in this paper's analyses. It also elaborates on the processes involved in obtaining the data, and the limitations of the data with regards to external validity.

3.1.1. Source of Data

The data analyzed for this thesis come from the 2012 *Ohio Survey of Food, Agriculture and Environmental Issues* (the *Ohio Survey*). The *Ohio Survey* is a statewide mail survey of rural and urban Ohioans conducted by a team of faculty, staff, and students at the Ohio State University. It is intended to measure Ohioans' attitudes about contemporary food, farming, and environmental topics. First administered in 2002 and conducted biennially, the Ohio survey aims to track changes in attitudes over time. Construction of the 2012 iteration began in December of 2011, and data were collected during the spring and summer of 2012. Funding for the survey comes from Ohio State University Extension; the Ohio Agricultural Research and Development Center (OARDC); North Central SARE; and OSU's College of Food, Agriculture, and Environmental Sciences.

3.1.2. Sampling Procedure

The survey was mailed to a stratified statewide sample of 2,000 Ohio households during the spring and summer of 2012, following a modified version of Dillman's Tailored Design Method (Dillman 2000). Participants were contacted up to five times, including a pre-notification letter explaining the purpose of the study mailed on March 28, the initial survey package mailed on April 13, a reminder postcard mailed on April 26, a replacement survey mailed on May 25, and a second reminder postcard mailed on July 5. Due to a printing error that caused 2-4 pages of the survey to stick together, an additional mailing to 168 households with systematic missing data on those pages took place on September 24. Those 168 participants were contacted and asked to voluntarily complete and return the replacement pages.

The sample list of 2,000 was generated by a private vendor. In order to compare rural and urban populations, the sample was stratified, with 1,000 surveys sent to inhabitants of Ohio's 15 metropolitan core counties and the other 1,000 sent to inhabitants of Ohio's 65 nonmetropolitan counties. The survey yielded a total response rate of 27%, resulting in 498 cases. Of these cases, 283 were received from metropolitan counties representing 58% of the total response rate, and 201 were received from nonmetropolitan counties, representing 41% of the total response rate. To account for the over-sampling of rural areas resulting from the disproportionate stratified sample, the data was weighted to more closely reflect the larger proportion of Ohio residents living in metro areas.

3.1.3. Sample Limitations

      While the statewide sample was intended to reflect the overall population demographics of Ohio in terms of race, sex, and socioeconomic status, the resulting sample of N=498 contains some incongruences with those state demographics. Most notably, the sample contains disproportionately high representation of females, Caucasians, Native Americans, college graduates, married households, seniors, homeowners, low-middle income individuals, and unemployed individuals. Conversely, the survey respondents underrepresent males, African Americans, Asians, Hispanic/Latinos, multiracial individuals, households with children, renters, low-income individuals, and employed individuals. See Table 3.1 for a comprehensive comparison of the survey sample demographics to the state population.

Table 3. 1. State of Ohio Population Characteristics Compared with Sample

	Ohio (%)	Respondents (%)
Sex		
Male	49	44
Female	51	54
Race		
African American	12	4
Asian	2	1
Hispanic/Latino	3	1
Native Am./Am. Indian	0	1
White	82	91
Other	2	1
Educational Attainment		
High school grad or higher	87	96
Bachelor's degree or higher	24	40
Married-couple family households	49	65
Households with individuals under 18 years old	32	27
Households with individuals 65 years & over	25	27
Owner-occupied housing units	69	87
Renter-occupied housing units	31	12
Household Income		
Less than $10,000	5	3
$10,000 to $49,999	36	41
$50,000 to $99,999	37	35
$100,000 or more	22	21
Employment Status		
Employed	65	56
Unemployed	35	44

3.2. Measurement of Variables

In this section, I will discuss the operationalization of the independent, dependent, and control variables used in my analysis of the relationship between local food system participation and community sentiment.

3.2.1. Dependent Variables

Dependent variables consist of those that measure community sentiment and those that measure local social ties. The exploration of community sentiment is constructed so as to reflect the multilevel model repeatedly tested and reaffirmed by the literature (Flaherty and Brown 2012). In this model, local social ties are both measured on their own and used as a predictor of community sentiment. Table 3.2 contains descriptive statistics for each of the dependent variables included in the model.

Community Sentiment

The relationship between local food system participation and multiple dimensions of community sentiment is examined in this thesis. Community sentiment is measured with regards to both the affective and cognitive/evaluative dimensions (Flaherty and Brown 2012; Guest and Lee 1983; Theodori 2000). The affective dimension consists of feeling at home and sorrow at leaving, and the cognitive dimension consists of interest in community goings-on and satisfaction with the community.

Feeling at home is measured with the question, "In general, would you say you feel 'at home' in your community?" Respondents were given the following responses from which to choose one: 1 = "Yes, definitely," 2 = "Yes, somewhat," 3 = "No, not much," and 4 = "No, definitely not." Since this schema inadvertently coded the variables

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so that the lowest number indicated the highest degree of feeling at home, the responses were reverse coded for the analysis, so that 1 = "No, definitely not," 2 = "No, not much," and so on. See table 3.2 for descriptive statistics.

To measure *sorrow at leaving*, respondents are first instructed, "Suppose that for some reason you had to move away from your community," followed by the question, "How sorry or pleased would you be to leave?" The following answers were provided from which respondents were to choose one: 1 = "Very sorry to leave," 2 = "Somewhat sorry to leave," 3 = "It wouldn't make any difference one way or the other," 4 = "Somewhat pleased to leave," and 5 = "Very pleased to leave." As with the feeling at home question, responses were reverse coded in order to align greater levels of sorrow with higher values. See Table 3.2 for descriptive statistics.

The first question intended to account for the cognitive dimension of community sentiment was, "How interested are you in knowing what goes on in your community?" Respondents were given the following options from which to choose one: 1 = "Very interested," 2 = "Somewhat interested," 3 = "Neither interested nor disinterested," and 4 = "Not interested." As with the feeling at home and sorrow at leaving variables, the responses to this variable—which will be referred to here as *interest in goings-on*—were reverse coded so that higher levels of interest would correspond with higher values. See table 3.2 for descriptive statistics.

The second question used to measure the cognitive dimension was, "On a scale of 1 to 7, how satisfied are you with your community as a place to live?" This question was intended to assess the respondent's degree of *community satisfaction.* As indicated by the

question, respondents were given a 1-7 scale on which 1 = "Very dissatisfied," 4 = "Somewhat satisfied," and 7 = "Very Satisfied." Respondents were expected to select only one of the numbers on the scale. See Table 3.2 for descriptive statistics.

Local Social Ties

The community sentiment literature most commonly draws on four categories of local social ties. These categories consist of strong ties, including friends and relatives, and weak ties, including acquaintances and organizational ties (Granovetter 1983). The analysis conducted here examines the relationship of local food system participation to all four categories of local social ties.

Friends and relatives are measured as a proportion of the respondents' total number of friends or relatives living in his or her community. This measurement will be referred to as *density of friendships/relatives*, given that the goal is to measure how concentrated or dispersed the respondent's friends and relatives are in relationship to his or her residential community. In order to measure density of friendships, respondents were asked, "About what proportion of all your close personal adult <u>friends</u> live in your community?" and given the following six responses from which to choose one: 1 = "I really have no close personal friends," 2 = "None of them live here," 3 = "Less than one-half of them live here," 4 = "About one-half of them live here," 5 = "Most of them live here," and 6 = "All of them live here."

In order to measure density of relatives, respondents were asked, "About what proportion of your adult <u>relatives and in-laws </u>(other than very distantly related persons) live in your community?" and given the same six responses as for density of friendships,

with the exception of response 1, which for this question was changed to "I have no living relatives or in-laws." See Table 3.2 for descriptive statistics.

Acquaintances are measured as a proportion of the adults living in the respondent's community whom the respondent knows by name. This measurement will be referred to as *density of acquaintances*, given that the goal is to measure the level of saturation in the respondent's community of people with whom he or she has become acquainted. In order to measure density of acquaintances, respondents were asked, "About what proportion of the adults living in your community would you say you know by name?" and given the following five responses from which to choose one: 1 = "None or very few of them," 2 = "Less than half of them," 3 = "About half of them," 4 = "Most of them," and 5 = "All of them." See table 3.2 for descriptive statistics.

Organizational ties are measured as an overall level of involvement in community clubs, organizations, and institutions. This measurement will be referred to as *level of organizational involvement*, given that the goal is to measure a subjectively judged degree of involvement relative to no other given or implied measure. In order to measure level of organizational involvement, respondents were asked, "In general, how would you describe your level of involvement in clubs, organizations and institutions in your community (such as softball leagues, Chambers of Commerce, churches, etc.)?" and given a 1-7 scale on which 1 = "Not at all involved," 4 = "Somewhat involved," and 7 = "Very involved." Respondents were expected to circle only one of the numbers on the scale. See table 3.2 for descriptive statistics.

Table 3. 2. Descriptive Statistics for Dependent Variables

Variables/Indicators	Sample Statistic			
	Mean	Standard Deviation	Range	N
Community Sentiment				
Affective Dimension				
Feel at home in community	3.6	0.6	1, 4	476
Sorrow at leaving community	4.0	1.2	1, 5	476
Cognitive Dimension				
Interest in goings-on in community	3.5	0.6	1, 4	478
Satisfaction with community as a place to live	5.3	1.6	1, 7	477
Local Social Ties				
Strong Ties				
Proportion of all close personal adult friends living in community	3.2	1.2	1, 6	478
Proportion of adult relatives or in-laws living in community	2.9	1.2	1, 6	478
Weak Ties				
Proportion of adults in community known by name	1.9	0.9	1, 5	472
Level of involvement in clubs, organizations, and other community institutions	2.9	1.8	1, 7	476

3.2.2. Independent Variables

One independent variable is key to determining outcomes for the analysis in this thesis. *Local food system participation* refers to the scale used to measure the behavioral dimension of civic agriculture. The significance of the local food system participation variable is interpreted with regards to its influence on each of the dependent variables listed above.

Local Food System Participation

To measure degree of local food system participation, a three-item scale was constructed (alpha = 0.67). Using factor analysis, three behavioral indicators were selected for the scale. Respondents were asked to think about the past year (2011) and report on how often they engaged in the following activities: "Buy foods that are locally grown or produced," "Visit a pick-your-own fruit or vegetable farm," and "Attend a farmers' market." For each question, respondents were asked to answer on a 5-item scale, in which 1 = "Never," 2 = "Once," 3 = "2 to 5 times," 4 = "6 to 10 times," and 5 = "More than 10 times." The local food system participation scale was constructed to reflect Lyson's operationalization of civic agriculture (2004; 2000, 2004, 2005) within the confines of the survey design. Once the three variables were aggregated, possible scores ranged from 3-15. Table 3.3 contains descriptive statistics on the local food system participation scale and its component items.

Control Variables

Control variables were determined through an extensive review of the community sentiment literature. Since Kasarda and Janowitz's (1974) systemic model has been more

or less confirmed by an array of subsequent community attachment studies, many of the variables included here approximate or replicate variables that were present in the authors' original model. These variables include length of residence, population size, social status, and life-cycle stage. Kasarda and Janowitz's (1974) time-tested variables were complemented or defined by a selection of variables included in Flaherty and Brown's (2012) up-to-date test of the systemic model, which includes a thorough review of models used in previous community attachment studies.

Both Flaherty and Brown (2012) and Kasarda and Janowitz (1974) considered *length of residence* to be defined as the number of years the respondent had spent living in his or her community, and *population size* to represent the degree of urbanity of the respondent's residential community. While both studies included occupation (professional/managerial vs. other) as a measure of social or socioeconomic status, the *Ohio Survey* data limited the measurement of *socioeconomic status* to education and income, both of which were included in Flaherty and Brown's (2012) model. Finally, mirroring Flaherty and Brown's (2012) model, *life-cycle stage* included variables for age, marital status, and presence of children. Also in accordance with that model, race and sex were included as demographic control variables. Table 3.3 contains descriptive statistics for each of the independent control variables.

To account for low response rates on some of the control variables (see Table 3.3), all missing cases were replaced with their means for the purpose of the analyses reported on in Chapter 4. The resulting number of cases analyzed for each of these variables was 478.

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Population Size and Length of Residence

Population size and length of residence are grouped together based on their common attempt to measure the respondent's *relationship to community*.

Population size is measured at the county scale using three categories: urban, exurban, and rural. Urban counties are defined as those containing a central city, as determined but the United States Office of Management and Budget (Executive Office of the President and Office of Management and Budget 2013). Exurban counties are defined as those with more than 25% of their residents commuting to an adjacent central city county for work, as determined by the 2000 U.S. census and reported in the U.S.D.A. Economic Research Service 2003 Rural-Urban Continuum data (Parker 2012). This definition is consistent with commuter-based definitions used in previous exurban studies (Audirac 1999; Berube et al. 2006; Sharp and J. K. Clark 2008, 2013). Rural is defined as all other counties in the state of Ohio. In order to correspond higher population size with greater values, the population size variable is coded 1-3, with rural counties coded as 1, exurban counties coded as 2, and urban counties coded as 3. See Table 3.3 for descriptive statistics.

Length of residence is measured in years using a continuous variable. Respondents were asked to write in the number of years they had lived in their communities, and told to write in "1" if they had lived in their community for less than one year. See Table 3.3 for descriptive statistics.

Socioeconomic Status

Socioeconomic status is approximated using income and years of education completed.

Income is measured as a continuous variable with seven ordinal responses. Respondents were asked, "What was your approximate gross household income from all sources, before taxes, for 2011?" and given the following responses from which to choose one: 1= Less than $9,999, 2 = $10,000 to 19,999, 3 = $20,000 to 34,999, 4= $35,000 to $49,999, 5 = $50,000 to 74,999, 6 = $75,000 to 99,999, and 7 = $100,000 or more. See Table 3.3 for descriptive statistics.

Educational attainment is measured in years using a continuous variable. Respondents were asked to write in the number of years of education they had completed, and given the example of a high school diploma or GED being equivalent to 12 years. See Table 3.3 for descriptive statistics.

Life-Cycle Stage

Life-cycle stage is approximated using the age, marital status, and presence of children.

Age is measured in years using a continuous variable. Respondents were asked to write in their age as of their last birthday, using years as the unit of measurement. See Table 3.3 for descriptive statistics.

Marital status is measured as a dichotomous variable, where 1 = currently or once married and 0 = never married. On the *Ohio Survey*, respondents were asked, "What is your current marital status?" and given the following options from which to choose one:

1 = "Now married," 2 = "Living together," 3 = "Never married," 4 = "Divorced/Separated," and 5 = "Widowed/Widower." Responses 1, 4, and 5 were coded as 1 and responses 2 and 3 were coded as 0. See Table 3.3 for descriptive statistics.

Presence of children is measured as a dichotomous variable, where 1 = at least one individual living in the household below the age of 18, and 0 = no individuals living in the household below the age of 18. On the *Ohio Survey*, respondents were asked, "How many persons in your household are the following ages (including yourself)?" and asked to write in numbers for the categories of: a. "Under 5 years of age," b. "5 to 18 years of age," and c. "19 years of age or older." The *presence of children* variable was coded as 1 if category (a) plus category (b) was greater than or equal to 1, and 0 if the sum was equal to 0. See Table 3.3 for descriptive statistics.

Demographic Controls

Two commonly used demographic control variables were included in this analysis: race and sex.

Respondents were asked to report their race as one of the following: African American, Asian, Hispanic/Latino, Native American/American Indian, White, or Other (with an option to specify). The race variable included in the analysis is a dichotomous variable coded 1 for white and 0 for all other races reported.

Respondents were asked to report their sex as either male or female. The sex variable included in the analysis is a dichotomous variable coded 1 for female and 0 for male. See Table 3.3 for descriptive statistics.

3.3. Data Analysis

The data for this thesis were analyzed using IBM® SPSS® Statistics, Version 20. The analysis consisted of two phases. In the first phase, bivariate correlations and difference of means tests were conducted to detect relationships between the independent and dependent variables. In the second phase, ordinary least squares (OLS) or multivariate regression was conducted to determine the relationship between local food system participation and each of the eight dependent variables while controlling for all known covariates. In order to account for internal validity of the multivariate regression models, tests of multicollinearity and non-normality were used in their construction.

Table 3. 3. Descriptive Statistics for Independent Variables

Variable/Scale	Mean or Percentage	Standard Deviation	Range or Dummy Value	N Reported
		Sample Statistic		
Relationship to Community				
Population Size				478
Rural or Micropolitan Counties (%)	16.1			77
Exurban or Outlying Counties (%)	22.2			106
Core or Central City Counties (%)	61.6			294
Length of Residence	22.7	18.6	1, 88	472
Socioeconomic Indicators				
Income (median)	$50,000-$74,999		Less than $9,999, $100,000 or more	436
Education (years)	14.6	2.9	7, 26	466
Life Cycle Indicators				
Age (years)	56.3	15.2	18, 90	474
Presence of children				474
At least one individual <18 years of age in the home (%)	26.9		1	346
No individuals <18 years of age in the home (%)	72.4		0	129
Marital Status				474
Once or now married (%)	85.0		1	406
Never married (%)	14.1		0	68
Demographic controls				
Race				467
White (%)	90.3		1	431
Non-white (%)	7.4		0	35
Sex				469
Female (%)	54.0		1	258
Male (%)	44.3		0	211
Local Food System Participation Scale (alpha reliability = 0.67)	8.4	2.8	3, 15	460
Thinking about this past year (2011) how often did you…				
Buy foods that were locally grown or produced?	3.7	1.1	1, 5	466
Visit a pick-your-own fruit or vegetable farm?	1.8	1.1	1, 5	466
Attend a farmer's market?	2.9	1.3	1, 5	465

CHAPTER 4: RESULTS

This chapter presents the results of the statistical analyses used to determine whether or not my hypotheses are supported by the data. First, I present a series of bivariate correlations used to establish preliminary relationships between the independent and dependent variables, with particular attention paid to the key independent variable of local food system participation. Next, I present linear regression models that have been extensively tested in the community sentiment literature, with the new addition of testing for the effects of local food system participation. The statistical analyses presented in this chapter are ultimately interpreted to determine the extent to which the hypotheses presented in Chapter 2 are supported by the data collected using the *Ohio Survey*.

4.1. Results of the Bivariate Analyses

Two types of bivariate analyses were used to establish initial relationships between the independent and dependent variables: Pearson's correlations and independent samples t-tests.

Pearson's correlations were used to analyze the relationship between continuous and ordinal variables. The Pearson coefficient (r) is used to measure the strength of linear dependence between two variables. When running Pearson's correlations, it is important to note independent variables that appear to be more highly correlated than the others, as they may result in multicollinearity, which can threaten the internal validity of regression

analyses. In the case of the *Ohio Survey* data, age is highly correlated with length of residence ($r = 0.517$) and educational attainment is highly correlated with income ($r = 0.421$) (See Table 4.1). However, variance inflation tests run during consequent analyses showed that these correlations did not threaten the internal validity of the multivariate regression models.

Due to the failure of Pearson's correlations to adequately represent the relationships between dichotomous categorical variables, these variables were analyzed using independent samples t-tests. The t-test compares means ($\bar{x}$) between two groups on the same continuous dependent variable. Here, the means for indicators of local social ties and community sentiment are compared between categories for each dichotomous control variable, including presence of children, marital status, race, and sex. Although not the focus of this study, the results of the independent samples t-tests help to show trends in the data that may affect the outcome variables. Category means, as well as t-scores and their levels of significance are represented in tables 4.2 and 4.3.

The results of the bivariate analyses generally support the study hypotheses, with the exception of the relationship between local food system participation and density of relatives. While I hypothesized that local food system participation would be positively correlated with density of relatives, the Pearson's correlation between these two variables displays a negative relationship.

However, given the extensive documentation of key variables that co-vary with the measures of local social ties and community sentiment, further analysis is needed. Tables 4.4 and 4.5 contain the results for multivariate regression analyses of the

relationship between local food system participation, controlling for all possible factors that may affect the outcome variables. Eight models were run in total to test for the effects of local food system participation on density of acquaintances, density of friendships, density of relatives, level of organizational involvement, feeling at home, sorrow at leaving, interest in goings-on and community satisfaction. The results of these multivariate regression analyses will ultimately be used to accept or reject the eight hypotheses presented in Chapter 2.

4.1.1. Local Food System Participation and Local Social Ties

While I hypothesized that local food system participation would be positively correlated with all measures of local social ties, the results of the Pearson's correlations show more variation in the relationship between local food system participation and the different categories of local social ties.

Examining the results displayed in Table 4.1, individuals who participate in local food systems have a higher density of acquaintances in their community (r = 0.192) and are involved in more clubs and formal organizations (r = 0.137). However, the positive correlation between local food system participation and density of friendships is virtually nonexistent (r = 0.007). It is clear from the results in Table 4.1 that population size and length of residence may have a stronger effect on an individual's density of friendships than his or her level of participation in local food systems.

Table 4.1 displays a negative correlation between local food system participation and density of relatives (r = -0.018). However, Table 4.1 also displays a relatively strong and significant positive correlation between length of residence and density of relatives (r

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= 0.221), as well as strong and significant negative correlations between educational attainment and density of relatives (r = -0.184), and population size and density of relatives (r = -0.131). These findings may indicate that density of relatives is tied more to community and lifestyle factors than to activities that form or perpetuate social ties.

4.1.2. Local Food System Participation and Community Sentiment

Again, while I hypothesized that local food system participation would be positively correlated with all measures of community sentiment; the results contained in Table 4.1 are varied with regards to this relationship. Although the correlations between local food system participation and community sentiment are all positive, the strength and level of significance changes across types of community sentiment.

According to the results of the bivariate analysis, there appears to be a possibility that individuals who more frequently participate in local food systems are more interested in what is going on in their communities (r = 0.130). Local food system participation also appears to be somewhat strongly correlated with feeling at home in one's community (r = 0.098). While this preliminary finding is consistent with my hypothesis about the relationship between local food system participation and feeling at home, the relationship between length of residence and feeling at home is also strong and significant (r = 0.206).

Based on the Pearson's correlation results, local food system participation is not strongly or significantly correlated with sorrow at leaving one's community (r = 0.091) or overall satisfaction with one's community (r = 0.033). In the case of sorrow at leaving, population size, length of residence, and age are all significantly correlated with the outcome variable (r = -0.160, 0.189, and 0.182, respectively). These results indicate that

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an individual's relationship to the community may have a stronger effect on sorrow at leaving than the community-based activities in which the individual participates.

With regards to community satisfaction, although local food system participation does not display a strong or significant correlation with the outcome variable (r = 0.033), neither do any of the control variables, with the mild exception of length of residence (r = 0.113). However, it is likely that satisfaction with one's community drives extended residency, rather than the reverse. These findings may support the theory that community satisfaction represents a dimension of community sentiment apart from community attachment, rather than a dimension of community attachment, or a related concept with similar predictors and roots (Brown 1993; Guest and Lee 1983; St. John et al. 1986; Matarrita-Cascante 2009; Theodori 2000).

4.1.3. Control variables, Dependent Variables, and Local Food System Participation

Although they will not be used to accept or reject the hypotheses of this research, there are also some noteworthy correlations between control variables and dependent variables contained in Table 4.1. Based on prior research and theoretical narratives, the relationships of income, length of residence, and population size to the dependent variables and local food system participation are of note, as are the relationships between local social ties and indicators of community sentiment.

Common community sentiment narratives hold that socioeconomic status is correlated with involvement in clubs and formal organizations, which leads to interest in community goings-on (V. D. Ryan and Agnitsch 2005). However, the bivariate analysis shows that income is positively and significantly associated with organizational

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involvement (r = 0.097), but neither positively nor significantly associated with interest in community goings-on (r = -0.016). It is also worth noting that local food system participation, analyzed here as a community-oriented action, is not significantly correlated with income (r = 0.057).

On a related note, length of residence, which is a persistent predictor of both local social ties and community sentiment (Flaherty and Brown 2012; Goudy 1982; Theodori 2000), is found here to be positively and significantly correlated with nearly every dependent variable, with the exceptions of level of organizational involvement (r = 0.078) and interest in community goings-on (r = 0.072). This finding also challenges established theoretical narratives.

In keeping with the theoretical narrative of the linear model of community attachment (Flaherty and Brown 2012; Kasarda and Janowitz 1974; Theodori 2000), population size, although not unilaterally significant, is negatively correlated with nearly every indicator of community sentiment and social ties, with the exception of interest in community goings-on (r = 0.052). It is also intriguing that local food system participation is significantly and negatively correlated with population size, (r = -0.118) given that direct-to-consumer marketing has been found to be more prominent in metropolitan areas (Lohr et al. 2011; S. A. Low et al. 2011; Lyson and Guptill 2004; Martinez et al. 2010).

Finally, local social ties are significantly and positively correlated with every indicator of community sentiment, with the exception of interest in community goings-on, which is neither significantly correlated with density of friendships (r = 0.088) nor with density of relatives (0.025). Ultimately, it appears that interest in community goings-

on represents a dimension of community sentiment that behaves differently from each other dimension, being primarily correlated with level of organizational involvement.

Table 4. 1. Pearson's Correlations for Continuous Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. Density of friendships	1													
2. Density of relatives	.307**	1												
3. Density of acquaintances	.231**	.197**	1											
4. Level of organizational involvement	.270**	.123**	.279**	1										
5. Feeling at home	.249**	.161**	.292**	.190**	1									
6. Sorrow at leaving	.185**	.091*	.240**	.194**	.599**	1								
7. Interest in goings-on	.088	.025	.135**	.255**	.258**	.211**	1							
8. Community satisfaction	.154**	.092*	.207**	.149**	.529**	.519**	.210**	1						
9. Population size	-.140**	-.131**	-.184**	-.073	-.087	-.160**	.052	-.023	1					
10. Length of residence	.199**	.221**	.205**	.078	.206**	.189**	.072	.113*	-.157**	1				
11. Income	-.030	-.094*	-0.066	.097*	.041	.030	-.016	.065	.114*	-.225**	1			
12. Educational attainment	.025	-.184**	-.126**	.087	-.015	-.015	.007	.053	.167**	-.224**	.421**	1		
13. Age	-.026	-.042	.072	.037	.118*	.182**	.149**	.051	-.076	.517**	-.266**	-.209**	1	
14. Local food system participation	.007	-.018	.192**	.137**	.098*	.091	.130**	.033	-.118*	-.013	.057	.017	0.003	1

p-value: *≤0.05 (2-tailed), **≤0.01 (2-tailed)

4.1.3. Dichotomous Control Variables and Local Social Ties

Although not used for accepting or rejecting the hypotheses of this study, Table 4.2 contains the results of the independent samples t-tests conducted to explore differences between groups in mean scores on the measures of local social ties for each dichotomous control variable.

The most noteworthy finding of this group of analyses is the significant difference of means between individuals who have been married and those who have not on the measures of density of acquaintances and level of organizational involvement. It appears that individuals who have been married have a higher mean density of acquaintances ($\bar{x} = 2.02$) than those who have never been married ($\bar{x} = 1.68$). With regards to organizational involvement, it appears that those who have been married are more likely to participate in clubs and formal organizations ($\bar{x} = 3.09$) than those who have never been married ($\bar{x} = 2.29$).

While the remainder of the control variables do not appear to differ significantly on the outcome variables between categories, the inclusion of these variables in prior research merits their inclusion in the multivariate regression models that test the relationship between local food system participation and local social ties.

Table 4. 2. Difference of Means Statistics for Dichotomous Variables, Local Social Ties

	Dependent Variables											
	Strong Ties						*Weak Ties*					
Independent Variables	Density of friendships			Density of relatives			Density of acquaintances			Level of organizational involvement		
	N	Mean	t-score	N	Mean	t-score	N	Mean	t-score	N	Mean	t-score
Presence of children	475		0.088	475		-1.683	469		-0.557	472		-1.947
Children present	129	3.23		129	3.10		127	2.01		127	3.25	
No children present	346	3.24		346	2.90		342	1.96		345	2.88	
Marital status	474		-1.480	474		-1.611	468		-2.772**	472		-3.821***
Once married	406	3.26		406	2.98		402	2.02		404	3.09	
Never married	68	3.03		68	2.74		66	1.68		68	2.29	
Race	466		-1.942	466		-0.119	461		-1.508	464		-1.773
White	431	3.27		431	2.95		426	2.00		429	3.02	
Non-white	35	2.86		35	2.93		35	2.76		35	2.45	
Sex	469		-0.415	469		-0.293	464		0.812	468		-1.205
Male	211	3.21		211	2.93		209	2.01		211	2.86	
Female	258	3.25		258	2.96		255	1.94		257	3.06	

p-value: *≤0.05, **≤0.01, ***≤0.0

4.1.4. Dichotomous control variables and community sentiment

Although not used for accepting or rejecting the hypotheses of this study, Table 4.3 contains the results of the independent samples t-tests conducted to explore differences between groups in mean scores on the measures of community sentiment for each dichotomous control variable. In contrast with the results contained in table 4.2, the results in table 4.3 display more variation between groups on the outcome measures.

Presence of children appears to be a stronger correlate of the affective dimensions of community sentiment than the cognitive dimensions. Among the *Ohio Survey* sample, individuals without children in the home score significantly higher on feeling at home ($\bar{x}$ = 3.68) than individuals who have children in the home ($\bar{x}$ = 3.51). The findings are similar for the sorrow at leaving variable, with childless individuals scoring significantly higher on sorrow at leaving ($\bar{x}$ = 4.09) than individuals who have children in the home ($\bar{x}$ = 3.80). Since age is strongly and significantly correlated with these two dependent variables (r = 0.118 and 0.182, respectively), it is likely that older individuals who no longer have children in the home account for these differences of means.

The results in Table 4.3 also display a significant difference in means based on marital status for the outcome variables of sorrow at leaving and community satisfaction. It appears that individuals who have been married report a significantly higher rate of sorrow at leaving ($\bar{x}$ = 4.04) than individuals who have never been married ($\bar{x}$ = 3.76). Furthermore, individuals who have been married report a significantly higher rate of community satisfaction ($\bar{x}$ = 5.31) than individuals who have never been married ($\bar{x}$ = 4.86). The differences in means on these scores may be related to the significant

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differences on means on the related scores of density of acquaintances and level of

organizational involvement. In other words, individuals who have more acquaintances in

their communities and are more involved in clubs and formal organizations might be

more sorry to leave their communities based on a higher rate of community satisfaction.

Table 4.3 also displays a significant difference of means between whites and non-

whites on every community sentiment measure except for interest in goings-on.

Interestingly, although the t-score was not significant, interest in goings-on was the only

dimension of community sentiment on which non-whites scored higher than whites.

Also of note are the differences of means between males and females on each of

the outcome variables. The results in Table 4.3 show that the only dimension on which

males and females differ significantly in their scores is interest in goings-on, with females

scoring significantly higher ($\bar{x} = 3.51$) than males ($\bar{x} = 3.38$) at the .05-level.

Interestingly, this is also the only dimension on which females scored higher than males,

although the differences of means for each of the other dimensions were not significant.

Table 4. 3. Difference of Means Statistics for Dichotomous Variables, Community Sentiment

	Dependent Variables											
	Affective Dimension						*Cognitive Dimension*					
Independent Variables	Feeling at home			Sorrow at leaving			Interest in goings-on			Satisfaction		
	N	Mean	t-score	N	Mean	t-score	N	Mean	t-score	N	Mean	t-score
Presence of children	473		2.526*	473		2.467*	475		0.382	474		0.122
Children present	127	3.51		129	3.80		129	3.43		129	5.26	
No children present	346	3.68		344	4.09		346	3.46		345	5.24	
Marital status	473		-1.422	473		-2.021*	474		-0.596	473		-2.152*
Once married	405	3.65		405	4.04		406	3.46		405	5.31	
Never married	68	3.52		68	3.76		68	3.41		68	4.86	
Race	465		-2.706**	465		-2.470*	466		1.132	466		-2.650**
White	430	3.66		430	4.04		431	3.45		431	5.32	
Non-white	35	3.37		35	3.59		35	3.57		35	4.58	
Sex	468		1.108	468		1.187	469		-2.323*	268		1.119
Male	210	3.67		210	4.06		211	3.38		211	5.33	
Female	258	3.60		258	3.94		258	3.51		257	5.17	

p-value: *≤0.05, **≤0.01, ***≤0.001

4.2. Multivariate Regression Analysis

In order to discern the relationship between local food system participation, local social ties, and community sentiment, net the effects of known covariates, I conducted a set of eight multivariate regression analyses. These analyses were modeled after prior studies of the indicators of community attachment, with the intent of isolating the effects of local food system participation. The results are displayed in Tables 4.4 and 4.5.

In this section, I first report the results of diagnostic tests run prior to the regression to ensure internal validity of the analyses. Next, I report and interpret the results of the multivariate regression analyses, with particular attention paid to the relationship between the aggregate local food system participation variable and the outcome variables of density of friends, density of relatives, density of acquaintances, level of organizational involvement, feeling at home, sorrow at leaving, interest in goings-on, and community satisfaction.

4.2.1. Regression Diagnostics

In order to construct valid and reliable regression models, I ran diagnostic tests to look for non-normality and multicollinearity.

To test for non-normality, I constructed histograms fitted with normal curves, and calculated the skewness and kurtosis for each of the variables to be included in the models. Based on these tests, the majority of variables displayed satisfactorily normal distributions. The feeling at home variable was of some concern because it was negatively skewed and leptokurtic. However, an analysis run with a transformed version

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of this variable produced little change in the R-squared or regression coefficients. As such, the variable was maintained in its original form.

To test for multicollinearity, I calculated the variance inflation factors for each of the variables included in the model. I was particularly concerned about age and length of residence, which were found to have a Pearson's correlation of 0.517. Ultimately this concern was eliminated based on the fact that none of the variables in the models had a variance inflation factor greater than two.

4.2.2. Results of the multivariate regression analysis

The results of the eight multivariate regression analyses can be found in Tables 4.4 through 4.7. The models vary greatly in terms of strength (R-square) and in terms of support for my hypotheses.

Local food system participation and local social ties

The results for the local social ties models can be found in Tables 4.4 and 4.5. With regards to these results, local food system participation is positively and significantly correlated with both density of acquaintances and level of involvement in clubs and organizations when controlling for known covariates. However, the relationships between local food system participation and both density of friendships and density of relatives are neither positive nor statistically significant.

Based on the standardized beta coefficient and significance level, it can be said with 99% confidence that a one-unit increase in local food system participation results in a 0.178-unit increase in density of acquaintances, net the effects of all known covariates. However, this model only accounts for 12.5% of the variance (R-square = 0.125) in

density of acquaintances, indicating that stronger predictors of the number of people an individual knows by name in his or her community may exist. Nonetheless, the F-statistic for this model indicates 99% confidence that this model is statistically significant.

Based on the results in Table 4.5, it can also be said with 95% confidence that a one-unit increase in local food system participation results in a 0.11 unit increase in level of organizational involvement when controlling for all other variables. Again, however, this model has a relatively low R-square, indicating that the model only accounts for 7.4% of the variance in an individual's level of organizational involvement (R-square = 0.074). Yet again, the F-statistic indicates 99% confidence that the model is statistically significant.

The results for both density of friendships and density of relatives, however, do not lend support to my hypotheses. Local food system participation did not turn out to be a significant predictor in density of friendships or relatives. Again, the amount of variance accounted for by these models was relatively low, with the density of friendships model accounting for 10.4% of the variance in the outcome variable and the density of relatives model accounting for 12.7%. However, yet again, the F-statistics for both models indicate 99% confidence in the significance of the models.

Although the relationship between local food system participation and density of acquaintances is highly significant, it appears that those acquaintances do not translate into friendships. Thus, it is clear from the results of the local social ties models that local food system participation is correlated with weak ties, but appears to have no relationship with the formation of strong ties.

Local food system participation and community sentiment

The results for the community sentiment models can be found in Tables 4.6 and 4.7. The results for these models are particularly intriguing, given that the only positive and significant relationship was found between participation in local food systems and level of interest in goings-on in the community when controlling for known covariates.

Based on the standardized beta coefficient and significance level, it can be said with 95% confidence that a one-unit increase in local food system participation results in a 0.092-unit increase in level of interest in community goings-on, net the effect of all other variables. Again, although this model accounts for a modest amount of the variance in the outcome variable (R-square = 0.097), the F-statistic indicates 99% confidence in the statistical significance of the model.

The relationships between local food system participation and the measures of feeling at home, sorrow at leaving, and community satisfaction were not found to be statistically significant, although the F-statistics for each of the models indicated 99% confidence in their statistical significances. While the positive, albeit non-significant, correlations between local food system participation and the affective dimensions of community sentiment (feeling at home and sorrow at leaving) are consistent with my hypotheses, the correlation between local food system participation and community satisfaction turned out to be negative-to-nonexistent.

The results of the community sentiment models are intriguing, especially given that the lines are not as clear cut as they are for the local social ties model. In other words, the relationship between local food system participation and dimensions of

community sentiment are not cleanly split between the affective and cognitive dimensions. Furthermore, the significance level and beta coefficient associated with the relationship in the interest in goings-on model are both relatively low, indicating, perhaps, an overall stronger relationship between local food system participation and the formation of social ties than between local food system participation and the development of community sentiments.

Control Variables, Local Social Ties, and Community Sentiment

As with the bivariate analysis, the effects of some of the persistent indicators of local social ties and community sentiment in the multivariate analysis are worth noting.

First, in the multivariate analysis, length of residence becomes a significant predictor of each category of local social tie, but does not significantly predict any of the community sentiment variables. This finding is not consistent with prior research (Flaherty and Brown 2012; Goudy 1982; Kasarda and Janowitz 1974; Theodori 2000).

The significant negative relationship between density of acquaintances and population size is consistent with the linear model of community attachment (Flaherty and Brown 2012; Kasarda and Janowitz 1974; Theodori 2000). However, the significant positive relationship between population size and interest in community goings-on is not.

According to the results of the multivariate analysis, density of acquaintances is the most persistent type of local social tie in predicting community sentiment, showing a significant relationship to every community sentiment variable, with the exception of interest in community goings-on. The only local social tie that significantly predicts

interest in goings-on is organizational involvement, which is a relationship that is found

to be consistently significant by prior research (V. D. Ryan and Agnitsch 2005).

Table 4. 4. OLS Regression Results for Local Social Ties Models, Strong Ties

Independent Variables	Density of friendships		Density of relatives	
	b (S.E.)	Beta	b (S.E.)	Beta
Community				
Population size	-0.143 (0.074)	-0.091	-0.115 (0.071)	-0.075
Length of Residence	0.019*** (0.003)	0.298	0.019*** (0.003)	0.297
Socioeconomic Status				
Income	-0.065 (0.040)	-0.088	-0.049 (0.038)	-0.069
Education	0.037 (0.021)	0.090	-0.047* (0.020)	-0.117
Life Cycle Stage				
Age	-0.017*** (0.005)	-0.211	-0.018*** (0.005)	-0.233
Presence of children[a]	-0.092 (0.142)	-0.034	0.135 (0.137)	0.052
Marital Status[b]	0.332* (0.167)	0.098	0.318* (0.161)	0.096
Demographic Controls				
Race[c]	0.343 (0.207)	0.077	-0.004 (0.199)	-0.001
Sex[d]	0.043 (0.111)	0.018	0.006 (0.107)	0.002
Civic Agriculture				
Participation in local food system	-0.004 (0.020)	-0.008	-0.010 (0.019)	-0.023
Model Statistics				
Intercept	3.274		4.494	
R-square	0.104		0.127	
N	460		460	
F	5.197***		6.521***	

	Dependent Variables			
	Strong Ties			

p-value: *≤0.05, **≤0.01, ***≤0.001; [a] reference category is children present; [b] reference category is once married; [c] reference category is white; [d] reference category is female.

Table 4. 5. OLS Regression Results for Local Social Ties Models, Weak Ties

Independent Variables	Density of acquaintances		Level of organizational involvement	
	b (S.E.)	Beta	b (S.E.)	Beta
Community				
Population size	-0.143* (0.057)	-0.117	-0.153 (0.116)	-0.063
Length of Residence	0.010*** (0.003)	0.204	0.011* (0.005)	0.113
Socioeconomic Status				
Income	-0.028 (0.031)	-0.049	0.064 (0.062)	0.057
Education	-0.019 (0.016)	-0.059	0.059 (0.033)	0.094
Life Cycle Stage				
Age	-0.004 (0.004)	-0.058	0.007 (0.007)	0.058
Presence of children[a]	0.135 (0.111)	0.064	0.445* (0.224)	0.108
Marital Status[b]	0.256* (0.130)	0.096	0.444 (0.263)	0.084
Demographic Controls				
Race[c]	0.095 (0.161)	0.027	0.308 (0.326)	0.045
Sex[d]	-0.137 (0.087)	-0.073	0.166 (0.175)	0.044
Civic Agriculture				
Participation in local food system	0.061*** (0.015)	0.178	0.074* (0.031)	0.110
Model Statistics				
Intercept	1.924		0.049	
R-square	0.125		0.074	
N	454		458	
F	6.307***		3.568***	

p-value: *$\leq$0.05, **$\leq$0.01, ***$\leq$0.001; [a] reference category is children present; [b] reference category is once married; [c] reference category is white; [d] reference category is female.

Table 4. 6. OLS Regression Results for Community Sentiment Models, Affective Dimension

Independent Variables	Feeling at home		Sorrow at leaving	
	b (S.E.)	Beta	b (S.E.)	Beta
Community				
Population size	0.012 (0.038)	0.015	-0.125 (0.066)	-0.089
Length of Residence	0.003 (0.002)	0.081	0.002 (0.003)	0.028
Socioeconomic Status				
Income	0.032 (0.020)	0.085	0.059 (0.035)	0.091
Education	0.001 (0.011)	0.003	0.005 (0.019)	0.013
Life Cycle Stage				
Age	0.001 (0.003)	0.024	0.010* (0.004)	0.138
Presence of children[a]	-0.175* (0.073)	-0.125	-0.178 (0.127)	-0.075
Marital Status[b]	-0.003 (0.086)	-0.002	-0.017 (0.149)	-0.006
Demographic Controls				
Race[c]	0.155 (0.105)	0.067	0.183 (0.183)	0.046
Sex[d]	-0.042 (0.057)	-0.033	-0.080 (0.099)	-0.037
Local Social Ties				
Friends	0.074** (0.026)	0.142	0.094* (0.045)	0.105
Relatives	0.040 (0.026)	0.076	0.023 (0.045)	0.026
Acquaintances	0.131*** (0.032)	0.196	0.163** (0.056)	0.143
Organizations	0.022 (0.016)	0.064	0.053 (0.028)	0.091
Civic Agriculture				
Participation in local food system	0.012 (0.010)	0.052	0.016 (0.018)	0.041
Model Statistics				
Intercept	2.471		2.332	
R-square	0.168		0.140	
N	451		452	
F	6.311***		5.081***	

p-value: *≤0.05, **≤0.01, ***≤0.001; [a] reference category is children present; [b] reference category is once married; [c] reference category is white; [d] reference category is female

Table 4. 7. OLS Regression Results for Community Sentiment Models, Cognitive Dimensions

	Dependent Variables			
	Cognitive dimension			
	Interest in goings-on		Satisfaction	
Independent Variables	b (S.E.)	Beta	b (S.E.)	Beta
Community				
Population size	0.077* (0.038)	0.096	0.071 (0.099)	0.035
Length of Residence	-0.001 (0.002)	-0.022	0.003 (0.005)	0.036
Socioeconomic Status				
Income	0.012 (0.020)	0.033	0.056 (0.053)	0.059
Education	-0.003 (0.011)	-0.014	0.030 (0.028)	0.056
Life Cycle Stage				
Age	0.008*** (0.002)	0.200	0.006 (0.007)	0.054
Presence of children[a]	0.051 (0.074)	0.037	-0.071 (0.192)	-0.020
Marital Status[b]	-0.093 (0.086)	-0.053	0.084 (0.225)	0.019
Demographic Controls				
Race[c]	-.0.166 (0.106)	-0.073	0.552* (0.276)	0.095
Sex[d]	0.120* (0.057)	0.097	-0.166 (0.150)	-0.053
Local Social Ties				
Friends	0.014 (0.026)	0.027	0.113 (0.067)	0.087
Relatives	-0.004 (0.026)	-0.008	0.056 (0.068)	0.042
Acquaintances	0.052 (0.032)	0.080	0.275*** (0.085)	0.165
Organizations	0.070*** (0.016)	0.212	0.050 (0.042)	0.058
Civic Agriculture				
Participation in local food system	0.020* (0.010)	.092	-0.004 (0.027)	-0.006
Model Statistics				
Intercept	2.445		2.364	
R-square	0.097		0.094	
N	452		452	
F	4.479***		3.242***	

p-value: *≤0.05, **≤0.01, ***≤0.001; [a] reference category is children present; [b] reference category is once married; [c] reference category is white; [d] reference category is female

4.3. Summary of Results

The results of the multivariate regression analysis indicated mixed support for my hypotheses. While local food system participation was found to be associated with some types of local social ties and a singular dimension of community sentiment, no broad generalizations can be made about the relationship between local food system participation and local social ties or community sentiment as uniting concepts. A summary of the regression results with regards to my original hypotheses can be found in Table 4.6.

Table 4. 8. Summary of Hypotheses and Results

Hypotheses[a]	Results
Local Social Ties	
Strong Ties	
H1: Local food system participation will be positively associated with density of friendships.	Not supported: The correlation between local food system participation and density of friendships is negative and not significant.
H2: Local food system participation will be positively associated with density of relatives.	Not supported: The correlation between local food system participation and density of relatives is negative and not significant.
Weak Ties	
H3: Local food system participation will be positively associated with density of acquaintances.	Supported: The correlation between local food system participation and density of acquaintances is positive and significant at the .001 level, with a beta coefficient of 0.178.
H4: Local food system participation will be positively associated with level of organizational involvement.	Supported: The correlation between local food system participation and level of organizational involvement is positive and significant at the .05 level, with a beta coefficient of 0.11.
Community Sentiment	
Affective Dimension	
H5: Local food system participation will be positively associated with feeling at home in one's community.	Not supported: The correlation between local food system participation and feeling at home in one's community is positive, but not significant.
H6: Local food system participation will be positively associated with sorrow at leaving one's community.	Not supported: The correlation between local food system participation and sorrow at leaving one's community is positive, but not significant.
Cognitive Dimension	
H7: Local food system participation will be positively associated with interest in goings-on in one's community.	Supported: The correlation between local food system participation and interest in goings-on in one's community is positive and significant at the .05 level, with a beta coefficient of 0.092.
H8: Local food system participation will be positively associated with overall level of satisfaction with one's community as a place to live.	Not supported: The correlation between local food system participation and overall community satisfaction is negative and not significant.

[a] All hypotheses are stated with the assumption of controlling for known covariates.

CHAPTER 5: DISCUSSION

While extensive theoretical support exists for a relationship between local food system participation, local social ties, and community sentiment, this relationship had not been empirically explored from a community attachment or satisfaction perspective prior to this research. Given that both the Goldschmidt hypothesis—from which the civic agriculture framework emerges—and the community sentiment literature have played central roles in the evolution of rural sociology (L. M. Lobao 2007), combining these two traditions to explore the basic hypotheses of the civic agriculture framework is both timely and salient. Consequently, this study aimed to discern whether or not the community-related promises of the civic agriculture framework were being fulfilled by exploring the relationship between participation in local food systems and time-tested indicators of individuals' relationships to their communities.

5.1. Summary and Discussion of Study Findings

The results of this study are mixed with regards to support for the hypotheses. While I hypothesized that local food system participation would have a positive relationship with each indicator of local social ties and community sentiment, the findings suggest that local food system participation is associated with some of these indicators and not with others. More specifically, local food system participation is

significantly associated with density of acquaintances, level of organizational involvement, and interest in community goings-on. Local food system participation is not, however, significantly associated with density of friends or relatives, feeling at home, sorrow at leaving, or community satisfaction.

Given that there is a dearth of research and theoretical development on the relationship between community-oriented actions, local social ties, and community sentiment (Theodori 2000, 2004), it is hard to say whether or not these findings are consistent with prior research. However, when community-oriented actions have been included as a predictor variable, the assumption has been that socioeconomic status is correlated with community involvement, which leads to interest in community goings-on (V. D. Ryan and Agnitsch 2005).

My findings challenge this assumption, in that income is neither significantly correlated with local food system participation in the bivariate analysis nor with level of organizational involvement in the multivariate regression analysis. However, both local food system participation and level of organizational involvement are significantly and positively correlated with interest in community goings-on. Furthermore, local food system participation is significantly and positively correlated with level of organizational involvement. These findings may suggest that local food system participation, as a community-oriented action, is stemming not from a lifestyle factor such as socioeconomic status, but rather from an attitude, belief, or sense of political will unaccounted for by the model. Under this interpretation, interest in community goings-on would either stem from the unaccounted for variable, or from a profuseness of

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acquaintances and organizational involvement as a result of concern for food system localization. This interpretation, however, requires an extensive amount of investigation, especially given the fact that educational attainment is neither significantly, nor always positively, associated with any of the local food system participation, organizational involvement, or interest in goings-on variables.

Also of note are the highly significant and positive correlation between local food system participation and weak ties (density of acquaintances and level of organizational involvement), and the non-significant and negative relationship between local food system participation and strong ties (density of friendships or relatives). Combined with the significant and positive bivariate correlation between density of acquaintances and level of organizational involvement, these results might suggest that visiting a farmers' market, local food cooperative, or pick-your-own farm more frequently may put individuals into contact with more familiar faces who are driven to adopt similar practices and/or form groups to support those practices. However, the inability to establish directionality of the relationship calls this understanding into question. In other words, the case may be that individuals who feel more connected to their communities through acquaintances and involvement in community institutions may be more driven to support their communities by purchasing local food.

The relationship between local food system participation and weak ties becomes even more muddied by the significant and negative correlation between density of acquaintances and population size. As population size increases, density of acquaintances decreases, suggesting that higher densities of acquaintances occur in more remote or rural

areas. Furthermore, the bivariate analysis shows that population size is significantly and negatively correlated with participation in local food systems, suggesting that inhabitants of more rural areas are also more likely to engage in local food consumption activities. This combination of findings indicates a likelihood that individuals living in rural areas where density of acquaintances are higher are participating in local food systems either out of a lack of choice, culture, or out of a desire to support their local agricultural economies. These findings could also be interpreted as supporting Lyson's claim that one feature of civic agriculture is the tendency for agriculture to be "seen as an integral part of rural communities, not merely as production of commodities" (2004:85).

With regards to the affective and cognitive dimensions of community sentiment, local food system participation unilaterally displayed no correlation with the affective dimension, while the cognitive dimension was split. As mentioned earlier, it is logical to posit a relationship between local food system participation, interest in goings-on, and level of organizational involvement. It is intriguing, however, that local food system participation displayed a negative—albeit very weak and non-significant—correlation with community satisfaction. This relationship is in keeping with Theodori's (2004) hypothesis that those who are more attached, yet less satisfied, with their communities might be more driven to action. Nonetheless, the non-significance of the positive relationships between local food system participation and the affective indicators of community attachment is where the relationship to Theodori's hypothesis breaks down.

Finally, it is interesting that some of the persistent indicators of community sentiment did not turn out to be significant indicators in this study. For example, age and

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length of residence turn out to be significantly correlated with both dimensions in the systemic model (often including feeling at home and sorrow at leaving as the affective dimension, and interest in goings-on as the cognitive dimension) time and time again (Flaherty and Brown 2012; Kasarda and Janowitz 1974; Theodori 2000), and yet length of residence does not turn up as a significant predictor of feeling at home, sorrow at leaving, or interest in goings-on in this study's models.

Age, on the other hand, is a significant predictor of sorrow at leaving and interest in goings-on, but is not a significant predictor of either dimension of weak ties. The narrative of the systemic model generally holds that with increased age comes increased length of residence, which is accompanied by increases in social ties that drive feeling at home and sorrow at leaving one's community (Flaherty and Brown 2012; Kasarda and Janowitz 1974; Theodori 2004). The findings of this study depart somewhat from this narrative, suggesting perhaps that the inclusion of local food system participation may lessen the effects of the persistent indicators, even if local food system participation does not represent a significant indicator alone.

5.1.1. Answering the Research Questions

I began my analysis with three research questions surrounding the relationship between local food systems, sense of community, community quality of life, and community-based relationships in the context of a globalized mass society. These questions were based on interpretations of claims made by Lyson (2000, 2004, 2005) in developing the civic agriculture framework. I aimed to answer these questions by using community sentiment models that isolated the relationship of local food system

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participation to various indicators of community attachment, community satisfaction, and local social ties. Based on a review of the literature, I hypothesized that local food system participation would be positively correlated with each of these indicators.

My first question was about the effects of community versus mass society on an individual participating in both local and global food systems. I hypothesized that individuals who participated in local food systems more frequently would feel more at home, more sorrow at leaving, and more interest in goings-on in their communities. Of these relationships, I found that local food system participation was only positively and significantly correlated with the interest in community goings-on, which represents one of the cognitive dimensions of community sentiment. These findings suggest that while local food systems may contain some ability to draw individuals toward the community sphere, they do not seem to have an effect on an individual's affect toward his or her community. Or, in terms of the dialectical tension between community and mass society, it appears that the alienating effects of the global food system may be stronger than the communal effects of local food systems.

My second research question was about the endurance of the community quality of life that may build around local food systems in the context of global mass society. I sought to answer this question by testing the relationship between local food system participation and community satisfaction, hypothesizing that individuals who participated in local food systems more frequently would experience higher levels of satisfaction with their communities as places to live. However, I found that the relationship between local food system participation and community satisfaction was neither positive nor

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significant, indicating no relationship between local food system participation and overall assessment of community quality of life. Based on my literature review and analyses, these findings may suggest any of three things: 1. That local food system participation is not related to community quality of life; 2. That the detrimental effects of globalization/mass society/global food systems on quality of life in communities are stronger than the communal effects of local food systems; and/or 3. That community satisfaction actually represents a concept apart from community attachment with separate predictors and correlates, rather than a dimension of community sentiment along with the indicators that are used to explore community attachment.

My third and final research question was about the capacity of local food systems to build relationships within the community rather than simply provide consumers with an alternative to participating in the global food system. I hypothesized that individuals who participated in local food systems more frequently would have higher densities of friends, relatives, and acquaintances, as well as higher levels of organizational involvement within their communities. However, I found that local food system participation was only correlated with the formation and/or maintenance of weak ties, i.e. acquaintances and formal organizations. These findings suggest that local food system participation may help to form relationships between people who have become distanced from one another, but those relationships do not go so far as to become strong ties, i.e. close friendships or family ties. Or, with regards to the research question, it is possible that informal social bonds form *around* the search for an alternative to global food systems—for example, around activities like forming cooperative buying clubs or

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shopping at the farmers' market—rather than strong social bonds forming as a result of participating in local food systems.

5.2. Study Limitations

Although the methodology and findings of this study are both novel and salient, the study is not without its limitations. The primary limitations of this study include inability to establish causality, inability to capture individual motivations for participating in local food systems, and inadequate data to examine community- or neighborhood-level effects of local food institutions.

Due to the use of multivariate regression analysis to explore the relationship between local food system participation and community sentiments, the findings of this study cannot be used to determine whether local food system participation precedes weak ties and interest in community goings-on, or vice versa. As mentioned previously, it is certainly possible that interest in the community leads to the formation of weak ties, which leads to a desire to support the community via the consumption of local food. It is also possible that weak ties precede interest in goings-on, which again leads to the consumption of local food. Directionality of the relationships between the formation of weak ties, interest in community goings-on, and participation in local food systems could potentially be established via structural equation modeling, which was outside the purview of this thesis due to limits on time and resources.

The second prominent study limitation I identified was the inability to capture individual motivations for participating in local food systems. While the *Ohio Survey* contained questions about attitudes, beliefs, and practices related to food purchasing and

shopping at farmers' markets, the survey was not designed to test specifically for a civic agriculture orientation. As such, narrowing the population explored down to those who indicated a community orientation in their food purchasing behaviors would have rendered a sample size too small to draw any externally valuable conclusions. However, a study that compares individuals who buy local food for taste and freshness to those who buy local food to support their local economies and socialize at farmers' markets might be able to draw some interesting conclusions about the validity of Lyson's (2000, 2004, 2005) claims surrounding the community building capacity of local food systems.

The final limitation to which I will bring attention is the inadequacy of the data to provide information about community- or neighborhood-level effects of local food institutions. It is possible, for example, that individuals who live in a community or neighborhood with a popular farmers' market or other local food institution may experience a higher sense of attachment and quality of life than those individuals who live in communities devoid of prominent local food institutions. However, this question would be more adequately addressed by a case study analysis, and the data analyzed for this thesis was not adequate for comparing local food systems and community sentiment at the community-level.

5.3. Implications for Theory and Future Research

My intent in this research was to explore the community effects of local food system participation using the frameworks of civic agriculture, interactional field theory, and community sentiment. As such, my results contribute to the literature in each field, while laying groundwork for avenues of future research.

Based on the relationship between local food system participation and weak ties, there appears to be some merit to Lyson's claim that "Civic agriculture activities… become a powerful template around which to build non- or extramarket relationships between persons, social groups, and institutions that have been distanced from each other" (2004:98). Furthermore, the linkage between local food system participation and interest in community goings-on indicates some degree of orientation to the community as an emergent property among more frequent local food system participators. Each of these relationships points to support for the conceptualization of civic agriculture as an interactional field within which community develops. Individuals participating in local food systems at higher levels appear to be identifying focal points around which communal solidarities can be maintained. While the regression analysis does not allow me to establish whether or not that focal point is local food systems, specifically, or simply a tendency to unite around focal points among local food system participators, the findings do lend support to the narrative that civic agriculture acts as an interactional field through which the community is maintained in spite of the alienating effects of conventional agriculture and mass society.

However, it was not within the purview of this research to explore the linkages that form around local food systems in depth. Nonetheless, an in-depth exploration of the capacity of consumer participation in local food systems to build relationships at the community-level would have important implications for those who hold local food systems up as a community development tool. One type of analysis that may be useful for exploring the relationship-building capacity of local food systems is network analysis, in

which individuals are asked about the nature of their connections to other individuals with whom they are acquainted (Borgatti et al. 2009; Wellman 1979). Via network analysis, it may be possible to determine what percentage of an individual's social ties in his or her community is attributable to his or her participation in local food systems. The networks formed around local food systems could then be compared to networks that form around other interactional fields.

Where community sentiment and community action are concerned, this research is unique in its attempt to capture the effects of a specific type of community-oriented action on community sentiment outcomes (V. D. Ryan and Agnitsch 2005; Theodori 2004). While local food systems do appear to be associated with one indicator of community sentiment—interest in community goings-on—it might be interesting to compare these results to other social movements and alternative systems that have a community focus. For example, broadening the interest group to those who value supporting the local economy, or narrowing it to those who are involve in a specific locally-based environmental justice issue may produce intriguing results.

Finally, my findings may simply suggest that community sentiment does not constitute an effective route for studying the effects of local food systems. Thus, future research may do well to explore the effects of local food systems from an alternative angle. Though network analysis has already been suggested, another possibility might be exploring the effects of food system localization as a social movement, rather than a community development tool. For example, one might ask if the community food security or sustainable agriculture movements are achieving their intended outcomes, as

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identified by social theorists, in communities where active movements exist (Allen 2004). Or, more specifically, one might ask how many individuals are being reached via some form of weaver work, or to what degree a low-income community has been economically developed via the presence of local and alternative food initiatives (Holt Giménez and Shattuck 2011; G.W. Stevenson et al. 2007).

5.4. Implications for Policy

With regards to policy, there appear to be two major implications that can be drawn from this research. These implications stem from the relationship of local food systems to informal ties and community interest. The first implication considers local food as a community development tool, and the second implication considers the use of local food as a force for community mobilization.

Regarding community development, the results of this thesis lend support to the use of local food as a community development tool. Local food has been held up as a valuable vehicle for policy makers in addressing everything from public health, to environmental sustainability, to economic development (Neuner, Kelly, and Raja 2011; The Harvard Law School Food Law and Policy Clinic and The Community Food Security Coalition 2012). While the conclusions of this research cannot speak to the effectiveness of local food systems in addressing any of these specific issues, the correlations of local food system participation to community interest and weak ties constitutes valuable information about the effectiveness of local food systems as a policy implement. These significant relationships may be interpreted as an understanding that local food system participation represents an effective community organizational via the

formation of community groups and ties. It is these affiliations that have the potential to create community strength, resilience, and maintenance of other important goals, such as public health, sustainability, or economic development.

Secondly, based on the positive and significant correlations between local food system participation and organizational involvement, as well as between local food system participation and interest in community goings-on, the conclusion could be drawn that the type of community development that happens around local food systems is more common of social movement efforts than of community solidarity. This conclusion is supported by the failure of local food system participation to be strongly correlated with strong ties or the affective dimension of community sentiment. In other words, it is possible that organizations are forming around efforts to reform the food system at the community level, based on interest in community goings-on. Thus, food system change agents and policymakers may find discourse about political change and individual empowerment against the dominant food system a more effective community mobilization tool than discourse about the community development effects of local food systems.

REFERENCES

Alaimo, Katherine, Thomas M. Reischl, and Julie Ober Allen. 2010. "Community Gardening, Neighborhood Meetings, and Social Capital." *Journal of Community Psychology* 38(4):497–514.

Allen, Patricia. 2004. *Together at the Table: Sustainability and Sustenance in the American Agrifood System*. University Park, PA: Pennsylvania State University Press; Published in cooperation with the Rural Sociological Society.

Audirac, Ivonne. 1999. "Unsettled views about the fringe: rural-urban or urban-rural frontiers?" in *Contested Countryside: The Rural Urban Fringe in North America*, edited by Owen J. Furuseth and Mark B. Lapping. Brookfield, VT: Ashgate Publishing Group.

Bean, Molly, and Jeff S. Sharp. 2011. "Profiling alternative food system supporters: The personal and social basis of local and organic food support." *Renewable Agriculture and Food Systems* 26(03):243–254.

Beggs, John J., Jeanne S. Hurlbert, and Valerie A. Haines. 1996. "Community Attachment in a Rural Setting: A Refinement and Empirical Test of the Systemic Model." *Rural Sociology* 61(3):407–426.

Berube, Alan, Audrey Singer, Jill H. Wilson, and William H. Frey. 2006. *Finding Exurbia: America's Fast-Growing Communities at the Metropolitan Fringe*. Washington, DC. Retrieved (http://www.brookings.edu/research/reports/2006/10/metropolitanpolicy-berube).

Bonanno, Alessandro. 2012. "The Legitimation Crisis of Neoliberal Globalization: Instances from Agriculture and Food Alessandro Bonanno." 1–7.

Bonanno, Alessandro, and Douglas H. Constance. 2001. "Globalization, Fordism, and Post-Fordism in Agriculture and Food: A Critical Review of the Literature." *Culture & Agriculture* 23(2):1–18.

Bonanno, Alessandro, and Douglas H. Constance. 2006. "Corporations and the State in the Global Era: The Case of Seaboard Farms and Texas." *Rural Sociology* 71(1):59–84.

Borgatti, Stephen P., Ajay Mehra, Daniel J. Brass, and Giuseppe Labianca. 2009. "Network Analysis in the Social Sciences." *Science* 323:892–895.

Brehm, Joan M., Brian W. Eisenhauer, and Richard S. Krannich. 2004. "Dimensions of Community Attachment and Their Relationship to Well-Being in the Amenity-Rich Rural West." *Rural Sociology* 69(3):405–429.

Brehm, Joan M., Brian W. Eisenhauer, and Richard S. Krannich. 2006. "Community Attachments as Predictors of Local Environmental Concern: The Case for Multiple Dimensions of Attachment." *American Behavioral Scientist* 50(2):142–165.

Brown, Ralph B. 1993. "Rural Community Satisfaction and Attachment in Mass Consumer Society." *Rural Sociology* 58(3):387–403.

Brown, Ralph B., H. Reed Geertsen, and Richard S. Krannich. 1989. "Community Satisfaction and Social Integration in a Boomtown: A Longitudinal Analysis." *Rural Sociology* 54(4):568–586.

Busch, Lawrence. 2010. "Can Fairy Tales Come True? The Surprising Story of Neoliberalism and World Agriculture." *Sociologia Ruralis* 50(4):331–351.

Busch, Lawrence, and Carmen Bain. 2004. "New! Improved? The Transformation of the Global Agrifood System." *Rural Sociology* 69(3):321–346.

Buttel, Frederick H. 1980. "Agricultural Structure and Rural Ecology: Toward a Political Economy of Rural Development." *Sociologia Ruralis Sociologia Ruralis* 20(1-2):44–62.

Buttel, Frederick H. 2003. "Continuities and Disjunctures in the Transformation of the U.S. Agro-Food System." Pp. 177–189 in *Challenges for Rural America in the Twenty-First Century*, edited by David L. Brown and Louis E. Swanson. University Park, PA: The Pennsylvania State University Press.

Buttel, Frederick H., Oscar B. Martinson, and E. A. Wilkening. 1979. "Size of Place and Community Attachment: A Reconsideration." *Social Indicators Research* 6(4):475–485.

Coleman, James S. 1988. "Social Capital in the Creation of Human Capital." *The American Journal of Sociology* 94:S95–S120.

Cross, Jennifer E. 2003. "Conceptualizing Community Attachment." Pp. 1–19 in *Paper Presented at the Rural Sociological Society Annual Meeting*. Montreal.

Delind, Laura B. 2002. "Place, work, and civic agriculture : Common fields for cultivation." *Agriculture and Human Values* 19:217–224.

Delind, Laura B. 2006. "Of bodies, place, and culture: re-situating local food." *Journal of Agricultural and Environmental Ethics* 19:121–146.

Delind, Laura B., and Jim Bingen. 2007. "Place and civic culture: re-thinking the context for local agriculture." *Journal of Agricultural and Environmental Ethics* 21(2):127–151.

Dillman, Don A. 2000. *Mail and internet surveys : the tailored design method*. New York: Wiley.

Dimitri, Carolyn, Anne Effland, Neilson Conklin, and United States Dept. of Agriculture Economic Research Service. 2005. *The 20th Century Transformation of U.S. Agriculture and Farm Policy (Economic information bulletin; no. 3)*. Washington, DC. Retrieved (http://www.ers.usda.gov/media/259572/eib3_1_.pdf).

Executive Office of the President, and Office of Management and Budget. 2013. *OMB Bulletin No. 13-01*. Washington, DC. Retrieved (http://www.whitehouse.gov/sites/default/files/omb/bulletins/2013/b13-01.pdf).

Feenstra, Gail. 1997. "Local food systems and sustainable communities." *American Journal of Alternative Agriculture* 12(1):28–36.

Fischer, Claude S. 1982. *To dwell among friends: personal networks in town and city*. Chicago: University of Chicago Press.

Flaherty, Jeremy, and Ralph B. Brown. 2012. "A Multilevel Systemic Model of Community Attachment: Assessing the Relative Importance of the Community and Individual Levels." *American Journal of Sociology* 116(2):503–542.

Flora, Cornelia Butler, and Jan L. Flora. 2013. *Rural communities: Legacy & Change*. Boulder: Westview Press.

Florin, Paul R., and Abraham Wandersman. 1984. "Cognitive social learning and participation in community development." *American Journal of Community Psychology* 12(6):689–708.

Fried, Marc. 1982. "Residential Attachment: Sources of Residential and Community Satisfaction." *Journal of Social Issues* 38(3):107–119.

Friedmann, Harriet, and Philip McMichael. 1989. "Agriculture and the State System: The rise and decline of national agricultures, 1870 to the present." *Sociologia Ruralis* 29(2):93–117.

Friedmann, Harriet, and Amber Mcnair. 2008. "Whose Rules Rule? Contested Projects to Certify 'Local Production for Distant Consumers'." *Journal of Agrarian Change* 8(2&3):408–434.

Glowacki-Dudka, M., J. Murray, and K. P. Isaacs. 2012. "Examining social capital within a local food system." *Community Development Journal* 48(1):75–88.

Goldschmidt, Walter. 1978. *As You Sow: Three Studies in the Social Consequences of Agribusiness*. Montclair, N.J.: Allanheld, Osmun.

Goodman, David. 2004. "Rural Europe Redux? Reflections on Alternative Agro-Food Networks and Paradigm Change." *Sociologia Ruralis* 44(1):3–16.

Goodman, David, and E. Melanie Dupuis. 2002. "Knowing Food and Growing Food: Beyond the Production-Consumption Debate in the Sociology of Agriculture." *Rural Sociology* 42(1):5–22.

Goudy, Willis J. 1982. "Further Consideration of Indicators of Community Attachment." *Social Indicators Research* 11:181–192.

Goudy, Willis J. 1990. "Community Attachment in a Rural Region." *Rural Sociology* 55(2):178–198.

Granovetter, Mark. 1983. "The Strength of Weak Ties: A Network Theory Revisited." *Sociological Theory* 1:201–233.

Guest, Avery M., and Barrett A. Lee. 1983. "Sentiment and Evaluation as Ecological Variables." *Sociological Perspectives* 26(2):159–184.

Guthman, Julie. 2008. "Bringing good food to others: investigating the subjects of alternative food practice." *Cultural Geographies* 15:431–447.

Hanna, Autumn K., and Pikai Oh. 2000. "Rethinking Urban Poverty: A Look at Community Gardens." *Bulletin of Science, Technology & Society* 20(3):207–216.

Harper, Alethea et al. 2009. *Food Policy Councils: Lessons Learned*. Oakland, CA.

The Harvard Law School Food Law and Policy Clinic, and The Community Food Security Coalition. 2012. *Good Laws, Good Food: Putting Local Food Policy to Work for Our Communities*. Retrieved (http://www.law.harvard.edu/academics/clinical/lsc/documents/FINAL_LOCAL_TOOLKIT2.pdf).

Hassanein, Neva. 2003. "Practicing food democracy: a pragmatic politics of transformation." *Journal of Rural Studies* 19(1):77–86.

Holt Giménez, Eric, and Annie Shattuck. 2011. "Food crises, food regimes and food movements: rumblings of reform or tides of transformation?" *Journal of Peasant Studies* 38(1):109–144.

Hoppe, Robert A., James M. Macdonald, Penni Korb, and United States Dept. of Agriculture Economic Research Service. 2010. *Small Farms in the United States Persistence Under Pressure, EIB-63*. Washington, DC. Retrieved (http://www.ers.usda.gov/media/147007/eib63_1_.pdf).

Inwood, Shoshanah M., and Jeff S. Sharp. 2012. "Farm persistence and adaptation at the rural–urban interface: Succession and farm adjustment." *Journal of Rural Studies* 28(1):107–117.

James, Harvey S., Mary K. Hendrickson, and Philip H. Howard. 2013. "Networks, Power and Dependency in the Agrifood Industry." Pp. 99–126 in *The Ethics and Economics of Agrifood Competition*, edited by Harvey S. James. Dordrecht; New York: Springer.

St. John, Craig, D. Mark Austin, and Yoko Baba. 1986. "The question of community attachment revisited." *Sociological Spectrum* 6(4):411–431.

Kasarda, John D., and Morris Janowitz. 1974. "Community Attachment in Mass Society." *American Sociological Review* 39(3):328–339.

Kaufman, Harold F. 1959. "Toward an Interactional Conception of Community." *Social Forces* 38(1):8–17.

Kloppenburg, Jr., Jack et al. 2000. "Tasting Food, Tasting Sustainability: Defining the Attributes of an Alternative Food System with Competent, Ordinary People." *Human Organization* 59(2):177–186.

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

Koons Trentelman, Carla. 2009. "Place Attachment and Community Attachment: A Primer Grounded in the Lived Experience of a Community Sociologist." *Society & Natural Resources* 22(3):191–210.

Lacy, William B. 2000. "Empowering Communities Through Public Work, Science, and Local Food Systems: Revisiting Democracy and Globalization." *Rural Sociology* 65(1):3–26.

Laumann, Edward O. 1973. *Bonds of pluralism: the form and substance of urban social networks*. New York: J. Wiley.

Lewicka, M. 2010. "On the Varieties of People's Relationships With Places: Hummon's Typology Revisited." *Environment and Behavior* 43(5):676–709.

Liepins, Ruth. 2000. "New energies for an old idea: reworking approaches to 'community' in contemporary rural studies." *Journal of Rural Studies* 16(1):23–35.

Littrell, Donald W., and Daryl Hobbs. 1989. "The Self Help Approach." in *Community Development in Perspective*, edited by James A Christenson and Jerry W Robinson. Ames: Iowa State University Press.

Liu, Qiaoming Amy, Vernon Ryan, Herbert Aurbach, and Terry Besser. 1998. "The Influence of Local Church Participation on Rural Community Attachment." *Rural Sociology* 63(3).

Lobao, Linda M. 2007. "Rural Sociology." Pp. 465–476 in *The Handbook of 21st Century Sociology*, edited by Clifton D. Bryant and Dennis L. Peck. Newbury Park, CA: Sage Publications.

Lobao, Linda M., Michael D. Schulman, and Louis E. Swanson. 1993. "Still Going: Recent Debates on the Goldschmidt Hypothesis." *Rural Sociology* 58(2):277–288.

Lobao, Linda, and Katherine Meyer. 2001. "The Great Agricultural Transition: Crisis, Change, and Social Consequences of Twentieth Century US Farming." *Annual Review of Sociology* 27:103–24.

Lobao, Linda, and Curtis W. Stofferahn. 2007. "The community effects of industrialized farming: Social science research and challenges to corporate farming laws." *Agriculture and Human Values* 25(2):219–240.

Lohr, Luanne, Adam Diamond, Chris Dicken, David Marquardt, and U.S. Dept. of Agriculture Agricultural Marketing Service. 2011. *Mapping Competition Zones for*

Vendors and Customers in U.S. Farmers Markets. Washington, DC. Retrieved (http://dx.doi.org/10.9852/MS042.09-2011).

Long, D. Adam, and Douglas D. Perkins. 2007. "Community social and place predictors of sense of community: A multilevel and longitudinal analysis." *Journal of Community Psychology* 35(5):563–581.

Low, Sarah A, Stephen Vogel, and United States Dept. of Agriculture Economic Research Service. 2011. *Direct and Intermediated Marketing of Local Foods in the United States, ERR-128*. Washington, DC. Retrieved (http://www.ers.usda.gov/media/138324/err128_2_.pdf).

Lyon, Larry. 1989. *The community in urban society*. Long Grove, IL: Waveland Press.

Lyson, Thomas A. 2000. "Moving Toward CIVIC Agriculture." *Choices: The Magazine Of Food, Farm & Resource Issues* 15(3):42–45.

Lyson, Thomas A. 2004. *Civic Agriculture: Reconnecting Farm, Food, and Community*. Medford, MA; Lebanon, NH: Tufts University Press ; University Press of New England.

Lyson, Thomas A. 2005. "Civic Agriculture and Community Problem Solving." *Culture & Agriculture* 27(2):92–98.

Lyson, Thomas A., and Judy Green. 1999. "The Agricultural Marketscape: A Framework for Sustaining Agriculture and Communities in the Northeast." *Journal of Sustainable Agriculture* 15(2/3):133–150.

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

Macias, Thomas. 2008. "Working Toward a Just, Equitable, and Local Food System: The Social Impact of Community-Based Agriculture." *Social Science Quarterly* 89(5):1086–1101.

Magdoff, Fred, John Bellamy Foster, and Frederick H. Buttel. 2000. *Hungry for Profit: The Agribusiness Threat to Farmers, Food, and the Environment*. New York: Monthly Review Press.

Martinez, Steve et al. 2010. *Local Food Systems: Concepts, Impacts, and Issues, ERR 97*. Washington, DC. Retrieved (http://www.ers.usda.gov/media/122868/err97_1_.pdf).

Marx, Karl, and Friedrich Engels. 1998. *The Communist manifesto*. New York, NY: Signet Classic.

Matarrita-Cascante, David. 2009. "Changing Communities, Community Satisfaction, and Quality of Life: A View of Multiple Perceived Indicators." *Social Indicators Research* 98(1):105–127.

McMichael, Philip. 2004. *Development and social change*. 3rd ed. Thousand Oaks, CA: Sage.

McMichael, Philip. 2009. "A food regime genealogy." *Journal of Peasant Studies* 36(1):139–169.

National Agricultural Statistics Service, and United States Dept. of Agriculture. 2009. *2007 Census of Agriculture: United States Summary and State Data, Volume 1, Geographic Area Series, Part 51*. Washington, DC. Retrieved (http://www.agcensus.usda.gov/Publications/2007/Full_Report/usv1.pdf).

Neuner, Kailee, Sylvia Kelly, and Samina Raja. 2011. *Planning to Eat? Innovative Local Government Plans and Policies to Build Healthy Food Systems in the United States*. Buffalo, NY Retrieved (http://cccfoodpolicy.org/sites/default/files/resources/planning_to_eat_sunybuffalo.pdf).

Okura Gagné, Nana. 2011. "Eating local in a U.S. city: Reconstructing 'community'--a third place--in a global neoliberal economy." *American Ethnologist* 38(2):281–293.

Oldenburg, Ramon, and Dennis Brissett. 1982. "The Third Place." *Qualitative Sociology* 5(4):265–284.

Oldenburg, Ray. 1989. *The Great Good Place: Cafés, coffee shops, bookstores, bars, hair salons, and other hangouts at the heart of a community*. Cambridge, MA: Da Capo Press.

Ostrom, Marcia R. 2007. "Community Supported Agriculture as an Agent of Change: Is it working?" Pp. 99–120 in *Remaking the North American Food System: Strategies for Sustainability*, edited by Clare C. Hinrichs and Thomas A Lyson. Lincoln and London: University of Nebraska Press.

Ostrom, Marcia R., and Raymond A. Jussaume Jr. 2007. "Assessing the Significance of Direct Farmer-Consumer Linkages as a Change Strategy in Washington State: Civic or Opportunistic?" Pp. 235–259 in *Remaking the North American Food System:*

Strategies for Sustainability, edited by Clare C. Hinrichs and Thomas A Lyson. Lincoln and London: University of Nebraska Press.

O'Brien, David J., and Edward W. Hassinger. 1992. "Community Attachment Among Leaders in Five Rural Communities." *Rural Sociology* 57(4):521–534.

Parker, Timothy. 2012. "Rural-Urban Continuum Codes: Overview." *United States Department of Agriculture, Economic Research Service*. Washington, DC. Retrieved January 9, 2012 (http://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx#.UbcggSs4V7s).

Parsons, Talcott. 1951. *The social system*. Glencoe, IL: Free Press.

Polanyi, Karl. 1957. *Trade and Market in the Early Empires: Economies in History and Theory*. Glencoe, IL: Free Press.

Portes, Alejandro. 1998. "Social Capital: Its Origins and Applications in Modern Sociology." *Annual Review of Sociology* 24(1):1–24.

Project for Public Spaces Inc., and Partners for Livable Communities. 2003. *Public Markets as a Vehicle for Social Integration and Upward Mobility*. New York, NY; Washington, DC. Retrieved (http://www.pps.org/pdf/Ford_Report.pdf).

Pudup, Mary Beth. 2008. "It takes a garden: Cultivating citizen-subjects in organized garden projects." *Geoforum* 39(3):1228–1240.

Putnam, Robert D. 2000. *Bowling alone: the collapse and revival of American community*. New York: Simon & Schuster.

Ross, Nancy J. 2007. "How civic is it? Success stories in locally focused agriculture in Maine." *Renewable Agriculture and Food Systems* 21(02):114–123.

Rothenbuhler, Eric W., Lawrence J. Mullen, Richard Delaurell, and Choon Ryul Ryu. 1996. "Communication, Community Attachment, and Involvement." *Journalism & Mass Communication Quarterly* 73(2):445–466.

Ryan, Vernon D., and Kerry A. Agnitsch. 2005. "Making Sense of Voluntary Participation: A Theoretical Synthesis." *Rural Sociology* 70(3):287–313.

Saegert, Susan. 1989. "Unlikely leaders, extreme circumstances: older black women building community households." *American Journal of Community Psychology* 17(3):295–316.

Saldivar-Tanaka, Laura, and Marianne E. Krasny. 2004. "Culturing community development, neighborhood open space, and civic agriculture: The case of Latino community gardens in New York City." *Agriculture and Human Values* 21(4):399–412.

Sampson, Robert J. 1988. "Local Friendship Ties and Community Attachment in Mass Society: A Multilevel Systemic Model." *American Sociological Review* 53(5):766–779.

Schukoske, Jane E. 1997. "Community Development Through Gardening: State and Local Policies Transforming Urban Open Space." *Legislation and Public Policy* 3(2):351–392.

Sharp, Jeff S., and Jill K. Clark. 2008. "Between the Country and the Concrete: Rediscovering the Rural-Urban Fringe." *City & Community* 7(1):61–79.

Sharp, Jeff S., and Jill K. Clark. 2013. "Settling at the Margins: Exurbia and Community Sociology." in *Theory, Practice and Community Development*, edited by Mark Brennan, Jeffrey Birdger, and Theodore Alter. New York: Routledge.

Smithers, John, and Alun E. Joseph. 2009. "The trouble with authenticity: separating ideology from practice at the farmers' market." *Agriculture and Human Values* 27(2):239–247.

Stevenson, G.W., Kathryn Ruhf, Sharon Lezberg, and Kate Clancy. 2007. "Warrior, Builder, and Weaver Work: Strategies for Changing the Food System." Pp. 33–62 in *Remaking the North American Food System: Strategies for Sustainability*, edited by C. Clare Hinrichs and Thomas A. Lyson. Lincoln and London: University of Nebraska Press.

Stinner, William F., Mollie van Loon, Chung Seh-Woong, and Byun Yongchan. 1990. "Community Size, Individual Social Position, and Community Attachment." *Rural Sociology* 55(4):494–521.

Sundblad, Daniel R., and Stephen G. Sapp. 2011. "The Persistence of Neighboring as a Determinant of Community Attachment: A Community Field Perspective." *Rural Sociology* 76(4):511–534.

Sutton Jr., Willis A, and Jiri Kolaja. 1960. "The Concept of Community." *Rural Sociology* 25(2):197–203.

Theodori, Gene L. 2000. "Levels of Analysis and Conceptual Clarification in Community Attachment and Satisfaction Research: Connections to Community Development." *Journal of the Community Development Society* 31(1):35–58.

Theodori, Gene L. 2004. "Community Attachment, Satisfaction, and Action." *Journal of the Community Development Society* 35(2):73–86.

Theodori, Gene L. 2005. "Community and Community Development in Resource-Based Areas: Operational Definitions Rooted in an Interactional Perspective." *Society & Natural Resources* 18(7):661–669.

Theodori, Gene L., and A. E. Luloff. 2000. "Urbanization and Community Attachment in Rural Areas." *Society & Natural Resources* 13(5):399–420.

Tiemann, Thomas K. 2008. "Grower-Only Farmers' Markets: Public Spaces and Third Places." *The Journal of Popular Culture* 41(3):467–487.

Trauger, Amy, Carolyn Sachs, Mary Barbercheck, Kathy Brasier, and Nancy Ellen Kiernan. 2009. "'Our market is our community': women farmers and civic agriculture in Pennsylvania, USA." *Agriculture and Human Values* 27(1):43–55.

Tönnies, Ferdinand, and José Harris. 2001. *Community and civil society*. Cambridge: Cambridge university press.

Warren, Roland Leslie. 1978. *The community in America*. Chicago: Rand McNally College Pub. Co.

Wasserman, Ira M. 1982. "Size of Place in Relation to Community Attachment and Satisfaction with Community Services." *Social Indicators Research* 11(4):421–436.

Wellman, Barry. 1979. "The Community Question: The Intimate Networks of East Yorkers." *The American Journal of Sociology* 84(5):1201–1231.

Wellman, Barry, and Barry Leighton. 1979. "Networks, Neighborhoods, and Communities: Approaches to the Study of the Community Question." *Urban Affairs Quarterly* 14(3).

Wilkinson, Kenneth P. 1970a. "Phases and Roles in Community Action." *Rural Sociology* 35(1):54–68.

Wilkinson, Kenneth P. 1970b. "The Community as a Social Field." *Social Forces* 48(3):311–322.

Wilkinson, Kenneth P. 1972. "A Field-Theory Perspective for Community Development Research." *Rural Sociology* 37(1):43–52.

Wilkinson, Kenneth P. 1989. "The Future for Community Development." Pp. 337–354 in *Community Development in Perspective*, edited by James A. Christenson and Jerry W. Robinson. Ames: Iowa State University Press.