Regional Economic Development and Alternative Food Network Governance:
A Waterloo Region Case Study

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Major Research Paper

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Abstract

Local, organic, and artisanal foods are all manifestations of a growing, alternative segment of the food industry. Information-intensive interactions, an appreciation of place, and norms that promote a more sufficient food industry are all common themes found within the alternative food sector. A similar transition has taken place in the field of economic development. Regional stakeholder interactions and norms are now widely recognized as sources of comparative advantage, while economic sustainability has become a recognized development goal. Emerging evidence suggests that there are also considerable synergies between these transitions, but both transitions require collaborative governance between government, civil society, and the market. Yet the analysis of governance appropriate to each of these new institutional environments has occurred in isolation from one another. The influence of economic developers in alternative food governance is not explicitly addressed. This paper explores how regional economic development networks can contribute to alternative food governance and alternative food development through a case study of Waterloo Region, Ontario. Through key informant interviews and a social network analysis, this research suggests that food governance capacity in the Region’s civil society is limited due to a lack of engagement on the part of economic development practitioners. Without this engagement, regional stakeholders are constrained in their efforts to encourage alternative food development and capitalize on associated economic development opportunities within the Region. This contributes a greater level of specificity to the stakeholder types outlined in Wiskerke’s (2009) model of an integrated and territorial approach to food governance, an important area for further research.
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Chapter 1. Introduction

1.1 Collaborative Food Governance and Regional Economic Development

Academics, citizens, and policymakers continue to show interest in the proliferation of 'local', 'craft', and other recent developments in food distribution and production (Donald, 2009). The fascination with what this study will refer to as alternative food is driven by interest in its capacity to contribute economically to local communities, diversify rural economies, and create more environmentally sustainable approaches to food production and distribution. A similar trend in economic development literature has conferred greater influence on the activities of local economic development stakeholders to alter their respective economic trajectories. Both of these trends reflect an increased appreciation for place as a source of short-term value and increased long-term resilience (Marsden, Banks, & Bristow, 2000; Wiskerke, 2009; Romer, 1986). Place is undoubtedly central to both alternative food systems and regional approaches to economic development; however, this role is not limited to a region's physical assets or merely the individual contributions of the stakeholders involved. A region's norms, institutions, and network structures exert considerable influence on regional economies and emerging industry trends, which can facilitate or dampen its development prospects (Liebovitz, 2003; Wolfe & Gertler, 2001; Gertler M., 2003).

Although desired economic development outcomes continue to evolve, the motivations behind the recent popularity of alternative food products align closely with the desired outcomes of community economic development. This field incorporates common economic development goals of economic viability, but emphasises the importance of participatory governance and the need for institutional arrangements that promote community adaptability (Shaffer, Deller, & Marcouiller, 2006; Bodin, Crona, & Ernstson, 2005). Thus, when referring to desired regional economic development outcomes, this study refers to short-term economic viability as well as long-term resilience and adaptability. This study explores the role of economic governance structures in supporting these outcomes through emerging trends in the agri-food industry.
Governance is a topic that has attracted particular academic interest over the past two decades. It can be succinctly understood as the use of collaborative networks involving government and non-government stakeholders in determining a given region or sector’s socioeconomic norms and institutions (Creutzberg, 2010). Alternative food represents an emerging segment of the food industry that is distinguished, in part, by its focus on product differentiation through place-based qualities. Previous research has illustrated that alternative food networks (AFNs), the webs of relationships required to support AFN development, contribute to regional economic development in a variety of ways. However, this same research has found that existing governance structures in the food industry are not well-suited to the novel norms and institutions required by place-based, alternative food networks (Wiskerke, 2009). The place-based nature of AFNs and their lack of support from conventional approaches to food governance suggest potential synergies between regional economic developers and AFNs. Specifically, regional economic governance networks can support appropriate models of place-based food governance to leverage latent economic development value within AFNs.

Wiskerke (2009) theorized an integrated and territorial model of food governance based on a review of previous research on AFNs and the socioeconomic processes that underpin alternative food geography. Central to this model, Wiskerke identifies three interrelated, mutually reinforcing processes that fundamentally shape the development of alternative food: connecting and reconnecting stakeholders to steer the networks and provide momentum, embedding the associated goods and services, and intertwining alternative food’s economic and non-economic roles.

This research used a case study approach to examine alternative food governance in the Waterloo Region, a regional municipality in Southern Ontario renowned for economic resilience and collaborative governance (Nelles, Bramwell, & Wolfe, 2005). This research was part of a broader cross-sectoral research project funded by the Economic Developers Council of Ontario.
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(EDCO) that examined collaboration and networks within the Region’s creative industries and clean technologies sector, alongside the alternative food sector. This larger project included a team of researchers that undertook key informant interviews, a review of secondary literature, a social network analysis of economic development practitioners (EDPs) in the Region, and direct engagement in each of the sectors of interest. This paper draws on this research done as part of this broader project to explore the intersection of regional economic and food governance networks and their influence on AFN development. This study identifies the challenges and opportunities confronting AFN development, analyzes the dynamics between stakeholders involved in collaborative food governance, and explores how these dynamics influence development of the Region’s alternative food geography.

The study found that many of the challenges facing AFN stakeholder in Waterloo Region reflected those identified in previous research, such as issues of scale and the lack of appropriate infrastructure. However, for each of these challenges, the research suggests opportunities to address these challenges in the future. In addition, the networking dynamics of private sector firms interacting within AFNs was explored, and the lack of interest in knowledge-sharing within the primary production industry, in particular, was identified as a challenge facing more knowledge-intensive approaches to the food industry.

In terms of collaborative food governance, Waterloo Region was found to possess a wealth of governance capacity, including considerable opportunity for collaborative engagement. This included an established food policy council and key marketing support that connected rural and urban stakeholders. However, this governance capacity was limited by a lack of engagement on the part of EDPs in the Region. Economic developers provide unique capacities to identify and address multi-sector and multi-domain synergies, which are required to complement the policy mandates and mechanisms of other government departments. For this capacity to provide a robust

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1 In addition to the author of this paper, the research team included Dr. Paul Parker, Dr. Steffanie Scott, Riaz Nathu, Emily Robson, and project lead Dr. Tara Vinodrai.
contribution to alternative food sector development in the Region, collaborative approaches to regional food governance must be accompanied by similarly regional approaches to economic development. Without a regional strategic vision for economic development, the opportunities through which one can support alternative food sector development and/or leverage it into comparative advantages will also be constrained.

A number of synergies exist between alternative food sector tendencies and common regional economic development goals, with both domains placing considerable emphasis on place-based attributes. However, previous research has largely focused on the economic benefits provided by alternative food sector characteristics, rather than the means through which the networks that underpin this knowledge-intensive industry segment can be supported. Given the place-based nature of AFNs, the capacity that local EDPs have on social learning dynamics, and the mixed urban-rural geography of many regional municipalities, this multi-tiered jurisdiction was identified as an appropriate scale of examination. Recent literature has identified the importance of appropriate collaborative governance structures for the development of AFNs and subsequent regional alternative food sectors. Thus, the primary objective of this research is to contribute further insight into how such governance approaches can address the synergies between alternative food sector and regional economic development outcomes through a case study of Waterloo Region, Ontario.

1.2 Research Objectives

Through a case study approach, this research explores how the network dynamics involved in regional food governance can better support AFN development, with particular emphasis on the role of EDPs. The study draws on extensive key informant interview data supplemented by a social network analysis of EDPs in the Region and data from secondary literature sources. This research goal is addressed through three specific research objectives:
1. Determine the network and stakeholder dynamics that underpin collaborative approaches to regional food governance;

2. Identify how EDPs facilitate and/or hinder efforts to address the opportunities and challenges confronting AFN development; and

3. Identify how collaborative regional food governance structures can support or impede the three mutually-reinforcing processes (Wiskerke, 2009) that shape alternative food sector development:
   - Connecting the stakeholders that steer and design AFN development;
   - Embedding the associated goods and services; and
   - Intertwining alternative food’s economic and non-economic roles.

1.3 Structure of Research Paper

This case study collected data on how particular stakeholder dynamics influence collaborative approaches to food governance and shape AFN development within a regional context, with specific emphasis on the role of EDPs. The remaining sections of the paper are structured as follows. The second chapter examines the intersection of recent trends in regional economic development and the on-going transitions within the food industry of the developed world and illustrates the relevance of collaborative food governance for both domains. Chapter Three discusses the research methods used for this study, while Chapter Four provides an in-depth overview of the case study area, Waterloo Region. Chapter Five identifies the main findings from this study, as they relate to collaborative food governance, regional economic development, and the development of alternative food networks. To conclude, the sixth chapter integrates these findings into broad conclusions and identifies avenues for future research.
Chapter 2. Governance and Place-based Models of Development

2.1 The Importance of Place

Agricultural value-chains and economic development are both fields that have seen academic interest in models embedded in place. Place refers to “a space that is 'socially constructed, culturally marked, and institutionally regulated” (Granovetter, 1985). This definition illustrates an idea first described by Karl Polanyi in 1957 as embeddedness, referring to the situated nature of human economic actions in institutions, both economic and non-economic (Bowen, 2011). Scholars have used the concept of embeddedness over time to examine how networks of interaction, culture, social capital, and other elements of space influence the development of markets and industries (Bowen, 2011). Understanding this inter-relatedness, scholars and policymakers have increasingly focused on regional norms and institutions occurring within broader geographic networks of interaction and their associated norms and values.

The embeddedness of regions within broader institutions makes their identification contingent on a variety of internal and external factors. Paasi (2011) identifies that regions are both “time- and space specific in that sense that they have their beginning and end in the perpetual regional transformation” (pg. 11). The on-going transformation requires an understanding of the region as “a manifestation of numerous institutional practices and discourses related to governance, politics, culture and economy that are constitutive and constituted by the institutionalization of the region” (Paasi, 2011, p. 11). The factors involved in the development of a region raise the potential for regions at a variety of different scales that can be demarcated by a variety of political, social, and environmental institutions. These diverse variables also highlight the novelty of each region’s development as an institutional process and structure that gains meaning “in social practice and in wider constellations of power” (Paasi, 2011; Allen, Massey, & Cochrane, 1998). The relational nature of regions makes their isolation as a discrete system impossible;
however, modern society is organized by the use of institutional constructs, and as such they provide boundaries from which to organize the analysis of related networks of interaction (Bowen, 2011; Beck & Beck-Gernsheim, 2002). Place-based or embedded models are dynamic systems influenced by the norms and institutions of contingent, defined spaces. This study intends to develop insights into the interaction between concurrent trends towards place-based economic development and agri-food production.

2.2 Regional Economic Development

Although regions can be developed through geographic, symbolic, and socio-economic processes, the study of regional economic development understands regions through the lens of political and economic institutional structures (Paasi, 2011). Political institutions provide a bounded construct that “manifests itself in such elements as political representation, planning practices, governance and local forms of social policy, education systems, [and] associations operating in civil society” (Paasi, 2011, p. 14). For the purposes of analysing and understanding economic development processes and strategies, political institutions provide a variety of relevant manifestations sharing a common purview, which, although embedded in and amongst a variety of other social constructs, allows for analysis within a clearly bounded system of interaction.

While the term ‘region’ can be used to denote any geographic scale, economic development scholars and practitioners have identified the economic significance of municipalities and metropolitan regions as units of interest, with their respective networks of interaction identified as sources of economic value. Economic development can be broadly understood as the “effort to improve the economy of a specified geographic area” (Perry, 1999, p. 20). However, the focus of economic development, in both theory and practice, has seen the scale of interest change over time. In the second half of the twentieth century, technological advancements and increased global trade resulted in national economies that were increasingly inter-twined (Houghton & Sheehan, A Primer
on the Knowledge Economy, 2000). A side effect of this interrelatedness has been that national governments increasingly have been gradually losing influence over domestic development and competitiveness to international forces (Porter, 2000).

As a result, the early 1970s saw local and regional governments begin to “recognize they had a role to play in enhancing the economic viability of their communities… by actively examining their economic base and understanding obstacles to growth and investment.” (Swinburn, Murphy, & Goga, 2003, p. 2). This recognition led both academics and policymakers to focus on municipalities and sub-national regions as loci of control for economic development activities, and as drivers of national economies (Swinburn, Murphy, & Goga, 2003; Jacobs, 1984). This shift in scale also focused attention upon the region-to-region heterogeneity in development trajectories, with officials in the early 1980’s devoting considerable effort to recognizing and developing regional comparative advantage (van der Ploeg, et al., 2008; Shaffer, Deller, & Marcouiller, 2006). Local and regional EDPs play an important role in this approach. EDPs are those government officials with specific mandates to promote economic development in their given jurisdictions. Early models of creating comparative advantage focused primarily on the attraction of foreign direct investment, while subsequent models have attended increasingly to the retention and growth of local businesses. These periods are referred to as the first and second waves of economic development, respectively (Glasmeier, 2000).

However, technological advancement in the information technology sector increased the inter-connectedness of global economies. The ability for more rapid and robust transfer of information also increased the knowledge intensity of global economic activity (Houghton & Sheehan, 2000). The coalescing of these global forces not only adjusted the scale of focus in the economic development community, it also prioritized knowledge as a source of economic value and adjusted what were commonly understood determinants of regional economic development. Technological improvements allowed for rapid increases in the speed and depth of information
transmission and manipulation at marginal cost while allowing novel arrangements of information to subsequently increase productivity and economic growth (Cortright, 2002; Romer, 1986). These advancements brought increased attention to innovation as a potentially limitless source of value creation, and illustrated that productivity enhancements and value creation were not limited to physical interventions (Houghton & Sheehan, A Primer on the Knowledge Economy, 2000).

Commonly defined as “the ability to capitalize on new ideas, products, and ways of doing things” (Shaffer, Deller, & Marcouiller, 2006, p. 63), innovation presented an intangible factor of productivity to which the economic development field had previously devoted limited attention. The increased mobility of physical, financial, and human capital and the perceived replacement of spatial proximity with communication networks led some to suggest a diminished role for location, while others saw a rationale to re-examine relevant factors of production and, as a result, raised questions as to whether the traditionally understood roles of location were entirely comprehensive (Johannison & Quigley, 2004; Friedman, 2005; Porter, 2000). Previously, regional comparative advantage was the end result of access to inputs and markets, with market forces expected to ultimately determine a state of equilibrium. This model was questioned by a dynamic understanding of comparative advantage wherein technology and innovation represent constant disruptive forces (Shaffer, Deller, & Marcouiller, 2006). As a result, economic development practice has come to focus “on the capacity to stimulate the processes of interactive learning, networking and innovation at the local level” (Bathelt & Munro, 2010, p. 3) and recognize innovation as a potentially valuable resource in local value creation and regional economic welfare (Cooke & Morgan, 1998; Lundvall & Johnson, 1994).

Despite the recognized importance of regional innovation environments, economic development mandates commonly remain the purview of municipal development departments. This requires the development of collaborative institutions capable of bringing individual municipal capacities together for regional benefit.
2.2.1 Networks in Economic Development

Recognizing the economic importance of regions and their institutions, academics and policymakers explored the internal dynamics of successful economic regions for insights into the creation of new development strategies (Murdoch, 2000). A primary example of this is Michael Porter’s cluster theory, which focuses attention on “geographic concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries, and associated institutions … in a particular field that compete but also cooperate” (Porter, 2000, p. 15). Porter (2000) advocated for looking past competitive advantage within traditional industry classifications because such classifications ignore the importance of interconnectivity between firms and industries. This connectivity “capture[s] important linkages, complementarities, and spillovers in terms of technology, skills, information, marketing, and customer needs that cut across firms and industries” (Porter, 2000, p. 18). Porter illustrated that the dynamics within intra-cluster interaction were highly influential in local productivity, innovation capacity, and new business formation.

Porter’s cluster theory is a notable example of economic development’s shift towards the examination of individual actors, their interaction, and the value of non-competitive interactions such as collaboration, as stimulators of innovation and productivity (Shaffer, Deller, & Marcouiller, 2006). This variation is now commonly referred to as the ‘third wave’ of economic development. The emergence of the knowledge economy has seen greater value attributed to knowledge within industries around the world, while technology has facilitated widespread information digitalisation and thus commodification and codification of knowledge (Houghton & Sheehan, 2000). This commodification has potentially reduced the cost of a given piece of information and reduced many inter-regional knowledge disparities through increased accessibility; it has also refocused attention and investment on localized, tacit knowledge and the learning processes required to develop, distribute, and capitalize upon it (Houghton & Sheehan, 2000).
Tacit knowledge “can only be acquired through experience” (Gertler M., Tacit Knowledge and the Economic Geography of Context, or The Undefinable Tacitness of Bring (There), 2003, p. 78) and “is often specific to its original context. One might say that important elements of tacit knowledge are collective rather than individual” (Lundvall & Johnson, 1994, p. 30). The context-specific nature of tacit knowledge positions it as a primary source of comparative advantage.

“Different types of knowledge get created in different places depending on a number of factors including social, institutional, and economic forces, and even accidents” (Cortright, 2002, p. 5; Mokyr, 1990). Although we live in an era where knowledge is increasingly codified and instantly distributed around the world, there remains an ongoing debate amongst scholars on whether unique opportunities exist for those within the same institutional context to capitalize upon this embedded knowledge in their innovation processes. The subsequent influence these innovations can have on regional business activities can lead to “higher quality levels of the produced products and services, and/or contribute to new forms of synergy” (Knickel, Brunori, Rand, & Proost, 2009, p. 141). The potential benefits accruing from localized knowledge provide one example of a more dynamic understanding of comparative advantage, which incorporates local institutions, norms, and their influence on local interactions. As a result, inter-firm connectivity and the specific dynamics of regional learning environments are now recognized as key influences on formal and social interactions (van der Ploeg, et al., 2008; Shaffer, Deller, & Marcouiller, 2006; Feser & Bergman, 2000; Johannison & Quigley, 2004).

Cooke and Morgan (1998) articulated this relationship within the notion of associational capacity. Associational capacity refers to the appropriateness of a learning environment for successful innovation. This requires more than connecting pre-existing networks or institutional arrangements. A successful learning environment must enable new institutional arrangements and the reorganization of existing networks (Murdoch, Networks: A new paradigm of rural development, 2000). A number of factors contribute to associational capacity, such as whether the
local division of labour allows firms to focus on their core expertise; the availability of an appropriately specialized labour force; the presence of both competitors and collaborators, providing opportunities for joint research, monitoring competitors’ product developments, and ultimately mimicry or differentiation (Bathelt & Munro, 2010). These factors, when coupled with opportunities for face-to-face interaction afforded by geographic proximity, help establish common understandings and interpretative schemes, critical components of a successful learning environment (Bathelt & Munro, 2010).

The development of a suitable learning environment for innovation, or an ‘innovation milieu’, promotes novel institutional arrangements within and between government, business, and civil society networks. These novel institutional arrangements can be understood through the term ‘governance’, referring to “a shift from state sponsorship of economic and social programmes and projects, to the delivery of these through partnership arrangements which usually involve both governmental and non-governmental organisations working together... in non-hierarchical and flexible alliances... often characterized as networks” (Murdoch & Abram, 1998). When leveraged in policy-making, appropriate governance arrangements “increase the capacity of communities in developing inclusive, responsive and strategic frameworks of economic governance” (Liebovitz, 2003, p. 2614). Scholars have identified this form of collaborative governance, commonly referred to as *associative governance*, as a key dynamic in developing and maintaining a region’s comparative advantage (Liebovitz, 2003; Gertler & Wolfe, 1998). As such, when looking to foster local innovation, regional economic developers must not only consider the direct role of local institutions and norms in fostering associational capacity amongst businesses and civil society, but also whether a regional government’s institutions promote associative economic governance to leverage this capacity in the policy development process.
2.2.2 Community Economic Development

The increased attention to regional networks has also aligned with increased public attention to climate change and related environmental concerns. As a result of this interest, the field of regional economic development has broadened the scope of desirable development outcomes to incorporate sustainable development and adaptability as common goals of many regions' economic development strategies. Community development is a previously distinct field of development theory that emphasizes development goals and outcomes that promote equity in terms of rights, political power, and the outcomes of institutional arrangements for communities' adaptive capacity for change (Shaffer, Deller, & Marcouiller, 2006; Bodin, Crona, & Ernstson, 2005). Despite the different origins of community development, recent widespread demand for models of triple-bottom-line sustainable development (identifying economic, environmental, and social sustainability outcomes), and the growing appreciation of novel, collaborative institutional arrangements, has led scholars to combine the distinct streams of economic and community development theory into community economic development (Shaffer, Deller, & Marcouiller, 2006; Audirac, 1997).

Community development is similar to recent models of economic development in its orientation around networks of interaction, both professional and social. A community can be defined in a number of ways, but in its simplest terms a community is a logical decision-making unit defined by interests and/or space (Shaffer, Deller, & Marcouiller, 2006). Much like third wave economic development (Shaffer, Deller, & Marcouiller, 2006), institutional arrangements and collaboration are central components of community development; however, the value of these components for community developers is their role in facilitating community adaptability through grassroots, collective action, and the "community's ability to access more diverse kinds of capital, particularly social capital" (Dale & Newman, 2008, p. 8; Bodin, Crona, & Ernstson, 2005). Community development scholars’ exploration of the dynamics of network structures, the
recognition of development outcomes based on non-monetary forms of wealth, and the central importance of adaptability in the face of external change all represent valuable contributions to economic development theory (Shaffer, Deller, & Marcouiller, 2006; Knickel, Brunori, Rand, & Proost, 2009). Studies on the value of social capital and its different forms provide valuable insight into the necessary dynamics for networks to mobilize and capitalize on the initiative and leadership of local communities as valuable resources for change (Lovin, Murry, & Shaffer, 2004). As such, these concepts have been merged in community economic development as a model of development wherein

“people in a community analyze the economic conditions of that community, determine its economic needs and unfulfilled opportunities, decide what can and should be done to improve the economic conditions in that community, and then move to achieve agreed upon economic goals and objectives” (Shaffer, Deller, & Marcouiller, 2006, p. 61)

This concept broadens the traditional understanding of relevant economic development stakeholders by leveraging community assets as central decision-making units and prioritizing diverse and inclusive institutional arrangements that can bring communities together (Shaffer, Deller, & Marcouiller, 2006). The ability of a given region to leverage community networks around a shared identity or goal, also known as civic capital, has been identified as a key determinant in regional resilience to external forces. Civic capital also contributes to successful economic development through its ability to promote development of social capital, a key component of effective regional innovation systems (Nelles J., Civic Capital and Governance in the Waterloo Region, 2007).
2.2.3 Social Capital: The Importance of Network Dynamics

In order to develop diverse and inclusive network structures that leverage latent civic capital, specific social network dynamics are required. Despite on-going contention around the definition of social capital, Putnam (1995) provides the most accessible definition of the concept as “features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit” (pg. 67) and was one of the earliest to articulate its importance for civic engagement (Dale & Newman, 2008). The benefit Putnam refers to is the reduction of social transaction costs and greater networking efficiency (Rydin & Holman, 2004). In simpler terms, it helps bring people together, a necessary pre-condition for the collective action required for effective community economic development (Dale & Onyx, 2005).

Social capital is classified into three general categories: bridging, bonding, and linking (Gittell & Vidal, 1998; Woolcock & Narayan, 2000). Each of these forms of social capital has distinct characteristics and implications for the inclusivity and diversity of specific network structures (Dale & Newman, 2008). Bonding social ties are connections between those who know each other (i.e. those within the same community), and the close-knit nature of such ties is very effective in developing the basic trust required to build upon shared interests (Dale & Newman, 2008). However, close-knit bonding relationships also have a tendency to reinforce closed, homogenous networks, which exclude outsiders, and thus limit the diversity of the networks (Woolcock M., 2001). Meanwhile, bridging social ties are those connections to people outside one’s community, connecting communities to outside resources (Dale & Newman, 2008). These social ties are necessary for breaking down structural divides in networks and help provide the diversity of ideas needed to bolster communities’ adaptive and innovative capacity (Bodin, Crona, & Ernstson, 2005; Woolcock M., 2001). Linking social ties actually represent a subset of bridging social ties, specific to those vertical connections, which can connect communities with those in power. Leveraging ties to decision-makers presents opportunities to overcome a community’s limited influence in political
circles, thus helping to attract otherwise unavailable resources (Woolcock M., 2001). While linking connections are important components of a network, communities must be cautious that over-reliance on these connections can undermine local capacity for self-determination and adaptability (Mathie & Cunningham, 2003).

All three categories of social capital provide unique benefits, and independently face significant limitations in each one’s ability to facilitate the adaptive, inclusive networks needed for collective action. For this reason, institutional arrangements must combine all three forms of social capital to enhance community adaptive capacity. This enhanced capacity comes from the ability to mobilize and engage the valuable initiative and leadership resources within the region, as well as their external connections (Lovon, Murry, & Shaffer, 2004).

2.3 Transitions in the Food Industry

Regional development models have increasingly attributed significance to place-based knowledge, local economic development policymaking, and the connectivity of local assets as important sources of both adaptability and local value creation. A similar transition has emerged within the food industry, as shifting public demands have seen subsets of the industry begin to tailor their production away from the commodity-driven approach taken by most of the industry. Many existing firms and new entrants to the food industry have oriented their business strategies to the development of highly differentiated, knowledge-laden products as a more resilient model of production that often takes advantage of tacit knowledge and associational capital (Donald, 2009). As such, associated networks of food-based interaction are key points of entry for community-based economic development.

However, the increasing popularity of differentiated and knowledge-laden products reflect a common trend across a number of diverse, emerging, niche food networks. These production decisions result from a wide array of individual decisions, without a single unifying motivation or
cause (Winter, 2003). As such, scholars’ attempts to identify a single unifying definition for these emerging markets remains elusive, with a variety of labels and unifying characteristics controversially applied.

Thus, a systemic understanding of common tendencies and the processes driving these decisions is required to articulate this transition, provide insight into its regional manifestations, and inform subsequent development interventions (Rotmans & Loorbach, 2009). Despite the diverse motivations of the actors involved, academics have identified a number of common environmental and socio-economic forces driving the shift to differentiated forms of food production. The foundations behind this shift began with the emergent interdependence of national food economies in the 19th century as a means of reducing local and seasonal supply shortages, which aligned food prices around much of the world, producing the initial stages of global commodity markets (Winter, 2003; Hobsbawm, 1975). The scarcity concerns that then arose during World War II put government pressure on farmers to increase agricultural production and industrialize previously natural processes on larger and larger farms (Murdoch, Networks: A new paradigm of rural development, 2000).

The continued dominance of ‘neoliberal ideologies’ has seen agricultural markets become characterized by anonymous commodity transactions requiring highly formalized relations conducted “through detailed production regulations and quality control systems to compensate for the lack of direct contact and personal trust” (Wiskerke, 2009, p. 370). Agri-food markets have become globally interconnected, with a number of multinational corporate actors lengthening, expanding, and increasing the socio-technical complexity of associated distribution networks (Rotmans & Loorbach, 2009; Winter, 2003; Bonnano, Constance, & Hendrichson, 1995). This complexity has left food stakeholders, including the end customer, increasingly distanced from the extractive natural resource transactions that provide inputs to this system (Murdoch, Networks: A new paradigm of rural development, 2000). It is also implicated as a driving force between many of
the industry’s negative environmental externalities, animal welfare concerns, and the “erasure of long crafted knowledge, practices and livelihoods associated with traditional farming systems” (Kneafsey, 2010, p. 177; Shiva, 2009). Rural communities also suffer as a result of associated extractive value chains that do not recognize the interconnectedness of urban and rural spaces and related natural resource constraints. The industrialization of natural processes and disconnection from place-based constraints has damaging effects on the resources, amenities, and public goods available to rural communities (Murdoch, Networks: A new paradigm of rural development, 2000).

With the value of tacit knowledge and associated learning dynamics recognized as key contributors to regional economic development, this commodification raises concerns as to the adaptive capacity of associated food networks in dealing with external shocks. The same commodification also positions regional food industries as areas of opportunity through which local policymakers can leverage existing urban-rural interdependencies into a source of comparative advantage (Wiskerke, 2009).

Despite certain segments of the population having identified these concerns and opportunities for decades, industrial agriculture and unfettered global trade have remained the dominant dynamics in the production and marketing of food products. However, following a series of food safety scares and on-going concerns related to climate change and the environmental footprint of industrial agriculture, the food industry has come under increased public scrutiny (Kneafsey, 2010). As a result, customers have become better informed on the implications of complex distribution networks for food safety; the environmental impacts of agriculture’s reliance on petroleum-based inputs; the loss of biodiversity resulting from agricultural monocultures; the impact of large-scale, mechanized farming; the economic decline of rural communities; and the degradation of traditional rural knowledge assets (Kneafsey, 2010; Marsden, Murdoch, & Morgan, 1999).
2.3.1 Definitions

Critics of this disconnected approach to food production continue to raise awareness of its consequences, and growing segments of the customer base have begun to seek out products that more transparently acknowledge and address these negative externalities. A variety of markets have emerged that offer customers access to products embedded within their respective social, economic, and ecological contexts. Originating from groups of highly specialized firms with varying degrees of inter-relatedness, differentiated food products have notably increased in popularity. Customers, civil society groups, and an expanding number of firms continue to support these firms and their products in what are now multi-community networks of interaction (Donald, 2009). This diversity in actors is mirrored in the diversity of products involved and motivations for support. Whereas many network stakeholders are simply seeking particular product attributes, others support these emerging markets as structural innovations that are needed to see agricultural systems “become more effective in making private and public interests converge” through more explicit recognition of the resource flows and relationships involved in agri-food production (Knickel, Brunori, Rand, & Proost, 2009, p. 144; Rotmans & Loorbach, 2009). Although the emergent and diverse state of these niche markets makes it too early to evaluate their potential role in overcoming the incumbent food regime (Rotmans & Loorbach, 2009), these varied networks of interaction represent a growing, distinct segment of the food industry with unique implications for regional economies and their development strategies. For example, the Northeast Kingdom of Vermont “has undertaken a regional food system planning and assessment process... led by a regional planning commission and economic development corporation” as a means of increasing value-added food production in the area, promote agritourism, help market the region, and address food security concerns within the region (Koliba, Campbell, & Davis, 2012).

The diversity of these niche markets and their networks of interaction make a singular overarching definition problematic, with this growing segment of the food economy falling under a
variety of labels, including the ‘craft’, ‘quality’, ‘new’, ‘local’, and ‘alternative’ food economy (Vinodrai et al., 2012). For the purposes of this study, the subset of the food economy referred to by these terms and its manifestation in regional networks of interaction are referred to as the alternative food economy and alternative food networks (AFNs), respectively. Although some scholars continue to contest that labelling this segment as ‘alternative’ suggests an opposition to the dominant food regime that is not universal to the actors involved (Winter, 2003), the term can also be understood as suggesting a distinction from the incumbent regime, without characterizing the dynamics of this relationship (Winter, 2003). The lack of specific characterization makes ‘alternative’ the only suitable means of capturing the diversity that exists within these networks. For the purposes of this study, this alternative food economy and its regional networks are best distinguished from the dominant food regime through common product characteristics, network structures, relationship dynamics, and the breadth of stakeholders involved (Straete, 2008). These common factors, neither exhaustive nor exclusive, permit a coherent understanding of the alternative food economy, provide necessary bounds for this study's analysis of regional AFNs and for the ultimate utility of its outcomes in practice or for further research.

2.4 Alternative Food Networks

It is important to first recognize that characterizing AFNs as completely distinct segments of the sector is inaccurate. Although the knowledge-laden qualities of many alternative food products require place-based, informal relations founded on trust, the relationships cannot be defined as distinct, uniquely embedded networks. As Winter (2003) states, “all economic exchanges operate in social relations based on certain understandings of themselves and the world that predispose them to exchange under certain sets of social rules and not another” (p. 25). Instead, AFNs consist of firms with place-based, informal relations; distant, formalized relations with remote actors; and a range of relationships falling between these two extremities (Maye & Ilbery, 2006). This hybrid
nature illustrates why there is a “preference for writing in terms of ‘networks’ [as a means of conveying] the complex ways in which food is made available through contested and contingent relationships, which often defy categorization as being either entirely ‘conventional’ or ‘alternative’” (Kneafsey, 2010, p. 179). Therefore, while the reliance on tacit conventions of quality and close, informal supply relationships is a common component of alternative forms of production and marketing, the vast majority of these firms still operate, to varying degrees, within broader networks that include formalized, distant relationships catering to more dominant conventions of quality.

Network theory allows for the bounding of these networks within socio-political structures such as political regions, spatial boundaries such as food sheds, relational structures such as communities of interest or network distance (number of relationships) from a set of key stakeholders, or combinations of any of these variables. This study used an ethnographic approach to bounding Waterloo’s regional AFN, which will be more fully explained in Chapter 3. However, despite the contingent nature of these networks, a general understanding of their common characteristics and tendencies provides meaningful insights into their development, key entry points for support, and their implications for regional and broader economies.

### 2.4.1 Common Characteristics

One of the most common characteristics attributed to AFNs is that the firms operating within them rely on differentiated products capable of meeting emerging public demands. An increase in highly informed, less price-sensitive customers has created a market for food products differentiated through associated, knowledge-based product qualities (Connelly, Markey, & Roseland, 2011). These qualities can refer to the raw materials used, such as in organic production; processes of primary production and further processing, such as craftsmanship or the application of otherwise tacit knowledge; and place-based characteristics, such as relationships to regions or
specific producers (Connelly, Markey, & Roseland, 2011; Straete, 2008). These conventions of product quality tend to be contingent on a variety of local factors (Straete, 2008). As a result, they differ significantly from region to region, and offer regional actors unique access to niche markets that are not adequately supplied by the conventional market or entirely targeted by more distant specialist firms (Block, Thompson, Euken, Liquori, Fear, & Baldwin, 2008; Cortright, 2002).

As with the broader knowledge economy, innovation based on local, tacit information is central to the differentiation of alternative food products (Donald, 2009). However, the ability to capitalize on this information is not consistent across all agri-food operations. Instead, AFNs tend to be largely comprised of small- and medium-sized enterprises, as these firms tend to focus on more specialized markets and are less invested in more general conventions of quality (Straete, 2008). Smaller firms also have less financial capital invested in industrial processes due to the substantial capital requirements involved, which incentivizes them to take advantage of premiums associated with less industrial, more natural production practices (Straete, 2008; Marsden, Banks, & Bristow, 2000). Therefore, relational understandings of quality provide proximate, smaller-scale food businesses with unique innovation opportunities to add value to their products.

Businesses targeting these needs require relationships with the end user that can provide them with timely information on customer demands while also conveying related product attributes to the customer (Marsden, Banks, & Bristow, 2000). The knowledge-based process of value addition in alternative food products requires respatialized network structures capable of substantiating product claims related to these place and/or production characteristics (Feagan, 2007; Marsden, Banks, & Bristow, 2000). Thus, AFNs tend to consist of close relationships established around trust, which is essential to maintaining accountability for the product claims. Furthermore, these novel network structures provide access to cooperative, inter-firm arrangements that allow firms to take advantage of economies of scale, confront power imbalances in the marketplace, and coordinate action to overcome supply problems beyond the capacity of
individual actors (Connelly, Markey, & Roseland, 2011; Campbell, 2000; Marsden, Banks, & Bristow, 2000).

For actors to develop the trust vital to these collaborative arrangements, AFNs require non-hierarchical, decentralized power relationships (Sonntag, 2008). The decentralized, non-hierarchical nature of AFNs does not fit within traditional food industry network structures. Linear value chains continue to represent the conventional understanding of food industry networks. As Kaplinksky (2004) states, a value chain “describes the full range of activities that are required to bring a product or service from conception, through the intermediary phases of production, delivery to final customers, and final disposal after use” (pg. 80). However, such an understanding of marketplaces does not capture the diversity of actors and relationships involved in regional AFNs, as conventional value chains tend to still be based on market-oriented understandings of exchange, relying on unidirectional, linear relationships (Block, Thompson, Euken, Liquori, Fear, & Baldwin, 2008). Instead, AFNs are best understood as ‘value webs’, recognizing that a broad range of market and non-market actors are involved through multidirectional connections capable of transmitting information between customers, producers, and other relevant parties (Andrews & Hahn, 1998).

These multidirectional connections are fundamental to two other interrelated characteristics common to AFNs: democratic network structures (described above) and self-organization. The term ‘self-organization’ comes from complex adaptive systems literature and “refers to the ability to develop a new system structure as a result of the system’s internal constitution and not as a result of external management” (Rotmans & Loorbach, 2009, p. 187; Prigogine & Stengers, 1984). The ability of network actors to identify challenges, learn from them, and develop novel institutional arrangements to potentially overcome them is also a fundamental component of effective innovation networks; this capacity for self-organization facilitates novel, institutional arrangements that establish trust and transparency required for collaboration.
As articulated above, trust also plays a key role in conveying supply and demand information throughout the diverse web of relationships involved in AFNs, but also in facilitating democratic engagement and self-organization.
Table 1 provides a summary of common AFN characteristics in comparison to the dominant food regime. It is important to recognize that these comparisons represent a continuum, and as such the alternative and dominant categories represent extreme poles rather than common manifestations. With the growth of alternative food product demand, dominant industry actors have begun to market products with similar knowledge-based claims, although often on a larger scale and through conventional market channels. Therefore, this summary is intended to provide a general understanding of alternative and dominant tendencies, rather than entirely distinct models.
### Table 1: Comparison of Alternative and Conventional Food Systems

<table>
<thead>
<tr>
<th></th>
<th>Alternative</th>
<th>Conventional</th>
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<tbody>
<tr>
<td><strong>Relationship dynamics</strong></td>
<td>Close, informal relationships relying on social capital and transparent resource flows. These place-based relationships connect urban to rural.</td>
<td>Disconnected, long-distance relationships mediated through socio-technically complex distribution networks and formal business relationships.</td>
</tr>
<tr>
<td><strong>Approach to competition</strong></td>
<td>Producers and processors compete on value addition through product differentiation, based on associations with tacit or localized knowledge. Competition is highly responsive to emerging niche demand.</td>
<td>Producers and processors compete through homogenous commodities oriented around scale and price. Competition is highly responsive to demands once they reach a necessary scale.</td>
</tr>
<tr>
<td><strong>Stakeholders involved</strong></td>
<td>Stakeholders include both food and non-food actors, with many unrelated to formal value chain activities; however a web is a more appropriate metaphor. Networks tend to include many micro, small and medium-sized businesses.</td>
<td>Stakeholders tend to be limited to food actors, with direct or indirect involvement in formal value chain operations. Networks are dominated by large, multinational corporations.</td>
</tr>
<tr>
<td><strong>Information flows</strong></td>
<td>Information is conveyed through multidirectional flows potentially between any or all actors. These flows lead to decentralization, self-organization and democratic participation.</td>
<td>Information flows tend to be unidirectional and limited to supply-based relationships. Value chains tend to result in hierarchical relationships.</td>
</tr>
<tr>
<td><strong>Drivers of demand</strong></td>
<td>Demand is driven by diverse motivations, including social, health, and environmental concerns. Products convey information about potential externalities.</td>
<td>Demand is typically motivated by price. Product descriptions tend to be limited to physical descriptions of the product itself.</td>
</tr>
<tr>
<td><strong>Marketing channels</strong></td>
<td>Firms take advantage of diverse, direct marketing channels including farmers' markets, local independent retailers, community-supported agriculture, etc.</td>
<td>Largely marketed through conventional grocery stores with growing sales at large, non-traditional retailers (Walmart, Target, etc.).</td>
</tr>
<tr>
<td><strong>Capital requirements</strong></td>
<td>Operations are less capital intensive, with less industrial processes. They tend to be more labour intensive, with processes considered to be more 'natural'.</td>
<td>Operations are capital intensive with substantial financial and physical capital investments required to reduce labour costs and take advantage of economies of scale.</td>
</tr>
</tbody>
</table>
For EDPs to support AFN development as a source of innovation and regional economic value, these tendencies represent broad guidelines. However, the specific regional manifestation of these tendencies must be understood if they are to be properly supported by regional policy-making processes, as the diversity of actors and grass-roots development of most AFNs poses problems for traditional, top-down policy-making and regional governance (Liebovitz, 2003).

2.4.2 Governance

The form and function of governance continues to attract significant academic attention, with much of this work focusing on the management of common resources and avoidance of the ‘tragedy of the commons’ (Armitage, 2008). Current theories of innovation and regional economic development recognize that facilitating innovation is not the sole purview of one level of government or individual businesses. Instead, multiple levels of government, local and non-local businesses, and civil society all hold considerable influence on local innovation processes through a number of interrelated mechanisms (Armitage, 2008). There are numerous examples of regional economies being “transformed into obsolescence by innovation or by low cost competition” (Creutzberg, 2010, p. 2). The most notable example is the economic decline of manufacturing-based economies throughout North America over the past 20 to 30 years as manufacturing facilities moved to lower cost jurisdictions, now colloquially known as the ‘rust-belt’ economies in North America. This has contributed to economic developers’ recognizing the value of place-based economic development strategizing for successful development of regional economies.

However, diverse actors operating within and across many scales can influence regional economic development (Creutzberg, 2010). While many of these influences “may not have a local mandate, they nonetheless have an economic impact – and potential role – in the strengthening local innovation economy particularly in the context of cluster development [sic]... they can, however, also introduce
considerable complexity at the local level... [with] a multitude of local voices, a
crowded organizational landscape and a need for local governance that can provide
a coherent voice and some alignment to their respective local roles” (Creutzberg,
2010, p. 4).

As such, local or regional governance serves a number of functions, a comprehensive overview of
which is provided in Table 2 (Creutzberg, 2010). The multitude of functions and relevant actors
suggests that regional governance is best understood as a complex system incorporating a network
of organizations and individuals, rather than a singular organization or institution (Creutzberg,
2010; Armitage, 2008). Consequently, governance approaches to economic development must be
context- and issue-specific, with different relevant actors and considerations.
Table 2: Key Functions of Local Strategic Governance

<table>
<thead>
<tr>
<th>Governance Functions</th>
<th>Specifics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>Strong and respected leadership that can:</td>
</tr>
<tr>
<td></td>
<td>• Mobilize capable individuals and organizations to take on projects;</td>
</tr>
<tr>
<td></td>
<td>• Be an ‘agitator’ that brings the community together to respond to economic challenges.</td>
</tr>
<tr>
<td>Strategic direction</td>
<td>Establish strategy directions through community deliberations and lead on strategic initiatives and planning</td>
</tr>
<tr>
<td>Coordination and alignment</td>
<td>Ensure regional alignment of strategic direction and initiatives through regional coordination and collaboration</td>
</tr>
<tr>
<td>Project collaborations</td>
<td>Develop collaborations to deliver on initiatives</td>
</tr>
<tr>
<td>Investment attraction &amp; recruitment</td>
<td>Attract and recruit firms and research organizations to the region that can strengthen existing clusters</td>
</tr>
<tr>
<td>Facilitation of industry-university partnerships</td>
<td>Bring together prospective industry and university partners interested in collaboration</td>
</tr>
<tr>
<td>Issue broker</td>
<td>Leverage independence and leadership to resolve local and regional disputes affecting local prosperity by engaging appropriate decision makers and stakeholders in the public and private sector</td>
</tr>
<tr>
<td>Cluster linkages</td>
<td>Promote inter-firm partnerships, and peer to peer networks</td>
</tr>
<tr>
<td>Mobilization of resources for strategic priorities</td>
<td>Seek out, and apply for, funding opportunities that benefit the cluster</td>
</tr>
<tr>
<td></td>
<td>Engage appropriate actors to apply for government funding, offering support by identifying and introducing partners, and helping with proposal writing</td>
</tr>
<tr>
<td>Education &amp; training alignment</td>
<td>Initiate alignment between cluster skill needs and local educational program offerings</td>
</tr>
<tr>
<td>Regional marketing &amp; branding</td>
<td>Proactively market the cluster</td>
</tr>
<tr>
<td>Commercialization support</td>
<td>Coordinate and facilitate services required for commercialization within the locality</td>
</tr>
<tr>
<td>Information sharing and opportunity updates</td>
<td>Share information and discuss opportunities and challenges with partners and collaborators</td>
</tr>
<tr>
<td>Engaging business community in dialogue</td>
<td>Build informal networks to build commitment to community; easier to build community in smaller regions. Build sense of belonging. Factor advantage</td>
</tr>
</tbody>
</table>

Source: (Creutzberg, 2010, p. 5)

Traditional governance approaches in the food sector do not meet the distinct governance needs of AFNs. AFNs require the development and utilization of novel institutional arrangements. The dominant, global food regime has organized itself around established neoliberal norms and institutions that “[advocate] deregulation, privatization and withdrawal of the state holding that ‘social good will be maximized by maximizing the reach and frequency of market transitions’ and seeking ‘to bring all human action into the domain of the market’” (Harvey, 2005, p. 3; cited in
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Wiskerke, 2009, p. 377). This form of reductive governance is central to many of the concerns prompting interest in AFNs, as it ignores the integrated nature of resource flows and the extent to which place-based food interactions are contingent upon economic, cultural, and sociological trends (Wiskerke, 2009; Straete, 2008). However, through an overview of literature on AFN governance, Wiskerke (2009) outlines an “integrated and territorial model of food governance” (p. 371) that better supports sustainable regional development through recognizing the interconnectedness of social, ecological, and economic issues; the opportunities and challenges these pose for specific stakeholder groups; and their place-based specificities (Wiskerke, 2009).

The network dynamics of AFNs entail and result from a governance approach that provides opportunities for diverse, non-traditional food stakeholders to participate in a democratic, collaborative form of governance (Wiskerke, 2009; Feenstra G., 2002). This participation includes social spaces “for diverse people in communities to come together to talk, listen to each other’s concerns and views, plan together, problem-solve, question, argue and come to agreement, compromise, learn another’s language and how to speak so someone else can hear you, and to get to know and trust one another in the context of a common purpose or vision” (Feenstra G., 2002, p. 102). Unlike networks oriented towards conventional food markets, relevant businesses, customers, and public procurement bodies (hospitals, school boards, etc.) are included alongside municipal/regional policymakers. AFNs require governance models capable of providing “regular citizens and residents... the opportunity to participate in their food systems in new ways” (Feenstra G., 2002, p. 102). Thus, participatory governance promotes self-reliance and community resilience through its capacity for social capital development.

The diverse actors and network dynamics specific to AFNs require a collaborative approach to governance that facilitates novel institutional arrangements and collaborations capable of bringing them together under a common purpose or vision (Feenstra G., 2002). These arrangements must also provide multidirectional connections capable of transmitting information.
“from all members of the web to all members” (Block, Thompson, Euken, Liquori, Fear, & Baldwin, 2008, p. 380) and facilitate “new relations between the state/public sector, the market and civil society” (Wiskerke, 2009, p. 377). In Figure 1, Wiskerke (2009) illustrates this integrated and territorial model of food governance, which incorporates public sector, market-based and civil society actors as key components of this collaborative approach to governance through a variety of novel arrangements.

**Figure 1: Wiskerke’s (2009) Model of Integrated and Territorial Food Governance**

![Figure 1: Wiskerke's (2009) Model of Integrated and Territorial Food Governance](image)

Source: (Wiskerke, 2009, p. 376)

In Wiskerke’s (2009) integrated and territorial food paradigm (analogous to the alternative food paradigm), local government stakeholders represent a key source of food policy support. Wiskerke’s model of integrated and territorial food governance characterizes this role through two primary functions: as a potential market for local products via procurement policies, and through a broader policymaking approach that is encompassed under the label of ‘urban food strategies’. Prior to the rise of alternative food markets, food policy has been the purview of higher levels of government, with national and, in the case of Canada, provincial governments developing policy for
this sector (Wiskerke, 2009). Public procurement offers municipal and regional policymakers a mechanism through which “hospitals, schools and prisons have the capacity to deliver health and sustainability objectives: nutritious meals for patients and schoolchildren, enhance regional employment in the food sector, reduce food miles, and CO₂ emissions, etc.” (Wiskerke, 2009, p. 376; Marsden & Sonnino, 2008). These procurement policies offer a means through which governments and other public institutions can meet environmental, social, and health-related objectives, while simultaneously providing consistent demand for regional food suppliers. Consistent demand is a valuable support for AFNs, as it allows for scaling up local supply and increasing the availability of diverse, local products for regional customers (Kneafsey, 2010).

In addition to public procurement, government can also assist in the development, support, and implementation of regional food strategies. Despite the value of Wiskerke’s model as a representation of alternative food governance, the phrase ‘urban food strategy’ is limiting when exploring regional contexts. Instead, when discussing inter-municipal strategies in metropolitan regions, regional food strategies reflect a more appropriate terminology for the efforts by local levels of government to “connect and create synergies between different public domains, such as public health, education, social cohesion, environmental protection, employment and quality of life” (Wiskerke, 2009, p. 376). These policy initiatives are a relatively recent phenomenon, and require the integration of multiple public domains under common objectives linked to food. The initial development of these initiatives often originates from alternative food networks within civil society organizations such as regional food councils (Wiskerke, 2009). Regional strategies are contingent upon context, such as the region’s assets, associated barriers, and specific synergy opportunities.

Some common objectives of these strategies include:

- Maintaining the presence of a local agricultural production, along with its associated employment and landscape;
• Reconnecting customers to local producers, often in an attempt to promote healthy lifestyles, reduce capital leakages, and promote food innovations; and
• Promoting food skills development, walkable access to food stores, and urban food production in an attempt to support equitable access to healthy foods, meeting both health and welfare goals (Wiskerke, 2009).

Despite the common civil society origins of these strategies, governments hold a significant role in implementing many of the related objectives through policy such as official planning documents, marketing or branding initiatives, and through the provision of human capital or other in-kind resources as supports for these volunteer-driven food councils.

Alongside regional food strategies, civil society stakeholders can implement a variety of initiatives that position them as key stakeholders in AFNs. Often in contrast to the dominant food regime, the environmental, health-based and social benefits attributed to AFN development provide common entry points through which civil society actors become involved. Examples include constructing community garden projects, organizing regional food promotion events, volunteering at food banks, and/or organizing community food buying clubs. In addition to these more tangible initiatives, the role of AFN customer and advocate become closely intertwined (Wiskerke, 2009; Block, Thompson, Euken, Liquori, Fear, & Baldwin, 2008). The ability to transmit demand information, while generally considered a market function, also represents a form of civic engagement when this demand is intertwined with related social and environmental objectives (Block, Thompson, Euken, Liquori, Fear, & Baldwin, 2008). As such, customers within these networks reflect both market and civil society actors, and provide necessary governance functions through these often overlapping roles (Wiskerke, 2009).

This integrated and territorial model of food governance, while contingent on regional specificities, must facilitate the aforementioned initiatives through “three mutually reinforcing processes” (Wiskerke, 2009, p. 382) that fundamentally shape AFNs. Table 3 summarizes these

Table 3: Description of Processes that Fundamentally Shape Alternative Food Networks

<table>
<thead>
<tr>
<th>Process</th>
<th>Description and Benefits</th>
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<tbody>
<tr>
<td>Connecting/Reconnecting</td>
<td>“Connecting (or reconnecting) various players and stakeholders – both public and private – that steer and design the process. This leads to the formation of close regional networks – small or larger, intra- or inter-sectoral – which link up with each other and give the whole process its momentum... Such networks are the region’s social capital and as such, a driving force in the regional economy” (pg. 382)</td>
</tr>
<tr>
<td>Embedding Goods and Services</td>
<td>“Embedding good [sic] and services in the region. This may be driven by a municipality’s desire to shorten the geographical distance between food production and consumption. But it can also have a broader connotation... increasing the share of local produce on the public plate is a means for a public sector organization to become an integral part of the regional community and economy. And finally, many alternative food networks are based upon valorizing the region’s own special character... as such the region provides the basis for the production of distinctive and unique products, creating the possibility for retaining more net value added in the region by exploiting the region's endogenous development potential.” (pg. 383-384)</td>
</tr>
<tr>
<td>Intertwining</td>
<td>“Intertwining the various economic and non-economic activities and roles in a region. This not only strengthens those activities and roles but also creates coherence and synergy... Creating synergies between different economic and non-economic (or private and public) activities in the region is typical for the different expressions of urban food strategies... Ultimately this should lead to a higher standard of living and quality of life in the region.” (pg. 384)</td>
</tr>
</tbody>
</table>

Wiskerke (2009) suggests that an integrated and territorial model of food governance supports the three processes of connecting/reconnecting, embedding goods and services, and intertwining. These processes provide clarity as to why government and civil society hold important, complementary roles to the market-based stakeholders and interactions that fundamentally supply AFNs. The close relationships and multidirectional information flows involved in AFNs provide businesses with the necessary means to identify demands and address them through production or supply developments. However, these businesses are not necessarily concerned with many of the sector-level governance functions such as strategic direction, coordination, regional marketing, and generally capitalizing on underutilized assets (Creutzberg, 2010). Given the multifaceted and non-economic demand drivers for alternative food products, civil society and government both contribute to each one of these processes. For example, the intertwining of economic and non-economic roles is supported by civil society through the melding of consumerism and advocacy activities, while government can support this process by incorporating government departments with mandates beyond economic development into the food strategizing process (Wiskerke, 2009). Similar contributions from each set of stakeholders can be identified for all three processes, illustrating the value of this collaborative model of food governance for AFNs.

However, Wiskerke’s hypothesis (that AFNs and sustainable regional development are best supported by an integrated and territorial approach to food governance) requires further verification. This study examines the extent to which Wiskerke’s model of governance exists in the Waterloo Region, and whether the requisite collaborative interfaces between industry, civil society, and government facilitate the processes Wiskerke cites as shaping AFN development. Furthermore, this research examines the influence of regional economic development governance networks on the capacity of local government stakeholders, in particular, the capacity of local EDPs to affect alternative food network development.
2.4.3 Economic Development

At this time, the economic development potential of local and alternative food systems faces a lack of quantitative research outlining specific benefits in conventional areas of interest to economic developers. Research on associated tax revenues and job creation for this segment of the industry are beginning to emerge. Recent work by the USDA suggests that farms operating within these systems tend to make disproportionate expenditures in their immediate locales and that labour requirements, per value of production, are also significantly higher than conventionally marketed farm products (Low & Voegel, 2011). These findings are generally reported at an aggregate level and provide little insight into the specific gains at a regional scale.

However, research by Becca Jablonski at Cornell has verified these findings, suggesting that small producers in local food systems purchase 84% of inputs locally compared to 70% in the conventional agricultural system (Jablonski, 2013). Jablonski’s findings also suggest that food hubs provide a critical support to local economies through greater expenditure per unit of output and higher levels of employee compensation. Jablonski extrapolated this information to develop a multiplier effect of 1.91 for local food system sales. In this research, Jablonski found that an increase in regional demand for $1 million of local food products generated $246,000 in sales to the local farm sector, $525,000 in employee compensation, and $437,000 in sales to the local food processing sector. A recent case study of Northwestern Ontario found that local food production had a workforce multiplier effect of 1.4, with higher multiplier effects where farms were closely adjacent to urban centres (Food Security Research Network, 2013). Similarly, a study of 16 counties in Northeast Ohio found that shifting local food production and processing to address 25% of local demand would create 27,664 new jobs, provide work for 1 in 8 unemployed residents of the area, increase annual regional output by $4.2 , and local tax revenue by $126 million (Masi, Schaller, & Shuman, 2010). While these findings require further verification and replication in a Southwestern
Ontario context, they do suggest considerable economic benefit to the development of a local and/or alternative food system.

Despite the lack of robust objective research, many of the characteristics common to AFNs suggest notable contributions to regional economic development. There are five key characteristics common to AFNs that notably contribute to regional economic development. First, businesses involved in AFNs rely on differentiated products that add value by addressing specific, emerging local customer demands (Sonntag, 2008). In Michael Porter’s cluster theory, he acknowledged “a close relation between sophisticated and demanding local customers and the development of a dynamic competitive advantage in particular industries” (Cortright, 2002, p. 8). AFNs support small- and medium-sized enterprises focused on niche markets catering to regional conventions of quality while providing similar opportunities to entrepreneurs and community enterprises (Agriculture and Agri-Food Canada, 2008; Marsden, Banks, & Bristow, 2000; Campbell, 2000). Addressing these conventions requires product innovations driven by tacit knowledge, a source of potential productivity gains that cannot easily be transferred to other jurisdictions (Marsden, Banks, & Bristow, 2000; Porter, 2000). These businesses also tend to have established connections to the region through social and business relationships within local communities and ownership of immobile assets such as farmland and production/processing facilities. Thus, AFNs promote business expansion and retention efforts while promoting place-based innovation processes and potential for comparative advantage.

The second AFN characteristic that contributes to regional economic development is the presence and unfolding of inter-firm collaborations within AFNs. Motivated by efforts to develop higher quality products and services with the capital constraints facing small- and medium-sized businesses, AFNs foster new forms of synergy and collaboration between local enterprises. Inter-firm collaborations to promote local supply availability are common arrangements within AFNs and also important drivers of local innovation processes (Block, Thompson, Euken, Liquori, Fear, &
Baldwin, 2008). In overcoming these constraints, the network improves efficiency in regional processes of resource combination, production, distribution, and marketing. Thus, the collaborations undertaken by AFN firms to meet supply requirements and overcome capital constraints require novel network structures that present opportunities for comparative advantage while increasing the efficiency of resource allocations.

The third contributing characteristic is the close, trust-based relationships that develop in AFNs. Human capital is central to innovation processes with individual firms and regions competing for talented individuals (Bathelt & Munro, 2010). Academics and EDPs agree that regional amenities and attractive culture are fundamental to a region’s ability to attract the necessary talent (Hopkins, 1998). Cortright (2002) suggests that the ability of AFNs to meet specific customer demand through focused and trust-based relationships represent a valuable amenity for regional talent attraction and retention strategies. Therefore, the processes and products involved in AFNs also support regional innovation processes indirectly through talent attraction.

The fourth characteristic through which AFNs contribute to regional economic development is their reliance on localized innovation processes for production. The value-additive innovations required to differentiate AFN products provide opportunities for economic diversification and increased income generation in rural communities (Knickel, Brunori, Rand, & Proost, 2009). The localized nature of alternative food innovation processes, when sufficiently protected, provide an additional source of economic competitiveness (Knickel, Brunori, Rand, & Proost, 2009). This economic diversification is especially important for rural economies, which often struggle to find comparative advantages relative to their urban counterparts (Marsden, Banks, & Bristow, 2000). By rooting relationships in place, and connecting community resources to identified needs through targeted supply and demand relationships, AFNs tend to be less destructive in their extraction of resources. This facilitates the restoration of rural assets, a common objective of sustainable development strategies, while generating important social, civic, and financial capital (Donald,
2009; Sonntag, 2008). However, the strong social capital ties that tend to bind these networks can lead to lock in and path dependency if they are not properly balanced with external bridging social capital to bring in new ideas and ways of thinking. Thus, the social capital involved in AFNs is an area of particular relevance for EDPs. The extent to which external knowledge is sought out and/or connected to those actors within an AFN can make the difference path dependency and continued innovation for the sector and possibly the Region.

The fifth AFN characteristic contributing to regional economic development is its capacity as an asset for regional identity development. Connecting regional consumption with regional production and processing positions alternative food products as components of a local culture, often becoming symbols of regional identity (Feagan, 2007; Campbell, 2000). AFNs, as institutions, present opportunities through which individuals can interact and engage in the development of regional identity (Paasi, 2011). As discussed in previous sections, shared identity tied to a specific region or locality is also referred to as civic capital, which plays a key role in the development of trust and reciprocity in those communities involved. Studies have identified this capital as an important contributor to effective policy-making at a regional scale (Campbell, 2000). Thus, AFNs contribute to regional decision-making through enhanced civic engagement. Figure 2 provides an overview of the five key contributions of AFN characteristics and their specific contributions to regional economic development.
In addition to the specific contributions of isolated AFN characteristics, the following overview illustrates how the network dynamics required by AFNs promote economic resilience. Face-to-face interaction is an important interface for customers to build relationships with local firms and develop trust within AFNs (Macias, 2008). In forming these relationships, individuals and firms develop social capital. The diversity of products required to meet local demand forces individuals and firms to develop a wealth of relationships that would not otherwise be present (Sonntag, 2008). This strong, diverse web of local relationships allows those within the region to
meet their needs with less dependence on external relationships, ultimately promoting economic resilience to external factors (Sonntag, 2008). This same lack of dependence has been recognized as a stabilizing factor for the income of businesses in these networks while minimizing economic leakages through recirculation of capital and its multiplying effect on local wealth development (Sonntag, 2008). Figure 3 summarizes how this web of relationships, the additional labour opportunities presented by less industrialized food production, the increased capacity of civil society groups resulting from their important role in related governance activities, and the diverse production all provide a variety of critical supports to regional economic resilience.

**Figure 3: AFN Contributions to Regional Economic Resilience**

- **Regional social capital development**
  - Close, trust-based consumer-producer relationships
  - Novel inter-firm supply collaborations

- **Less dependence on external relationships**
  - Place-based food production tends to be more labour intensive and less capital intensive
  - Social and civic capital enhances governance capacity of civil society actors

- **Stabilized Incomes**
  - Economic diversification
  - Recirculation of capital & multiplier effect

- **Regional economic resilience**

The innovation processes undertaken by businesses in AFNs also promote economic resilience. The innovation processes of both firms and individuals necessarily intend “to facilitate change and adjustment” (Knickel, Brunori, Rand, & Proost, 2009, p. 143). In order to capitalize on emerging customer demands, many alternative food innovations and the relationships involved (in collaborations, production, processing, distribution, and marketing related products) mobilize previously underutilized endogenous assets, strengthening their respective communities through
the development of novel capacities and access to various forms of capital (Knickel, Brunori, Rand, & Proost, 2009). This capital can include leveraging previously unrecognized natural or physical capital, generating additional financial capital, and/or developing new social capital within local communities, therein promoting local learning capacity (Knickel, Brunori, Rand, & Proost, 2009). Due to their participatory network dynamics, the learning capacity of AFNs is often bolstered by a cooperative milieu. This milieu facilitates levels of inter-firm coordination not possible in the dominant food system (Jarosz, 2000). As illustrated by these beneficial contributions, AFNs represent key entry points for community-based economic development strategies (Dale & Newman, 2008; Bodin, Crona, & Ernstson, 2005). This research provides insight into how economic development institutions and associated network structures affect government stakeholder support for regional economic development strategies and policies.

2.4.4 Common Barriers

Despite the regional economic development opportunities AFNs present, there are also common obstacles and challenges that prevent such networks from developing, limit their growth, or mitigate many of the associated regional benefits outlined above. The fundamental challenge that any AFN must overcome is getting existing food value chain stakeholders to actively and intentionally engage in its construction (Feagan, 2007). According to Feagan (2007), AFNs require local stakeholders, ranging anywhere along the food value-chain from production to consumption, to seek out and develop relationships beyond the efficiency and price-driven rationales of existing food value chains. There is not a single characteristic upon which to base this distinction, but Feagan (2007) provides a broad, conceptual understanding of these relationships as utilizing more “comprehensive formulations of food-production and consumption decisions via local network arrangements which are more sustainable, while also attending to the realities of interdependence with other spatial scales” (p. 35). These early relationships represent an important foundation
from which to base further network development; however, construction remains an active
endeavour and requires concerted on-going effort to develop appropriate spaces for development
and ensure that the locus of network control remains decentralized and inclusive (Feagan, 2007;
Maye & Ilbery, 2006; Feenstra G., 2002).

While active construction is critical to AFNs, one of the most commonly cited barriers to
AFN development is the lack of appropriate infrastructure. AFNs represents a reorganization of the
system from production to consumption, and as such, require a different infrastructure from that
existing within the conventional food system (Sonntag, 2008). Infrastructure here refers to physical
and social infrastructure, with both posing challenges in getting alternative food products from
farm to customer (Connelly, Markey, & Roseland, 2011). While infrastructure issues such as urban
encroachment and access to water are common concerns for agriculture across the developed
world, the infrastructure concerns particular to AFNs relate to the distribution system required to
reliably and consistently get alternative food products from farm to the customer (Sonntag, 2008).
Trust is central to this system, which poses a challenge for emerging networks that must rely on
relatively new relationships. Relationship building and the trust that comes with it take long
periods of time, and without trusting relationships, the associational qualities of many alternative
food products cannot be reliably communicated from producer to customer (Sonntag, 2008). As a
result, institutional evolutions are required to overcome this constraint and imbue more recently-
formed relationships with trust that has not had ample time to develop as in long-lasting
relationships (Marsden, Banks, & Bristow, 2000).

Another common infrastructure-related barrier is the lack of processing infrastructure
appropriate to the needs of small and mid-sized farms (Sonntag, 2008). With consolidation
occurring at all levels of the conventional North American food value chain, processing facilities
have become centralized with fewer and fewer facilities servicing the North American market
(Sonntag, 2008). While this provides a number of benefits for a long-distance, efficiency-based
system, it poses considerable barriers for smaller-scale operations looking to develop processed foods and intra-regional distribution. Much like retailers in the conventional food system, large-scale processing facilities have stringent quantity and consistency requirements that are often unattainable for individual small- and medium-sized farms (Sonntag, 2008). For alternative food systems to provide the diversity of products desired by customers represents one of the most difficult challenges facing their continued development.

In general, scale of operations poses a number of challenges for the development of AFNs. First, the price of alternative food products remains contested, amidst suggestions that the scale of operations necessitates that products will cost more than those found within the conventional food system (Sonntag, 2008). Second, farm growth can pose significant challenges for operations in AFNs. Unlike small-scale farms that are able to market their products through the small and varied retail outlets utilized by the alternative system, mid-sized farms may struggle to find markets for enough of their production (Van Camp, 2013). With processing and marketing both presenting a number of challenges, mid-sized firms in AFNs require flexibility, foresight, and a dynamic approach to marketing and product development (Marsden, Banks, & Bristow, 2000; Van Camp, 2013). This scenario may pose a dilemma for growth-oriented farms unless there is access to local distribution firms that cater to the alternative market on an appropriate scale. However, the recent popularity and growth in farmers markets has not been accompanied by similar opportunities for local distribution firms. Tight operational margins and diverse stakeholders pose difficulties for the development of such operations, and the need for local distribution firms has remained a common challenge facing many emerging AFNs (Sonntag, 2008). The aforementioned challenges confronting regional AFN development represent potential targets for regional food strategy outcomes and related initiatives. This study further explores the challenges that confront AFN development, and how regional economic development governance networks affect regional stakeholders’ capacity to address them.
2.4.5 Regional Responses

Understanding the economic potential of AFN development and the challenges confronting it, some regional economic developers have begun exploring initiatives targeting AFN support. The earlier chapter on AFN governance provided a number of inter-related initiatives through which government, civil society, and market stakeholders can support the three processes essential to AFN development: regional food strategies, local procurement policies and promoting food skills development, amongst others. As explained earlier, these regional food strategies and the initiatives that comprise them are contingent upon local context (Wiskerke, 2009). Therefore, regional economic development governance networks can capitalize on the economic benefits of AFNs by developing interventions appropriate to the specific regional challenges and opportunities confronting AFN stakeholders.

One regional initiative that has generated particular interest on the part of EDPs is the regional food hub (Hagan & Rubin, 2013). This interest, and the regularity with which the expression ‘food hub’ is used, does not convey the considerable diversity of its manifestations. Regional food hubs are regularly cited as a singular concept, but they reflect a generic initiative capable of taking a number of different forms depending on the opportunities, challenges and assets in a given region. A regional food hub is generally understood as “a potential key strategy for maintaining the economic viability of small to medium local farms by providing centralized coordination of supply chain logistics” (Hagan & Rubin, 2013, p. 4). In practice, regional food hubs incorporate a variety of supports, including: industrial kitchen facilities, warehouse space, a central information resource, a food-specific research facility, venue for food-related policy discourse, and organizational supports, amongst others (MacRae & Donahue, 2013). The general benefit of this model is its ability to overcome many of the resource constraints facing small-scale operators. Common to these initiatives is an attempt at integrating supply chain and buying logistics (Hagan & Rubin, 2013).
There are currently 177 known food hubs in the United States and a number of emerging and established hubs operating in municipalities across Canada (Hagan & Rubin, 2013; MacRae & Donahue, 2013). Emerging evidence on food hubs suggests that they contribute to regional economic sustainability by creating and retaining jobs, increasing incomes through greater supply chain efficiencies and market access, increasing total regional output, and encouraging reinvesting in the local economy (Hagan & Rubin, 2013). This research also suggests that food hubs primarily benefit small- and medium-sized producers with economic impacts contingent on a variety of local factors (Hagan & Rubin, 2013). A number of health and social equity benefits have also been identified with food hubs, such as using economies of scale to provide low-income families with reduced retail food prices for healthy foods (Hagan & Rubin, 2013). Although this idea has generated interest as an economic development support in academic and policy circles, support for AFN development is far from ubiquitous in practice. This study will use Waterloo Region as a case study to broaden an understanding of the challenges facing AFN stakeholders, and explore how regional economic development governance structures influence officials’ ability to identify these issues and their potential supports.

2.5 Chapter Summary

This chapter reviewed literature on recent place-based models of economic development and agricultural value-chain development. An increasingly integrated global economy has diminished the influence of national economic development policy and led academics and policymakers to recognize the influence of highly localized norms, institutions, and networks of interaction. Concurrent to these developments, negative social, environmental, and economic externalities associated with global agri-food distribution networks have led customers to seek out alternative food products. These products tend to be provided through more intimate alternative food networks capable of conveying information on the resource flows and processes involved in their
production and subsequent distribution. Firms involved in these networks address local conventions of quality through differentiated products based on localized innovation processes. This focus on innovation suggests that growing public demand for alternative food products presents potential synergies for EDPs to buoy regional economic development through support for alternative food networks. These synergies offer particular benefits for rural communities that have been negatively affected by extractive resource flows and inappropriate development models. This study will contribute to understandings on the social connections involved in AFNs, their influence on food innovation, and opportunities for governance stakeholders to improve these dynamics.

However, the diverse stakeholders involved in alternative food networks are motivated by an equally diverse set of economic and non-economic interests, such as environmental sustainability, community empowerment, and democratic participation. A review of community economic development literature suggests that these non-economic goals can ultimately promote desired economic development outcomes. Despite this potential, current approaches to regional governance are ill suited to facilitating the interactions necessary to address the challenges and opportunities confronting alternative food networks. Wiskerke (2009) outlines an integrated and territorial approach to food governance that is appropriate to alternative food network development; however, it requires further empirical study to support this assertion. Through a case study of the Waterloo Region this study examines collaborative approaches to food governance and their influence on alternative food sector development. The study places particular emphasis on how regional economic development stakeholder networks influence the development of collaborative food governance and the extent to which these networks integrate existing knowledge assets in the Region. This will contribute to a broader understanding of how regional economic development institutions interact with segments of sectors transitioning towards place-based models of production.
Chapter 3. Methodology

This chapter provides an overview of the methods undertaken throughout this research. It begins with a discussion of the grounded theoretical approach taken, illustrating the relationship between process and research question, which is then followed by an overview of each of the methods through which data was collected. The section then provides an outline of the specific tools used to collect data for each of these methods, and protocols that guided data collection, analysis, and sample definition.

3.1 Research Design

The literature review in Chapter 2 identified limited empirical research on the relationship between AFN development and regional food governance structures. In particular, there is a dearth of research on how regional economic governance stakeholder networks affect alternative food sector development. This research paper endeavours to address this limitation through a critical analysis of collaborative approaches to regional food governance, the influence of EDPs on these governance structures, and their ultimate relationship to regional alternative food network development. This research was instigated as part of a cross-sectoral case study funded by the Economic Developers Council of Ontario (EDCO), which explored collaboration within the Region's clean technology, creative, and alternative food industries. The results of this cross-sectoral analysis are outlined in a report entitled Taking Regional Action? Understanding networks in the local food, green energy & creative sectors in Waterloo Region (Vinodrai et al., 2012). This paper draws on the primary research and analysis undertaken for this cross-sector work. The EDCO project findings provide a foundation for those included in this paper. Since this project, the author undertook additional secondary data collection and a more extensive analysis of the data specific to alternative food. The project team identified in Chapter 1 were directly involved in all primary data collection, and also made invaluable contributions to the analysis contained in this paper. Recognizing this, the
remainder of this chapter will refer only to the research activities directly pertaining to the analysis contained in this paper.

This study takes a case study approach, due its capacity for comprehensive, detailed data collection. To overcome the challenges associated with limited information availability, the research paper used a mixed-method approach. This approach includes a literature review of government documents, tourism reports, and local news sources; attendance at regional food events and visitations at retail/wholesale venues; extensive key informant interviews with stakeholders throughout the Region’s governance and alternative food networks; and a social network analysis, exploring information sharing amongst the Region’s EDPs. These data sources will be discussed further in this chapter.

The case study site for this research is Waterloo Region, Ontario, with a comprehensive overview of the Region provided in Chapter 4. Waterloo Region was selected as an ideal case study for three primary reasons: 1) its strong civic capital and collaborative milieu; 2) its histories of diverse, small-scale agriculture and craft production; and 3) its history of economic resilience and adaptability. This research paper discusses each of these factors in detail in Chapter 4. In brief, these factors suggest a Region likely to contain alternative food networks, and collaborative economic governance structures adaptable to such emerging industry dynamics.

The research method employed for this paper was undertaken through a grounded theory approach, "an interpretive research methodology that is useful to generate research-based knowledge about the behavioural patterns that shape social processes as people interact in groups... the grounded theory researcher sets out to discover patterns of behaviour in a particular group of people in a certain context” (McCallin, 2003, p. 205). This approach was selected as appropriate for this case study, which originated with a general focus on collaborative interactions occurring within regional alternative food and economic development networks. Common to this approach, the general focus was refined throughout a study process that concurrently collected and
analyzed data. This concurrent process is utilized to look “for similarities and differences in the data and considers where to go next to ask questions to clarify emerging theoretical concepts” (McCallin, 2003, p. 204; Glaser & Strauss, 1967). Thus, the research design used for this paper began with a broad examination of collaboration in the Region’s alternative food sector and economic development community. Through iterative sampling and data collection practices, phenomena were identified conceptually, and categorized, which resulted in a refined focus on food governance interactions resulted.

Primary data analysis consistently identified themes relating to the importance of strategic direction and coordination amongst the Region’s AFNs, the value of collaborative governance venues in civil society, such as the Waterloo Region Food System Roundtable (WRFSR), and the lack of regional interaction in the alternative food economy. A similarly concurrent literature review process provided this research with a theoretical framework for these findings in Wiskerke’s (2009) integrated and territorial model of food governance. Wiskerke’s model emphasized the importance of collaborative, place-based food sector governance between government, civil society, and the market, with specific areas of engagement for each stakeholder group. Alongside this focus on collaborative interaction, Wiskerke theorized a set of three processes that shape alternative food geography, illustrated in relation to food governance stakeholders (refer to section 2.4.2 of this paper for more details). Given the synergies between AFN development and regional economic development outcomes, Wiskerke’s model presented an ideal theoretical framework through which to interpret and compare the research findings.

3.2 Data Sources & Collection

This research paper incorporates data from a variety of sources, taking a multiple method approach to data collection in order to mitigate information availability constraints facing any one source. As referenced above, each of these processes continued throughout the research process,
beginning prior to initial data collection, and continuing well into the final stages of data analysis. This enables a continual dialogue between the observed data and the data collection efforts used, allowing the evolution of data collection tools as early identified concepts become categorized and integrated into more comprehensive theories (Corbin & Strauss, 1990). This is fundamental to the grounded theory approach, under which “hypotheses... are constantly revised during the research until they hold true for all of the evidence concerning the phenomena under study, as gathered in repeated interviews, observations or documents” (Corbin & Strauss, 1990, p. 11). Although this section only provides a generic outline of the general data analysis for this research, a more detailed overview will be provided for both the key informant interviews and social network analysis.

3.2.1 Secondary Literature Review

First, regional, provincial, and federal government documents were drawn upon to provide quantitative data, context, historical references, and insights into the Region’s policies. Notable examples include census information from Statistics Canada, regional and municipal official plans, sector and demographic profiles of the Region, the Rural Economic Data & intelligence (REDDI) information on competitive advantage, and a series of food sector studies commissioned by Public Health, amongst others. These documents were retrieved online or from interviewees. This information provided a statistical and/or policy context against which to compare phenomena identified in key informant interviews and the social network analysis. In addition, civil society organizations with regional or provincial mandates relevant to the alternative food sector provided key contextual insights into alternative food sector progress, as well as local newspaper articles to provide insight into on-going policy discussions in the Region that were not otherwise captured by government documents.
3.2.2 Attendance at Local Alternative Food Events & Local Retail/Wholesale Events

Second, the researcher attended a number of regional food events, including The Taste of Woolwich, Foodlink’s Taste Local, Taste Fresh, and two of the WRFSR’s meetings and advocacy efforts. These provided an opportunity to identify potential interviewees, witness the form and content of stakeholder interactions at these events, and verify information collected in key information interviews. In addition, the researcher attended the Region’s farmers’ markets, and the Elmira Produce Auction Co-operative, as well as visiting a number of independent and on-farm retail venues. Attending these markets contributed valuable sources of information on local supply, product developments, and identified both collaborative and competitive inter-firm social interactions. These visits also provided tacit information on the interactions involved in selling farm and food products to customers. In general, these venues provided a depth of experiential data that would not have been possible through any other form of data collection.

3.2.3 Interviews

Third, semi-structured interviews were carried out with key informants in Waterloo Region’s AFNs and economic development networks. This collection method was selected because of the immense amount of in-depth, contextual and perceptual information it could provide, and which would be otherwise unattainable. This data is particularly important for a grounded theory design, as “grounded theory is based on the belief that as individuals within groups define situations with the self and others, common patterns of behaviour emerge” (McCallin, 2003; Glaser, 1998). Hence, contextual information provided from the perspective of those involved in AFNs and regional economic development is essential to exploring the phenomena of interest and defining relevant variables. An additional benefit of semi-structured interviews is the flexibility provided to identify relevant variables through an exploratory approach, and adjust the interview process to focus on a
particular concept that appears in early data analysis. This enables broad contextual information to be accompanied by more granular detail in areas of particular interest or importance.

This interview used two interview protocols, one specific to ‘industry’ stakeholders and the other for government and organization representatives (see Appendices A & B). The initial interview protocols were constructed to broadly explore collaborative interactions occurring within regional alternative food and economic development networks. In addition to background information on their respective businesses, the interview protocol for industry stakeholders included questions in four main subject areas: collaboration and participation in leading organizations and their activities, labour market linkages, market structures (customers, suppliers, supply chains, regulation), and access to knowledge networks and infrastructure (see Appendix A). For organization (civil society) and government stakeholders, in addition to background information on their respective organizations or departments, the interview protocol included questions in three similar areas: regional governance & collaboration, market structures, and access to knowledge networks (see Appendix B). The central difference between the two protocols was the inclusion/exclusion of questions on each informant's human resources constraints. The research team felt this issue was unique to industry representatives; and a quantitative rating scheme that was only asked of industry stakeholders, which was generally uninformative and provided less insight than the qualitative observations common to both protocols.

One challenge identified with such a non-standardized, evolving method of data collection is comparability during analysis. This challenge was paramount because a team of researchers conducted the interviews, with many of the interviews conducted by different individual researchers. To mitigate this challenge, each interview included all of the pre-determined questions included in the two initial interview protocols, alongside any additional questions. Consistent comparisons were also made between existing hypotheses and fresh data throughout the analysis process to avoid confirmation bias. Another common limitation typically identified with interviews
is the inability to guarantee informant honesty, cooperation, and information reliability. However, during analysis the researcher conscientiously treated this data as participants’ perceptions rather than objective reality, and as such, compared it with existing literature and other informant responses to ensure accuracy of information.

### 3.2.3.1 Sample Definition & Description

Much like the iterative data collection process, the interview sample was initially developed in March 2011 and was recruited until September 2011. During data analysis of earlier interviews additional key informants were identified and also recruited over this time. The research team determined an initial sample based on the collaborative interactions themselves rather than specific individuals. Given the focus on alternative food sector network and economic development network dynamics, this included EDPs from each municipality, Public Health staff supporting the WRFSR, business owners at all stages of the agri-food value chain in the Region, and representatives from Canada’s Technology Triangle (CTT), Foodlink, and the WRFSR. In the end, 47 key informants contributed to this research through key informant interviews. With only a few non-responses from potential key informants, the overall response rate for the research was 94%. Of those interviewed, there was considerable diversity in the sample, which included post-secondary education representatives, tourism officials, regional planners, public health officials, regional and municipal economic developers, business owners, and a variety of non-profit organization representatives (Table 4). In terms of the business owners involved, an effort was made to address all aspects of the agri-food value chain, with primary producers, processors, distributors, restaurateurs, and retail venues all included in the sample. Overall, the respondents were involved, directly or indirectly, in economic development and/or identified AFNs in the Region. Each key informant had specialized knowledge from his or her professional and/or voluntary involvement in each of these networks. Interviews ranged between 23 and 163 minutes in length.
Table 4: Number of interviewees from each type of organization and codes assigned

<table>
<thead>
<tr>
<th>Organization</th>
<th>Number</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>13</td>
<td>K1 - K13</td>
</tr>
<tr>
<td>Academic Institution</td>
<td>4</td>
<td>K14 - 17</td>
</tr>
<tr>
<td>Municipal Government</td>
<td>14</td>
<td>K18 - K31</td>
</tr>
<tr>
<td>Provincial Government</td>
<td>1</td>
<td>K32</td>
</tr>
<tr>
<td>Regional Government</td>
<td>7</td>
<td>K33 – K39</td>
</tr>
<tr>
<td>Non-Profit</td>
<td>8</td>
<td>K40 – K47</td>
</tr>
</tbody>
</table>

3.2.3.2 Data Analysis

Once completed, the research team transcribed the interview audio files and analysed them through an open coding process. Each transcript was read over a number of times and a set of initial concepts were identified from repeated occurrence or noteworthy absence as potential indicators of phenomena, and given associated labels (Corbin & Strauss, 1990). These concepts were then examined for similarities or interactions, and were grouped into categories and subcategories, which provided a basis for theoretical sampling within the literature (see Table 5) for a selection of the concepts and their respective categories. The researcher identified and refined categories throughout the process, with the concurrent interview process allowing for greater specificity into categories of particular interest. Emerging theoretical hypotheses were constantly compared against interview and secondary data sources as it emerged, and revised accordingly until they held true for all the data. This facilitated the researcher in refining the theoretical focus from a general focus on ‘collaborative interactions occurring within regional alternative food and economic development networks’ to a more specific examination of the Region’s food and economic governance networks framed within Wiskerke’s (2009) integrated and territorial model of food governance. For the purposes of analysis, each of the key informants...
was also assigned a code (see Table 4). This code is used in this research paper to identify each respondent while protecting his or her anonymity.

### Table 5 Sample Coding Concepts & Categories

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civil society organizations as connections</td>
<td>Food governance stakeholders</td>
</tr>
<tr>
<td>Lack of government attention</td>
<td>Uncoordinated approach to regional food identity</td>
</tr>
<tr>
<td>Lack of urban EDP awareness/economic support</td>
<td></td>
</tr>
<tr>
<td>History of food production</td>
<td></td>
</tr>
<tr>
<td>Quality production</td>
<td></td>
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<tr>
<td>Agriculture’s visibility</td>
<td></td>
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<tr>
<td>Tech-centric identity</td>
<td></td>
</tr>
<tr>
<td>Importance of distributors</td>
<td>Networking challenges facing the sector</td>
</tr>
<tr>
<td>Time &amp; location constraints</td>
<td></td>
</tr>
<tr>
<td>Lack of access to markets</td>
<td></td>
</tr>
<tr>
<td>Need for well-established relationships</td>
<td></td>
</tr>
<tr>
<td>Supply-oriented sub-networks</td>
<td></td>
</tr>
</tbody>
</table>

#### 3.2.4 Social Network Analysis

The general focus on collaborative interactions within the Region’s economic development and food networks raised the possibility of undertaking a secondary analysis that would provide quantitative support for the interview data. Social network analysis (SNA) is a data collection method originating in the field of organizational learning to explore intra-firm knowledge sharing networks (Marques, Cardoso, & Zappala, 2008). SNA focuses on the process of knowledge transfer, or the “the process through which one unit (e.g. individual, group, department, or division) is affected by the experience of another” (Argote, Ingram, Levine, & Morelan, 2000, p. 3). This provides insight into two facets of knowledge sharing that would not necessarily be addressed by more formal organizational mapping exercises: tacit knowledge sharing and, in the case of this research, the sector-specific knowledge flows involved (Marques, Cardoso, & Zappala, 2008).
Social network analysis interprets network structures through description, visualisation and provides quantitative data through related statistical modelling (Marques, Cardoso, & Zappala, 2008). Mapping out these informal knowledge sharing interactions was intended to provide managers with insight into how they could harness the informal knowledge networks and social capital that existed outside formal relationships (Marques, Cardoso, & Zappala, 2008). This purpose aligns quite closely with the needs of territorial and integrated models of food governance, in which collaborative governance networks must leverage and integrate diverse, often informal, relationships and knowledge assets (Wiskerke, 2009).

Despite limited application in the food sector, SNA has been used as a complementary data collection method in previous economic development studies that involve mapping out industry clusters. SNA complements existing techniques by identifying and incorporating collaborations and other informal relationships that are not necessarily captured by a focus on economic relationships (Reid, Smith, & Carroll, 2008). This is of particular relevance to innovation studies in knowledge intensive sectors, such as in AFNs, because the social learning involved in sharing both tacit and codified knowledge drives the creation of new knowledge and innovations (Marques, Cardoso, & Zappala, 2008). Through visualizations, statistical modelling, and description, SNA has historically been used to explore a number of different kinds of relationship networks. However, this research focuses particularly on “communication networks... who talks frequently to whom about work-related matters” (Marques, Cardoso, & Zappala, 2008, p. 168). To undertake this research, a SNA questionnaire was developed (see Appendix C) that asked individual economic developers to “indicate whether you interact with the following practitioners on a general basis or for more sector specific purposes. Interaction can be understood as the sharing of knowledge or information that is relevant and useful to your work.” (Appendix C, p. 2 of 4). This question was limited to a list of other economic development officers (or similarly mandated municipal and regional government stakeholders) in the Region, for the purpose of exploring knowledge sharing amongst economic
development networks. This question was followed by an additional question, “Beyond the above practitioners, who [sic] do you interact with for sector specific purposes? Interaction, in this case, can be understood as the sharing of knowledge or information that is relevant and useful to your work with respect to a sector” (Appendix C, p. 4 of 4). The participant was then asked to name up to five contacts for each sector (creative industries [including digital media], local food, and clean technologies). This question was intended to identify the primary information sources each economic development practitioner relied upon for sector specific information. Each sector was limited to five contacts to ensure participants limited their consideration to key contacts, while minimizing response burden. Despite the short lists, the vast majority of participants did not identify five individuals for any given sector.

For both questions, significant effort was made to operationalize interactions with a definition that was robust enough to capture all work- and sector-relevant knowledge sharing, while being easily understandable on first reading. The difficulties operationalizing knowledge sharing represents a common concern for SNA data collection (Marques, Cardoso, & Zappala, 2008), with unidentified interactions a distinct possibility if these questions were not sufficiently clear. However, the extensive interactional data collected from lengthy key informant interviews with the majority of these individuals provided other sources of information from which to verify these findings and help mitigate this limitation. Nonetheless, five SNA participants were not directly interviewed, either because interviews conducted with their direct superiors were deemed to provide sufficient context, or, in two instances, an inability to schedule a sought-after interview. Interview data and the researchers’ attempt to create simple, clear definitions similarly intended to lessen two other key limitations, the potential for misunderstandings and misrepresentation (due to misunderstanding or social desirability bias).
3.2.4.1 Sample Definition & Description

As stated in the previous ‘sample definition’ section concerning key informant interviews, a researcher using the grounded theory approach identifies a phenomenon as the sampling parameter, rather than beginning with a defined set of individuals (Corbin & Strauss, 1990). Despite this research’s interest in the breadth of regional food governance stakeholders and their networks, the disparate and diffuse nature of AFNs in the Region posed difficulties for SNA as a data collection method. When attempting to analyse a complete network, such as food governance in the Region, sample definition requires a well-defined and clearly bounded set of actors (Marques, Cardoso, & Zappala, 2008). In order to accurately analyse the Region’s food governance networks, an iterative, ego-centric approach to networks would have been required, in which food governance stakeholders are identified and asked to identify all their relevant knowledge sharing interactions (Marques, Cardoso, & Zappala, 2008). Despite the potential this approach would provide for robust network analysis, the timeframe and resources available for this research required a more limited focal point for the SNA. A more robust SNA of all food governance networks in a Region would provide a wealth of information on the role of informal knowledge sharing interactions in alternative food governance, and represents a valuable opportunity for further research in this area.

The relatively small number of EDPs within the Region provided a clearly bounded network to analyse, with interactions about local food providing for an interface with food governance stakeholders. Additional sectors of interest were included to provide opportunities for cross-sector comparison. Alongside contextual information and key informant interview data, these cross-sector comparisons provide insights into areas such as how government priorities influence economic developers’ sector specific interactions, and the influence that urban- and rural-centric sectors have on economic development engagement. A list of 23 economic development practitioners in the Region were identified, including all the EDPs within each municipal government, representatives.
of CTT, and as any other municipal government staff with a clear economic development mandate (such as the Chief Administrative Officers of Townships with no dedicated EDPs). Of these 23 EDPs, 17 completed the SNA questionnaire, representing a 74% response rate. While these responses included all senior staff, there remains a potential for non-response bias. However, information from the key informant interviews suggests that those who did not complete the questionnaire had limited interaction with the sectors of interest.

3.2.4.2 Data Analysis

Social network analysis allows for three inter-related forms of analysis: visual, descriptive, and statistical. To understand the nature of these analyses, a few key terms and concepts must are included in Table 6. For the purposes of visual and statistical analyses, an open-source program called Gephi Graph Visualization and Manipulation (Gephi) was used to map and analyse the collected data. Gephi provides

“an interactive visualization and exploration software program for analyzing networks and complex systems. The program includes a number of tools and methods to analyze and visualize network data. Visualization tools used in Gephi employ a number of algorithms to create network maps emphasizing specific network attributes” (Vinodrai et al., 2012).

Visually mapping out the network data provided a representation of which actors are connected to each other, the extent of interaction amongst the sample, dynamics between network groups (i.e. rural and urban EDPs), as well as drawing attention to a lack of connectivity between any stakeholders. The data underpinning these visual maps was also explored, as a source of statistical information that verified or questioned perceived visual findings. Table 6 provides key examples of two such statistics: network density and degree centrality. These statistics provide insights into network-wide dynamics, such as through the density of knowledge sharing connections relating to one topic versus another; and also individuals’ dynamics, such as their centrality to knowledge
sharing within a given network. These statistics, and their visual representations, were used to identify new concepts and to verify existing hypotheses. For example, EDP’s relationship with the food sector could be examined in light of the nature and extent of information sources they rely upon, while the level of cohesion in food-centric EDP networks could be examined in light of the nature of economic development support in the Region.

Table 6: Key SNA Terms and Concepts

<table>
<thead>
<tr>
<th>Term/Concept</th>
<th>Definition/Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Node</td>
<td>Represents an actor (e.g. firm, organization, individual) within a network.</td>
</tr>
<tr>
<td>Edge</td>
<td>Indicates a relationship or interaction between two nodes.</td>
</tr>
<tr>
<td>Network</td>
<td>Refers to a group or community of actors that are tied together through a series of interactions and relationships.</td>
</tr>
<tr>
<td>Network density</td>
<td>Reflects how integrated and connected nodes are within the overall network. Density is measured from 0 to 1, where 0 indicates that there are no connections between nodes in a network and 1 indicates that all nodes in a network are connected to each other.</td>
</tr>
<tr>
<td>Degree Centrality</td>
<td>Measure used to identify important actors in a network. Using this measure, an actor can be considered more central if they have a large number of connections to other actors. In other words, they are a ‘key player’. In this analysis, this is depicted based on the size of the node.</td>
</tr>
</tbody>
</table>

Source: (Vinodrai et al., 2012, p. 24)

Thus, the true value of the SNA was derived from its complementary relationship to other contextual and descriptive information. The network map provides insight into network structures on its own, but a wealth of information was gleaned from these visualizations and statistics when viewed in light of contextual data from the key informant interviews. For this research, once the questionnaire data was input into Gephi, the network was explored through a number of different algorithms that visually arranged the nodes and edges based on different parameters. This provided a breadth of perspectives on intra-network dynamics, and each visual was compared in light of the existing hypotheses derived from interview data and secondary documents. This provided an additional means of verifying or finding fault with perceived findings about how EDPs interacted amongst one another, with non-EDP food governance stakeholders, and the nature of
this engagement. (To understand the associated network maps while respecting participants’ anonymity, the legend in Appendix D was devised.)

The limited network sample does not provide information on intra-AFN dynamics, but it did serve to demonstrate that a wide array of information sources outside of EDP networks were relied upon for sector specific knowledge. The use of SNA represents a first such endeavour into AFNs and despite the limited sample involved, was able to derive considerable information and provide quantifiable support for interview data. The knowledge-intensive nature of value generation and the multidirectional information flows required for many AFN characteristics suggest the value of conducting further SNAs. SNA, in conjunction with other data collection methods, presents an opportunity verify existing theories on AFN network dynamics and provide further insight into the nature of these networks than would be possible with qualitative interview data alone.

3.2.4.3 Methodological Contribution to the Literature

SNA has its origins within the field of organizational learning. Literature on this subject primarily focuses on intra-organization learning dynamics. Meanwhile, its application with regards to alternative food networks has been primarily limited to flows of goods, financial capital, and other resource relationships (see Conner et al., 2011). SNA has also been used to provide a new metric through which to understand industrial clusters as a means to inform the practice of economic development and in innovation studies to explore knowledge-sharing network dynamics (see Reid, Smith, & Carroll, 2008). However, there is not established literature on SNA as a tool to derive insights into governance networks in either of these fields, despite the centrality of both collaboration and information-sharing in emerging models of governance. This paper provides a novel illustration of how social network analysis can inform the understanding of governance networks and their support for emerging industries. In conjunction with extensive key informant
interviews, the SNA in this paper allows for insights into the knowledge flows that inform decision-making processes within governance networks.
Chapter 4.  Case Study – Waterloo Region

4.1 Location

The Waterloo Region encompasses the Regional Municipality of Waterloo, an upper-tier municipality containing three mid-sized urban municipalities (Cambridge, Kitchener, and Waterloo) and four rural townships (North Dumfries, Wellesley, Wilmot, and Woolwich). The Region is located in Southwestern Ontario, approximately one hour west of the Greater Toronto Area along the 401 highway corridor. The regions along the western portion of the 401, Waterloo included, are recognized as home to a substantial manufacturing industry, owing heavily to its close proximity and convenient freight access to Canada’s largest import and export market, the United States.

Despite Waterloo’s proximity to the Greater Toronto Area, a population of nearly 5.6 million people (City of Toronto, 2012), the Waterloo Region is a stand-alone economic region known for its economic resilience, successful technology sector, and culture of entrepreneurialism (Keenan, 2006). The majority of the region’s population is located in its three urban centres, with the townships accounting for only 12.3% of the region’s total population (see Table 7). However, urban and rural communities exist in close proximity. A hard countryside line has been incorporated into the Regional Municipality’s Official Plan to manage anticipated growth by encouraging urban intensification and preserving adjacent farmland (Region of Waterloo, 2012). This proximity has contributed to diversity amongst the rural townships in terms of population demographics and industrial make-up (Region of Waterloo, 2010).

4.2 Demographic Characteristics

4.2.1 Education

As of the 2011 Census of Population, Waterloo Region had a population of 507,906, making it the 13th most populated region (census subdivision) in Canada (Region of Waterloo, 2012).
Waterloo Region has been one of the fastest-growing regions in Ontario over the past decade and is expected to continue this high growth, with the Province of Ontario predicting a regional population of 729,000 by 2031 (Region of Waterloo, 2010). Despite housing three post-secondary institutions the Region’s level of educational attainment is on par with the provincial average, with 47.7% of the Region’s population over 15 having achieved some type of post-secondary education (Region of Waterloo, 2007). Municipal and regional economic developers have identified the need to capitalize on human capital coming from these institutions, and improved retention of students educated in the Region is an economic development priority moving forward (City of Waterloo, 2012). Nonetheless, the Region’s median household income is nearly eight thousand dollars above the Canadian average while a significant rise in unemployment following the 2008 recession continues to decline rapidly (Statistics Canada, 2012; Waterloo Region, 2011). These high income and rebounding employment figures contribute to a general perception that the Region remains economically successful despite considerable job losses in the recent recession.

4.2.2 Immigration

The Region faces similar demographic trends to the rest of Ontario, with an aging population, greater urban growth than rural, and much of its growth coming from immigration. In the early 1800’s the Region received a wave of immigrants primarily of German, Mennonite, British and Scottish descent (Vinodrai et al., 2012, p. 29). These roots remain visible today, with a sizable old order Mennonite population in the Region, particularly in the townships of Wellesley and Woolwich. Estimates suggest that the Region’s Mennonite population, although proportionally in decline, is still approximately four percent of the total population. Meanwhile, Wellesley and Woolwich Townships’ populations are 44.6% and 24% Mennonite, respectively (Waterloo Region Healthy Communities Partnerships, 2011; McClurg, 2003). The Region has also become the fourth most popular immigrant destination in Ontario. As of 2006, foreign immigrants accounted for
22.3% of the Region's total population and the immigrant population had grown at nearly twice the rate as the non-immigrant population in the previous 5-year period (Region of Waterloo, 2007). This demographic contrast between newcomers to the Region and its local/native population has been identified as an economic development opportunity, identifying the Region as a unique coexistence between traditional and modern lifestyles and their respective amenities (Waterloo Regional Tourism Marketing Corporation, 2009).

**Table 7: Municipal Population Totals and Growth Rates**

<table>
<thead>
<tr>
<th>Name</th>
<th>2011 Population</th>
<th>10 Year Population Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterloo Region</td>
<td>507,096</td>
<td>15.6</td>
</tr>
<tr>
<td>Cambridge</td>
<td>126,748</td>
<td>14.8</td>
</tr>
<tr>
<td>Kitchener</td>
<td>219,153</td>
<td>15.1</td>
</tr>
<tr>
<td>Waterloo</td>
<td>98,780</td>
<td>14.1</td>
</tr>
<tr>
<td>North Dumfries</td>
<td>9,334</td>
<td>6.4</td>
</tr>
<tr>
<td>Wellesley</td>
<td>10,713</td>
<td>14.4</td>
</tr>
<tr>
<td>Wilmot</td>
<td>19,223</td>
<td>29.3</td>
</tr>
<tr>
<td>Woolwich</td>
<td>23,145</td>
<td>27.2</td>
</tr>
</tbody>
</table>

Source: (Region of Waterloo, 2012)

**4.3 Current & Historical Economic Structure**

Although the Region’s technology sector garners considerable attention, the Region maintains a highly diverse economic base. Figure 4 is a bubble chart from a 2012 report entitled *Taking Regional Action: Understanding networks in the local food, green energy & creative sectors in the Waterloo Region* (Vinodrai et al, 2012) illustrating the performance Waterloo Region's main industries in terms of growth, specialization, and size. The horizontal axis and vertical axis show the employment location quotient and employment growth rate between 2001 and 2006, respectively. The employment location quotient compares the Region’s employment in each of the specified sectors to the national average, illustrating the degree of specialization. The diameter of each bubble reflects each sector’s proportion of regional employment and thus provides a rough indication of the sector’s size and economic important in the region. While Figure 4 clearly shows a
high degree of specialization in manufacturing, substantial employment growth is occurring across a wide array of other sectors. In particular, the chart illustrates the Region’s continued strong financial industry, strong educational industry grounded in its three post-secondary institutions, and recent growth in the cultural sector. The overall contribution of the agriculture and food industries are not identified as a specialization or source of growth in this figure, which may raise questions as to the appropriateness of the Region as a case study for the alternative food sector. However, further sections will provide insight into these industries and the rationale for the case study approach.

Figure 4: Industry Growth, Size, and Specialization in Waterloo Region

Source: (Vinodrai et al., 2012)
Waterloo Region has an established history in the manufacturing sector, beginning with the early settlers of the Region. These early migrants established a wide array of industries, including: food manufacturing, brewing, textile, wood processing, and rubber manufacturing, alongside widespread agricultural production occurring in the area (Vinodrai et al., 2012). Through the 19th century, the Region became renowned as an industrial centre, which has since been attributed to the artisanal expertise and collaborative approach of its early residents. A particular example of this collaborative approach was the development of two post-secondary institutions in the Region, the Universities of Waterloo and Wilfrid Laurier, which resulted from the collaboration of local business owners in an attempt to resolve local labour shortages in the area’s high-skilled professions, particularly engineering and actuarial sciences (Nelles, Branwell, & Wolfe, 2005). Alongside the diverse base of industries, an entrepreneurial culture and a collaborative approach to problem solving built on strong civic pride are closely identified with the Region’s Mennonite roots (Nelles, Branwell, & Wolfe, 2005). These facets of the Region’s culture, together, have recently been referred to as “the Waterloo Way” (Keenan, 2006), and were determining factors in selecting the Waterloo Region as a case study on collaborative approaches to alternative food governance.

The Region’s overall employment growth in spite of stagnant employment growth in the manufacturing sector (Figure 4) continues the Region’s documented history of economic resilience. Since its original manufacturing specialization, the Region developed a concentration of financial industries in the nineteenth and early twentieth century that continues to this day. Throughout the 19th and 20th century, the Region’s manufacturing sector remained a primary driver of the Region’s economy. In particular, the Region supported a strong automotive manufacturing industry until a decline in the Ontario manufacturing sector led to considerable job losses in the Region at the turn of the 21st century. Illustrating the Region’s diversity, economic adaptability, and entrepreneurial capacity, the Region’s economy adapted to specialize in what has become a dynamic information and communications technologies sector (Beltrame, 2012; Nelles, Bramwell,
& Wolfe, 2005; Bow, 2006).

The diverse economic base is not homogenous throughout the Region, with individual municipalities maintaining industrial specializations closely tied to their traditional industrial strengths. The Scottish-Celtic City of Galt was renowned as the region’s original manufacturing centre until the early twentieth century (BRAY Heritage, 2008). However, the City of Berlin (now Kitchener), with German and Mennonite roots, took over as the region’s manufacturing centre, specializing in rubber manufacturing, woodworking, and a variety of other related trades. At the same time, the City of Waterloo, with similar ethnic origins to Berlin, was known to specialize in brewing, food, and textile manufacturing. Kitchener and Waterloo continue to share recognition for their artisanal, high-skilled industries, put in place by their early inhabitants.

Despite common origins the municipalities have maintained individual identities that continue to shape their economic development (Nelles, Bramwell, & Wolfe, 2005). For example, by 2010 physical growth in Kitchener and Waterloo had resulted in the two cities becoming geographically indistinct from one another. The case was made to amalgamate what many viewed as a superfluous boundary and barrier to improving the Region’s coordination. However in a 2010 referendum on the issue, residents of both cities expressed an unwillingness to amalgamate, attributed largely to concerns around their individual identities (Vinodrai et al., 2012). In addition, many residents and community leaders in the Cambridge area have expressed a perception that regional organizations tend to focus on Kitchener, Waterloo, and their adjacent townships, while ignoring Cambridge and North Dumfries, which are located south of the 401. Despite the influence of provincial trends and the continual evolution of the sector’s regional approaches to economic development (discussed in the next section), these examples illustrate that individual identities remain relevant to discussions of governance and economic development in the Region.
4.4 Governance

From a governance perspective, the Region’s current political structure took shape with the 1973 Regional Municipality of Waterloo Act, which amalgamated the cities of Waterloo, Kitchener, Galt (now Cambridge) and their surrounding communities into a single upper-tier municipality. This Act consolidated many services, such as planning, where the Regional Official Plan (ROP) provides a guiding framework for each municipal official plan and coordinates population and employment growth, as well as the protection of environmentally sensitive and agricultural lands. As a result, regional planning policy has considerable influence on the Region’s agricultural stakeholders, as discussed in the next chapter.

At the time of this research, economic development remained the responsibility of each municipality, despite considerable disparity between the capacities of each municipality. Each of the three urban municipalities had taken a formal, cluster-based approach to economic development with dedicated staff and strategy documents, while the four rural townships diverge considerably. Woolwich hired a dedicated economic development staff person and was in the process of drafting a formal economic development action plan, while the others placed economic development under the purview of their Chief Administrative Officers (CAO) with different degrees of formality in their associated planning processes (Vinodrai et al., 2012). However, recent discussions in the Region’s economic development community have seen a new regional economic development body proposed, which would oversee regional economic development (New Regional Economic Development Body Proposed, 2013). The specific economic development responsibilities of each municipality under this proposed organizational restructuring remain to be determined (New Regional Economic Development Body Proposed, 2013).

In addition to the municipalities, a number of organizations have also played a part in the Region’s economic development. CTT was founded in 1987 through a private-public partnership between local industries and municipalities to promote the Region as an opportunity for inward
investment, particularly foreign direct investment (FDI). Although a regional economic development organization with local governmental support, CTT’s mandate is limited to FDI, leaving the lower-tier municipalities as the sole public sector bodies responsible for the range of other economic development activities. This leaves individual municipalities with varying degrees of engagement, based on the economic development capacities of each municipality, which has led some of the rural townships to rely more heavily than others on CTT for economic development support (Vinodrai et al., 2012); as well as their perceived value on the part of municipal economic developers. However, there is a current restructuring of economic development within the Region, including discussion of a more comprehensive regional economic development organization or forum.

The Waterloo Regional Tourism Marketing Corporation (WRTMC) also operated within the field of economic development. Established in 2007, the WRTMC is another private-public partnership instigated by the municipalities, this partnership has a mandate “to deliver a single, focused message that Waterloo Region is a dynamic, year-round destination with much to offer the individual traveller, families on vacation and corporate visitors” (Region of Waterloo, 2010). The WRTMC is comprised of the eight municipality governments (including the Region itself) and partners with local firms with interests in the Region’s tourism and hospitality sectors. WRTMC’s recent activities include the launch of a five-year strategic plan to promote the Region and continuing efforts to strengthen its partnerships with the Region’s private sector.

In addition to CTT’s work on FDI, the Greater Kitchener-Waterloo, Cambridge, Baden, and Wellesley Chambers of Commerce provide networking opportunities and advocacy for local industry actors. Local industry actors, often working with or through the above organizations, have also established a number of collaborations that have an interest in the Region’s economic development. The most notable of these collaborations include:

- Communitech, a regional industry association founded in 1997 with a focus on increasing the
coordination and competitiveness of the Region’s technology industries;

- Capacity Waterloo Region, a not-for-profit organization founded in 2009 that looks to bring together people, ideas and resources to drive change in the local community; and

- The Prosperity Council, a partnership between Communitech, CTT, and the Greater KW/Cambridge Chambers of Commerce that was founded in 2003 to create an environment conducive to prosperity by connecting local assets and knowledge.

These collaborations illustrate a common trend in the Region, wherein local business and community stakeholders collaborate to support the Region by working around constraints facing local government (Vinodrai et al., 2012). As illustrated by Kitchener and Waterloo’s inability to remove such a superfluous barrier through amalgamation, coordination between the local tier municipalities remains an issue for the Region. Duplication of services, inter-municipal competitiveness and related tensions pose challenges for government approaches to Regional collaboration. These community- and industry-based collaborations dedicated to regional development demonstrate the civic pride of the Region. These collaborations provide a wealth of opportunities to examine the interactions within and between regional networks that provide governance and/or economic development support to the Region and specific industries within it. This study seeks to understand whether and how such collaborative governance models and associated approaches to economic and industry development facilitate and contribute to the development of regional AFNs.

### 4.5 Agriculture & Alternative Food Networks

#### 4.5.1 Ontario’s Alternative Food Economy

Waterloo Region is located along Highway 401 in Southwestern Ontario, an area that is home to Canada’s largest food and beverage processing cluster. The food processing industry is Canada’s second largest manufacturing subsector and Ontario contains the largest processing
sector in Canada, by both value of production and employment (Province of Ontario, 2012).

Producing over 200 agricultural commodities, the Ontario food industry contributes 6.7% to provincial GDP and is a primary economic driver for Southwestern Ontario (OMAFRA, 2001; Donald, 2009). Table 8 illustrates this economic contribution quite clearly, although the subsectors involved vary considerably in their development trajectories. Over the past 15 years, the number of Ontario farms has decreased by over 23% while total acreage, weeks of paid labour, and total capital value have all increased at over 8%, 14%, and 109%, respectively (OMAFRA, 2012).

Meanwhile, the Ontario food processing industry, which purchases approximately 65% of food-related farm production in the province, increased its value of production by 8% between 2005 and 2010 despite the 2009 recession and on-going consolidation of North American processing facilities.

Table 8: Economic Contribution of Ontario’s Food Economy

<table>
<thead>
<tr>
<th></th>
<th>Firms</th>
<th>Jobs</th>
<th>Annual Revenue (billions, CDN$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Producers</td>
<td>59,278</td>
<td>130,000*</td>
<td>$9.1</td>
</tr>
<tr>
<td>Food, beverage, and tobacco processing</td>
<td>3,500</td>
<td>120,000</td>
<td>$32.5</td>
</tr>
<tr>
<td>Food services</td>
<td>36,436</td>
<td>298,200</td>
<td>$19.5</td>
</tr>
<tr>
<td>Food stores</td>
<td>13,731</td>
<td>178,000</td>
<td>$24.1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>112,945</td>
<td>726,200</td>
<td>$85.2</td>
</tr>
</tbody>
</table>

*denotes job equivalents


These figures illustrate the scale and productivity gains occurring throughout the province’s food sector; however, it is difficult to determine how these trends relate to the alternative food sector due to the lack of distinct indicators or targeted empirical study. Industry estimates suggest that the specialty food sector (a largely analogous term used in reports by the Canadian government) is growing at an annual rate between 15 and 25%, well above the province’s overall food sector growth of 2 to 3% (Agriculture and Agri-food Canada, 2008). Similar growth can be seen through analysis of Ontario customer trends and the proliferation of farmers’ markets and
direct marketing. In 1977 the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) began promoting Ontario produce through the Foodland Ontario brand, offering a potential proxy for interest in place-based food products. OMAFRA conducted brand awareness study in 2008 that found 75% of customers preferred Foodland Ontario products, with only 66% expressing this preference in 2006 (OMAFRA, 2008). Customer attendances at Ontario Farmers’ markets and their subsequent sales figures have also grown considerably over time (see Table 9).

Table 9: Customer attendance and Sales at Ontario Farmers’ and On-Farm Markets

<table>
<thead>
<tr>
<th></th>
<th>Number of Markets</th>
<th>% Reporting Increased # of Customers</th>
<th>Estimated Gross Annual Sales (millions, CDN$)</th>
<th>Estimated # of Annual Customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontario Farmers’ Markets</td>
<td>154</td>
<td>62%</td>
<td>$627-641</td>
<td>15,000,000</td>
</tr>
<tr>
<td>Ontario On-farm Markets</td>
<td>750*</td>
<td>72%</td>
<td>$210</td>
<td>8,000,000</td>
</tr>
</tbody>
</table>

*estimated

Source: (Ontario Farm Fresh Marketing Association, 2009; Farmers’ Markets Ontario, 2009)

Although none of these figures offer a precise proxy for supply or demand of alternative food products, they do illustrate an increasing popularity for place-based foods and closer producer relationships, two central components of AFNs. These trends have caught the attention of the Ontario government as well, with the Province’s 2008 budget allocating $56 million over four years to the Pick Ontario Freshness Strategy and Ontario Farmers’ Markets Initiative and the Ontario government tabling a Local Food Act in 2013 focused on increasing government institutional procurement of Ontario products.

4.5.2 Agriculture in the Region

As of 2011, there were 1,389 farms in the Region, a decline of approximately 200 farms since 1996, with total farmland acreage also declining from 234,400 in 1996 to 221,087 acres by 2011 (Statistics Canada, 2012). The decline in number of farms is consistent with provincial and
national trends towards farm consolidation (Statistics Canada, 2012). However, the Region of Waterloo directly confronted the loss of farmland in 2010 by adopting a Regional Official Plan that included a countryside line imposing strict guidelines around the extent and location of future urban development. These guidelines limit future development to only 9,000 of the Region’s 221,087 acres of farmland (Mercer, 2012). While it is too early to measure the effects of these guidelines, their intent is to improve urban intensification and reduce the loss of farmland.

One standout feature of the Waterloo region’s agriculture sector is average farm size, with the Region’s mean farm acreage at 159 acres smaller than the provincial mean of 244 acres (Statistics Canada, 2012). The Region’s prevalence of smaller farms, further illustrated by 43% of the Region’s farms generating under $100,000 in gross revenue (Region of Waterloo, 2012; Statistics Canada, 2012). This is partially explained by the forms of production. Dairy and beef farms represent the most common farm types in the Region, respectively (Statistics Canada, 2012). Due to the specific demands of livestock production, beef and dairy farms tend to require less land than cash crop, horticulture, and other common farm types. The Region is also situated in the heart of the province’s prime agricultural land, which permits forms of production with high value per acre and a wide diversity of farm types (see Figure 5).
Although still prevalent in the Region, Figure 5 illustrates an on-going shift away from cattle production following the 2003 Bovine Spongiform Encephalopathy (BSE) crisis that prevented the export of Canadian beef and disrupted established trading relationships with other countries. Another factor influencing farm size is the close proximity between the Region’s urban and rural populations. This allows farmers to take advantage of direct on-farm marketing of products, a strategy that can support farms unable to access conventional food markets due to scale constraints. The findings of this study support this assertion, as discussed in the next chapter. Another potential influence is the Region’s substantial Mennonite population, which maintains a strong agricultural industry. Traditional Mennonite communities hold strong beliefs about the value of contributing to one’s community and are recognized throughout the Region for their use of direct on-farm marketing. This presence in farming has continued over multiple generations and despite on-going efforts to find other available land wherever possible, over time many larger
family farms have been split into smaller operations in an effort to provide farms for the next generation (Duke, 2011).

Despite the loss of farmland, declining number of farms, and prevalence of small-scale farming operations, primary production in Waterloo Region continues to succeed economically. Gross farm receipts having seen a nominal increase of 19.3% between 2005 and 2011 (Region of Waterloo, 2012). In the same timeframe, the Region’s net farm income increased approximately 18%, significantly greater growth than the provincial average of approximately 8% over the same years (OMAFRA, 2013; Region of Waterloo, 2012). Rural-urban proximity, the prevalence of small-scale farming, and the diversity of farm types are all prerequisites for successful regional alternative food economies, positioning Waterloo Region as an appropriate case study for the exploration of governance structures and their influence on AFN development.

4.5.3 Regional Food Economy

The agricultural assets identified above speak to the potential for a strong AFN in the Region; however, they do not provide insight into actual food network structures nor the status of their development. While the findings of this study do reveal these dynamics within the context of network development and governance, Region of Waterloo Public Health conducted a series of studies in the early 2000’s that provide key insights into existing assets. A 2003 report entitled *Growing Food and Economy: An economic impact study of the agriculture and food-related sectors in Waterloo Region* found that agriculture and its related industries were a key economic contributor in the Region, responsible for 11.3% of the labour force, or 26,380 jobs (Harry Cummings and Associates Inc., 2003). This study also provided a characterization of the Region’s food system (see Figure 6), identified relevant regional stakeholders (within the primary, secondary, and tertiary by their value chain functions), and provided a number of insights into each facet of the value-chain within the Region’s food economy.
It was not until Public Health sponsored a 2005 analysis of regional food flows that regional food supply dynamics were explored, providing insights into the Region's potential for further AFN development. That study determined that Waterloo’s diverse agricultural production was not resulting in greater consumption of regional products, and that consolidation in the secondary (processing) and tertiary (retail) sectors posed a number of barriers for local producers. The five largest employers in the Region’s food processing sector accounted for over 55% of all jobs in the subsector, and despite their contribution to the local economy, consolidation left these employers vulnerable to potential corporate relocation (Harry Cummings and Associates, 2005). The study noted similar consolidation in the Region’s retail sector with four extra-regional chains operating.
71% of the Region’s supermarkets, which account for 77% of total food expenditures in the Region. In the same report, regional food stakeholders identified challenges facing the food sector in the region:

- Increasing costs of production and low commodity prices;
- Substantial administrative and financial burdens due to extra-regional legislation and regulations;
- Escalating developmental pressure and rising land prices;
- Poor cattle prices resulting from the 2003 BSE crisis;
- Competition from other regions with lower labour costs and more suitable climates;
- Strict health regulations and a lack of small-scale abattoirs; and
- Difficulties direct marketing local products due to the prevalence of indistinguishable non-regional produce in the area’s markets.

Despite these challenges, studies commissioned by Public Health illustrated an emerging alternative food economy. The following section provides a brief overview of the key actors involved in this emerging economy, based on asset mapping and interviews conducted as part of the present study.

As noted in previous sections, the distinction between the alternative and conventional food systems is not straightforward. Many of the relevant actors operate within both systems or outside traditional conceptions of the marketplace. Nonetheless, their involvement with the alternative food economy is the focus of this overview. The history of food processing in the Region continues to this day through the facilities of a couple of key, well-established firms: J.M. Schneider Foods (scheduled to shut down in 2014 and already laying off employees) and Piller’s Fine Foods. Despite the vast majority of their production distributed through the conventional food system, these companies have a history of quality production that is closely tied in to the Region's past and continue to bring visibility to the Region's food sector. However, there are few smaller-scale food-
processing facilities in the Region, reaffirming the lack of processing capacity found by the Public Health-commissioned reports.

In terms of retail and wholesale options for the local agricultural production outlined above, the Region hosts a number of local alternatives. These outlets come in a variety of arrangements, with the most prominent categories outlined in Table 10, alongside associated examples of key regional retail and wholesale markets.

**Table 10: Waterloo Region’s Key Alternative Marketing Channels**

<table>
<thead>
<tr>
<th>Alternative Marketing Options</th>
<th>Key Regional Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On-farm Retail Markets</strong></td>
<td>• Herrle’s Country Farm Market</td>
</tr>
<tr>
<td></td>
<td>• Oakridge Acres</td>
</tr>
<tr>
<td></td>
<td>• Martin’s Family Fruit Farm</td>
</tr>
<tr>
<td><strong>Private Sector Farmers’ Markets</strong></td>
<td>• St. Jacob’s Market</td>
</tr>
<tr>
<td><strong>Municipality-supported Farmers’ Markets</strong></td>
<td>• Kitchener Market, Cambridge Market</td>
</tr>
<tr>
<td><strong>Local Distributors and Wholesale Markets</strong></td>
<td>• Elmira Produce Auction</td>
</tr>
<tr>
<td></td>
<td>• Jay West Foods</td>
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<td></td>
<td>• Avid Gourmet</td>
</tr>
</tbody>
</table>

Similar to the Region’s processing roots, the majority of the key alternative marketing options have well-established histories in the Region. For example, the Kitchener market has operated in the Region for over 130 years, and multi-generational farm families in the Region operate both Herrle’s Country Farm Market and Martin’s Family Fruit Farms.

Regional retail venues also raise the Region’s food profile to those outside the Region. St. Jacob’s market, Canada’s largest year-round farmers’ market and an international tourist
destination, is a key example of this. St. Jacob’s Market\(^2\) and the area’s old order Mennonite community attract residents of the Region as well as a large number of tourists each year, highlighting the Region’s agricultural production and Mennonite roots. Mercedes Corporation, a property management company established by a local Mennonite family, represents 40 community investors that own the market and other properties that attract tourism to the community and the Region as a whole. Considering these tourism assets and the farm-gate marketing undertaken by the Mennonite farming community, the Mennonite community is a key stakeholder in raising the public profile of the Region’s alternative food sector. However, the Mennonite contribution to the Region’s food sector is not limited to agricultural production and improved visibility. Following the BSE crisis that crippled Canada’s beef production sector, local Mennonites developed the Elmira Produce Auction Co-operative (EPAC) in 2004. EPAC provides an innovative venue for restaurants, food stores, and local institutional buyers to purchase wholesale local farm products via auction, allowing many of the Region’s beef farmers to diversify their production and weather the crisis. Local zoning regulations initially raised logistics concerns for vendors primarily reliant on horse and buggy for transport. However, zoning exemptions provided by the Township of Woolwich allowed for the auction’s development in a feasible location. The auction continues to grow, now selling more that $1.5 million in local farm products annually.

Beyond retail and processing, the Region’s agriculture and food sectors are supported by a number of industry and civil society organizations. In addition to the regional chapters of producer general farm organizations\(^3\) and commodity groups\(^4\) that exist in most regions across Canada, Public Health has helped establish and support two key civil society organizations with mandates to support the Region’s farmers and the consumption of healthy, local food products. Foodlink

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\(^2\) In 2013, a fire devastated the primary permanent structures located in St. Jacob’s market, although plans have already been developed to rebuild the market. A temporary structure currently stands in its place, allowing business to continue in the interim.

\(^3\) Examples include the Waterloo Federation of Agriculture or the National Farmers Union – Waterloo Region.

\(^4\) Examples include the Perth-Waterloo-Wellington chapter of Canadian Organic Growers or the Wellington Association of Pork Producers.
Waterloo Region (Foodlink) was established in 2002 to promote healthy local food, add value to local agricultural production, and improve customer access to local food (Foodlink Waterloo Region, 2013). Public Health provided financial and in-kind support until Foodlink became fully independent in 2005. Foodlink’s two most notable activities are the development and maintenance of a *Buy Local, Buy Fresh* map that connects firms and customers to regional food assets, and the organization of an annual *Taste Local, Taste Fresh* event that pairs local farmers with local chefs to raise awareness of local food options. In addition, based on recommendations coming out of a public consultation on the findings of Public Health’s 2005 summary report, *Towards a Healthy Community Food System for Waterloo Region*, the Waterloo Region Food System Roundtable (the Roundtable) was established in 2007 as a means of creating spaces for the discussion around regional food-related issues. The Roundtable is a networking and policy-making group consisting of 20 representatives from key sectors throughout the Region’s AFN. Since establishing the Roundtable, Public Health continues to provide staff and organizational support for the Roundtable’s activities, which include advocating for local food and farm supports in regional and municipal official planning documents, a public lecture series on food-related topics, the development and maintenance of a web portal dedicated to regional food advocacy and awareness, and regular meetings of 18-20 Roundtable members throughout the year to plan, prioritize, update, and discuss relevant issues.

Since Public Health’s 2005 summary report, a follow-up report was published in 2013, providing an update on alternative food sector progress in the Region, entitled *The Health of Waterloo Region’s Food System: An update*. This Public Health update identified improvements to regional food infrastructure, including greater access to alternative food products for urban customers, a need for further research into the specific economic development opportunities the alternative food sector presents, and the need for greater coordination in addressing barriers and promoting entrepreneurial opportunities in the sector (Region of Waterloo Public Health, 2013). In
terms of food sovereignty and food policy, this update noted particular progress with an increase in food systems thinking on the part of regional stakeholders, further incorporation of supportive food policies into municipal official plans, and greater pressure on higher levels of government to adopt more comprehensive approaches to food policy (Region of Waterloo Public Health, 2013). Urban agriculture saw mixed progress, with growth in community gardens accompanied by the continued presence of barriers and mixed public opinions on urban hen raising and beekeeping (Region of Waterloo Public Health, 2013). Financially, the report identified that farm incomes remain high in the Region relative to other areas of Ontario, but that farm families still rely heavily on off-farm income, there remains little recognition of farms’ provision of ecological goods and services, and new farmers continue to face considerable barriers to entry (Region of Waterloo Public Health, 2013). In terms of accessibility, low incomes were identified as a continued issue for access to healthy food, while further implementation was required for policies adopted to promote walkability (Region of Waterloo Public Health, 2013). Overall, considerable progress was identified, alongside the need for continued improvement in a number of areas.

The alternative food assets described above are limited to some of the key assets and dynamics shaping the Region’s emerging alternative food sector, and are not a comprehensive map of all the Region’s alternative food assets. While the dynamics illustrated above suggest a positive outlook for alternative food’s continued development in the Region, research conducted for this study identified a number of common challenges facing actors in the Region’s alternative food sector. These findings are explored in greater detail in the following chapter. In the following chapter, these challenges are further explored in light of their influence on governance and the development of AFN structures.

4.6 Chapter Summary

This chapter provides a summary of Waterloo Region, a mixed urban-rural region located in
Ontario, Canada. Demographic and socioeconomic indicators suggest a fast-growing region, with substantial immigration occurring alongside a vibrant Old Order Mennonite community. The Region is home to a wealth of post-secondary education facilities but continues to struggle with associated talent retention, which has recently been identified as an economic development priority for municipalities within the Region (City of Waterloo, 2012). However, the Region boasts a long-standing history of economic resilience and adaptability premised on economic diversity, strong civic capital, a focus on quality production, and an ethos of collaboration. Illustrating this collaboration, the Region is renowned for a collaborative approach to economic development embodied in CTT, the sole regional economic development organization. However, CTT’s mandate is limited to attracting foreign direct investment, and individual municipalities remain responsible for domestic economic development activities. These municipalities maintain strong individual identities and divergent economic development capacities, with inter-municipal government collaboration facing obstacles in many areas. As a result of this and the Region’s strong civic engagement, a plethora of civil society and business organizations have developed to meet under-addressed needs and/or development outcomes. This collaborative approach to governance, and its implications for AFN development, are further explored in the next chapter.

This chapter also outlined the Region’s agri-food industry, which has a rich history in primary agriculture and food processing. The Region contains a large base of prime agricultural land, diverse production, and it benefits considerably from the close proximity of the Region’s urban and rural communities. Public Health has been a strong advocate for AFN development in the Region, with a series of comprehensive studies (Xuereb & Desjardins, 2005) culminating in the development of two key civil society organizations: Foodlink and the Waterloo Region Food System Roundtable. The Region is also home to a set of established alternative retail venues and a history of quality food processing. However, studies by Public Health identified a number of continuing challenges, including a lack of accessible processing infrastructure, difficulties accessing retail
markets, and burdensome regulations, amongst others (Xuereb & Desjardins, 2005). These challenges and a number of potential opportunities are explored further in the next chapter.
Chapter 5. Alternative Food Networks and Regional Economic Governance

As outlined in Chapter 2, AFNs require an integrated and territorial approach to food governance that brings government, civil society, and market-based actors together. This collaborative model of food governance is needed to support three central, mutually reinforcing processes that facilitate continued development of AFNs: embedding alternative food goods and services into the region, connecting/reconnecting a core group of relevant stakeholders to maintain vision and momentum behind the network’s activities, and intertwining the economic and non-economic activities and roles (Wiskerke, 2009). However, this theory of integrated and territorial model of food governance did not directly address the role of EDPs in such governance structures. Thus, this chapter explores Waterloo’s food governance networks to better understand the role of regional EDPs and their influence on collaborative food governance. The chapter begins by outlining the central opportunities and challenges identified by key AFN stakeholders, and will then examine collaboration between market, civil society, and government stakeholders involved in the Region’s alternative food governance, with particular emphasis on economic development networks through a dedicated social network analysis. These governance structures are then considered in terms of the support they provide for the three processes, identified above, that shape AFN development (Wiskerke, 2009).

5.1 Opportunities & Challenges

Through analysis of the interview data, four key categories were identified that capture the regularly cited opportunities for, and/or challenges to, AFN development in the Region. These categories include:

1. Rural land-use tensions
2. Barriers to new entrants and small-scale producers
3. Limited processing opportunities and regulatory burden

4. Lack of explicit interest in networking

Although distinct from one another, each of these categories also spoke to the interaction between AFN stakeholders and regional government institutions. These opportunities and challenges will inform the following section’s exploration of regional governance structures and their suitability for supporting regional AFN development outcomes.

5.1.1 Rural land-use Tensions

Since the 1970’s, concerns around the loss of peri-urban agricultural lands have been discussed in North American planning circles, with a variety of protective planning policies having been developed in response (Dunn, 2013). Waterloo Region boasts particularly close proximity between its urban and rural communities, which key informants regularly identified as a source of both great opportunities and on-going challenges. The Region’s planning department has been at the forefront of its protective policies, starting with the designation of environmentally sensitive policy areas in the Region’s first official plan in 1976, to the 2010 imposition of a fixed countryside line that severely limited future areas of potential development (Jackson, 2013). Key informants regularly and positively identified Waterloo’s history of progressive planning as a critical contributor to the close proximity between urban and rural areas. One informant stated, “Waterloo has been a leader in this whole preserve the farmland thing. They were doing it probably 20 years before most other areas even thought about it.” (K6). This proximity between urban centres and the Region’s farms is regularly identified by the Region and its residents as an amenity, and presents a number of unique opportunities and challenges for AFN development.

One such opportunity is in the development of smaller-scale, part-time farming operations. The close proximity of major urban centres (Waterloo, Kitchener, and Cambridge) reduces barriers for
farmers wanting to supplement their farm income with off-farm employment. As one key informant stated,

“In this region, we do have several large farms, but also lots of smaller farms, but a lot of these guys farm smaller, traditional-type farming, but they all have a job in the city... Because Kitchener is so close by, a lot of these guys can truck for some of the trucking companies around or so on. It’s much easier for a younger farmer to have a part-time job without driving too far, and still continue farming” (K3).

Small-scale operations continue to represent the most common entry point for new entrants to agriculture, with the benefits of this proximity echoed by the fact that off-farm income continues to constitute the majority of total income for young farm operators (Statistics Canada, 2009). Thus, urban-rural proximity provides continued support to the Region’s agricultural sector by promoting the attraction of human capital. Furthermore, in contrast to large monoculture farming, a wealth of small-scale operations supports local product diversity, a necessity for a vibrant AFN (Sonntag, 2008).

The diversity supported by Waterloo’s proximate urban and rural communities is not limited to end products, but also the marketing practices of farms in the Region. Key informants operating agriculture and food businesses in rural areas regularly cited increased visibility to urban residents and the marketing practices this permitted as a benefit to their business in the Region. Informants from businesses operating community supported agriculture (CSA), on-farm retail outlets, farmers’ markets, wholesale marketing, and distribution services all identified the benefits of urban-rural proximity to their operations. The Region’s farmers’ markets also play a key role in promoting alternative food products in the Region, and as a Regional government informant suggested, “[it’s] because [of] our rural/urban mix that we already had and the strength of St. Jacob’s, Kitchener, and Cambridge farmers markets that were already present and vibrant [sic].” (K37). Farmers’ markets and direct marketing operations provide customers with close
connections to food producers, a valuable source of social capital, and an important driver of AFN development (Feenstra G., 2002). Opportunities to promote the visibility of food and rural-urban social connections have been bolstered by the advocacy efforts of the WRSFR. These advocacy efforts have contributed to the development of policies conducive to community gardens and temporary farmers’ markets in the Regional Official Plan as well as the Official Plans of Waterloo and Cambridge (Xuereb M., 2013). Therefore, a continued history of progressive rural and food planning policies have supported close physical and social proximity between urban and rural communities. This close connectivity affords the Region’s AFN opportunities to attract new entrants on a continued basis, enabling many of the means through which the networks’ social and financial interactions take place.

However, this close proximity also poses challenges for the management of future population growth in the Region, which have led to continued debates around the constraints imposed on rural businesses and property developers by the Region’s zoning regulations. The fixed countryside line outlined in the 2010 Regional Official Plan (ROP) and zoning regulations that limit the scale of non-agricultural facilities in designated rural areas are central to these debates. In the 2010 ROP, Waterloo implemented a hard countryside line, considerably restricting new land for development to approximately 197 acres in an effort to promote urban intensification (Jackson, 2013; Morrice, 2013). Many key informants lauded this policy as an important step towards securing future agricultural production in the Region. However, it was also identified as the source of two particular challenges.

The first challenge relates to the difficulties this policy creates for accommodating future population growth the in Region. In the Province of Ontario’s 2006 growth plan for the Greater Golden Horseshoe, Waterloo Region was predicted to have a population of approximately 729,000 by 2031 (Ontario Ministry of Public Infrastructure Renewal, 2006), based on an annual population growth rate of 1.73% over the past 15 years. As a result, planners have prioritized population
growth management in the Region’s and municipalities’ planning policies (Region of Waterloo, 2013). The hard countryside line has been considered a barrier to growth by residential developers. A key informant from the Region’s business community suggested that these concerns reflect an unavoidable source of future conflict in stating that “you can’t contain urban development within the boundaries that are there right now. So that’s where you’re going to get into conflict with the townships... There were a series of appeals launched to the Ontario Municipal Board (OMB), one from Waterloo Region developers.” (K40).

Since this interview, the OMB decided in favour of developers, permitting development on more than 1,000 hectares that were restricted under the Region’s Official Plan. The Region has taken the OMB to court due to transgressions noted in the decision-making process, and as a result, controversy continues around the future of this policy (CTV Kitchener, 2013).

This uncertainty has direct bearing on the second challenge identified with the hard countryside line, its impact on rural land values. A number of the primary producers interviewed questioned the ultimate effectiveness of the line and expressed a sense of unfairness with its financial consequences, despite their support for its intentions. As one key informant articulated, “Waterloo has been a leader in the whole preserve the farmland thing... but when the farmers are ready to retire, those farms that are right around the city end up not being sold to farmers anyway. They end up being sold to somebody out of the city that just wants a large estate...Then [the farmers outside the countryside line] sell it for maybe a fraction of the price of what the farmer next door got because he was on the other side of this imaginary line” (K6).

Urban-adjacent farmers remain concerned that future generations cannot remain profitable enough to ward off competition from prospective estate owners due to broader market dynamics. When farmland is bought up by prospectors and rented back to farmers the same incentives are not in place for farmers to invest in the land’s future productive capacity. Furthermore, as a regional
planning representative stated, “if the land values are artificially low for 20 years because of the countryside line and then there’s a change in government and someone decides ‘we actually need this land for growth’ then that land, and the farmer who was sitting on it for 20 years, is denied a potential huge windfall” (K36). Thus, extra-regional market forces relating to farmland valuation undermine some farmers’ ability to benefit from the policy, ultimately raising questions around its affects on the immediate and long-term future of the Region’s farm sector.

In addition to the two direct challenges posed by the hard countryside line, a more general challenge for AFN development related to rural zoning guidelines that limit the development of on-farm retail and/or processing facilities through restrictions on the size of non-farm facilities. This limits the Region’s farmers from developing further processing and retail outlets, both of which represent important AFN infrastructure assets. The Region’s planners closely considered this issue, with one key informant stating, “on the one hand you want to promote farm viability... [but] where the operation keeps getting bigger and bigger, at what point is the property no longer being used as a farm?” (K36). This tension was identified by a farmer interviewed as well, suggesting that once again the issue lay within broader market forces; “the real way to save farmland is not to legislate farmland, the real way is to pay for our food...because that land becomes more valuable as a food producing resource than it is as a place to build houses” (K6). However, given current food prices, this farmer informant identified a more immediate question in regards to why urban residents value farmland,

“Why do you? Is it just the idea of having this big park around you or is it, in fact, that you actually see it as a plus from the aspect that they produce your food... if that’s the case, then are you willing to pay for it?... I think the way to alleviate that is to make some unique exceptions that you might not do just anywhere. For instance, like allowing maybe more farm shops... some unique on-farm industries within a certain distance of the city” (K6).
This suggests that urban-adjacent agriculture, while potentially protected by farmland preservation policies, still faces challenges from the lack of financial compensation associated with the loss in farmland values. Farmland represents a core component of farm operator’s retirement income in Canada (Lobley, Baker, & Whitehead, 2010), and a number of key informants suggested that compensating for the multifunctionality of agricultural land represented an opportunity for long-term AFN support in the current food price context.

As identified above, many of the tensions around rural land-use planning fundamentally relate to a history of Canadians paying artificially low food prices. However low prices are common across the developed world, reflecting the conventional food system’s prioritization of price and therefore efficiency of production as the primary source of competition (Caraher & Coveney, 2003). From a regional perspective, in addition to considerations around compensation for farmland’s multifunctional role, this tension suggests there may be opportunities to intervene at the urban-rural interface, through ‘buffer zone’ planning exceptions for value-added, farm-related businesses. Such a buffer could limit urban sprawl, mitigate related policy uncertainty, and create further processing and retail opportunities for AFN stakeholders in the Region.

5.1.2 Barriers to New Entrants and Small-scale Producers

Another common challenge identified by primary producers involved in the Region’s AFNs was the lack of opportunities and barriers to entry for small- and micro-scale start-up ventures. As identified above, the Region’s farmers’ markets provide a critical space for developing important producer-customer relationships. The value of these markets was commonly attested to during key informant interviews, particularly in reference to the two largest markets in the Region, Kitchener and St. Jacob’s. This value consisted of marketing opportunities, social interaction, and promoting the visibility of the Region’s agri-food assets, amongst others. Nonetheless, when discussing the continued development of the Region’s AFNs, a number of key informants suggested that there
were limited opportunities for regional farmers, particularly those with small and/or new farming operations, to take part in these markets.

The lack of entrance opportunities was linked to two separate issues with farmers’ market policies in the Region. First, a number of key informants suggested that the prevalence of non-local products and lack of associated signage was limiting opportunities for new entrants. Although commonly identified as a concern, one key informant articulated this issue very clearly: “I’d bet 75% of the stuff sold [at the Region’s farmers’ markets is] not local... they’ve got everything all year round. North America doesn’t even grow it... the vendors are supposed to have a sign on where it’s from, but most of them don’t... there’s a lot of guys up there that aren’t even farmers” (EH9). Thus, while the farmers’ markets in the Region have developed policies to identify local products, there has been lax enforcement of these policies. As a result, producers from the Region face unnecessary difficulties differentiating their products and developing the relationships with customers from which their businesses generate important value. This concern is recognized by many farmers’ markets, with strict local requirements and consistent enforcement both common responses to overcome these concerns. Such an approach remains an opportunity that should be considered by both the Kitchener and St. Jacob’s farmers’ markets, although a reduction in product diversity and associated customer attraction would remain relevant concerns.

Second, increased consistency and product quantity requirements limited the smallest operations from taking part. This issue was not identified regularly; however, a producer who had grown their business by originally marketing their products through the Kitchener market felt that “[it’s unclear] whether it’s supporting farmers... When we were going to farmers markets, people had 4 feet, maybe 8 feet – that was a double table... if you were sold out by 12 you went home... today you have to be there until 3:30, no matter what. You better have something on your table and you can’t be sold out” (EH9).
As focal points for the social, promotional, and financial interactions of the Region’s AFNs, the ability to access farmers’ markets is important for smaller farms. As outlined in the literature review, consistency and quantity demands of conventional retail outlets are one of the primary barriers for small-scale farms looking to market their products.

While the growth in demand for alternative food products has increased the value of transactions occurring at farmers’ markets, the comments of key informants suggest this growth has led to the imposition of policies producing barriers to entrance similar to those of the conventional food system, albeit at smaller scales. The prevalence of non-farm and non-local vendors identified above likely also contributes to this phenomenon. Research suggests that income from farmers’ market is often a secondary benefit to the social capital developed. However, in a survey of vendors at American farmers’ markets, over 80% suggested that they provided the best opportunity available to develop one’s business (Feenstra et al., 2003). Providing small producers with access to these valuable social spaces can present opportunities for social learning and innovation. Farmers’ markets provide important insights into regional competition that facilitate product differentiation activities, and also provide valuable customer interaction that has been found to aid in diversifying to additional markets (Hinrichs, Gillespie, & Feenstra, 2004). Therefore, barriers to smaller operations reduce the economic value of the Region’s farmers’ markets as incubators for new businesses or an opportunity to expand existing businesses. The challenges posed by policies and enforcement of those policies within farmers’ markets suggest that farmers’ market policies represent targets for regional intervention that could have significant long-term benefits for the Region’s AFNs and economic development.

5.1.3 Limited Processing Opportunities and Regulatory Burden

In addition to the barriers presented by farmers’ market policies, small-scale producers faced further marketing difficulties in the Region due to the lack of accessible processing facilities. In the
majority of key informant interviews with primary producers in the Region, difficulties accessing processing facilities were identified as a challenge. A few larger producers with long histories in the Region had developed on-site processing facilities prior to the development of current zoning regulations, while some smaller producers maintained supply relationships with local, small-scale processors, but these processors could not accommodate the Region’s demand for, or supply of, alternative food products. The majority of producers marketing alternative food products suggested that the regulatory burdens and costs associated with food safety requirements prevented them from developing on-site facilities. The story of a key informant who attempted to license a processing facility on their farm illustrates this burden quite clearly,

“My processing kitchen... where my inventory of pickles and jams in a given year is probably about 2,000 dollars worth of inventory... under Ontario legislation I’m classified as a private water system because I’m not on an urban system, I’m on a private well... that means technically I am required to do all the water testing that the Region does on their water... the cost of doing that, when I worked it out, would be around 6,000 dollars a year... this doesn’t make sense” (K5).

These unrealistic costs were generally attributed to regulations at the provincial and federal levels that do not factor in the level of food safety risk, and unduly burden small-scale facilities as a result.

Regulatory burden was perceived to be driving consolidation that was already occurring in the conventional food system, which has led to the dismantling of any previous local processing infrastructure. As one key informant stated, “it’s a retailer that draws the product... processing happens in response to the scale that’s being demanded by the retail end of the chain... the whole supermarketization, that’s what drives this one-stop retail model that excludes farmers” (K5). The demand-driven supply relationships identified in this quote result in processing facilities requiring consistency and quantity beyond the capacity of small-scale producers.
Small-scale producers’ inability to develop on-farm processing facilities or access any local processing facilities in the Region represents a significant impediment to value-addition and product differentiation in the Region’s AFNs. Although the origins of these challenges are external to the Region, a key informant with the provincial government outlined the opportunity this presents for regional support through an

“incubator… just a huge kitchen with all kinds of equipment for processing larger quantities of products and it also has a board of people that actually help the processors with a lot of their marketing issues or other kinds of issues... especially in a community like Waterloo that has a concentration of food, [it] would certainly help those smaller people have a place where they could go” (K32).

This same recommendation has been made by Region of Waterloo Public Health as a means of encouraging regional food supply and distribution (Miedema & Pigott, 2007), with a recent blog on the WRFSR’s website suggesting that Conestoga College’s Institute for Food Processing Technology might present such an opportunity (Wylie-Toal, 2012). This institute represents a recent collaboration between Conestoga College, the Province of Ontario, and the Alliance of Ontario Food Processors to overcome labour shortages facing Ontario’s food processing industries, but due to low initial demand, the institute’s processing facilities remain unused for much of the time and Conestoga College continues to explore the possibility of opening these facilities up to local food businesses (Wylie-Toal, 2012).

One potential barrier to overcoming this challenge and harnessing the opportunities that exist in this capacity was identified through interviews with the Region’s economic development officers. Economic developments officers in the Region’s rural townships identified the importance of agriculture in their respective economies and recognized many of the difficulties facing small-scale producers. However, urban and regional EDPs and civil society groups with cross-sectoral business development mandates communicated a very different image of the agri-food sector.
When interviewed, the common perception of the Region’s agri-food sector was that it was stable, comprised of large-scale operations, with associated opportunities related to further mechanization, employment gains, and investment attraction. The comments of one EDP outline this perception quite clearly,

“It’s pretty hard to say the food sector is an emerging cluster when you’ve had companies like Schneider’s here since 1980... there is a realization or a re-establishment of the whole food processing being an important sector of employment and economic growth for the Region” (K38)

Despite the interest in food processing as a growth opportunity, the challenges identified by smaller businesses, such as market access, processing deficiencies, and regulatory burden, were never mentioned.

A regional economic development representative did suggest there was interest within the Region’s economic development community in the food-processing sector. This support was framed with a similarly large scale of processing in mind. As the same EDP outlined,

“We’re working with the cities and the townships to take a look at... what parts of [the food processing sector] are benefits in our region... we’re also part of a pan-regional alliance called the Ontario Food Cluster... each community had certain assets that they could bring to the partnership... Waterloo Region with a lot of our establishment processors, from Schneider’s to Piller’s to Dare to Frito Lay to many other companies” (K38).

When asked about this collaboration, the Region’s municipal EDP’s were either unaware of any real activities on this front or suggested preliminary, isolated explorations of the food sector’s economic role in their community. Throughout the interviews conducted for this research, small food business owners generally referred to regional and urban government actors as a set of stakeholders with little interest in small-scale agri-food production, outside of the Region’s Public
Health and Planning departments. This lack of interest was not identified as a challenge in and of itself, but there was a common perception that opportunities to promote the development of the alternative food sector through targeted interventions, such as an incubator kitchen, were not capitalized upon or even explored.

5.1.4 Lack of bridging social capital

As the previous challenges illustrate, key informant interviews identified the need for relationships connecting different supply chain actors, such as producer-distributor, producer-customer, or distributor-retailer, with the dearth of distributors identified as a particular challenge to AFN development. However, when it came to stakeholders at the same stage of the supply chain (i.e. amongst primary producers), key informants identified very small sub-networks that had been established over multiple generations, relationship based on close proximity, or more recent connections motivated largely by specific production- and supply-related concerns. For example, a key informant with an organic farm in the Region stated, "These networks are becoming tighter... Over time we've come to know each other better and what each other has. And not only do we refer customers to each other... there's an awareness of not wanting to undercut each other" (K5). Key informants also largely suggested they saw little value in formal, more diverse networking activities due to considerable time constraints and little perceived value in information sharing, beyond building public awareness. In particular, SMEs identified little bridging social capital to external knowledge sources. When questioned about networking amongst businesses in the Region’s AFNs, supply interactions were generally seen as a sufficient site for networking between businesses in the Region. As one local producer/distributor stated

“The farmers, they don’t have a lot of chance to meet... they just stay on their farm and sell farm-gate or [wholesale]... we do fit into the community by providing a service to other farmers that are good in growing certain crops. We go to those
farms, and say ‘look, we want you to grow some acreage for us, we don’t have enough land’” (K3).

This sentiment was common amongst the producers interviewed, suggesting that inter-producer networking was generally limited to exclusive, supply-oriented AFNs. The perception that additional networking activities were not worth the time they required runs counter to the value associated with such relationships in the literature on AFNs. This raises concerns about the long-term success of associated innovation processes, suggesting that innovations based on the tacit information available to regional food businesses could become locked-in, path dependent, and ultimately miss opportunities to inform their activities with practices and information from other regions. The end result of this would path dependency would be to stymy future innovation.

To address a dearth of robust AFNs in the Region, Public Health created Foodlink to improve connectivity between alternative food assets in the Region. Key informants unanimously identified the value provided by Foodlink’s *Buy Local, Buy Fresh* map, which illustrates the location of food businesses and the products they have available throughout the region to support urban-rural connectivity; and Foodlink’s *Taste Local, Taste Fresh* event, which provides an opportunity for the Region’s farms and restaurateurs to partner and share original creations with area residents. Interviewees ascribed multifaceted value to these promotional tools, primarily through their ability to facilitate and generate diverse social capital in the sector. However, Foodlink’s primary mandate is for intra-regional connections, primarily between urban and rural stakeholders. This does little to address concerns around the lack of external information sources within businesses’ existing knowledge networks.

The lack of value attributed to networking also raises concerns around the breadth and diversity of business interactions within the Region’s AFNs. This lack of interest in formal networking may reflect that business owners in AFNs generate considerable social capital at common retail points, but were secondary to the priorities of customer attraction and financial
transactions. Some examples include established, on-farm retail markets such as Herrle’s Country Farm Market and Martin’s Family Fruit Farm, the Elmira Produce Auction Co-operative, the Region’s farmers’ markets, and local promotional events like the Taste of Woolwich. These retail outlets provide local producers, processors, and restaurateurs with opportunities to gain information on local competition, customer demands, and interact with other businesses throughout the Region’s AFNs.

Therefore, the social dynamics required for AFN development are addressed to some extent by the close-knit proximity of many stakeholders within the Waterloo Region and the number of successful alternative retail venues. However, the lack of explicit interest in networking does limit those networks to businesses with similar retail strategies and to the same proximity-based networks that populate local promotional events. As one local business owner stated, “It’s funny it’s that same group of people that are usually at the different events or that are at certain talks and things that are happening. It’s our core kind of group of people that are into that” (K7). This suggests that strong bonding social capital has created relatively exclusive knowledge networks in the Region. Although a couple of key informants did suggest they monitored external research and attended trade fairs, this was limited to a single distributor and one of the largest farming/processing operations in the Region. Outside of these operations, there was little evidence that knowledge from geographically distant sources was being broadly disseminated to other businesses, nor whether it was robust enough to address the general dearth of bridging social capital amongst other network stakeholders. This suggests that many of the businesses operating in the Region’s AFNS have limited opportunities and/or desire to develop bridging social capital and access outside sources of information. This lack of interest in establishing more diverse networks could result in increasingly homogenous, exclusive networks that would ultimately limit future innovation, undermine AFN development, and limit its potential as a source of comparative advantage.
5.2 Food Governance Network Dynamics

As identified in this study’s literature review, research on governance of AFNs has found that existing, reductive food governance models does not provide the opportunities for collaborative governance needed to support AFN development. This section first reviews the network dynamics amongst key stakeholders in Waterloo Region’s food governance from civil society, the market, and government. This initial review focuses on the extent of collaboration that exists amongst and between each set of stakeholders, and their respective contributions and/or detractions from an integrated and territorial model of food governance. These stakeholders and the characteristics of their interaction are then assessed in terms of how they affect the respective processes shaping AFN development, with specific reference to how and why this affects AFN development in the Waterloo Region. Based on the synergistic outcomes identified between AFN and regional economic development in the literature review, the analysis of government stakeholder dynamics places particular focus on the influence of regional economic development structures. These dynamics are then further examined in reference to their influence on the three mutually-reinforcing processes that shape AFN development: connecting/reconnecting stakeholders, embedding goods and services, and intertwining economic and non-economic roles. The section concludes with a discussion of opportunities to further development of an integrated and territorial model of food governance in the Region.

5.2.1 Civil Society

Waterloo Region’s civil society holds an important role in the Region’s food governance through two key organizations, the WRFSR and Foodlink. As identified in the case study, research conducted by the Region of Waterloo Public Health identified the need for a group to advocate for local farmers and share information about local food, which lead to the development of Foodlink. Foodlink’s two primary contributions to the Region’s AFNs are: the Buy Local, Buy Fresh map, a
print and online resource that highlights participating farms and businesses in the Region that sell local products; and the *Taste Local, Taste Fresh* event, which partners farms and chefs from the Region to provide a showcase for Regional foods and fundraise for the organization. These activities support a number of the key functions Creutzberg (2010) identifies with local strategic governance (see Table 2) facilitating project collaborations, regional marketing and branding, information sharing and opportunity updates, and creating important cluster linkages. Foodlink also provides an important interface through which urban customers can connect with primarily rural producers, effectively linking marketplace activities and the advocacy role played by customers and civil society.

A key informant in Public Health stated that research following the development of Foodlink identified the need for “a group of volunteers from all aspects of the food system... coming together to look at the big picture of the food system and identify what needs to happen for a healthy food system” (K37). The research led to the development and Public Health’s continued support (through staff-time) of the WRFSR, which now “identifies itself as carrying out five functions:

- Networking/education – build new partnerships
- Coordinate/analyze – identify and prioritize food system needs and support creation and implementation of initiatives
- Evaluation – establish benchmarks and targets for achievement of mission/goals
- Funding – lever community resources to support mission/goals
- Policy – identify policy changes which support goals and advocate for their implementation.” (Steinman, 2011, p. 40)

These functions align closely with many of the key functions prior research has attributed to local strategic governance, including: leadership, strategic direction, coordination and alignment,
mobilization of resources for strategic priorities, information sharing, engaging local businesses in
dialogue, and facilitation of industry-university partnerships (Creutzberg, 2010).

Moreover, the WRFSR offers a collaborative venue for diverse stakeholders from each of the
domains Wiskerke (2009) required for territorial and integrated food governance (see Figure 1 for
reference). The WRFSR identifies stakeholders from across the alternative food sector, including
“local farmers; emergency food providers; food processing, distributing, and retail businesspeople;
health professionals, and more” (Waterloo Region Food System Roundtable, 2013). Although
members are asked to represent only themselves rather than the organizations they may otherwise
be involved with, membership also includes regional planners, representatives, community
nutrition workers, civil society group representatives, and academics (Waterloo Region Food
System Roundtable, 2013). Thus, government, civil society, and private sector actors all take part in
a forum for discussion with the capacity to fulfill many of the key functions involved in local
strategic governance. In particular, the WRFSR functions as a food policy council. With a broad,
inclusive approach to membership from civil society and government, the roundtable is well
positioned to develop a regional food strategy to steer relevant AFN development.

Despite the potential governance capacity that exists between Foodlink and the WRFSR, the
absence of authority and subsequent influence over governance functions such as issues brokerage
and coordination (see Table 2) ultimately reduces the governance capacity of both civil society
organizations. Key informants regularly cited a lack of clarity between the mandates of both
organizations as a source of competition, conflict, and redundancy. As one key informant stated,
“The source of the tension was ‘why do we need another organization, we’ve already got
Foodlink?’… This was just going to create confusion on the side of the public, and stepping on each
other’s toes, and conflicting mandates. And I think they had a good point” (K45). Although Public
Health structured the organizations in a manner that would limit any competition for available NGO
funding, by providing the Roundtable with ongoing administrative support, the perceived overlap
in mandates had limited collaboration between the two groups. Both organizations offer key strategic governance functions for the Region’s alternative food sector, which the above overviews suggest do not directly overlap with one another.

The lack of collaboration and confusion around mandates that exists between these organizations has limited the overall capacity of strategic food governance in the Region. A lack of coordination allows for missed opportunities and reduced governance capacity (Creutzberg, 2010). An example of this lost capacity is clear in the statements of one rural municipal economic development official,

“Spearheading culinary tourism... to me that is Foodlink’s mandate, should be, but they are not doing it... they have a great website and the local food map. People still don’t know who they are.... Who is doing the Iron Chef series? I can’t remember who the driving force is behind it. But you know Foodlink should be involved with that. There is stuff going on. It just has to be tied together... it has to be on a regional basis.” (K25)

This confusion and lack of clear leadership is not inherent to the structure of either organization, and can only come from broad, continued engagement amongst all the relevant stakeholders. Since these interviews were conducted, Foodlink has undergone considerable staff turnover. The current executive director of the organization is now a member of the WRFSR and it is likely that a more collaborative relationship between the two organizations will result.

The social network analysis undertaken on economic developers in the Region identified that neither the WRFSR nor Foodlink were well connected to economic development makers in the community (see Figure 7).

Figure 7 uses pink coloration to highlight that Foodlink was only identified as a source of food sector information by two economic developers throughout the entire Region, while the
WRFSR was not identified by any (WRFSR and Public Health’s connectivity were included in the diagram for further context, with the linkages arising from interview data).\(^5\) Regardless, although Public Health has endeavoured to minimize conflict between the two organizations, their respective capacities are undermined by a lack of clarity around their mandates and the specific roles they each hold in the Region’s alternative food sector. For civil society to properly support food governance in the Region, the specific functions provided by each civil society asset must be clearly understood. Otherwise, leadership will be unable to properly coordinate, align, and mobilize the Region’s assets towards any strategic priorities.

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\(^5\) It should be noted that at the time of this research the WRFSR was relatively new, and has since reached out to the Region’s economic developers through information sessions on the Region’s local food sector and through invitations to membership on the WRFSR itself, although the success of these efforts remains uncertain at this time.
Figure 7: Economic Developer Connectivity to Key Civil Society Organizations

Ensuring strong leadership is central for stakeholders attempting to provide such strategic direction. When developing a collaborative interface for food governance in civil society, it is important to identify and incorporate the government stakeholders with appropriate mandates. The alternative food sector’s development has been motivated by many non-economic outcomes, which is captured by the close involvement of Public Health and regional planners. However, as the literature review outlined, the incorporation of community development into broader regional economic development discourse has resulted in a number of synergies between the desired outcomes of economic developers and those stakeholders contributing to the construction of
alternative food networks. Furthermore, the mandates identified by key informants in the Region’s and municipalities’ economic development departments closely align with key governance functions associated with strategic local governance. Despite some key informants’ concerns around the appropriateness of the structure and mandates amongst public sector EDPs in the Region (discussed in section 5.2.3), EDPs play a key role in strategic local governance for any sector. Conventional approaches to food governance, along with a limited understanding of alternative food on the part of urban economic developers identified in the Region has resulted in public sector governance that is inappropriate for the Region’s AFNs. EDPs’ mandates and the resources available to them make them integral food governance stakeholders. Without their engagement, civil society organizations attempting to provide governance functions such as issue brokerage, the mobilization of resources, regional, commercialization support, and coordination/alignment are severely limited. A collaborative civil society forum like the WRFSR can leverage its leadership assets and wealth of relationships to provide these functions. However, adequate engagement on the part of correspondingly mandated government stakeholders is needed to support these functions with the resources and authority they have available.

Despite participation on the part of government stakeholders from Public Health and the regional planning department, a truly integrated and territorial model of food governance requires buy-in on the part of economic developers tasked with providing strategic direction to the Region’s economic development. Developing better coordination amongst civil society, market and government stakeholders can assist a collaborative forum like the WRFSR in developing a strategic direction. However, if this direction is not properly integrated into ongoing, formal economic development strategizing in the Region, the authority of its leadership capacity will be questioned and its potential for support constrained. Thus, for civil society to provide adequate collaborative venues for an integrated and territorial model of food governance, the appropriate government stakeholders must participate and contribute their associated capacities. The compartmentalized
nature of government responsibility, both geographic- and department-specific, means that government should not be regarded as a homogenous stakeholder group, when identifying collaborators for food governance. Recognizing the appropriate governance capacities within government is essential to properly leveraging the non-governmental governance capacities that exist within a Region. This represents an important contribution to Wiskerke’s (2009) theorized model of an integrated and territorial approach to food governance. Government stakeholders cannot be considered as a homogenous stakeholder group, but instead, must be considered in terms of their mandates and the respective relevance to AFN development. This also suggests a need for future research into the sub-categories within government and civil society that, in general, should be engaged in collaborative approaches to food governance.

5.2.2 Market

The network dynamics of market-based interactions were largely addressed in the previous section discussing the challenge posed by a lack of comprehensive food sector networking. Networking between businesses was generally not sought out beyond supply- or proximity-based relationships, with considerable social interaction taking place at many of the Region’s retail venues. Meanwhile, interviewees did suggest that civil society provided a number of networking opportunities, through membership in the WRFSR or the resources and event put together by Foodlink: Waterloo Region, amongst others.

Business owners participating in civil society organization made a clear distinction between more formal business-oriented networking and advocacy or governance activities. Interviewed producers questioned whether there was any direct financial motivation for networking through these organizations,

“I'm part of the... Buy Local, Buy Fresh map locally, so I participate in events like Taste Local, Taste Fresh and those kinds of events. I think that's somewhat valuable.
I don’t think it’s very valuable in terms of business and sales ... I have never once made a sale because of it.” (K5).

However, relationships developed within the Region’s civil society organizations were not exclusively with customers. The WRFSR actively ensures broad representation, with considerable membership on the part of government, market, and academic stakeholders as well. The same producer, when referencing the WRFSR, stated,

“it’s valuable, mostly because it brings together really diverse and broad points of view on the food system, unlike a lot of other networks that are primarily business-related networks. It’s a lot bigger than a business-related network so I find it valuable” (K5).

This was a common sentiment amongst interviewees, with two business owners suggesting that seeking direct financial benefits within the WRFSR network would actually be a conflict of interest. This suggests that business owners make a distinction between short-term marketplace outcomes and broader outcomes attributed to food governance functions. Despite the existing, stringent time constraints that limited broader business-related networking amongst producers in particular, time was made available for participation in WRFSR discussions. This continued engagement on the part of local business owners would seem to support Wiskerke’s (2009) assertion that the existing, minimalist approach to food governance in the conventional food system does not properly provide for AFN development.

However, this engagement in regional food governance was not limited to establishing suitable structures and/or models for alternative food governance. One producer interviewed outlined that their involvement with the WRFSR was specifically to ensure that the WRFSR established a model of food governance appropriate to all types of farming in the Region. Their participation in the WRFSR was motivated by an intention to fulfill their leadership role in the regional chapter of a producer group that represents farmers within conventional and alternative networks. By his own
admission, his own business operated exclusively within the conventional agri-food system. Thus, the distinction between developing broad network connections for business and governance was not unique to producers with more alternative tendencies. For primary producers in particular, the willingness to engage in collaborative governance structures despite stringent time constraints is a common phenomenon. The extent of collaborative governance activities in primary production has been largely driven by the limited market power of individual producers relative to other stakeholders in conventional supply chains. This mirrors the participation of alternative food businesses looking to develop appropriate an alternative voice to the price- and quantity-driven outcomes sought by food governance structures in the conventional food system.

Furthering this hypothesis, the same producer that expressed little economic value in his/her participation with Foodlink later explained that he/she participated because Foodlink’s initiatives were “helpful in terms of building camaraderie between people in the local food movement and I think that softer stuff is important” (K5). This supports Wiskerke’s governance model, illustrating the joint roles held by the market and civil society in connecting customers with producers, as well as urban and rural stakeholders. Interviewed business representatives generally suggested that their willingness to engage in governance networks was instigated by a desire to develop cooperative norms and spur social capital development in the Region’s food system. However, this desire was not reflected in their own exclusive, supply-oriented networks. This incongruity in producer networking behaviour suggests that those producers involved in regional food governance networks understood the momentum that appropriate food governance connections could provide for further regional AFN development (Wiskerke, 2009). As Wiskerke (2009) asserts, these connections mutually reinforce the process of embedding and valorizing local alternative food products. As such, relatively modest time commitments in governance provide an important foundation for increased awareness, demand, and ultimately welfare within those businesses operating in alternative food networks.
5.2.3 Government

Despite the venues for food sector governance that exist within civil society, the Region’s public sector has not explored or addressed the Region’s food sector in a strategic, cohesive fashion. The Region’s municipalities, planning department, and Tourism Corporation have undertaken a number of endeavours to explore and/or support the Region’s food sector. See Table 11 for a few examples of these activities.

Table 11: Select Government-Sponsored Alternative Food Supports in Waterloo Region

<table>
<thead>
<tr>
<th>AFN Support</th>
<th>Government Stakeholder Responsible</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countryside line and Rural Zoning Regulations in Regional Official Plan</td>
<td>Planning, Housing &amp; Community Services – Region of Waterloo</td>
<td>See section 5.1.1 on Rural land-use tensions for more information.</td>
</tr>
<tr>
<td>The Waterloo Region Community Gardening Network</td>
<td>Region of Waterloo Public Health</td>
<td>A network originating from Public Health that supports local community gardens through knowledge sharing, skills development, and connecting interested parties with relevant resources.</td>
</tr>
<tr>
<td>Taste of Woolwich Event</td>
<td>Township of Woolwich</td>
<td>An annual promotional event for farmers and food businesses from within the Township of Woolwich (or bordering it).</td>
</tr>
<tr>
<td>Food System Review</td>
<td>Township of Woolwich</td>
<td>The Township undertook a review of its food sector to understand the challenges and opportunities that exist in the sector. This has informed further economic development strategizing in the Township.</td>
</tr>
<tr>
<td>Mixed-use Agricultural Cluster Zones</td>
<td>Township of Wellesley</td>
<td>A lengthy debate between the Township and its resident Mennonite population occurred around the need for multi-use rural zoning for those reliant on horse-and-carriage for transportation, to minimize the associated time lost to travel. As a result, a new settlement type was created. “It’s a cluster of 7 lots, each of which is comprised of 3 uses: a small barn for subsistence level agriculture, a small shop for the resident, and then a residential unit for the family.” (K26)</td>
</tr>
<tr>
<td>Regional Identity Discussion Incorporating Food Assets</td>
<td>Waterloo Region Tourism Marketing</td>
<td>WRTMC is a public-private partnership exploring tourism opportunities and regional branding for the Region. A large focus of their continued discussion centred around integrating the Region’s rural, food</td>
</tr>
</tbody>
</table>
Corporation (WRTMC) production assets and history with the Region’s innovative technology sector to create a unique tourism experience.

Each of these initiatives represents an effort to support the Region’s food sector on the part of government stakeholders. Each activity also has the potential to result in considerable support for the Region’s alternative food sector. However, these are undertaken in a fragmented, fashion with little effort at collaborative, coordinated, or cohesive approaches to food sector. The social network diagram in Figure 7 suggests a siloed approach to AFN support in the Region. EDP’s did not identify any information sharing with either Public Health or regional planners in relation to the local food sector, despite their lengthy histories of interaction with the Region’s AFNs. The missed opportunities from this siloed approach were most apparent through interview data. Public procurement of the Region’s alternative food products was identified by Public Health representatives as a potential means of promoting access to healthy foods while also supporting the Region’s AFNs, however such a support was not identified by any of the EDPs interviewed throughout the Region as a possible source of support for the Region’s food sector. As identified in the integrated and territorial model of food governance (Figure 1), public procurement is one of the two primary governance dynamics requiring government intervention. While government stakeholders are engaged in food governance, this engagement is not widespread, and a lack of inter-departmental knowledge sharing is preventing comprehensive support for the Region’s AFNs.

The SNA undertaken for this study also examined knowledge sharing between EDPs and their immediate sources of sector-specific information for two other emerging sectors in the Region: clean technology and the creative/cultural sector. A comparison of network fragmentation is possible by examining the networks’ relevant densities (Vinodrai et al., 2012). Table 12 compares the relative network densities of economic development networks for each sector, affirming a more fragmented approach to local food by the Region’s EDPs (see Appendix E for a visual comparison of...
the respective network diagrams). Thus, information on local food is shared in a disparate, less cohesive fashion that in the other two more technology-oriented sectors, which is reflected in a similarly fragmented approach to supporting the sector. This fragmented support was noted in key informant interviews as well. As one municipal economic developer stated,

“supporting [the local food] sector is absolutely critical. Waterloo Region Tourism is sort of spearheading culinary tourism... Who is doing the Iron Chef series? I can’t remember who the driving force is behind it. But you know Foodlink should be involved with that. There is stuff going on. It just has to be tied together” (K25).

There is no single cause for this fragmented support and lack of network density, but when asked about regional governmental support for local food, key informants in the food industry regularly made comments such as, “In terms of Waterloo Region, we’re not tech, so we’re not sexy. And you know, that’s not a shot, but Waterloo region is very focused on tech” (K9). Considered alongside the technology-centric name of the Region’s economic development focal point, Canada’s Technology Triangle, these findings suggest that a lack of prioritization is also contributing to the fragmented economic support for the Region’s alternative food sector. When discussing the lack of processing facilities in the Region, interviews with EDPs from the Region and its urban centres suggested that limited attention was being paid to addressing the challenges facing smaller scales of agri-food production in the Region. The social network analysis undertaken as part of this study illustrates this lack attention through an examination of overall network density (for a definition of density, see Table 6).

Table 12: Sector-Specific Social Network Connections and Density

<table>
<thead>
<tr>
<th>Sector</th>
<th># of EDPs* Identified</th>
<th>Proportion of Inter-EDP Connections</th>
<th>Network Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Food</td>
<td>18</td>
<td>61.3</td>
<td>0.099</td>
</tr>
<tr>
<td>Clean Technology</td>
<td>18</td>
<td>68.7</td>
<td>0.139</td>
</tr>
<tr>
<td>Creative/Cultural</td>
<td>14</td>
<td>67.6</td>
<td>0.118</td>
</tr>
</tbody>
</table>

*EDP refers to Economic Development Officer, an acronym referring to all public sector EDPs in the Region
Regional Economic Development and Alternative Food Network Governance

When asked about the disparate supports provided to the Region’s alternative food sector, a number of municipal economic developers raised the lack of a central regional economic development agency as a contributing factor. CTT is commonly cited as an example of the Region’s collaborative approach to economic governance; however, there was considerable variation in the perceived value of CTT between municipal EDPs in the Region. Some municipal EDPs highlighted the value of CTT’s centrality, as identified in the following statement,

“Well it’s very positive. Recognizing that the creation of CTT was initiated by the municipalities... the same strategy of ‘it’s better to work together than to do it separately.’ No different than we’re looking at the development and the emphasis on bring more go-to-market lands. Again, it’s done by a unified approach of CTT and the associated surrounding local municipalities within the region.” (K28)

Meanwhile, other municipal economic developers expressed serious reservations about the value of working with CTT, suggesting

“It’s just the relationship...They do a roundtable and updates but that is not what I need, I need to talk to people about challenges and approaches. Theirs is more about updating, where CTT goes over the list of the wins. But I don’t get benefit out of that, it is good for information sharing but you can do that over email.” (K25)

Despite these reservations, the lack of another government supported regional economic development organization has left CTT as the focal point for the region’s economic development activities.

However, the FDI-specific mandate of CTT does not position it well to address the range of economic development concerns in the Region. This was reflected in comments made during interviews with representatives of CTT, who articulated on-going considerations of broadening CTT’s mandate:
“We’re trying to provide facilitative leadership within the community in regards to international business and so along with reaching out to the community, we have a municipal advisory committee which is made up of economic development directors of the three cities, a representative from the planning department of the region and a representative from Wilmot Township and Woolwich Township.” (K38)

Amongst all EDPs in the Region there was common agreement that further inter-municipal collaboration was needed, particularly in the area of inter-municipal servicing. This intention was not identified as an agreed upon plan by the municipalities within the Region, nor was it a formal strategy outlined by CTT as an organization. As would be expected, the municipal representatives with doubts about the value of CTT's current role also raised questions as to whether CTT's capacity was appropriate for this potential future role. However, since this research was conducted the Region's municipalities have agreed to coordinate the development of a regional economic development organization with an appropriately broad economic development mandate. This new organization remains at the conceptual stage.

The lack of attention devoted to alternative food in Waterloo Region is not uncommon. Policy-making often takes place in broad discussions of regional development where emerging AFNs struggle to attract attention (Marsden, Banks, & Bristow, 2000). In terms of political space, the emerging local food conventions that preface local demand begin within select communities of interaction and are often not recognized as strategic opportunities in urban and mixed urban-rural regions until they meet a certain critical mass (Straete, 2008). However, this is a specific challenge for AFNs because the novelties and innovations taking place in these networks tend to fall outside the realms of existing state support, with information-based product qualities and unique network dynamics often falling outside conventional innovation supports that target product and process improvements (Marsden, Murdoch, & Morgan, 1999).

Thus, developing collaborative venues for regional food governance, or incorporating existing
venues like the WRFSR into policy and strategy discussions, is necessary for economic developers to understand alternative food sector dynamics, provide appropriate place-based governance, and address emergent opportunities.

5.3 A Discussion on Alternative Food Network Development in Waterloo Region

The previous section examined findings on the structure and dynamics of food governance networks in the Region to identify where barriers exist to collaborative governance itself. This section considers the challenges, opportunities, and governance structures that were identified in the previous sections and contemplates their impacts on AFN development in the Region. The three processes that shape alternative food sector development (Wiskerke, 2009) present a framework to consider how these challenges and opportunities suggest about the Region’s alternative food sector’s development, as well as how governance structures in the Region influence this development. As such, the section explores how the challenges and opportunities facing the sector relate to food governance in the Region through three developmental processes specific to AFNs (see Table 3): the connecting/reconnecting of stakeholders, the embedding of goods and services, and the intertwining of economic and non-economic roles. This section will contribute to understandings of the interaction between food governance network dynamics and the actual processes shaping alternative food sector development.

5.3.1 Connecting/Reconnecting

Connecting/reconnecting refers to the bringing together of a core group of public and private stakeholders. The purpose of this process is to bring together various stakeholders to “steer and design the process” (Wiskerke, 2009, p. 382), referring to participatory structures that assist in AFN self-organization; which subsequently fosters “the formation of close regional networks –
small or larger, intra- or inter-sectoral – which link up with each other and give the whole process its momentum” (Wiskerke, 2009, p. 382). This social capital generation between different stakeholder groups is essential to the construction of appropriate governance structures as well as the wealth of connections that facilitate value-generation and social learning in AFNs (Wiskerke, 2009).

In Waterloo Region significant social capital has been developed within Foodlink and the WRFSR, although the aforementioned tight-knit nature of the Region’s AFNs suggest an abundance of bonding social capital. This capital has assisted in developing an engaged, committed ‘steering committee’ when Public Health facilitated bringing together the WRFSR; however, it may also limit the potential for broader engagement within the Region. The lack of bridging social capital throughout the Region’s AFNs must be overcome to promote further AFN connections and generate momentum behind AFN development. Establishing this momentum is fundamental to continued AFN development within an integrated and territorial approach to food governance.

For example, the steering committee’s capacity for self-organization has been limited by the lack of EDP engagement. Challenges such as the lack of processing infrastructure, market access barriers for new entrants, and the lack of networking in the industry are all common industry challenges. However, EDPs mandates for FDI, business retention and expansion, and promoting local innovation processes position them as stakeholders that need to be involved in the steering committee. Thus, connecting stakeholders has taken place to a great degree within civil society, but the challenges confronting the sector further illustrate that the appropriate public stakeholders are not yet involved. This relates to the lack of bridging social capital in the Region’s AFNs and also speaks to the lack of a more domestically-oriented regional economic development forum with which to engage.
5.3.2 Embedding Goods and Services

Embedding goods and services refers to two closely related processes, shortening the distance between food production and consumption, and “valorizing the region’s own special character, whether this is found in socio-cultural, cultural-historical, landscape-related or other feature” (Wiskerke, 2009, p. 383). The value of this process for AFN development is that it anchors the organizations involved into the regional community and economy, while providing “the basis for the production of distinctive and unique products, creating the possibility of retaining more net value added in the region by exploiting the region’s endogenous development potential” (Wiskerke, 2009). As such, it institutionalizes AFNs as a defining feature of the region, while promoting innovation and value-addition processes within the AFNs themselves. By valorizing local products within the region through public procurement or promotional events, alternative food products within the Region become an amenity for residents and tourists while potentially generating a base value added for geographically identified products from the region.

The variety of promotional efforts in the Region suggests that efforts are underway to embed the Region’s alternative food products. However, these efforts are uncoordinated and ultimately less effective as a result. These include initiatives like the “Taste of Woolwich”, coordinated by the Township of Woolwich; the “Taste Local, Taste Fresh” event, coordinated by Foodlink; and the emerging efforts at integrating the Region’s food assets into a regional identity for marketing purposes, on the part of Waterloo Region Tourism Marketing Corporation. However, the fragmented nature of these efforts makes them less effective than a coordinated approach for a few reasons. Without coordinating the activities of the various governance bodies in the Region, distinct identities are being created that may contradict or undermine one another. Promotional events like the Taste of Woolwich do valorize local products, but they do so around a municipality-specific identity that could foster intra-regional competition and ultimately undermine regional identity promotion.
Meanwhile, without a collaborative approach to food governance with clear leadership, subsets of the Region’s food sector may create an identity that does not recognize the Region’s diverse stakeholders. The Waterloo Region Tourism Marketing Corporation is a public-private partnership between the Region’s municipalities and a subset of regional tourism businesses. This has become a venue for strategic discussions as to how the Region should be marketed to tourists; however, the partnership involves a membership fee that may exclude businesses that are not seen as tourism-related and smaller businesses in the Region. Thus, the embedding effort may not actually address the diversity of food production in the Region, benefitting some of the industry but not all.

Finally, the landmark food event for tourists and many residents in the Region remains the Kitchener-Waterloo Oktoberfest celebrations, the largest such celebration in North America. However, despite the diversity of locally produced craft food and beer, large-scale vendors have garnered contracts that limit access for most local businesses to market themselves through the main venues. This represents a missed opportunity to embed the Region’s food production into the regional identity and cultural make-up. Short-term financial considerations and sponsorship funding have considerable influence over the municipalities involved (Kitchener and Waterloo) in making the decision to include large firms from the conventional food system. However, a collaborative regional approach to food governance would ensure that any such decision was informed by a thorough understanding of the Region’s food sector dynamics and considered with a regional strategic direction in mind. Thus, while the embedding of goods and services is taking place throughout the Region, these efforts are undermined, potentially not representative, and there are clear missed opportunities to further embed regional food production.
5.3.3 **Intertwining**

Intertwining refers to the recognition and promotion of synergies between economic and non-economic roles provided by AFNs. Although this process has immediate, intrinsic value, via the simultaneous promotion of economic and non-economic goods, “ultimately [intertwining] should lead to a higher standard of living and quality of life in the Region” (Wiskerke, 2009, p. 383). An example of intertwining is an urban strategy that promotes alternative food production in the city as a means of “reducing health programs, greening the city, education [sic] the youth, stimulating the regional food economy and enhancing urban-rural interrelations” (Wiskerke, 2009, p. 383). This allows for the development of food policies that confront many of the negative externalities associated with the conventional food system and in doing so, address economic, social and environmental concerns in the Region. When occurring alongside a dedicated steering network and a food sector embedded in the Region, this institutionalizes alternative food sector development as a desired sustainable development outcome in the Region.

Although key stakeholders in the Region like Public Health have been identifying social and environmental synergies with alternative food production for quite some time, the limited engagement of economic development has prevented the proper intertwining of alternative food’s economic roles in the Region. The Health Determinants & Planning division (renamed the Health Determinants, Planning & Evaluation Division in 2001) was formed under the Region’s Community Health Department in 1994. The division was mandated to facilitate “population health planning, evaluation and policy development with the Region of Waterloo” (Region of Waterloo, 2013), and was the division responsible for the series of food system studies that motivated the creation of Foodlink and the WRFSR. As one key informant stated,

“[Theresa Schumilas] has to be given credit and most people don’t know that, for organizing Public Health in that way... she started the health determinants whole division... within that we were looking at food security and healthy communities. No
other health unit had that, it was completely visionary... all those reports got written, which are now the information base for everything, which allowed us to go to regional council to make all kinds of requests for work being done and there we have the data. And that data is now being pointed to by other areas ... Foodlink was born at Theresa Schumilas’ kitchen table” (K45).

Thus, the former director of the Health Determinants, Planning & Evaluation division at Public Health recognized the socioeconomic and health-related synergies that exist with the Region’s food system. By identifying these synergies and having Public Health commission and undertake the aforementioned reports on the Region’s food system, Public Health has provided the Region with unique insights into the intertwining of the food sector’s multiple roles. This informed the development of Foodlink and the WRFSR but, as the same key informant suggested, “it’s because of this that we’re able now, to benefit from this whole buy local mindset” (K45). Key informants regularly attested to the value of Public Health’s early research as a valuable support for the local, alternative food sector.

Despite the key informant’s suggestion that the data from Public Health’s studies has provided value to other stakeholders outside the Region, the social network analysis identified no connection between the Region’s EDPs and Public Health on issues relating to the local food sector. This finding was further supported by the lack of understanding and awareness of alternative food sector dynamics on the part of urban and regional EDPs. This suggests that the Region’s economic development networks have not adequately leveraged the unprecedented regional data available on the multi-faceted roles of the food sector or Public Health’s continued engagement with the alternative food in the Region into economic development strategies, particularly on the part of the Region’s urban centres. The recent outreach to economic developers by the WRFSR is an important step in continuing and broadening the process of intertwining in the Region, and the creation of a robust regional economic development organization should also provide rural stakeholders with an
appropriate venue to illustrate the importance of the Region’s food sector. However, until EDPs engage with the roundtable and Public Health, the non-economic roles of the Region’s food sector remain underappreciated, which will likely limit focus on the alternative food sector in economic development strategizing. This suggests that while food governance stakeholders can appreciate and support the intertwining of economic and non-economic food sector roles, fully leveraging this intertwining requires representation and engagement on the part of stakeholders involved in all the relevant departments of regional policymaking.

5.4 Chapter Summary

This chapter outlined the challenges and opportunities identified by stakeholders in Waterloo Region’s AFNs, explored collaboration in the Region’s food and economic governance networks, and then analysed how the Region’s governance networks influenced AFN development in the Region. The specific dynamics of Waterloo Region are summarized, with a focus on this research’s broader contributions to existing research.

First, a number of the challenges and opportunities identified in Waterloo Region reinforce existing research findings on the challenges facing AFN development and suggest their continued relevance to AFN development. Maintaining appropriate social and physical infrastructure were both common challenges. Despite recognizing the benefits of relationship building, there was limited bridging social capital amongst the private sector and increasingly strong bonding social capital. Although this provides strong ties needed to steer developments, the lack of bridging social capital throughout existing AFNs raises questions about the extent to which further network development is occurring and the momentum such development would provide. In addition, the lack of small-scale processing facilities and difficulties developing on-farm processing operations continues to pose considerable challenges for the development of value-addition opportunities (Connelly, Markey, & Roseland, 2011; Sonntag, 2008). Similarly, this research found that small-scale
producers faced considerable difficulty accessing processing and retail marketing opportunities. While scale is a common issue in the literature, these challenges usually concern the growth prospects of mid-sized farming operations.

Second, the analysis of governance networks in the Region identified a wealth of potential food governance capacity within the Region’s civil society and businesses. The appreciation for food governance was also echoed and acted upon by many government stakeholders, largely in Public Health and the Region’s planning department. However, the ability of existing food governance stakeholders to provide all necessary strategic governance functions has been undermined by a lack of engagement on the part of urban and regional EDPs.

Although these findings are specific to Waterloo Region, any region looking to adopt an integrated and territorial model of food governance must ensure that the EDPs in that region have access to a collaborative food governance forum so that the leadership and knowledge available through any food policy council or similar collaborative approach to food governance can be leveraged into formal decision- and policy-making in the Region. In the case of Waterloo Region, the most efficient step would be to better integrate the WRFSR into regional economic development networks. In the alternative food sector, the unique sector dynamics require a robust, collaborative approach to governance that includes all government stakeholders with relevant strategic mandates, alongside civil society stakeholders and market assets. Engaging with civil society leadership provides economic developers with an improved understanding of existing sources of comparative advantage, greater awareness of strategic opportunities within and between given sectors, and optimizes sector supports by collaborating on a common vision. This is an important contribution to Wiskerke’s (2009) model of integrated and territorial food governance, illustrating that government actually includes diverse stakeholders with varying degrees of importance and/or relevance to AFN development. Further research is needed to fully understand the dynamics within
each stakeholder category, but it is clear that greater specificity could provide for a more informative governance model.

Finally, in terms of AFN development, this research identified a fragmented approach to the alternative food sector. The lack of engagement from EDPs in regional food governance has meant that each of the three mutually reinforcing processes that shape alternative food sector development (Wiskerke, 2009) is hindered:

- Connecting/reconnecting stakeholders: Stakeholders collaborating to provide food governance and steer initiatives in the Region are limited by not adequately being integrated into regional economic development resources and policymaking discussions;

- Embedding goods and services: This is occurring under multiple sub-regional identities and is discussed within subgroups of the Region’s food stakeholders. There are considerable opportunities to strengthen regional associations with local, alternative food products that continue to be missed.

- Intertwining of economic and non-economic roles: Interdependencies between the economic and non-economic potential of the food sector continues to be underleveraged in economic strategies and policymaking.

In general, the lack of EDP engagement reflects a deficiency in an otherwise collaborative approach to food governance. The absence of EDP participation in the WRFSR results in a governance structure less capable of addressing cross-sector synergies, positioning the Region’s food sector as a integral component of the Region’s identity, and leveraging the food sector’s ability to multiple development goals in the Region through economic policy. The economic development community must develop an understanding of the opportunities available to them to capitalize on the civil society and market-based assets that exist in the Region. A collaborative approach must ensure that a breadth of stakeholders within each domain is engaged to optimize these processes.
In particular, the government stakeholders involved must represent those officials mandated to address each of the multiple roles attributed to the alternative food sector. Thus, collaborative food governance venues can maximize their support for alternative food network development by ensuring all the relevant actors involved in regional and municipal policymaking are engaged, informed and addressing the sector in a coordinated, comprehensive, and collaborative manner.
6.1 Conclusions

As laid out in the literature review, regional alternative food sectors are comprised of non-hierarchical, self-organizing network structures that are ill suited to the existing models of agricultural and food sector development. Recent trends in regional economic development also suggest that the network dynamics and innovation processes driving value creation in AFNs present considerable opportunities to contribute to desirable economic development outcomes. How can the network dynamics involved in regional food governance better support AFN development? Specifically, what are the roles of EDPs in such an approach to food governance? These questions were explored by addressing three specific research outcomes: 1. determining the network and stakeholder dynamics that underpin collaborative approaches to regional food governance; 2. identifying how EDPs facilitate and/or hinder efforts to address the opportunities and challenges confronting AFN development; and 3. identifying how collaborative regional food governance structures can better support the three mutually reinforcing processes that shape alternative food sector development (Wiskerke, 2009).

To begin, this research found that the current opportunities and challenges confronting AFN development in Waterloo Region's AFNs were consistent with those found in previous research. These challenges included a lack of appropriate, accessible processing facilities; difficulties providing market and processing access for all scales of agricultural production; and the need to continually develop and foster the breadth of relationships that underpin AFNs (Connelly, Markey, & Roseland, 2011; Sonntag, 2008; Feagan, 2007; Marsden, Banks, & Bristow, 2000). This study identified two factors limited the development of a more robust and diverse regional food processing industry; food safety requirements that are unduly burdensome for SMEs and zoning regulations intended to preserve agricultural land, neither of which is unique to Waterloo Region.
New federal legislation (the *Safe Food for Canadians Act*) and associated regulatory modernization initiatives may address the former through a less prescriptive approach to food safety. The research also suggested that scale was primarily a challenge for micro- and small-scale production trying to access markets, rather than a situation of growth constraints facing mid-sized firms. Although these were commonly cited challenges facing AFN, this study identifies particular opportunity areas relating to the zoning of rural (particularly urban-adjacent) land, and the unique barriers confronting the smallest operations and new entrants.

A novel challenge identified in the research was that networking within AFN stakeholders provided little access to bridging social capital. Outside of indirect networking that occurs at alternative retail venues or through product-specific supply- and proximity-based chains there is very little emphasis on knowledge sharing. Stakeholders value the development of relationships with customers but expressed little interest in developing broad, inclusive knowledge sharing networks to foster the learning dynamics that drive innovation. This raises concerns as to the sector’s future innovation potential, as well as more immediate concerns about the ability of those within current AFNs to establish broader connections and contribute to AFN development momentum. There are considerable opportunities for governance stakeholders to promote norms that encourage more diverse and robust networking. Institutional innovations to support the information sharing demands of this emerging sector must be further explored.

In general, this study undertook a novel SNA that provided unique insights into the governance of regional economic development and its treatment of individual sectors. Although there is a growing body of literature on the relationships required for effective governance, this tool provides an important means of directly accessing information on the breadth, depth, and character of relationships. This allows for the direct analysis of institutions and norms that underpin more explicit governance networks, and requires further study as a methodological contribution to governance studies.
The exploration of regional food governance and the processes that shape alternative food geography are closely related, and best addressed together. Wiskerke's (2009) processes provide a framework that informs analysis of the network dynamics underpinning collaborative food governance, as well as the influence of EDPs on AFN development. Civil society in the Region provides a wealth of potential governance capacity in the Region, primarily through the WRFSR and Foodlink. Each of these organizations provides one of the primary governance functions required of civil society in an integrated and territorial model of food governance. The WRFSR provides an ideal venue for the development and implementation of a regional food strategy, while Foodlink successfully connects urban and rural stakeholders through the promotion of AFN connections. However, a lack of engagement on the part of the Region’s EDPs illustrates a key barrier to robust, collaborative food governance. Without comprehensive government engagement, on the part of all relevant government departments, the capacity of food governance networks is limited in its ability to support the processes that influence AFN development.

As outlined in previous research, the most fundamental challenge facing AFNs is maintaining stakeholder’s active and intentional engagement in AFN construction. This same research identifies that a steering committee of key stakeholders is central to this process (Wiskerke, 2009; Feagan, 2007). The WRFSR provided a collaborative venue for such a steering committee, with an inclusive approach to membership. Overall, the WRFSR has been quite successful in bringing together stakeholders from across civil society, government, and even the private sector. The business community continued to maintain active engagement in the WRFSR because of its role as an appropriate governance structure to alternative food. This positioned the WRFSR as an ideal forum for strategic discussion of regional food sector issues. However, despite origins in Public Health and continued engagement on the part of both Public Health and regional planners, the WRFSR has been unable to engage with the Region’s EDPs on a continual basis. The WRFSR continues to pursue such engagement with varying degrees of success. Given EDP’s mandate and resources to support
sector development, this reflects a key barrier to connecting all the necessary stakeholders in a steering committee capable of strategically addressing regional food issues and actively constructing the Region’s AFNs. Thus, one of the core findings of this research was that collaborative approaches to food governance require engagement from all government departments with relevant mandates. This represents a significant contribution to Wiskerke’s (2009) theory on an integrated and territorial approach to food governance, suggesting that government stakeholders should not be considered a homogeneous group. With further research, this has the potential to provide the model with greater explanatory power as to the governance dynamics that contribute to AFN development.

The need for such broad government representation relates to the required intertwining of the sector’s non-economic and economic roles. AFNs represent a nebulous set of stakeholders, with diverse motivations and varied degrees of engagement. However, a common tendency throughout these networks is a shift beyond simple price- and efficiency-based approach to commodity agriculture (Feagan, 2007). As such, supporting the development of robust AFNs requires the development of synergies between these economic and non-economic drivers as a means of increasing overall quality of life (Wiskerke, 2009). Whereas regional planning looks to address health, environmental, and economic concerns, this mandate is limited to zoning regulations and growth plans. Meanwhile, Public Health provides a diverse, evolving array of community supports with the potential for novel support mechanisms such as establishing institutions to provide key regional food governance capacity. However their mandate is limited to health promotion and cannot venture into direct economic supports. EDP’s multi-sector mandates and experience in supporting cluster-based development can provide an important complement to other government stakeholders. If adequately engaged in collaborative approaches to food governance they can contribute additional capacity to identify potential economic synergies, either with other policy domains already involved, or between sectors. This capacity is essential to the development of a
robust regional food strategy and as a conduit into economic development strategy processes, EDPs can also leverage leadership assets, emerging industry information, and food strategy goals emerging from this collaboration into broader economic development outcomes.

In doing this, EDPs can support continued AFN development by contributing to the embedding of alternative food products and services into a Region as a source of comparative advantage. One of the key governance challenges facing AFN development in Waterloo Region was the fragmented nature of food sector support. To maximize their contribution to food governance capacity, EDPs require a similarly comprehensive regional approach to economic development. A lack of common vision on the part of municipalities led to promotional events that embedded alternative food products at a municipal level with no consideration of the regional vision or identity. Meanwhile, tensions relating to mandate overlap between the WRFSR and Foodlink limited collaborations. If EDPs can address issues in a strategic regional forum, this would promote a broader perspective on industries like agriculture and food, which span urban-rural boundaries. Not only would this increase the likelihood that urban and regional officials would be better informed of emerging opportunities in the Region’s AFNs, this would also provide a venue to discuss any redundancies and lost capacity from a regional perspective. EDPs’ mandates for talent attraction, tourism, foreign direct investment, and business retention provide them with considerable influence on the profile and identity of the Region’s alternative food sector, especially in areas like Waterloo Region, with an extensive history of agriculture, an emphasis on quality production, a wealth of diverse agricultural assets, and strong civil capital. This provides an opportunity to embed the sector in the Region and developed a comparative advantage that addresses these aforementioned economic development targets. If this identity can be addressed in a coordinated, regional fashion that is informed by an awareness of alternative food sector developments, this can provide considerable support to AFN development.
In conclusion, an integrated and territorial approach to food governance requires a collaborative interface between the market, civil society, and a breadth of government stakeholders capable of addressing the synergies AFNs present between economic and non-economic domains. EDPs contribute particular capacity to collaborative food governance through their ability to identify and address economic, cross-sector synergies, ideally through incorporation into broader regional economic development strategy discussions. This provides a particularly valuable contribution to AFN development through the ability to coordinate support within a regional strategic vision. This connection into economic development processes can embed the alternative food sector as a source of comparative advantage by leveraging many of AFNs multi-faceted contributions to quality of life.

6.2 Areas for Further Research

Through key informant interviews, secondary document review, and a social network analysis of Waterloo Region’s EDPs, this paper has explored the network dynamics underpinning Region’s approach to alternative food governance and provided insights into its intersection with the Region’s economic development networks. While a number of conclusions were identified, relating to each of the study’s four research outcomes, a number of areas requiring further research have also been identified in the process. Central to these opportunities is the need to ensure the generalizability of this case study’s findings through further study. This study’s hypotheses are grounded in previous research on alternative food sector governance and development, but the contextual factors unique to Waterloo Region require that each of the conclusions above be explored in other jurisdictions to verify the findings of this study.

In terms of the challenges and opportunities this research identified, it would be valuable to examine the tensions that exist within rural-urban land use planning. Considerable research has been conducted on the multifunctionality of urban-adjacent agriculture and policy responses
appropriate to such peri-urban spaces (Zasada, 2011; Overbeek, 2009). Further study is needed to explore these areas with a specific focus on their ability to address the food processing infrastructure deficit confronting AFN development. Land-use policies pose specific limitations on the ability to develop on-farm processing facilities, generally in an attempt to maintain agricultural land. A study of the tension these policies create between farmland preservation and the promotion of agricultural viability through on-farm value-addition/diversification could identify associated opportunities for potential policy intervention.

Additionally, the institutional structures that facilitate networking amongst the private sector in regional AFNs require further study. Participatory approaches to governance and social spaces are often identified as central to the development of trust and cooperation within the industry. However, despite the importance of networking and the value attributed to relationships, this research found that primary producers, in particular, held little interest in networking with diverse stakeholders. Tight margins and time constraints were regularly cited as limiting factors, with supply chain and proximity-based interactions regularly cited as primary information sources. The knowledge-intensive, differentiated approach required in alternative food production suggests that this over-reliance on bonding social capital for information will hinder innovation processes and discourage broader networking and associated AFN development momentum. The social network analysis undertaken in this research contributed to the understanding of alternative food governance dynamics, but there is a need to study the specific networking practices of firms within AFNs to identify institutions capable of formalizing broader networking and bridging social capital as a valuable business input.

Finally, this study found that economic development practitioners play an integral role in integrated and territorial approaches to food governance. However, urban and regional EDPs expressed little interest in AFNs as a sector of interest. Previous research has attributed a variety of beneficial regional economic development outcomes to AFNs, but this literature remains relatively
disparate and is rarely conducted from an explicitly economic or economic development perspective. The multitude of non-economic outcomes associated with AFNs tends to be the primary research foci, leaving economic development outcomes positioned as a secondary benefit. In order for EDPs to gain greater appreciation of AFNs as a source of comparative advantage, research must be undertaken to comprehensively review and identify the economic development potential of AFNs. This research should also closely examine inter-sector linkages to inform the integration of AFNs into regional, multi-sector economic development strategies. This case study also requires verification in other regional settings, which would also provide greater specificity as to the most appropriate modes of intervention for EDPs.

Moreover, the role this paper attributes to EDPs in an integrated and territorial approach to food governance is a novel contribution to Wiskerke’s (2009) associated model. This insight requires further verification, but also suggests that there is a need for research into the specific stakeholder types needed within government and civil society. Such research would drastically increase the utility of the model as a framework for promoting proper AFN governance.

Overall, this study represents a first attempt at understanding the specific role of economic development practitioners as governance stakeholders for an emerging sector that is otherwise underappreciated in existing economic policymaking discourse. A social network analysis of the Region’s EDPs provided greater insight into the interaction between regional economic development and food governance networks, but there is a need to extend such analyses throughout a region’s AFNs to better understand the interaction between place-based food governance and AFN development. Transitions in economic development and the food sector both prioritize tacit information as a key input. Understanding the relationships through which information flows to relevant governance stakeholders can provide insight into underlying institutional barriers that may be preventing the realization of important development outcomes. Further research in this area can improve the understanding of how AFNs can contribute to
regional economic development and also refine the provision of support. This literature, and its general line of inquiry, will contribute to academic literature on an emerging sector of the food economy, provide regional AFN stakeholders with greater insights into their contributions to the community, and provide policymakers with new tools to leverage regional food assets into positive economic development outcomes.
APPENDIX A: Industry Stakeholder Interview Protocol

Interview Guide by Stakeholder: Industry

Background Questions

1. Main line of business? (suppliers, distribution strategies, products, main markets)

2. Number of employees, revenue, annual sales, etc...

3. If your company is a subsidiary or branch of another firm, what role does it play within the overall corporate structure?

4. What events stimulated the founding of this company? Who were the individuals and/or organizations inside and outside the company who played a key role in its development? Obviously, some of these questions must be altered depending on the size of the company - for larger more established companies whose history is well known, this question may not be required.

A. Collaboration and participation in leading organizations and their activities

1. Are there any unique local assets or capabilities that have contributed significantly to the development of the key local industries? If yes, explain. (Prompt the government programs, education programs, specific events, associations, service providers)

2. Do you consider your company to be part of a network of related firms in your region/locality, i.e. a cluster? What evidence is there of this?

3. Are there any other companies in this region and/or province that your company is associated with? Do you have a strategic partnership with any particular company?

4. How have these factors contributed to this company’s decision to locate in Waterloo Region? (Prompt: What are the advantages of being located in Waterloo Region? What are the top three factors?)

5. Are there any key business, community, or government leaders who played an important role in the development of your local industry or cluster? If yes, explain.

6. Association membership: Does your company (or key individuals in it) belong to any formal or informal associations at the local and regional level? If yes, which are the most valuable and why? If no, why not? Are there any significant networking events that you attend regularly?

7. What do you see as emerging trends within the industry? Are there recent developments (e.g. policies, development of new products) that are changing the way business is done?

8. What are the most important challenges or obstacles facing the local industry? What about your firm specifically?
9. What factors, external supports or policies would be most helpful in growing your local industry?

B. Labour Market Linkages
1. How would you describe your HR resources? Generally speaking where do they come from (prompt: inside/outside the region)? What level of qualifications do they have? How does being located in this region support your HR strategy?

2. Tell us about employees who have left your company within the last three years; how many have been employed by other firms within your region/locality? (Prompt: competitors, partners, other firms within your industry sector). If your key employees were to quit, how easily could you replace them from within this local region?

C. Market Structures (customers, suppliers, supply chains, regulation)
1. CUSTOMERS:
   Where are your key customers located – locally (within 100 km or within the study region), in the rest of the country, North America or the world? How important is it for you to be located close to them? Would your company consider relocating to be closer to these key customers? Prompt: customer relations, communication strategies with customers.

2. SUPPLIERS:
   Creative Sector Question Version: What are key services and products employed in order to complete your core business function? Are there emerging trends that are changing the way you access these products and services? (Prompt: e.g. specialized designed services, look for local vs. non-local sourcing strategies)

   Green and Agriculture Question Version: What are your current supply-chain strategies (i.e. vertically integrated or externally sourced)? Are there any trends emerging in the supply-chain within the industry (e.g. Green Economy: FIT Program influencing the amount of domestically sourced content leading to the emergence of manufacturing facilities locally) (if relevant to the sector: Where are your suppliers located? How were they chosen? How long are contracts established for? Look for local vs. non-local sourcing strategies)

3. What are the main challenges in the current supply-chain network?

4. COMPETITORS:
   Who are your key competitors? How does your company keep track of the activities of your current and potential competitors? How does your company monitor competitive products, services or process innovations? (Look for local vs. non-local sourcing strategies)

5. OTHERS:
   What are the major sources of finance for your company? (angel investors, family friends, internally generated funds, funds from parent or affiliated firms, banks, venture capital, equity investment (IPO’s) government loans or subsidies, other). What percent of these sources are local to the Waterloo region (prompt: specific location)?
**D. Access to Knowledge Networks and Infrastructure**

1. What is the relative importance of the following local sources of new information for your product, service and process development? [1=not important, 5=very important]

<table>
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<tr>
<th>In-house resources</th>
<th>Competitors’ products</th>
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<tbody>
<tr>
<td>- R&amp;D,</td>
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<tr>
<td>- Staff,</td>
<td>Customers</td>
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<tr>
<td>- Managers,</td>
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<tr>
<td>- Marketing dept</td>
<td>Venture capitalists or other financial services</td>
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<tr>
<td>University/Colleges researchers</td>
<td>Formal industry or other associations</td>
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<tr>
<td>Fed or Prov. Agencies programs</td>
<td>Informal associations</td>
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<tr>
<td>Research institutes</td>
<td>Other (please specify): ____________</td>
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<tr>
<td>Not-for profit organizations</td>
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</table>

*Follow-up on high ranking sources indicated*

For each of the 2-3 highest ranked categories:
- Which actors specifically are a source of innovative ideas?
- Why is this actor most significant?
- Describe this relationship
- How does proximity (physical distance) factor into this relationship?

2. What is the relative importance of the following non-local sources of new information for your product, service and process development [1=not important, 5=very important]

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<tr>
<th></th>
<th>Competitors’ products</th>
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<tr>
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<td>Suppliers</td>
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<td>Research institutes</td>
<td>Other (please specify): ____________</td>
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<td>Not-for profit organizations</td>
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</table>

*Follow-up on high ranking sources indicated*

For each of the 3 highest ranked categories:
- Which actors specifically are a source of innovative ideas?
- Why is this actor most significant?
- Describe this relationship
- How does proximity (physical distance) factor into this relationship?
APPENDIX B: Government and Organizational Stakeholder Interview Protocol

Interview Guide for Organizations and Government

Background

1. Name of organization
2. Address and contact information
3. Mandate
4. History of the organization (has it been established under a program with a specific set time period?)
5. Source of Funding (Prompt: sources of revenue)
6. Who does this organization represent?
7. What kinds of services/activities/program do you offer?
8. Human Resources
   a. Leadership model (Prompt: individual/board/other)
   b. Staff (Describe, prompt: number of workers)
9. Geographic area/boundaries of the organization (Prompt: regional; brief description; acquire map if possible; digital is ideal)
10. How do you engage with the community? (Prompt: open meetings/consultations/town halls)

Regional Governance & Collaboration

11. How does your organization contribute to the development of the sector? (Prompt: specific expertise, policies, programs, etc. and the level of support provided to these)
12. Who are the key businesses, community, government agencies, and activities that play an important role in the sector locally?
13. How would you describe the relationships among these players?
14. In your view, have any associations or events played an important role in the development or support of this sector? If yes, which are the most valuable and why? If no, why not?
15. Is your organization (or any individual within it) involved in any of these associations or events? Why/why not? (Prompt: development of present relationships with companies in sector/actors in...
network, establishing relationships among suppliers, customers, collaborators, research institutes)

16. Does collaboration with other organizations/ businesses/ groups play a role in how you deliver value to your stakeholders? If so, how? (Prompt: with whom? within the sector? Outside the sector?)

17. Can you think of a good example of a time when you collaborated with another organization/ business/ group to deliver a service/ activity/ event/ program/ initiative? If yes, ask questions a-h.

   a. Who did you collaborate with? (Prompt: inclusiveness)
   b. Where are these parties located? (Prompt: Regional?)
   c. Does location impact the process of collaboration? (Prompt: Where are the collaborators? Does distance hinder collaboration?)
   d. How did you organize yourselves in order to facilitate the collaboration? How did you interact? (Prompt: advisory group/ task force/ third-party coordinator/ project-based)
   e. What was the purpose of the collaboration? (Prompt: benefits of collaboration, intended outcomes, impact on the region or industry, who is impacting in the region (urban/rural?)
   f. What were the outcomes of this collaboration? (Prompt: actual achievements and outcomes)
   g. Were there any particular challenges? If so, what were they and how did you address them?
   h. What have you learned from this instance of collaboration?

Market Structures

18. Are there any unique local assets or capabilities that have contributed significantly to the development of the ********* sector locally? If yes, explain. (Prompt: government programs, existing programs, specific events, associations, service providers)

19. What are the factors inhibiting the growth of the firms/industries with which you work? What external supports or policies would be most helpful in overcoming these factors?

Access to Knowledge Networks

20. How frequently do you or others in your organization interact with companies or organizations (local or non/local), to disseminate research findings or new sources of knowledge?
a. How many of these relationships are locally based? (*Tease out where in the region these companies and organizations are located*)

21. Do you interact with public research institutes (such as government agencies, universities, colleges) or private companies (such as consultancies) to access new information or knowledge? Which are the most important?

a. How would you characterise these interactions? (*Prompts: formal collaborative research projects, university faculty working in/consulting with the establishment, participation in research consortia, licensing or patenting of public research inventions, development/adoptive of new technology, development of specialized training program with college or university*)

b. What are the primary benefits of these interactions? (*Prompts: lower overhead costs on research, access to technical expertise, access to equipment and material, source of new product ideas, problem solving, hiring/retention of employees, connection to larger research community, market credibility, improvement of in-house R&D procedures*)
APPENDIX C: SNA Questionnaire

NETWORK ANALYSIS QUESTIONNAIRE – Exploring your network…

This survey contains questions related to where and with whom you share and receive industry-related knowledge. The survey should only take 5-10 minutes of your time.

This study is entitled Creativity, Innovation and Sustainability: Understanding Urban-Rural Linkages in Regional Economic Development Initiatives. The research is funded by the Economic Developers Council of Ontario (EDCO) and is being overseen by Dr. Tara Vinodrai of the Department of Geography at the University of Waterloo.

Participation in this study is voluntary and there are no known or anticipated risks. You may decline to answer any of the questions and you may decide to withdraw from this study at any time without any negative consequences by advising the researcher. Please ensure that all data will be kept in the strictest confidence and only the researchers associated with this project will have access to the information.

If you have any questions regarding this study, or would like additional information about your participation, please contact Dr. Tara Vinodrai at (519) 888-4567 ext. 33278 or by email at tara.vinodrai@uwaterloo.ca. This study has been reviewed by, and received ethics clearance through, the Office of Research Ethics.

If you have any comments or concerns resulting from your participation in this study, you may contact Dr. Susan Sykes of this office at (519) 888-4567 ext. 36005.

With full knowledge of all foregoing, I agree, of my own free will, to participate in this study

Yes ☐ No ☐

N.B. Please note that you will be required to save this document with your name and reply to the original email with the saved version of this form as an attachment.

please ensure that you save this document upon completion
Please continue to the next page…

**Personal Information:**
Name: 
Organization: 

Please indicate whether you interact with the following practitioners on a general basis or for more sector specific purposes. Interaction can be understood as the sharing of knowledge or information that is relevant and useful to your work.

*Please indicate if this interaction directly relates to a specific sector, multiple sectors, is general in nature, or does not exist. Please check as many as apply.*

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*Please continue to the next page…*
**Sector Specific Contacts:** Beyond the above practitioners, who do you interact with for sector specific purposes? Interaction, in this case, can be understood as the sharing of knowledge or information that is relevant and useful to your work with respect to a sector. *Please identify up to five (5) contacts for each sector by providing a name and affiliated organization.*

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*Please click save and provide your name as the file name and send back to the researcher*

Your interest and participation in this study is greatly appreciated. Thank You!

please ensure that you save this document upon completion
## APPENDIX D: SNA Visualization Legend

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Source: Vinodrai et al, 2012
APPENDIX E: Comparison of Sector-Specific EDP Networks

Source: Vinodrai et al., 2012
Works Cited


nContent=

http://socialservices.regionofwaterloo.ca/en/communityProgramsSupports/resources/Fo
cusonRuralPopulations.pdf


http://row.minisisinc.com/page/detail/PUB_AUTHORITY/298

and-prosperity/


Regional Economic Development and Alternative Food Network Governance


Waterloo Region Healthy Communities Partnerships. (2011). *Waterloo Region Community Assessment Report.* Retrieved April 24, 2013, from Region of Waterloo Public Health Website:
Regional Economic Development and Alternative Food Network Governance


