SPACES FOR DEVELOPING SOCIOCULTURAL CAPITAL: A CASE STUDY OF COMMUNITY GARDENS IN AN AGRARIAN COMMUNITY

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ABSTRACT

Common themes growing out of current research on community gardens center on issues in large urban areas including community-based responses to more healthful food options, local sustainability efforts, and combating urban crime. One area of research that is lacking is how sociocultural capital is generated in smaller metropolitan communities though community gardening. This thesis addresses this void as a means to begin understanding of how the sociocultural networks between community organizations and community gardeners form a symbiotic relationship of interconnected capital production within cities found in historically agrarian regions. This research includes a specific set of methods for investigating Fargo-Moorhead community gardens as places utilized for building sociocultural capital by providing gathering spaces, learning centers, food security, and social interactions. It sheds a new perspective on the intricate connections community gardening plays in the role of building sociocultural capital to aid in sustainability, particularly for, historically agrarian communities.

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DEDICATION

This thesis is dedicated to Mark, Janet, Greg, Addison, and Quade.

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LIST OF ABBREVIATIONS

ACGA……American Community Gardening Association

CSA...……Community Supported Agriculture

F-M.....Fargo-Moorhead

HCSCC.....Historical Societies of Cass and Clay Counties

LSS……Lutheran Social Services

NDAC……...North Dakota Agricultural College

NDSU……North Dakota State University

POCG……Probstfield Organic Community Gardens

SNAP……Supplemental Nutrition Assistance

WIC……...Women, Infants, Children

WPA……..Works Project Administration

CHAPTER 1. SOWING SEEDS

1.1. Introduction

As a non-traditional student stepping back onto a campus after years in the workforce, I have observed a progressive development of anomie. Instead of students making eye contact and greeting each other, students pass each other in the muted halls and sidewalks with heads bowed as they search for the newest app on their smart phones or isolate themselves from the engagement of verbal communication by wearing headphones. Even if the students are participating in a form of socialization by texting a friend, these students are not contributing to the face-to-face social connections presented before them. In neighborhoods, I witness people driving home from work and immediately park their shiny new SUV into the garage and as the garage door shuts, so too does the door close to any further outside social interactions with neighbors. According to Robert Putnam (2000), research has shown that television and urban sprawl have had a significant role in making United States residents less connected to each other and their communities.

Through this research project, I argue that it is crucial for individuals to be engaged in real-space social networking groups in order to build viable sociocultural capital for the sustainability of the entire community. In order to demonstrate the important role real-space social connections play in generating sociocultural capital to aid in sustainability, I am using community gardens in a historically agrarian community as the platform. I chose community gardens as a setting because the most common themes in current research on community gardens focus on issues such as combating crime, healthful food options, and sustainability efforts conducted in large urban centers. One area of research that is lacking is how sociocultural capital is generated in smaller metropolitan (resident population ranging from 100,000-250,000)

communities though community gardening. I address this void by providing a means to begin to understand how sociocultural networks between community organizations and community gardeners form a symbiotic relationship of interconnected capital production within these cities situated in historically agrarian regions. I chose to study the interconnected sociocultural networks between community gardeners and community service organizations in the historically agrarian, twin city setting of Fargo, North Dakota and Moorhead, Minnesota that work in the service of community sustainability goals.

It is vital to the sustainability of communities to identify different ways to build a partnership of local people and community organizations to make productive connections and pool existing local assets and resources. A collective action which connects people to other community members and associations may create relationships that can be used to engage in working for the benefit of the common good and to act collectively on community issues. Community gardens provide a space in which sociocultural capital (the partnerships and networks of individuals and groups and their assets/resources such as skills, knowledge, and status) can help resolve community issues and support community self-reliance. With only 11.8% of Minnesotans and 12.6% of North Dakotans who work with neighbors to fix a community problem (Civic Service 2010), more sociocultural networks are needed in order to maintain or provide sustainable communities. In order to sustain our communities, our most important resource, people, must become engaged and community gardens can provide the flexibility and space for sociocultural networks to connect. This research includes surveys, interviews, literature review, and participant observations as methods for investigating Fargo-Moorhead community gardens as places utilized for building sociocultural capital by providing gathering spaces, learning centers, food security, and social interactions.

This research sheds a new perspective on the intricate connections community gardening plays in the role of building sociocultural capital to aid in sustainability, particularly for, smaller metropolitan communities. Through the project several key components emerged from the gathered data. The community gardens that I visited and surveyed are meeting the needs of the Fargo-Moorhead (F-M) community in two important ways. Gardens such as the Growing Together, Lutheran Social Services (LSS), Olivet Lutheran Church, and Nativity Church are working to help New American families gain access to fresh foods and to provide those individuals with a sense of community by creating social interactions with other community members. Through the social interactions that new Americans can receive at the gardens, there is an exchange of cultural knowledge between groups along with the sharing of specific skills, horticultural knowledge, and social networks. This interaction builds reliance through nurturing diversity, adaptive learning, and self-organization while providing a sustainable social infrastructure to these new community members.

The other ways community gardens help the F-M area with a community issue is by providing access to healthy foods and providing recreational opportunities. According to the Fargo Comprehensive Plan (2012), Cass County has 62.4% of adults that are either overweight or obese. In addition, only half of the adult residents are meeting physical activity requirements and less than one-fourth are consuming the recommended amounts of fruits and vegetables. Community gardens provide fresh foods and many of the gardens in the F-M region are organic gardens. In addition, gardening is a way for individuals to get outside and accomplish the physical activity requirements.

While analyzing the data from this study, several findings emerged. Through site visits and participant observation, the concept of open space functions was helpful in promoting social

interactions (Milburn and Vail 2010). The term refers to those activities which step away from the actual garden and promote social interaction such as having supper together or a snack as a group. I observed and participated in open space functions at both Growing Together and LSS gardens where sharing a snack or meal takes place. In my own experience, this open space function is the time frame when I met the most people at both gardens. This act of coming together and sharing a snack or meal contributes to sociocultural capital because it is a time when individuals and families can come together and share ideas, knowledge, smiles, handshakes, conversation, and strengthen connections with other gardeners.

According to the online survey conducted for the purposes of this research, the majority (74%) of respondents stated that they drive their own vehicles to the garden and the average number of miles driven by these individuals was 1.6 miles. Only three respondents walked to their community garden and only two rode their bicycles. This differs from some of the current research that states community gardens need to be within walking distance for people to participate on a regular basis. This statement may be true in larger urban centers, but the longer distance was not a factor for the majority of survey respondents in this study.

Another finding that emerged from the research's data was that the degree of sociocultural capital varied from garden to garden. The amount of capital produced depended on such factors as the number of garden participants, individual and group social networks, and the size of the garden which affects start-up and maintenance costs in turn determines the amount of funding needed, and access to resources such as land, water, garden equipment, seeds, etc.

1.2. Overview

In order to present a more holistic approach to the data gathered for this thesis, the thesis covers seven main areas. In chapter two, I define the term "community gardening", provide a concise history of community gardening, address the historical context of gardening in the F-M area, and discuss how today's community gardens have evolved in terms of research and focus. I address Pierre Bourdieu's concept of social capital in chapter three and introduce three capital types which were used to measure sociocultural capital in this study. I outline the key research questions, the methodology used for the research, and approaches used for data analysis in chapter four. In chapter five, I highlight the site visits to seven community gardens and discuss the information gathered at each site as well as presenting the information gathered from the three semi-structured interviews with garden coordinators and more informal interviews with the gardeners. I discuss the details of the survey and the stemming results in chapter six. Finally, in chapter seven, I draw upon the conclusions of the study and make recommendations for community gardening in the F-M area.

1.3. Summary of Chapter 1

Although community gardens in the F-M area differ in the amount of sociocultural capital that is generated, the gardens do help make the community more sustainable by providing healthy food, resiliency for New Americans, exchange of knowledge, and space for social interactions and connections to take place. Through the use of a qualitative ethnographic approach, this thesis addresses the void in current research by providing insight on how the sociocultural networks between community organizations and community gardeners impact the role of building sociocultural capital to aid in sustainability of a historically agrarian community.

CHAPTER 2. GERMINATION

2.1. Defining Community Gardening

Just as the functions of community gardens have changed and evolved since the 1800s, the definition of the term *community garden* has underwent a series of changes depending on the social and economic events of the time. Currently, the American Community Gardening Association (ACGA) defines community gardens simply as "any piece of land gardened by a group of people" (n.d.). This broad definition of the term encompasses the wide range of group gardening efforts that are presently occurring such as school gardens, neighborhood gardens, ministry gardens, collaborated downtown beautification plantings, and larger "greening" projects.

Regardless of how community gardens are defined, three themes continue to be interwoven according to the social debates of the time; the themes are as follows: nature, education, and self-help (Lawson 2005). These three themes have been implemented in various ways since the late 1800s to improve American urban conditions (Lawson 2005). The initial reasons for the creation of a community garden often reflect social and environmental issues affecting a neighborhood or community.

2.2. Concise History of Community Gardening

The concept of community gardening originated in Britain during the 18th century with the majority of the development taking place in the 19th century. The Allotments Act (1887) outlined a plan where plots of land called allotments were made available to the laboring poor for the production of vegetables and flowers (Lawson 2005). The 1890s is slated as the time frame when the phenomenon migrated to the United States. As a mode of social reform, the initial U.S. gardens provided labor opportunities for unemployed workers and served as a tool for educating

youth about proper work ethic and civic responsibility (Lawson 2005). The reform-oriented gardens of the turn of the century were intended to act as a positive agent of change by "fill[ing] a perceived moral vacuum in the urban living experience" (Lawson 2005: 22).

To aid the United States war effort during World War I and II, civilians made do with less so there would be supplies for the armed forces (HCSCC 2011). United States citizens were encouraged by the federal government to supplement civilian shortages and allow raw materials to be diverted to the military (HCSCC 2011). At the time of World War I, these gardens were known as "liberty" or "war gardens" (HCSCC 2011). During the Second World War, they were called "victory gardens" and there were approximately 20 million victory gardens planted nationwide throughout this time period (Lawson 2005). In 1943, victory gardens provided more than one third of all vegetables grown in the United States (HCSCC 2011). During WWII, the U.S. Department of Agriculture reported that national health, as well as personal well-being, was dependent on the consumption of fresh vegetables (Armstrong 2000).

During and after both world wars, community gardens provided increased food supplies which required minimal transportation (Armstrong 2000). During the Great Depression, city lands in some states were made available to the unemployed and impoverished by the Works Project Administration (WPA); nearly 5000 gardens on 700 acres were cultivated in New York City alone (Armstrong 2000).

Fast-forwarding a couple of decades, the rebirth of community gardening in the 1970s was a response to urban abandonment, rising inflation, environmental issues, and a desire to build connections with neighbors (University of Missouri Extension 2009). City service organizations assisted people with acquiring land, constructing gardens, and developing educational programming (University of Missouri Extension 2009). Due to the profusion of

urban problems, people used gardens to rebuild neighborhoods and expand green spaces (University of Missouri Extension 2009). Although common themes of food production, increased income, leisure, education, and neighborhood beautification continued to provide a strong rationale for gardening, a new focus was placed on rebuilding social networks and the infrastructure of blighted urban communities (University of Missouri Extension 2009).

2.3. Historical Context of Agrarian Lifeways in Fargo-Moorhead and Local Food Heritage

"Tell me what you eat, and I will tell you what you are."

-Jean Anthelme Brillat-Savarin

This popular quote addresses the connection between food and personal identity. The items we eat can present a wealth of information- from who we are, where we came from, and our current social, economic, and religious affiliations. This person-food relationship is represented in community gardens which have their own distinctive history with their ability to integrate food production with environmental stewardship and civic engagement (Krasny and Tidball 2009). Therefore, it is important to assess the historical backgrounds of local community gardens to see how people deal with environmental restoration, community activism, social interactions, cultural expression, and food security (Krasny and Tidball 2009).

By researching the food heritage of Fargo-Moorhead, the main groups to impact the foodways in the region are the Mandan, Germans, Scandinavians, and the Germans from Russia. The biodiversity of the many varieties of native vegetables and imported food items represented by these groups creates a rich heritage that needs preserving. Unfortunately, as western diets have become more processed and less diverse, the traditional knowledge of local food cultures has deteriorated (Swift 2011). Over the past several decades, the Fargo-Moorhead area has experienced refugees from different parts of the world adding to the local food heritage.

One important resource dealing with the traditional knowledge of the local food cultures in the area and include the historic context of local food heritage comes from the Institute for Regional Studies and University Archives at NDSU which houses the Robert G. Askew Papers. This collection contains research questionnaires that Mr. Askew (1926-2003) sent across the state of North Dakota to obtain information on the history of gardening in North Dakota. The Completed Questionnaire Series comprises of eighteen questions related to North Dakota gardening. The series has generated pieces providing a larger picture of the historical context regarding why people practiced gardening in the region and which social reforms played a factor. Through the information collected from his surveys, Askew crafted two journal articles one titled *One Hundred Years of Gardening in North Dakota* and the other is *A History of the Economic and Nutritional Importance of Home Gardens for North Dakotans*.

The local historical context of the area starts with the ancestors of the Mandan Indians who settled long the Upper Missouri and its tributaries in the early 1300s; around 1450, permanent and fortified settlements were established (Askew 1990). This same timeframe also marks when the Mandan began trading produce with nomadic tribes (Askew 1990). The Mandan implemented river bottom agriculture, also known as microclimate horticulture (making use of the unique conditions of the area surrounding small spaces), and this method was later adopted and shared by the Hidatsa and Arikara (Askew 1990). The Mandan raised corn, beans, pumpkins, melons, squash, sunflowers and tobacco. Corn was the main crop (Askew 1990). Each family cared for one to three acres and all the seeds were saved with some seeds used for the next season's crops and the rest dried for roasting or adding to popcorn (Askew 1990). Potatoes were first introduced to the Mandan in the 1830s and by the 1860s, they were grown in greater quantities than corn (Askew 1990). By 1878 the tribes were in decline due to disease and social

disintegration as the U.S. government mandated the break-up of the old villages and established families to their own land. Over the years, "the river bottom horticulture was abandoned and the tribes became less self reliant and more reliant on the government" (Askew 1990: 5).

Alexander Henry, a partner in the North West Fur Trading Company, settled in Pembina, North Dakota in 1801 and established the first group of European gardeners who planted potatoes, cabbages, carrots, onions, and turnips (Askew 1990). By 1880 there were 3790 farms in what was eventually to be name North Dakota and this number increased twelve-fold by 1900 (Askew 1990). Most of these settlers came from areas of Europe or the eastern part of the U.S., the German settlers brought with them beets, carrots, and cabbage (Askew 1990).

In the summer of 1884 a number of families arrived in Scotland and Menno, South Dakota and during the spring of 1885, they moved northward and became the first settlers in the area from the German colonies of the southern Russian Ukraine (Askew 1990). They built sod houses and outbuildings and brought with them vegetable and flower seeds such as sunflowers. Even though sunflowers are native to the Americas, sunflowers were introduced to Europe by early Spanish explorers who brought the seeds back with them and then the seeds began to spread across Europe and into Russia (Charles 2012). The story goes that the Russian Orthodox Church embraced the sunflower because the cooking oil derived from the plant could be used during Lent since lard and butter were restricted during that time (Charles 2012). Sunflowers, unknown to other settlers were called "Russian peanuts". Like the Native American tribes of the region, the Germans from Russia planted rows of sunflowers around the perimeter of their gardens for wind protection (Askew 1990).

Then came the next wave of settlers and this time came families from Norway who also started to garden (Askew 1990). At the turn of the century, North Dakota had 45,332 farms, but by 1910, due to the last great influx of immigrants, that number rose to 74,360 farms- half of which were owned by foreign born settlers (Askew 1990).

The North Dakota Agricultural College (NDAC) and the North Dakota Agricultural Experiment Station of Fargo were established in 1890 and with the development of these institutions, different horticulturists came into the area and started to experiment with native wild plants. One of these horticulturalists was A.F. Yeager and in 1922 he introduced the "North Dakota Earliana" tomato and 30 other varieties of fruits and vegetables including the "Pixwell" gooseberry, "Buttercup" squash, and an apple known as the "Yeager Sweet" in honor of his contribution to prairie horticulture (Askew 1990).

During the 1920s the garden became an established part of most farms and urban households in North Dakota due to factors such as the government's War Garden efforts and the new varieties of fruits and vegetables that were developed from the experiment stations and NDAC (Askew 1990). The new varieties of plants were better able to develop to maturity during the short growing season of the region.

A huge setback in gardening occurred because of the Great Depression and the drought of the 1930s. North Dakota lost 15% of its population and more than 120,000 people were forced to leave the state and look for a livelihood elsewhere (Askew 1990). Professional horticulturists at the time urged people to become more self-reliant and raise gardens (Askew 1990). Of those that stayed, half of the population was on relief and companies such as the Oscar H. Will Company (a large seed catalogue company at the time) offered collections of vegetable seeds for planting relief gardens (Askew 1990). In 1935 the Agricultural Census reported nearly 80% of farms in

North Dakota were without gardens due to drought and grasshoppers (Askew 1990). In 1935, Victor Lundeen, Extension Assistant in Horticulture, helped to devise a plan that would stress the value of gardens, assist in organizing garden clubs, supply horticultural information to interested people, and conduct demonstrations for tasks such as pruning, small-scale irrigation, and hotbeds (Askew 1990). The plan gave especial interest to 4-H club members which became an important part of the home and farmstead improvement phases of the project (Askew 1990).

With the onset of WWII, U.S. gardeners were asked to donate vegetable seeds for the British War Relief (Askew 1990). In the fall of 1941 the National Defense Program asked for the states to increase the number of gardens and by March 1942, North Dakota had launched a state-wide coordinated Victory Garden program (Askew 1990). This program saw 86.9% of all homes in North Dakota had gardens and the process of canning vegetables increased 142% (Askew 1990). The goal of the 1943 Victory Garden Program was an adequate garden on every farm and for every urban family in North Dakota and in the spring of 1943, a Gallup Poll revealed that 21 million families in the U.S. planted a garden compared to 14.5 million in 1941 (Askew 1990). The 1948 version of the Victory Garden Program, Freedom Gardens Program, was a nation-wide drive instituted by the U.S. Department of Agriculture. The biggest problem this program faced was finding gardening space for urban households because of the increase in post-war building (Askew 1990).

The 1950s saw the "Plant America" campaign to promote the conservation of land and once again, the government was promoting War Gardens (Askew 1990). The 1960s economy saw earlier retirements, shorter work weeks, and more leisure time and this lifestyle was reflected in an increased interest in gardening (Askew 1990).

In 1976, a Gallup Poll showed that 51% of U.S. households had some kind of vegetable garden and this marked the first time since WWII's Victory Garden program that a majority of households had a garden (Askew 1990). Of the 49% that did not have gardens, 40% said they would have one if they had the space (Askew 1990). Askew (1990) continues by stating that the survey showed that for the first time upper income families were more likely to have a garden especially in urban areas.

Currently, there are some regional businesses and farms that are preserving and promoting heritage foods. An organic farm north of Moorhead has partnered with the White Earth Land Recovery Project by promoting traditional native foods, saving traditional heirloom seeds, and sharing those seeds with the larger community (Swift 2011). A group of students from Concordia College in Moorhead has developed the Building Sustainable Communities Initiative which works with a nonprofit organization to preserve biodiversity and heirloom seeds by seed saving and selling the seeds to the local community (Swift 2011). The contract for the Probstfield Organic Community Gardens (POCG) promotes the planting of organic and heirloom seeds and plants for its gardens (POCG 2011).

2.4. Community Gardening Today

The concept of community gardening has grown considerably over the last decade. Even the White House is participating in the movement with national news broadcasts showing First Lady Michelle Obama, tending to the community garden on the South Lawn. The main reason for the current White House garden is to educate youth about healthy eating habits and growing foods locally. The promotion of healthy eating is a top priority for the First Lady since childhood obesity rates are on the rise in the United States. The involvement of school children has been a current trend in research involving community gardens.

Current research confirms the healthful benefits that accrue when people connect with plants and engage in gardening activities. In addition to the physical health benefits of eating nutritious foods and being physically active when tending to the garden, psychological benefits are being reported which include the reduction of anxiety, stress, and tension (Brown et al. 2004). Research is examining the social benefits associated with gardening such as encouraging social interaction, building good work habits, and improving coping skills (Brown et al. 2004). An umbrella label, "therapeutic horticulture," incorporates many of the psychological and social benefits of the person-plant connection (Brown et al. 2004 and Tidball et al. 2010).

The majority of the published research focusing on community gardens tends to highlight research conducted in larger metropolitan areas (Voicu & Been 2008; Krones & Edelson 2010; Bonfiglio et al. 2009). Moreover, a large proportion of this research focuses on the effects of community gardens in low-income neighborhoods and the underlying benefits that arise from the presence of the gardens (Ross & Zepeda 2011; Hawkins & Maurer 2011). For instance, community gardens provide a way for food procurement in areas that do not have readily available access to fresh and healthy food (Schwartz 2008). Instead of vacant lots in which drug trade and other illegal activities take place, gardens repurpose the lots and in turn reduce the crime rates in these areas (Borrelli 2008). The gardens act as a catalyst for neighborhood beautification or environmental restoration. Armstrong (2000), Fakharzadeh (2009), and Brown et al. (2004) state that due to community gardens, homeowners start to make improvements on their own properties and as a result of this revitalization movement, property values increase.

2.5. Summary of Chapter 2

The panoptic definition of community gardening defined by the ACGA allows for the continuation of the varied types of community gardens that exist today. From its beginnings in 18th century England, gardens have been interwoven into the fabric of the social debates of the times and by being adaptive, community gardens have provided resiliency to affected communities. Whether community gardeners share local knowledge like the Mandan sharing their horticulture knowledge of the region to the Hidatsas and Arikaras or new immigrants introducing potatoes to the Mandan, the ability to be adaptive and receptive to varietal concepts have increased the sustainability of those in the region. Askew (1990) details the long history of the region accepting influxes of immigrants, whether Germans from Russia or families from Norway, and how these groups have changed the cultural and material landscape of the area. By addressing the present resurgence of community gardening through the scope of its local historical context, a better understanding of the current issues being addressed in community gardens can be ascertained. The holistic framework that is presented by researching the historical background of a region can shed a new perspective on the intricate connections community gardens play in the role of building sociocultural capital to aid in sustainability.

CHAPTER 3. ROOTS OF RESEARCH

A connection with nature does not have to end at the threshold of an urban landscape nor does a city have to symbolize the death of natural resources. In order to reconnect the urban landscape with the natural environment, various ecological approaches and social resources can be utilized to transcend selected urban spaces into green spaces. Through the establishment of green spaces, a third place is established which acts as a social surrounding where people can gather apart from home and the workplace. While typically these spaces are formal parks, another such third place that fills this criterion is that of the community garden.

By correlating a community garden to a single blade of grass, the image projected of a solitary blade of grass or 20 by 25 foot garden is prosaic compared to the image of a majestic redwood or the vastness of a 1000 acre farmstead. However, below the surface of the unassuming façade of the grass blade, lies an intricate system of interconnecting parts. The blade of grass, as a rhizome, is part of an affiliated composition of roots working together to provide a strong foundation and supply essential nutrients to not only one blade of grass but an entire plot. The same analogy holds true for the community garden as it is part of an interconnecting network of people engaging in the larger community.

Local community gardens are a substrate layer within the larger community's tiers of civic engagement. The purpose of community gardening is seldom the garden itself, but rather the "agendas that reach beyond the scope of gardening" (Borrelli 2008:285). The agendas of the civic engagement networks consisting of community garden groups and other community service organizations which incorporate sustainability practices, education, resiliency, and economic development as mechanisms of exchange for increasing sociocultural capital are the main objective for this body of research.

3.1. Bourdieu's System of Social Capital

According to Bourdieu, capital acts as a social relation within a system of exchange, and the term is extended to include all the goods both material and symbolic that present themselves as rare and worthy of being sought after in a particular social formation (Harker 1990). In *The Forms of Capital*, Bourdieu (1986) categorizes four types of capital:

1. Economic Capital: conduct over economic resources such as money and property rights
2. Social Capital: relates to actual or potential resources linked to social obligations, group membership, and durable network of more or less institutionalized relationships of mutual acquaintance and recognition.– which provides each of its members with the backing of the collectivity-owned capital, a 'credential'
3. Cultural Capital: forms of educational qualifications such as knowledge, skills, and educational investments and strategies
4. Symbolic Capital: resources available based on honor, prestige, or recognition

In order to streamline the terminology used by Bourdieu, sociocultural capital in the context of this paper combined his categories of social and cultural capital. Capital, for the purposes of this paper, thus include the following components: a.) educational qualifications (knowledge, skills, and educational investments as a resource, b.) resources and collective values associated with cooperation found in social connections, and c.) cultural knowledge and social networking activities of a given social group. This definition of sociocultural capital is the standard used throughout this paper.

The Bourdieusian concept of social capital tends to center on the capital gained by an individual versus the group. For Bourdieu (1986), capital is a form of power in which people can gain advancements in social and economic status through direct and indirect connections by way of social networking. Without a level playing field where everyone has equal shares and equal access to all forms of capital, Bourdieu's social capital is a mechanism which generates and reproduces societal inequalities. While the principle of Bourdieu's theory is accurate and has been duplicated innumerable times in American society as individuals race towards the "American Dream", the introduction of a new variable-"social action"- could redirect the flow of capital to benefit the greater whole and embrace cultural differences instead of perpetuating them (Putnam 2000). Social action or the societal roles (i.e. engaged activities and energy input) people play in civic activities is the focus in this research as opposed to the social and economic status (societal structure) one occupies.

Therefore, the design of this research was based on sociocultural capital as a social networking mechanism for increasing community sustainability through social cohesion and resources pooled from a social unit (in this case, community gardening groups) instead of using Bourdieu's perspective of an individual using social networks as a tool to gain higher levels of personal socio-economic status. In addition, social capital in these terms can be used for the purposes of protecting a group's interests (Putnam 2000). Community gardens provide a unique social platform in which people of all ages, abilities, races, ethnicity, social and economic class, and educational background can participate in the activities associated with this type of group membership.

3.2. Types of Social Capital

Unlike economic capital, social capital presents a challenge as to how it is to be measured. There is no universal or standard way in which to measure the amount of social capital produced or generated in a community. According to Putnam (2000), social capital can be evaluated by the amount of trust and reciprocity in a community or between individuals. As with political social capital studies and for the purposes of this research, social capital was measured through collecting information on the number of members in a group. However, since small groups can contribute large amounts of social capital compared to their size, social capital types (listed below-bonding, bridging, and linking) have been analyzed and used to gauge the level of sociocultural capital in specific community gardens in the F-M area. These three social capital types acts as a means in which to compare and contrast the different types of networking found within community gardening groups. Firth et al. (2011) has developed the three different social capital types and the terms are defined as follows:

1. Bonding Social Capital: defines strong ties between individuals in similar socio-demographic situations, such as immediate family, close friends, or neighbors
2. Bridging Social Capital: describes more distant ties of like persons, such as loose friendships or coworkers. This type of social capital tends to be outward focused and brings together people from across diverse socio-demographic situations.
3. Linking Social Capital: deals with connectivity between unlike people in dissimilar situations. It refers to connection with people in power, such as those in politically or financially influential positions.

In order to have a strong community, all three types of social capital are needed (Firth et al. 2011). The key is finding the right balance between each of the social capital components (Firth et al. 2011). Firth et al. (2011) illustrates the practical application of the components through the following example: bonding capital ties family, friends, and neighbors together into a social support network. However, without bridging capital to others, bonded groups become isolated from the rest of society and without exposure or ties to other groups, access to opportunities and information is limited. All the while, linking social capital enables members of a community to gain leverage and access to a wider range of social networks (Firth et al. 2011). For bonding, bridging, and linking social capital, numerous factors exist that increase the level of social capital within a community. This thesis addresses several of these factors; however, three interrelated factors are addressed in even more detail: education, resiliency, and economic development.

3.3. Education

Education is a primary factor in increasing the level of social capital in a community. Whether knowledge or skills are obtained in a classroom setting or through a one-on-one conversation, quality educational resources can add a substantial improvement to the sustainability of the community.

Curriculum-based programs teaching children the process of gardening and how to prepare the foods that have been harvested have been shown to be a means of promoting hands-on and interdisciplinary learning, autonomous decision making, and valuable life skills (Fakharzadeh 2009). Programs such as the Edible Schoolyard in Berkeley and New Orleans have showcased the multitude of benefits that derive with not only school children but the greater community at large. The Edible Schoolyard curriculum is not static, it adjusts to meet the needs

of the increasing diversity of the American population in order to ensure that people of all cultures, languages, and ages are included in environmental education and can continue to be involved in the future (Fakharzadeh 2009). The many levels of education, ranging from k-12 environmental education to outreach programs for adults, may contribute to the collective learning or social flexibility needed for adaptive management (Tidball et al 2010). Learning can be the reason the community comes together whether it be an intentional or an incidental outcome of the member's interactions (Tidball et al 2010). Community gardens provide a context for learning that embraces multiple societal goals, applies environmental stewardship, and participates in civic activities (Krasny and Tidball 2009). Community gardens are also unique among both traditional (e.g. museums) and civic ecology (e.g. community forestry, wetland habitat restoration) learning contexts because of the cultural diversity represented through community members (immigrant, minority, and others) and the related diversity of types of knowledge and planting practices (Krasny and Tidball 2009).

Krasny and Tidball (2009) found that youth engaged in community gardening educational programs form connections with adults and at the same time reinforce and enhance the contributions made by adult community gardeners in their community. Organizations such as the ACGA provides a learning network for community greening programs across the United States; however, greening efforts in many poor communities do not have the resources to participate in the association's activities (Tidball and Krasny 2007). Other programs integrate community and youth sustainability education that takes into consideration diversity like multicultural and intergenerational understanding (Tidball and Krasny 2007).

The term “glocal” has been used to stress the importance of pairing global with local (or place-based) education (Krasny 2009). Krasny (2009) continues by stating that community gardens can be at the cusp of a new movement of glocalized education which directly addresses the increasingly blurred boundaries of the local and global domains. By bring together cultures and plants in an arena that challenges both local and global concepts, community gardens offer unique venues for youth and adults to learn about their local environment and its relation to the larger world (Kransy and Tiball 2009).

3.4. Resiliency

The food system-especially food access- plays a critical role in neighborhood vulnerability and resiliency (Schwartz 2011). Concepts like social resilience are related to social capital which stresses the importance of social networks, reciprocity, and interpersonal trust (Patterson et al. 2010). Social capital allows individuals and groups to accomplish greater things than they would by their isolated efforts (Patterson et al. 2010). The gardens provide and empower individuals and communities in the management of their own recovery and supports community self-reliance by providing sustainable social infrastructure to a community (Brown et al. 2004). Building resilience through nurturing diversity, self-organization, adaptive learning, and constructive positive feedback loops is consistent in the discussions surrounding the need for a shift in disaster relief thinking (Tidball and Krasny 2007). Instead of thinking in terms of identifying what is missing within a social issue such as needs, hazards, and vulnerabilities, think in respect to identifying the strengths, skills, and resources that are already in place within the communities (Tidball and Krasny 2007).

Researching the activities and interactions taking place within community gardens can be an important source of the requested knowledge for resiliency because many community skills and strengths can be observed in these gardens. As opposed to more formal city parks, community gardening refers to the leadership and active participation of city residents who on their own accord build healthy sustainable communities through planning and tending to the people-environment dynamic (Tidball and Krasny 2007).

3.5. Economic Development

With small plots of land yielding sizable amounts of produce, the money generated can help supplement both individual and family incomes (Draper and Freedman 2010). Community gardens in the United States are increasingly being viewed as strategies for community economic development which remains and will continue to remain a major concern facing most local communities (Feenstra et al. 1999). By communities utilizing their local resources, communities can retain local control of new enterprises and activities, limit population loss, create jobs, re-circulate money in the local community, and make communities less dependent on external organizations (Feenstra et al. 1999). When evaluating urban gardens with other urban food programs (Supplemental Nutritional Assistance Program [SNAP]; Women, Infants, Children [WIC]; price subsidies), urban gardens cannot replace the other programs but they do generate some elements of self-reliance (Feenstra et al. 1999). Moreover, urban gardens make use of idle resources, improve the quality of the neighborhood environment, increase the amount of available resources, and create new bonds between nature and urban environments (Feenstra et al. 1999).

The research based on economic development has examined surplus garden items being distributed to family and friends, sold in farmer's markets, sold to local restaurants, and used in school cafeterias. The relatively small investment used to create and maintain a garden is another advantageous attribute that makes gardening accessible to a wide variety of economic classes.

3.6. Main Research Questions

Through the literature review process, several key questions began to emerge from the data gathered. The initial question that I posed was how does community gardening in smaller metropolitan areas differ from larger metropolitan community gardening efforts. I was interested in knowing what factors led to the formation of community gardens in smaller metro areas and how these factors compared or contrasted to larger metropolitan areas such as New York City or Detroit. Next, I wanted know what types of community engagement or social networking occur between community gardeners within in the garden setting and within the community at large. In addition, the literature review process revealed a broad range of garden types that fit under the umbrella of the community garden label; I wanted to research how different types of community gardens (i.e. school gardens, ministry gardens, allotment gardens) compare and contrast in terms of social networking and which types of sociocultural capital were being generated. Finally, I wanted to know if the sociocultural capital generated by the gardens was aiding in the overall sustainability of the Fargo-Moorhead community. These overarching research questions became the basis for the questions that I generated for the interview process and the survey.

3.7. Summary of Chapter 3

In order to understand how community gardening can aid in the sustainability of the larger community, Bourdieu's social capital is modified into "sociocultural capital" which stresses the resources and engagement of groups (community gardeners and organizations)

instead of focusing only on the contribution of each individual. The modified sociocultural capital is divided into three types of capital (bonding, bridging, and linking) and these types were used to gauge the social cohesion within the Fargo-Moorhead community through the active engagement of community gardening. Within the ties of bonding, bridging, and linking social capital, certain factors exist which increase the level of sociocultural capital within a community. Factors such as education, resiliency, and economic development not only increase the amount of sociocultural capital but help provide a sustainable social infrastructure for communities. Through the literature review process, my main purpose was to research how different social networks and interactions within the platform of community garden help in not only generating sociocultural capital but aid in the overall sustainability of the Fargo-Moorhead community by addressing specific social situations.

CHAPTER 4. WEEDING AND WATERING (METHODS)

4.1. Key Questions for Research Participants

In order to obtain a broad overview of how different social networks and interactions help in generating sociocultural capital, certain questions needed to be addressed. The questions needed to provide information dealing from the historical background of a garden to areas of civic engagement the gardeners participate in currently and in the future. The collected and formulated questions were used for the basis of survey and interview questions which were presented to community gardeners in the F-M area. The initial key questions for research participants in this case study stemmed from available information through primary documentation, reviewing the literature on community gardening and forms of capital, local and regional census data, and documentation on specific local community gardens (i.e. websites, brochures, etc.). In order to address the overarching main research questions, specific information needed to be gathered from the research participants and some of the questions asked of the participants are as follows:

- What factors led to the formation of the community garden?
- What types of individuals (families, students, and organizations) are involved in the program?
- Has the number of participants grown since the garden first started?
- What other types of community engagement are the community garden members involved in during the course of the year?
- What types of relationships does the gardening organization have with other community service organizations?
- Why do you choose to be involved in community gardening?

4.2. Research Methodology

A qualitative approach to data collection and analysis was implemented to address the objectives stated previously. The methods of qualitative research used in this case study consisted of systematic data collection including: literature review and meta-analysis, cultural historiography, site visits/photography, on-line surveys, and semi-structured interviews. The research was informed by: literature on community gardens, census information regarding statistical information on national and regional figures (i.e. obesity rates), historical information from the region, and data collected from the project site visits, surveys, and interviews. These sources were used for the following purposes:

- Provide further diachronic perspectives of gardening practices in the community from secondary sources written by local historians
- Locating regional community gardens and identifying relevant groups/programs to interview
- Triangulate data from the various sources
- Finding gaps in the data or identifying issues which could lead to further discussion
- Providing a basis for generating questions related to research inquiry, the semi-structure interviews, and survey questions
- Defining terms and concepts for a more comprehensible and uniform basis for the materials presented

4.2.1. Cultural Historiography

Information regarding the history of gardens in the region was obtained through the Robert G. Askew Papers housed at North Dakota State University's (NDSU) Institute for Regional Studies and University Archives. As stated previously, the collection contains

completed questionnaires and two published journal articles covering the topic of gardening in North Dakota. A summary of the data collected from the Askew papers is stated in the local historical context and local heritage section of the paper. The historical background information acquired from the archives has been supplemented with historic gardening information obtained from the Historical Societies of Cass and Clay Counties with information pertaining to Fargo, ND and Moorhead, MN as the emphasis for the data collected. The information from the papers was used to correlate the region's gardening history with the current trends that emerged while conducting research for this project.

4.2.2. Site Visits

The site visits to different community gardens were relevant for gaining an understanding of how the geography and architecture of the sites have been a potential factor in the development of the gardens and in connection with other community service organizations due to proximity. The site visits also provided a spatial context for the activities and social interactions occurring at the various sites. Over the course of the research project, I spent several hours helping three community gardens, received a one hour tour of another garden, and made short stops to photograph three more sites which did not have anyone working the garden at the time of my visit. Overall, photographs were taken at seven community gardens and the digitized photographs of the sites are included in this paper as visual narratives to the material presented.

A more detailed account of each of the seven site visits is presented in chapter five of the thesis. Furthermore, the community gardens that were visited are then compared and contrasted in this chapter as well.

4.2.3. On-line Survey

There was one on-line survey distributed to local community garden organizers in the Fargo-Moorhead area. The contact information and which community gardeners received the survey were extracted from the document review process and from social networks obtain through the course of the research process. The survey addressed topics on the following subjects: historical background information of the garden, demographic information regarding those involved (age, race, residential environment), number of individual gardeners and volunteers, type and frequency of social interaction among gardeners, how is the garden conducted- on a shared basis (communal gardening) or on an individual basis (allotment), types of community service engagement activities the group is or has been actively participating (i.e. farmers markets, community social events, teaching activities, and cooking demonstrations), and the reasons for using this type of gardening method.

The survey information was distributed through a secured on-line program called *Survey Monkey* via a link attached to an email that I sent to the selected community gardeners (n=168). The complete survey used in this research is found under Appendix C. The names of the survey participants were not obtained. The gardeners had two weeks to complete the survey. Of the 168 emails that I sent out, I received 6 out-of-office replies, 8 failed delivery notices, and 13 completed surveys.

Since I received such a minimal amount of completed surveys, I sent out another email to 22 additional community gardeners and I was able to obtain 6 more completed surveys. From the 19 surveys, the data was collected, analyzed, and coded in Microsoft Office 2007 Excel spreadsheet in order to extract patterns and to examine how that information correlated with the proposed theoretic framework.

4.2.4. Interviews

In addition to the on-line surveys, three face-to-face interviews were conducted with the coordinators of the Probstfield Organic Community Gardens; the Growing Together and LSS gardens; and the Ellen Hopkins Elementary School Garden. The interviews were in-depth, semi-structured interviews with the coordinators who have been involved in the planning, support, and operating stages and activities within the community garden program. Interviews were conducted with the informed consent of the participants. Four interview participants were initially contacted by email to see if they would be voluntarily willing to participate in the research for this topic. Of the three that agreed to take part in the research, arrangements were made as to which time and location would be the most convenient for each interviewee. A set of open-ended interview questions were created to highlight the main topics I wanted to address and the series of questions acted as a guide for the interview process. All three interviewees were volunteer coordinators that did not receive monetary compensation for the work that they do for the gardens. One of the garden leaders coordinates two community gardens during the summer months. I met with this particular leader twice in order to compare the similarities and differences between the two gardens and to ask some additional questions. I met with each interviewee at the gardens in which they coordinate. Depending on my role at the garden, the interviews lasted from 1 to 4 hours. For the interviews that lasted 3-4 hours, I was involved with not only semi-structured interviewing scattered throughout that time frame but I conducted participant observations where I fully immersed myself in the chores of the gardening group. By immersing myself in chores such as hauling five gallon buckets of water, picking cucumbers, pruning tomato plants, weeding, and so on, I was able to conduct informal interviews with different community gardeners and volunteers.

The following table (Table 4.1) provides a brief overview of the semi-structured interviews that were conducted for the purposes of this research.

Table 4.1. Semi-Structured Interviews
(* Population data from the 2010 U.S. Census, http://factfinder.census.gov [September 20, 2012])

Contact	Date of Interview	Personal Information	Organization	Location	City Population	Program Services
Jack Wood	July 19, 2012 & July 24, 2012	Community garden developer/ Coordinator for 10+ years	Growing Together Garden and Lutheran Social Services Garden	Fargo, ND	105,549*	Growing Together & LSS Garden help New American families
Jennifer Krause	August 2, 2012	Community Garden Volunteer Coordinator for 6+ years	Probstfield Organic Community Gardens (POCG)	Moorhead, MN	38,065*	POCG utilizes membership fees for individuals and groups to rent a plot for the season.
Jamie Holding Eagle	August 3, 2012	First-time school garden coordinator	Ellen Hopkins Elementary School Garden	Moorhead, MN	38,065*	The program provides a learning environment for elementary school students.

Since three interviews were conducted while working on gardening tasks and lasted 2-4 hours, these particular interviews were not digitally recorded. The information gathered from these semi-structured interviews and the informal interviews of the gardeners and volunteers was written down immediately after the gardening experience. The information from both the informal and semi-formal interviews was coded into a spreadsheet. The semi-structured

interviews explored in detail the information related to the history of the garden, the mission of the garden, relationships between gardeners and with the community, funding sources, what brings people to the garden, community service projects, and ongoing sustainable projects.

4.3. Data Analysis and Reporting

The qualitative data gathered from the literature review process was analyzed throughout the survey and interview collection phases. This approach allowed for the data and the theoretical frameworks to progress through the process together, allowing for a more inductive type of analysis. Through the data collected from other research projects, general patterns and observations have emerged. Through identifying these patterns and observations, a proposed theoretical framework for further study was then developed. This method allowed for the theoretical framework to be adjusted as additional knowledge was gained. For instance, research on community gardens has shown benefits for individuals regardless of age, race, ethnicity, ability, and socioeconomic status (Draper and Freedman 2010). Due to these findings, I altered Bourdieu's theory on social capital to portray a shift in perspective due to the variety of individuals (i.e. different socio-economic classes) working as a cohesive group within the community garden setting. This alteration in broadening the scope of what constitutes a collective group working to generate sociocultural capital provides a more condensed manner in which to gauge social networks occurring in the F-M area.

4.4. Summary of Chapter 4

The objective of this study was to improve the understanding of how sociocultural networks between local community gardens and community groups can help in achieving a community's sustainability goals. In order to achieve a better understanding of this process, a multiple case-study design was used. The case study method was chosen to produce a multi-

perspective analysis which allowed for an in-depth study of how sustainable goals are met through various sociocultural networks. The research methods used a qualitative approach which included cultural historiography, literature review, site visits to seven local community gardens, on-line survey responses, and semi-structured and informal interviews. By utilizing different methods to generate and collect data on community gardeners' social networks, a more holistic perspective originates which offers a broader scope to better comprehend how social networks generate and utilize the sociocultural capital for the benefit of the community garden group and the community at large.

CHAPTER 5. CASE STUDY RESULTS FROM SITE VISITS AND INTERVIEWS

5.1. Overview

The window frames a black walnut tree whose leaves have turned light amber signaling autumn's prompt arrival. As the crisp breeze creates mini cyclones of leaves floating in mid-air and then descending to the ground, the hypnotic motion of the leaves transcends my mind to warmer summer days. I hear the faint sounds of water splashing against the side of a five gallon bucket. The splashing of water is interrupted by the verbal instruction from a man stating to "fill the buckets more". Then, my mind becomes enveloped with the metal dings of cucumbers ricocheting off the insides of a wheelbarrow. The dings are quickly silenced by the scolding remarks of mothers disciplining their children for picking the small cucumbers and throwing them too hard into the wheelbarrow.

This daydream stems from my first visit to a community garden centered on providing healthy food and social networks for New American families. During the four hour visit, I assisted by hauling five gallon buckets of water to cucumber and corn plants, pruned tomato plants, pulled weeds, picked cucumbers, socialized, laughed, ate supper, and helped tidy up the space. Though several different cultures were represented at this garden such as Bhutanese, African, and Indian, the communication barriers seemed nonexistent. From head nods and smiles as nonverbal terms of thanks to heavily accented "hellos", the atmosphere was welcoming and there was a natural progression as to which task was next. The gardening process was beautifully orchestrated by the garden's head coordinator who would provide additional instruction as needed. This is a mere snapshot of the diversity surrounding community gardens found scattered throughout Fargo-Moorhead community.

The diversity surrounding community gardens in Fargo-Moorhead is found deep within the community's history. As mentioned in chapter two, the region's history has seen many influxes of immigrants call this area home such as those from Germany, Norway, and the Germans from Russia which helped to shape the cultural and material landscape. Today's landscape is no different except those shaping it are now from regions such as Bhutan, Iraq, and Sudan. During my site visits, two the community gardens dealt with assisting New American families and the majority of these families were referred to as "Bhutanese". While researching the background of the Bhutanese refugees, I found that their history of political and cultural strife was similar to the history of the Germans from Russia. The Kingdom of Bhutan is bordered on the east, west, and south by India and China to the north; however, the "Bhutanese" are actually Nepali immigrants who were asked to come and reside in Bhutan just as the Germans were asked to reside in Russia (Krueger 2011). According to Krueger (2011) both groups (the Nepalese and Germans) were allowed to form their own colonies where religion, language, and traditions could be sustained. These colonies succeeded for almost a century before their neighbors began to resent them as "foreigners" (Krueger 2011). Soon after the resentment, both groups found "their rights were stripped, their culture suppressed, and their language outlawed" (Krueger 2011:12).

About the time that the Germans were emigrating from Russia to America, thousands of Nepali farmers were invited to "settle the uncultivated, malaria-infested marshland of southern Bhutan" (Krueger 2011:12). While retaining their cultural heritage, the Nepali immigrants tended to the land, became successful farmers, and came to be called the Lhotshampa people, or "southerners" (Krueger 2011). When the King of Bhutan created a program to create a uniform culture of Bhutan, the Nepali language was banned from schools, only Bhutanese clothing was

allowed, and citizenship laws were changed (Krueger 2011). A similar event happened in Russia with the government banning the use of German in schools and trying to reform the Germans into Russians. With the Lhotshampas, protests broke out and during 1988-1993 and they fled to their ancestral homeland of Nepal. However, the country of Nepal was not stable economically to support the huge mass of Lhotshampas, so for the last twenty years approximately 100,000 Lhotshampas have been living in refugee camps in Nepal (Krueger 2011). In 2010 Nepal ordered for these camps to close and this meant all the refugees had to disperse. The Bhutanese government would not allow the refugees to come back because when they moved to Nepal they forfeited their citizenship in Bhutan (Krueger 2011). According to LSS of North Dakota, the United States agreed to take 60,000 of the Nepali from Bhutan over the next five years and the remaining 40,000 would be sent to Canada, Australia, and various European countries (Krueger 2011). LSS one of the organizations in charge of finding refugees new places to live and they chose Fargo-Moorhead because of the large number of Nepalese students attending North Dakota State University, Minnesota State University Moorhead, and Concordia College (Krueger 2011). The organization thought between the refugees and the Nepalese students that there would be enough Nepali people to start a community (Krueger 2011). In May of 2008, the first Nepali from Bhutan immigrants came to Fargo and as of January 2011, 457 Lhotshampa people made Fargo-Moorhead their home (Krueger 2011). The Center for New Americans has resettled refugees in North Dakota since 1946 and has resettled approximately 4,000 refugees from 35 countries during the past 14 years (www.lssnd.org 2012). This is a brief synopsis of the historical background of just one group of refugees out of more than thirty-five that have settled in the Fargo-Moorhead community (see Table 5.1). Whether the refugees faced religious, political, or ethnic persecution in their homelands, they all had to adjust to life in Fargo-Moorhead.

Table 5.1. Number of Refugees Resettled to Fargo 1994-2009
The 1994-96 figures are for refugees arriving to the state of North Dakota but fewer than 30 refugees were resettled outside the city of Fargo (Erickson 2010). Figure courtesy of LSS.

Country of Origin	**1994-96**	**1997-2000**	**2001-04**	**2005-09**	**Total**
Afghanistan		14	7	3	24
Albania		110	1		111
Ameriasian		3			3
Armenia	53	9			62
Bosnia-Herzegovina	348	1191	293		1832
Burma				27	27
Burundi		11		155	166
Bhutan (aka Lhotshampas)				321	321
Cambodia	222				2
Columbia			7	4	11
Congo			5	33	38
Cuba	94	58	7		159
Djibouti		17			17
Ethiopia	1	14	5	4	24
Haiti	94	9			103
Iran	8	22	5	4	39
Iraq	67	32		261	360
Kurdistan	25	208			233
Liberia	4	7	112	121	244
Nigeria, Zaire, Uganda, Togo, Rwanda, Angola. Central African Republic	10	23	8	19	60
Russia	27	10			37
Serbia		26	20		46
Sierra Leone		5	19	4	28
Somalia	132	196	86	417	831
Soviet Union		7			7
Sri Lanka		3			3
Sudan	100	240	155	71	566
Turkey		14		6	20
Ukraine	4	4	10		18
United Kingdom		13			13
Vietnam	158	33	2		193
Yugoslavia and Croatia	5		10		15
TOTAL	**1,132**	**2,279**	**752**	**1,450**	**5,613**

With the large number of refugees entering the Fargo-Moorhead community, several churches wanted to find a way to connect New American families with the community. The term "New American" is used locally to emphasize the integration of refugees into the community, which is the goal of the LSS program (www.lssnd.org 2012). According to my interview with the coordinator at the Growing Together garden, Olivet Lutheran Church started a community gardening program to help New American families and then a partnership was formed with the Growing Together garden at the First United Methodist church. This is the seventh year of the Growing Together garden and over 65 New American families have benefited from the garden this year alone. Churches such as Olivet Lutheran, Nativity, and First United Methodist along with an organization called CHARISM which was founded in 1994 by five area churches; all used community gardens as a platform to help the F-M community become better able to handle the large amount of refugees and immigrants that now make up 6% of the community's population (Erickson 2010).

Besides church-based groups, the LSS has not only helped New American families settle into the region, but the agency has started a community garden as well. The LSS garden was established in 2012 with the help of Olivet Lutheran Church and the Growing Together gardeners. The mission of this garden is for refugee families to raise enough garden produce to feed their families and provide resources through the sale of some of the produce. The goal for the LSS is to strengthen communities, connections and relationships; contribute to the capacity of newcomers to thrive; and provide newcomers with a sense of belonging (www.lssnd.org 2012).

During my site visits, two of the gardens were developed exclusively for helping New American families connect with the community of Fargo-Moorhead. The two gardens had a similar design layout in which the majority of the 100'x100' gardens were zoned for a large communal plot and then one side of the perimeter was sectioned into allotment plots where individual families could grow additional vegetables and herbs. The majority of the produce went to the New American families and some of the produce went home with the volunteers.

The Probstfield Organic Community Gardens (POCG) had one garden designated for a 4-H group. Another large plot was sectioned into individual allotment plots where individuals, families, and local organizations grew a variety of organic vegetables and herbs. POCG also had a section for pumpkins and squash and a small apiary tended to by a community member. POCG was the largest garden that I visited with the allotment garden itself consisting of approximately 100 plots with each plot measuring 20 ft x 30 ft. There are groups of Kurdish families that utilized the garden at POGC. As with the Bhutanese, the coordinator at this garden stated that some of the Kurdish immigrants used the surplus produce to sell to other Kurdish immigrants in the region. Unlike the Growing Together and LSS gardens, the POCG has plots available for the public to rent for a small fee.

While an exchange of knowledge happens at all of the gardens, the Ellen Hopkins Elementary School garden's chief mission is to help students learn about healthy eating and about locally grown foods. The garden works with the school's teaching staff in order to create an outdoor classroom where elementary students (K-5th grade) can use the garden as a learning tool for art, math, science experiments, social studies, and so on. The garden is was the only one I had visited that was made from raised beds. It had an assortment of heirloom and organic vegetables and flowers that came out of donations from another community garden coordinator,

Cornucopia garden, and company which practiced seed saving. The garden is open for the public to help; however, the main purpose of the garden is for educating today's youth. With 750 students attending this school and with approximately 69 members on the teaching staff, the garden has a large pool of young minds to germinate the message of healthy living.

Figure 5.1. Cornucopia Campus Garden
Located on the Concordia College Campus-Moorhead, MN
(Photo by Jessica Brown, 2012)

Concordia College in Moorhead has an organic community garden called Cornucopia which is managed by students. The garden's development is based on a curriculum addressing sustainability. The garden started in April of 2010 and the organizers plan to expand the educational element to include the community including elementary students (Concordia College 2011). The vegetables and herbs from the garden are used for the college's dining services and sold at the Concordia Farmer's Market. As with the Ellen Hopkins garden, the Concordia garden focuses on students. This was the only school in which the school's dining services allowed the food from the garden to be served in the cafeteria. POCG has partnered with the Green Market and the restaurant features menu items from the community garden.

Figure 5.2. Catalyst Community Garden
Located in Fargo, ND
(Photo by Jessica Brown, 2012)

From the partnership between Dakota Medical Foundation and Cass Clay Healthy People initiative, the Catalyst Community Garden developed. The garden is neighborhood-focused and is comprised of a half-acre plot. In servicing the community, the gardeners here work with the Great Plains Food Bank. As with the Growing Together, LSS, and POCG gardens, the surplus produce is given away to local charities.


Figure 5.3. Proposed Site of River Haven Community Garden
Located in Moorhead, MN
(Photo by Jessica Brown, 2012)

The River Haven Community Garden is a proposed site for a community garden in south Moorhead. This site is part of the voluntary "buyout" program in Moorhead where the homeowners of riverfront properties that fall below the FEMA 100-year flood plain at about 39

feet can have their homes purchased by the city. Once the homes are purchased, the homes are removed (many homes have been moved to new locations). With the removal of the homes, the city then either creates an earthen-levee on the property or builds a flood-wall. These measures are to help with mitigation issues by potentially lessening the effects of future increases in river levels. As of August 27, 2012, the city council of the City of Moorhead received a petition to pursue the use of a community garden at this location. The petition has been referred to the Fargo-Moorhead Metropolitan Council of Government (helps with planning organization) for the inclusion in the Moorhead River Corridor Study (City of Moorhead 2012).

The majority of the gardens that I visited only used organic gardening practices such as Growing Together, LSS, POGC, Ellen Hopkins, and Cornucopia. I was unable to find out whether Catalyst uses organic vegetables and methods and it will be determined later how the River Haven community garden will be organized. While the mission of the gardens I visited may be different, all of the gardens provided aid for some sort of societal need whether it be helping New American families, educating youth on local foodways and healthy eating habits, or providing fresh foods to certain neighborhoods.

5.2. Growing Together Garden

As I haul the heavy buckets of water, I begin to think about this 100 foot x 100 foot plot and the number of different homelands which were represented on this one small parcel of land. I wondered about the rich cultural knowledge that could be obtain in this type of setting along with the different types of horticultural knowledge that could be exchanged. From talking with different individuals at Growing Together, there seemed to be a reciprocation of knowledge exchanged between the refugees and immigrants and the local community members instead of a lop-sided teetering of only local knowledge expressed. For example, some of the women from

Africa were not familiar with beets, so they were hesitant to bring the beets home. The African women did not know how to prepare beets (such as cooking or pickling) nor had they ever tasted beets before. One of the local volunteers verbally presented the African women with a simple method for cooking beets and suggested some additional recipes for preparing beets. I found myself learning about a new food staple as I was guided towards a tall plant that to me resembled a ditch weed, I was then told of how popular amaranth greens are in the cooking of African and Bhutanese dishes.

Figure 5.4. Growing Together Community Garden
Located in South Fargo, ND
(Photo by Jessica Brown, 2012)

By bring together cultures and plants in an arena that challenges both local and global concepts, community gardens offer unique venues for youth and adults to learn about their local environment and its relation to the larger world (Kransy and Tidball 2009). The Growing Together Garden and the Lutheran Social Services Garden are glocal programs where both youth and adults can learn about different cultures and planting practices of the immigrants and refugees that reside in the community.

In turn, these New American families are working with community volunteers and through social interactions at the garden, the newcomers are learning about the local culture that they now call home. Through the factor of education in which glocal knowledge is being shared from the diversity of the social connections made at this garden, sociocultural capital is being generated.

Making a place a home can arise from the ways in which a garden is created and cared for by those in the community. When New American families who come to this area from countries with an agricultural-based economy, the garden is a place where cultural and horticultural knowledge can come to service and reconnects these individuals to the essence of who they are and provide a sense of balance.

This particular garden started at another church, Olivet Lutheran Church, in Fargo and when space was no longer available, First United Methodist Church decided to partner with Olivet and start a community garden to support the New American families in the region. The garden has four Growing Together Garden Ministers that were responsible for getting the garden organized and developed. This year marked the seventh year of the Growing Together Garden program. The garden is primarily a communal plot where everyone works together to take care of the communal crops such as tomatoes, corn, cucumbers, beets, onions, squash, zucchini, eggplants, cabbage, and peppers. The meeting day for this garden is on Thursday evenings.

In 2011 the Growing Together Garden Ministers helped the Bhutanese, the city of Fargo, CHARISM Neighborhood Support Center (a non-profit, neighborhood-based organization which provides programs for low-income children and families in Fargo, ND), and Lutheran Social Services start their own gardens. Just like the Mandan saved seeds for the next growing season, one of the Growing Together Garden coordinators saves seeds. With the saved seeds planted, he

utilizes part of his garage as a greenhouse over the winter months in order to have plants ready for the two gardens he works directly with and moreover, to donate plants to other community gardens in the Fargo-Moorhead area. Several school gardens in Fargo and Moorhead have been recipients of the plants grown in this coordinator's garage. The ties created by the Growing Together gardens with city officials, non-profit organizations, and New American Families is building both bridging and linking capital. Bridging capital is produced by local volunteers and New Americans working together in close proximity each week and engaging in social interactions. The linking capital is building through contacts with local businesses and city officials that can help promote sustainable agendas for all parties involved through collaborative efforts.

The garden is located on land owned by First United Methodist Church. The church is located across a paved parking lot from the garden. The church not only provides the land, but water and some volunteers as well. One church member volunteer stated that he likes to help out in the garden because he likes to promote a healthy lifestyle and enjoys making green shakes from the garden's produce. This particular volunteer's main job is to help take care of the herb garden. When I asked him about how the neighbors in the single family homes have reacted to having the garden behind their properties, he stated that one of the garden's neighbors did help out; however, after hearing from neighbors how they "looked down upon" the garden, he was then persuaded to quit. The majority of the garden's neighbors do have small gardens in their backyards. The volunteer went on to say that even though this garden is part of a Christian ministry, the Buddhists, Muslims, and Hindus are welcome to fellowship and to the food grown here.

Another one of the local volunteers that I spoke with was a police officer who got injured on the job and is unable to return back to work due to the injury he sustained. Therefore, he likes to spend time at the garden helping with various tasks. He was cutting strips of twine for the tomato plants when I spoke with him. He enjoys meeting new people at the garden and helping the New American families.

A young couple was at the garden as well along with their two-year-old child. They enjoy coming to the garden because it is something they can do as a family. They also enjoy getting the organic produce to bring home to supplement a healthier lifestyle. The wife along with a church volunteer helped with the meal preparations and serving the chili (both meat and vegetarian options were available) and lettuce salad that the gardeners enjoyed after working in the garden. The meal is a tradition at the garden every week and it is a great time to socialize with others. The produce from the garden is used in the meal preparations and the church helps with the cost of the food.

I met a man from Iraq who volunteers at the garden by carpooling different families to the garden. There used to be two buses from the church that helped in the transportation process of bringing New American families to the garden; however, one of the buses got into an accident and now there are no buses to use. He has his working on this Master's degree in architecture at one of the local universities and he works at one of the non-profit organizations in town helping New American families find housing and jobs. He was excited to tell me about his new baby. He enjoys coming to the garden because of meeting new people and getting fresh food. He also helps in the garden as an interpreter.

While pruning tomato plants I met a volunteer who became involved in the garden because of his mother. He stated that he does not know much about gardening, but his mom helped organize this garden along with some others in town, so he helps out when he can.

Another local volunteer enjoys meeting people at the garden. She lives in a housing development that has an ordinance that residences cannot have vegetable gardens on their property. She tried to grow vegetables in containers; however, she did not have the same success as planting in the ground. She is the only local resident at this location that has her own plot. The garden coordinator told me that since she have been such an active and wonderful volunteer over the years and due to the regulations at her home, she was given a plot of her own.

When the gardening visit came to an end, the majority of the New American family members went and got their fabric tote bags sporting the logos of various grocery stores in the area and started to fill up the bags with the produce that was picked that evening. I noticed the garden coordinator standing next to the wheelbarrows making sure some members did not take too much. The coordinator was more abrupt in his tone while regulating the rations. Afterwards, I asked him if there was a problem with people taking more than their fair share and he told me that some of the members take surplus produce and sell to other New American families as extra income. He just wants to make sure everyone gets produce to take home for the week and the extras can be divided out afterwards.

Besides giving the produce to the New American families, the group does engage in economic development by selling produce to the greater community throughout the growing season. The produce sales usually occur at the end of August when most of the food is harvested. The sales help with future needs of the garden. There are approximately 65 New American families that utilize the services at the garden and there are over 30 volunteers.

5.3. Lutheran Social Services Garden

This particular garden is located on a plot of land owned by Lutheran Social Services (LSS) of North Dakota. Lutheran Social Services of North Dakota is a nonprofit social services agency established in 1919. The LSS of North Dakota serves thousands of North Dakotans annually with affordable housing, food, disaster response, counseling, therapy, and other social services (www.lssnd.org 2012). According to the organization, the garden project provides a healing place for refugees to work in the garden while being involved with others in the community (www.lssnd.org 2012). The mission of this garden is for refugee families to raise enough garden produce to feed their families and provide resources through the sale of some of the produce. The garden was established in 2012 with the collaboration between the LSS of North Dakota and Olivet Lutheran Church.

Figure 5.5. Lutheran Social Services Garden
Located in Fargo, ND
(Photo by Jessica Brown, 2012)

The garden coordinator for this garden is the same as the Growing Together Garden. Like the Growing Together Garden, the LSS primary focus is on New American families. The majority of the refugees at this garden are Bhutanese. The garden hosts around 40 New American families and they meet at the garden on Tuesday nights. The layout of the garden is similar to the Growing Together Garden - large communal plot and smaller allotment plots.

One refugee that I spoke with at the LSS Garden was from Bhutan. He is a high school student and acts as an interpreter for this family. When I asked him why he comes to the garden, he stated that he drives the carpool of family members and neighbors to the garden. He continued to say that since he does not have a job yet, he can help out by driving. He said that he has went to several job interviews at local hotels and the people interviewing him sound like they like him; however, there are no phone calls.

The new dad from Iraq was at this garden and he helped translate the coordinator's announcements directed at the entire group. He had car-pooled some families to the garden and said he was very tired from lack of sleep with a newborn. I asked a Bhutanese refugee if he gardened in Bhutan. He said that he did but the garden was much bigger and he used an ox. I also had the chance to speak to a refugee from Congo. He was at the Growing Together Garden as well. I asked him about how he liked the garden and he said it is nice to have a place to grow your own food. When I asked if there were communal gardens in the Congo, he replied that he did not have communal gardens in his village. Each household had its own garden. He went on to say that many of the vegetables grown here he is familiar with such as onions, tomatoes, potatoes, squash, greens, and so on, but beets- NO!

Then he asked me a question, he wanted to know why this large grass area next to the LSS garden just had grass planted there. "Why do they not put a garden there? [Pointing to the large patch of grass] Do you know how many families could have food from there?" questioned the Congo refugee. He was shaking his head in disbelief. Later, he brought me over to a plant surrounded by a tomato cage. He held out his hand like a hostess on a game show and flashed a huge smile. He told me that it was an oriental eggplant.

He bought an oriental eggplant at the Asian market and saved the seeds. He called the garden coordinator to ask him how to properly save the seeds and the refugee and the coordinator planted the saved seeds in starter pots and the plant grew in the coordinator's garage over the reminder of the winter.

Since there is not a budget for a meal, the coordinator buys cookies out of his own pocket each week to give to the gardeners in attendance. There were only two or three local volunteers to help the New American families on the evening that I visited. While I was weeding, a volunteer told me that they have had a hard time getting volunteers to help at this garden. The addition of local volunteers would help to increase the amount of bridging capital to the garden.

The crops planted at this garden were reminiscent of the Growing Together Garden like tomatoes, squash, cucumbers, onions, beets, corn, and so on. The gardeners here also have fabric grocery totes to transport their newly picked vegetables home. While everyone was leaving, one of the volunteers asked a group if anyone needed a ride home and this statement was followed by the volunteer asking if that many people can fit into one car safely.

5.4. Probstfield Organic Community Gardens

Figure 5.6. Probstfield Organic Community Gardens
Located in Moorhead, MN
(Photo by Jessica Brown, 2012)

For this visit I was given an informative walking tour of the community garden and part of the farmstead the garden resides on by the garden coordinator and her two children. The tour started at the farmstead and I was given a synopsis of the history of the farm. The farm was owned by Randolph M. Probstfield who emigrated from Prussia. He owned about 400 acres and the garden is situated on part of the 100 remaining acres which is owned by the Probstfield Farm Living History Foundation. I was told that R.M. Probstfield did a lot of experimentation with different varieties of crops such as vegetables and tobacco. The produce grown was sold at a roadside stand. He was also an early large-scale valley truck gardener and sold most of his produce to the colonies of the Northern Pacific Railroad construction crews (Askew 1990). The coordinator commented on liking the link of the past to the present with R.M. Probstfield raising a variety of garden produce and now having a community garden on the land. Most of the funding that goes to the Foundation goes towards restoration projects on the remaining buildings at the farmstead. A local tractor club helps out with the mowing and maintenance around the farm and in turn, they are able to store their vintage tractors at the farm.

As we walked towards the community garden, a small garden called the Creative Clovers Community Garden was situated to the right. This is the 4-H garden and each week one of the 4-H families comes out and works in the garden. Some of the produce goes home with the 4-H families and a large share is donated to a local food shelf. The 4-H group would like to raise chickens and bunnies at the garden but this request is dependent upon city approval. The coordinator thought this would help the garden become more self-sustaining. Since my visit, the garden has requested a re-districting from the City of Moorhead to have small animals at this location.

The main community garden is divided into individual plots. This year instead of individuals and families renting the plots, there are more and more groups working together in the smaller plots. The coordinator stated that even though there are more and more groups coming to the garden in terms of gardening plots and volunteering, there has not been an increase in funding from the local community. On my visit, there was a group from the Baha'i faith tending to their plot. There is also a large Kurdish community that gardens here and they sell their produce to others. The coordinator stated that of the families that garden at the farm, some do own their own homes but they either own small yards or have shady yards.

Other zones surrounding the garden are used for various purposes. One section is utilized by one community member for an apiary. Another zone is used for a pumpkin and squash patch. The goal is to have a couple of "U-Pick" days in which the general public can come in and pick pumpkins. The goal of this is to help promote the garden and spread the word into the community as to what the Probstfield Organic Community Gardens can provide residents of the Fargo-Moorhead area. A local grocery store stated that they would be willing to set-up a stand so the garden can sell the pumpkins. Excess produce has been given to the Dorothy Day House - a local organization helping the homeless and hungry by providing nourishment and housing. The coordinator told me that peppers and tomatoes were planted and they were thinking of putting on a banquet serving chili for those at the Dorothy Day House or one of the local pantries or shelters.

In terms of economic development, a group called the Yellow Rose Gardens has partnered with POCG and uses one of the sections of land to grow produce to sell at a local Farmer's market and at POCG. As mentioned earlier, POCG has collaborated with the Green Market which features menu items made from the produce at the garden.

This was the only community garden that I visited that was open to anyone in the community to come and garden for a small fee. The other gardens had specific agendas that tended to limit who could garden. When we were finishing the tour, I asked the coordinator if there was anything she would like to see improved in at this community garden or at the community level and she stated that it would be nice to have some sort of networking capabilities so community gardens could stay in-touch with one another. She retorted that she has no idea what other community gardens are doing in the Fargo-Moorhead area.

Compared to the other gardens I visited and surveyed, POCG did the most in terms of economic development and creating awareness of the garden to the general public. From partnering with Green Market to selling pumpkins and squash at a U-pick event, these activities can help expose the garden to new groups of people in the community. By placing flyers about the U-pick event into community program and event packets sent home with k-12 students and partnering with local businesses, the garden is expanding its networking base. These activities can aid in yielding more ties with bridging and linking capital through the expansion of the network base- perhaps more partnerships can arise or more groups may want to rent a plot for the season.

5.5. Ellen Hopkins Elementary School Garden

Figure 5.7. Ellen Hopkins Garden
Located at Ellen Hopkins Elementary School-Moorhead, MN
(Photo by Jessica Brown, 2012)

My involvement with this garden started in February 2012. I attended a meeting at the time and the focus of the meeting was to create a steering committee to help make this idea of a school garden at Ellen Hopkins Elementary School in Moorhead a reality. I signed up to be on the committee and meetings were held about twice a month until the frost advisories were over. The committee consistently had five parents and one teacher involved in bringing the garden to fruition. During the meetings information about grant availability, possible locations, funding needs, design, teacher surveys, and other development questions were addressed. The purpose of the survey sent to the teachers was to see what the projected level of commitment to the garden the teachers were willing to incorporate into their curriculums. Some teachers were excited about the new venue for learning and others were hesitant about adding yet another project into their strict state academic standards and guidelines. The committee tried to make the process as easy as possible for the teachers.

By the time the snow melted, several key components started to come together. Moorhead high school wood shop students built the wooden frames for the raised beds. A gift card to a local nursery was given in which soil, peat moss, and compost were obtained. Seed Savers Exchange Company donated heirloom and organic seeds. From this donation, unique heirloom varieties of cucumbers, sunflowers, calendulas, cosmos, and other items such as Rattlesnake beans were grown and became tools for learning. One of the teachers who was more skeptical of the project initially started to really take the helm and sorted all of the seeds, so that each teacher received a different variety of plant.

By mid- May several teachers had their students plant the seeds and the seeds began to sprout on classroom window sills. One Sunday morning, the garden bed frames were placed in their designated spots; measurements were made to make sure enough space was placed between the beds; the frames were filled with cardboard, newspaper, soil, moss, and compost; and then the soil, moss, and compost were mixed together. Later on, the seedlings were planted. Throughout the summer various committee members went to the garden and weeded and watered the raised beds. One member of the committee donated a rain barrel purchased from a local nonprofit organization that promotes and protects the natural environment of the Red River Valley of the North. A local college has its own garden and the advisor of the college garden offered to donate labor/hours from interns to the help out with Ellen Hopkins Garden project. One of the teachers had a friend who made and donated a wooden sign that denotes the purpose of the garden.

The garden process was led by a first- time coordinator and parent of two students at the school. The coordinator wanted to create a space where youth could become more involved in gardening and for youth to know where their food is grown. She believes that children are

becoming more and more disconnected from nature. She even started her own organization dedicated to urban gardening as a means of redeveloping relationships between people and food production. She initially became interested in gardening after taking a women's study course in college and wrote a paper about women in agriculture. She was hooked. She then started talking with different people and began to learn more and more about gardening and local food production. She thinks that community gardening is shifting its focus and instead it is not about how to effectively build a community garden but about the connections made in the garden.

5.6. Summary of Chapter 5

By researching the history of the refugees that have resettled in the Fargo-Moorhead area, the community can begin to understand the challenges faced by these groups who have experienced social injustices such as religious, political, and ethnic persecution. Through this understanding, community members can be more aware and better equipped to provide useful programs that will help the New Americans transition into belonging to their new home. A universal practice such as garden can break down the language, religious, and cultural barriers and new social connections and knowledge can be gained. As the world is becoming more and more globalized, it is important to learn the glocal knowledge that occurs when groups with different backgrounds share the same place. While all of the seven of the community garden sites that I visited differed in regard to size, number of active participants, or mission, all of the gardens helped the community of Fargo-Moorhead lessen a particular societal issue. Whether the issue involves helping New American families build a sense of community in their new homeland or providing access to healthy foods or acting as a learning center, these civic actions help make the F-M more sustainable through the social interactions these gardens have in helping the greater community.

CHAPTER 6. SURVEY RESULTS

6.1. Survey

A survey consisting of mix of single answer, Likert scales, and open-ended questions was emailed to 168 residents of the Fargo-Moorhead area that were associated with community gardening. The list of email recipients was extracted from the internet searches for local community garden information and personal social connections made during the research process. Of the 168, 14 emails came back as either an out-of-office reply or as undeliverable mail. The survey was open for 14 days and when the deadline arrived, only 13 surveys were submitted. The survey was conducted through *Survey Monkey* and consisted of a variety of questions pertaining to demographics, basic information about the garden, and social networking conducted within and outside the garden. The survey was sent out a second time in order to improve the number of completed surveys and this time the survey was open for 15 days. During the second round of the survey, only 22 emails were sent and of those, 6 more surveys were submitted. A complete list of the survey questions is found in Appendix C.

The data was then collected from the 19 completed surveys and coded into a Microsoft Office 2007 Excel spreadsheet. When the data was finished being collected and analyzed, several patterns began to emerge. There were at least 10 different community gardens represented in the survey results (nine of the respondents did not specify where their garden was located). Out of the ten gardens identified from the survey, six of those were gardens that were not represented during the site visits or the interview process. Gardens such as Nativity Church, The Gathering, CHARISM, and three elementary schools in Fargo and South Fargo were part of this new group of six gardens. The demographic information from the survey has been tabulated and recorded in Table 6.1.

Table 6.1. Presentation of Survey's Demographic Data

Sex	
Male	35%
Female	65%
Age	
18-34	12%
35-54	47%
55-64	41%
Ethnicity	
White/Caucasian	15 individuals
Asian/Pacific Islander	1 individual
Skipped Question	3 individuals
Education	
Some College	20%
College Graduate	27%
Advanced Degree	47%
Prefer Not to Answer	6%
Residence	
Own Home	80%
Rent	14%
Prefer Not to Answer	6%

From the demographic data, the profile of the survey respondents were mostly women (12) compared to seven men. The vast majority of the respondents was homeowners (80%) and had an education level that included at least some college (94%).

The survey data regarding the ownership of the land in which the various community gardens are located depicted churches as having the most land ownership followed by non-profit organizations. Churches were also the number one organization in which the community gardens partner with in terms of donations, providing volunteer groups, and land use. Other groups that help with funding, donations, or volunteer groups are as follows: 4-H clubs, local colleges, Girl

and Boy Scouts, Extension Offices, K-12 school groups, local businesses, Master Gardeners, and the Cities of Fargo and Moorhead. However, the majority of the funding needs were reported on the survey to be donations from private individuals followed by grants and then donations from local organizations and business.

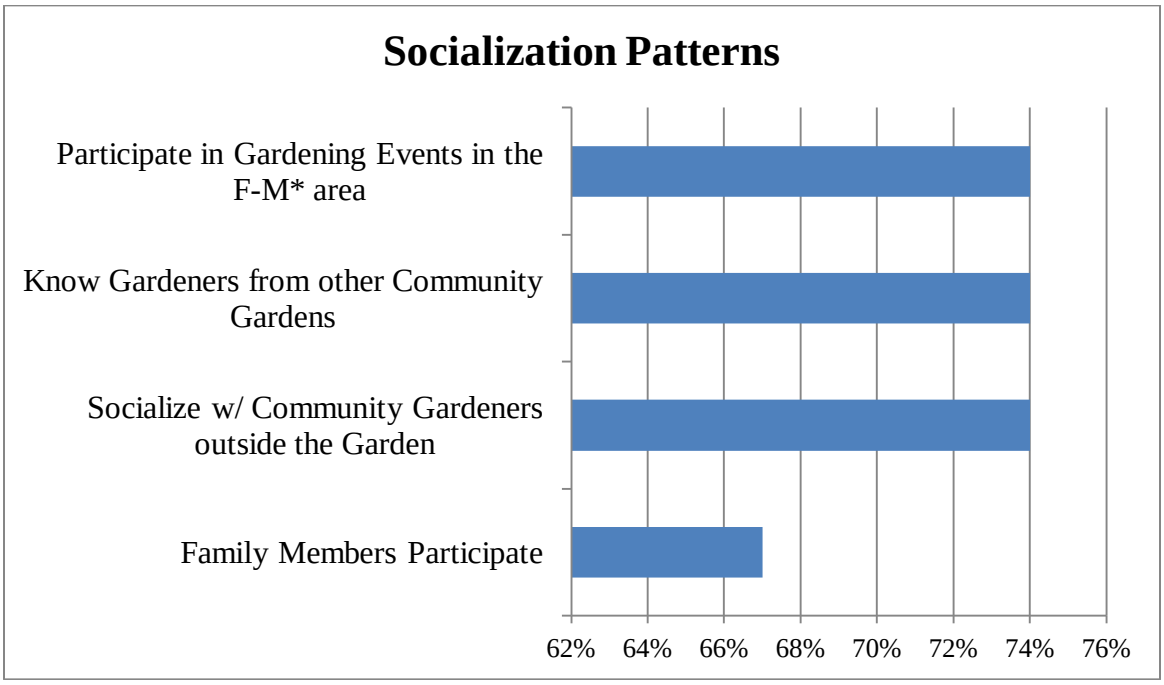

Figure 6.1. Survey Results on Socialization Patterns of Community Gardeners
(* denotes Fargo-Moorhead)

Figure 6.1 provides a perspective of the individual socialization networks involving the community gardeners who took the survey. When it comes to having family members participating in community gardening activities, 67% of the gardeners surveyed have this social interaction. The survey found that 74% of gardeners socialize with their garden's members outside the garden. The percentage of the survey gardeners who know community gardeners from other gardens is 74% as well. Finally, 74% of those surveyed stated that they participate in local gardening events.

Figure 6.2 represents the distribution patterns of those community gardeners who volunteer in the Fargo-Moorhead community. Of those surveyed 67% stated that they are involved in volunteering at other community organizations. Many of these gardeners, who volunteer elsewhere, volunteer at more than one organization. When it comes to the frequency of volunteering, 50% of the survey respondents reported that they have volunteered 12 or more times in the past year. The distribution of the local organizations where the gardeners volunteer is listed in Figure 6.2 along with how many of the volunteers provide assistance to these organizations.

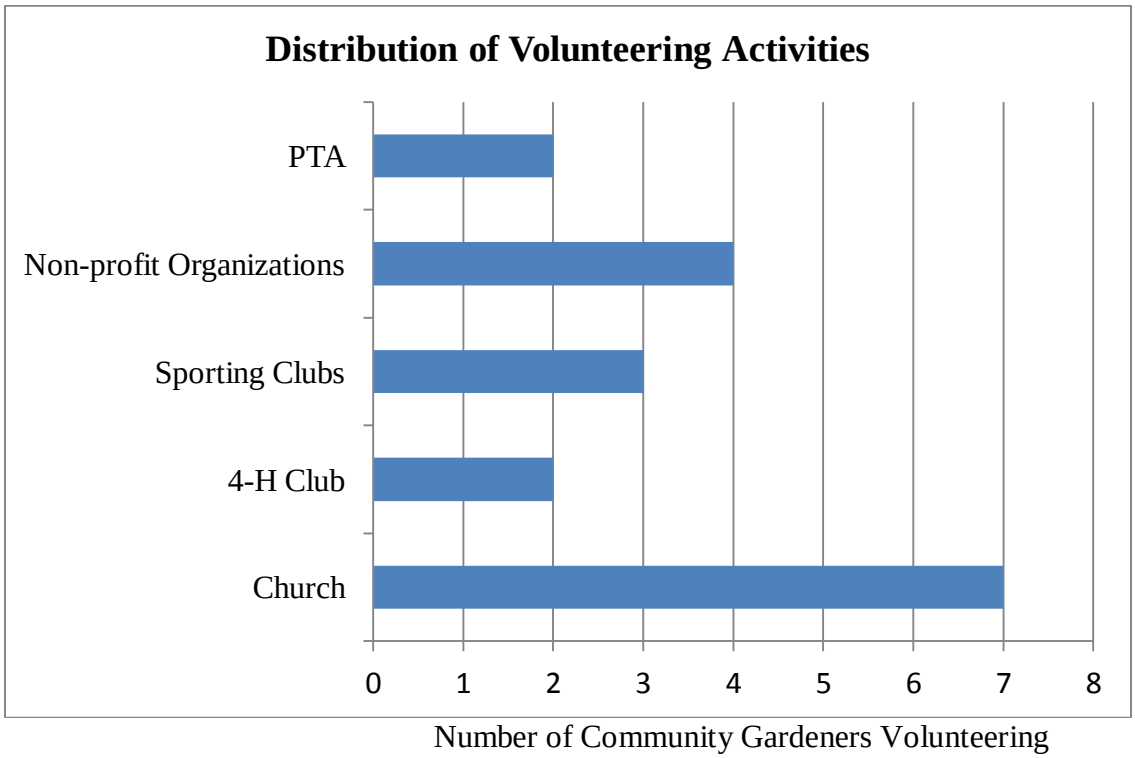

Figure 6.2. Distribution Patterns of Volunteering Among Community Gardeners

When it comes to what was the appeal to community gardens, the survey had a question dealing with this topic and the following points address the results regarding the top reasons why surveyed gardeners were involved in community gardening:

1. Sense of Community (i.e. relationships with other gardeners, helping other community members, meeting new people, socializing with others)
2. Healthy Food (i.e. getting fresh foods, getting organic vegetables)
3. Education (i.e. helping New American families learn about their new community, educating school children about growing their own foods, learning new gardening information)

The top two reasons why the gardeners surveyed were involved in community gardens were the gardeners' favorite part of community gardening as well. The gardeners really enjoy being part of the community and building relationships with the other gardeners. This was reflected not only in the survey but during my on-site interviews as well. The respondents reported a total of 854 people (volunteers, New Americans, etc.) who help in the community gardens represented in the survey. With a mean of 50 people per garden, this provides many different people to socialize with and increase each garden's level of social capital. With the "community" portion of community gardening the number one favorite aspect of being part of the garden, their second favorite part dealt with the "gardening" portion of community gardening and it was the access to fresh food and eating healthier.

6.2. Summary of Chapter 6

It is evident from the survey results that the social interaction that the community gardeners receive at the gardens is the top reason for their participation in this activity. With 854 gardeners participating in the different gardens represented in the survey, there is a large network of people to help build sociocultural capital. The social interactions ranked higher in importance than access to fresh foods for the respondents. This shift from focusing on growing vegetables for food procurement to the social interactions gardeners experience in a community garden

setting was evident not only in the survey results, but during both the informal and semi-structured interviews as well. Besides the number of gardeners, the wide variety of local and national organizations that the gardens partner with ranges from colleges and banks to small business owners and churches. The variety of organizations that partner with community gardens helps to expand the social networks for the gardening community. For instance instead of only relying on the help of state or federal grants to help cover the costs of starting and maintaining a garden, gardeners use the resources from their own community gardeners and look to the local community for collecting sociocultural capital. Whether it is a gardener donating her own money to purchase a rain barrel for the garden, a family inviting their neighbors to their garden's produce sale, or funds procured from a local bank's pay-it-forward program, the more diverse the social networks a garden possesses, the more opportunities are presented for generating sociocultural capital.

This diversity in allocating and generating sociocultural capital is beneficial for the sustainability of not only the garden but also for the sustainability of the community. If community gardens diversify their sociocultural capital portfolio they are in a better position to continue to provide aid the greater community when different societal issues arise such as natural disasters or a growing number of refugees resettling into a new homeland. The social interactions between gardeners did not stop at their garden alone, with 74% of gardeners socializing with gardeners outside the garden and the same percentage knowing gardeners from other gardens, the social networks are expanding.

CHAPTER 7. CONCLUSION AND RECOMMENDATIONS

7.1. Conclusion

By taking each methodological component and analyzing the information gathered such as the data emerged from the site visits (photography), the semi-structured and informal interviews, the survey, and the literature review, these components provide pieces to a larger image. The process is reminiscent of putting a 1000 piece puzzle together without the picture on the front of the box. However, by turning certain pieces and trying different approaches, connections are made and the larger picture becomes clear. This is the multi-faceted approach that I took in my research. I would now like to address how all of these components come together to create a picture of a community with strong ties of sociocultural capital stemming from the collective efforts of community gardens.

One of the first things that I learned in conducting the research for this project is that it is not easy to find the names of the different community gardens or the garden's contact information. There is not a website or Facebook page that lists all or even most of the community gardens in Fargo-Moorhead. Most of the gardens do not have individual websites, so I had to utilize my social contacts and start attending different gardening-based meetings in order to meet and talk to different people involved in community gardening. Through meeting new people and learning about the missions and goals of different community gardens, I was building my own individual sociocultural capital.

So, what can the data I collected do in gaining an understanding about the impact the social networks between individuals and organizations have on the interests of the community? So, how do the different community gardens that I visited or surveyed create and build upon their own sociocultural capital? According to Firth et al. (2011), for a community to be balanced

all three types of sociocultural capital (bonding, bridging, and linking) need to be present. How did the community gardens represented in this research help balance or increase the sustainability of the Fargo-Moorhead community? To address question, the three types of sociocultural capital will be addressed individually starting with how bonding capital was formed.

7.1.1. Bonding Capital

When it comes to individuals, each person has his or her own bonding capital that is generated through the contacts between family members, close friends, and neighbors (Firth et al. 2011). Therefore, the more people that are involved in the garden, the levels of bonding capital are increased. According to the data obtained from the survey, the range of community garden participants ranged from 4 to 160 individuals. Therefore, the degree of sociocultural capital varied from garden to garden because the more people, the more sources there are for gaining capital. However, just because a garden has fewer participants does not mean that the sociocultural capital generated is minimal. With only 6 people and usually only of which 3 or 4 were consistently active in the development process, the Ellen Hopkins School garden utilized help from its steering committee to plan, design, and execute the garden in addition to securing land, getting grants, getting donations from local businesses, obtaining lumber for the raised beds, having the bed constructed, finding water sources, obtaining dirt, having a sign constructed, and so on. The skills, knowledge, contacts, socioeconomic status, previous experience in community gardening, and other resources were pooled from these 6 individuals and through their collective sociocultural capital, a community garden now exists that has the potential to reach approximately 750 students with a hands-on learning experience.

The propagation of bonding capital does not stop there. With each student comes the potential capital that can be generated through the knowledge and information each student shares with parents, guardians, and siblings. A form of bonding capital is also present at the POCG's 4-H garden which focuses on having a different 4-H family each week tending to the garden's needs.

Even our health is an asset and a form of capital especially as a form of bonding capital when individuals involve their families and close friends into more healthful practices (Hancock 1999). A popular pattern that emerged from the data collected from the survey and informal interviews was that of health. From an interviewee using the produce from the garden to make green shakes to volunteer families getting out in nature as a family and bringing the produce home to prepare more healthful meals, community gardens help build upon health as a form of capital. According to the Fargo Comprehensive Plan (2012), in Cass County 62.4% of adults are either overweight or obese. Health behaviors contributing to the disease are of concern, with only half of adult residents meeting physical activity requirements and less than one-forth consuming recommended amounts of fruits and vegetables (Fargo Comprehensive Plan 2012). Having access to healthy food and recreational opportunities within the community can improve these behaviors and a well-designed community can improve health outcomes (Fargo Comprehensive Plan 2012). Community garden can and are currently providing healthy food options and the act of gardening is a way for community members and their families to get outside and become physically active. Access to healthy and fresh foods was the second most popular reason why the survey respondents stated that they participate in community gardening.

7.1.2. Bridging Capital

The shear act of different people coming together and bringing with them their own levels of bonding capital, there is a connection of sharing. At first it is a sharing of space and time and perhaps a common ideology. This sharing then can extend to other intangible assets such as the sharing of skills and knowledge that can start to build bridging capital where people from different socio-demographic situations come together. A community garden is a space where these different groups have a variety of situations that facilitates relationship development between individuals who might not ordinarily form meaningful interpersonal relationships (Christens 2010).

During the site visits to the Growing Together and LSS gardens, there were people coming together from diverse socio-demographic backgrounds. Despite their differences, they engaged in sharing food and recipes, coming together for supper or a snack, and carpooling, all of which help contribute to building social networks and gaining sociocultural capital across ethno-racial divides. This capital is further increased as people learn about things such as gardening, organic gardening, cultures, the environment, new recipes, nutrition, and so on (Hancock 1999).

From the site visits, I observed different forms of learning through the following: recipe exchange, instructions given to children on what size cucumbers to pick and proper vegetable handling, instructions given to those watering to water only the base of the plants to conserve water, the exchange of names from new people helping in the garden, how to tie and prune tomato plants, how to save seeds and grow your own plants, and pairing of experienced with inexperienced gardeners.

For knowledge that is readily produced through various situated practices and interactions, the community garden provides a natural classroom (Tanaka and Mooney 2010). Whether knowledge or skills are obtained in a classroom setting or through a one-on-one conversation, quality educational resources can add a substantial improvement to the sustainability of the community.

When discussing ways of obtaining knowledge, school gardens are a laboratory or training ground for learning and preparing a socially active citizenry (Richardson 2011). School gardens are part of a larger movement where the effort is not simply to improve diets, but build community and become more connected to food and the environment (Richardson 2011). The food-centered activities that take place in school gardens can be shown to foster community building in schools among teachers, school families, and the surrounding neighborhood (Richardson 2011). In attending meetings to create the Ellen Hopkins School Garden, the steering committee consisted of five people who had students attending the school and one teacher. However, more school families and others from the community came to help when the garden was being assembled outdoors. One neighbor volunteered the use of his tiller to help with the process. As mentioned previously, a local college offered to have some interns come to the garden over the summer and help with the maintenance. The extension of the resources and skills of others in the community and school neighbors presents bridging capital being propagated.

With the rich cultural diversity seen in the Growing Together Garden and LSS Garden, these gardens provide the generation of new cultural or "glocal" knowledge. These gardens offer ethnic minorities a place to express their local and ethnic identity (Howe, Viljoen, and Boen 2005; Milburn and Vail 2010). The garden also provides a place for the immigrants and refugees to grow specialty foods not otherwise available and for some, a place to connect with their

agrarian cultural heritage (Milburn and Vail 2010). The ability to learn from another culture was represented in the Askew papers; the new settlers that obtained the local horticultural knowledge from the Mandan were better able to grow foods in the harsh climate with a short growing season found in North Dakota. One of the survey respondents stated that the reason why he or she became involved in community gardening was because he or she was a gardener back in Bhutan and prefers to eat fresh vegetables. The same question on the survey had another respondent reply that the garden builds a sense of community and brings tradition from the home country.

In one study, participants who became highly involved in community gardening often attributed their commitment to the involvement to the relationships they have built (Christens 2010). According to the survey I conducted, the relationships formed and the sense of community within the garden was the number one reason why people are involved in community gardening and it was their favorite aspect of being part of a community garden as well.

Open space functions can be as important as gardening for community building and according to Milburn and Vail (2010); these functions may be the next natural step in a community garden's evolution. Open space functions are those activities which step away from the actual garden and promote social interaction such as having supper together or a snack as a group. I observed and participated in open space functions at both Growing Together and LSS gardens where sharing a snack or meal takes place. In my own experience, this open space function is the time frame when I met the most people at both gardens. This act of coming together and sharing a snack or meal contributes to both bonding and bridging capital because it is a time when individuals and families can come together and share ideas, knowledge, smiles, handshakes, conversation, and strengthen connections with other gardeners.

Another popular trend found in the data was that of giving back to the community. According to a survey respondent, "Growing Together produced over 11,000 pounds of produce that was distributed to over 65 families." One coordinator told me that he is working on developing venues for more neighborhood community gardens, "the garden will be working with the City of Fargo to develop a new garden at a local park in 2014."

From the pictures presented in this report, signs are present at almost all the community gardens that I visited. A simple sign establishes the garden's identity and ownership, and provides information to outsiders (Walter 2003; Milburn and Vail 2010). Milburn and Vail (2010) continue by stating that by including a sign as part of an attractive streetscape encourages the interest of the surrounding community. The Cornucopia garden on the Concordia College campus has a bulletin board which acts as a sign and provides important information like a plot map which illustrates how the garden is divided and which plants are found in each zone. An information or bulletin board helps maintain communication between the gardeners and the surrounding community by providing a location for the information such as garden rules and any upcoming meetings or events (Surls et al. 2001; Milburn and Vail 2010). This information may promote bridging capital by making neighbors and passersby not currently involved in community garden feel a connection to the garden's effort and these individuals may want to contribute to the garden's efforts in one way or another (i.e. volunteering or providing a donation).

Carpooling was also a way for different groups of gardeners came together to help a building bridging capital. Whether it was local volunteers driving New Americans to the LSS or Growing Together gardens or one of the New American families carpooling with one or two other New American families, several families benefited from having a form of transportation to

and from the gardens. A community garden's location may have substantial impact of the engagement of people in the project (Milburn and Vail 2010). According to some research, gardens should be in close proximity to the intended gardeners, and be no more than a short walk or bike ride away (MacNair 2002; Milburn and Vail 2010). While location is an important factor especially in terms of access to needed resources, the mean number of miles the survey respondents (n=8) stated that they travel to get to their community garden was 1.6 miles. As a Moorhead resident, I drove seven miles to get to Probstfield Organic Community Gardens located in the northern section of the city. Of those surveyed only 3 respondents walk to their community garden, 2 ride their bikes and 14 drive their own vehicle. In the site-visits, most people drove a vehicle and the New American families carpooled. Therefore, while having a garden within walking distance would be a benefit, gardeners in this study did not let the distance travelled to the gardens to be a factor for not participating.

7.1.3. Linking Capital

The infrastructure of a community garden depends upon a cohesive social network to organize and manage the garden; they are created by the community itself (Hancock 1999). A community garden's development and administration must address concerns related to its long-term sustainability in order to have success as a permanent and valuable part of the community (Milburn and Vail 2010).

Even though community gardens tend to reflect a grassroots label, they are part of a community that not only relies on individuals and groups for its function but they tend to rely upon local organizations, city officials, and national institutions for support, financial needs, and advice. This is seen in the data collected from the surveys where the gardens partnered with many different local, state, and national organizations whether it was funding from grants or

donations from local banks. The proposed community garden at River Haven in Moorhead needs the support of the city in order to proceed with its plans. Local churches, nonprofit organizations, and local businesses have not only helped with providing volunteers, but have helped with other needs such as providing land and sources for water. The history of community garden at both the state and national levels is full of government acts promoting the use of gardens especially during wartimes. Askew (1990) stated that Victor Lundeen's (assistant horticulturist) 1935 plan for promoting gardening included working with 4-H clubs. The Growing Together, LSS and Probstfield gardens all had help from 4-H groups through volunteering efforts and as mentioned previously the POCG have a 4-H garden on its premises. All of these interactions reflect forms of linking capital where interactions between different groups such as community gardeners who seek financial assistance or approvals and those people or institutions which possess political or financial power. By expanding the capital level to linking, this extension of the garden's social networks helps to merge agendas among the groups involved in the network and helps to support not only the garden but creates a deep and lasting positive change in the community as well (Payne and Fryman 2001; Milburn and Vail 2010).

Donations to local food pantries and shelters were an important aspect in building community and increasing sociocultural capital. Over 56% of the respondents surveyed stated that their gardens donate surplus produce to pantries and shelters. As mentioned previously, one coordinator stated that part of the community garden she works with planted extra peppers and tomatoes in order to make a chili to serve at a local shelter. The act of community gardeners giving back to the community in terms of providing healthy food, social connections, and a sense of community to New Americans and giving food to local shelters and food pantries is a paying forward some of the sociocultural capital that was bestowed upon them. This circle of receiving

and giving sociocultural capital helps to create more sustainable communities because there is a consistent flow of exchange occurring for the overall well-being of the community at large. A simple example of this is the Iraqi man that I spoke with at the Growing Together and LSS gardens. He was almost killed by a car bomb in his homeland because of his government's suspicion of his involvement with the United States. He comes to Fargo to start a new life with his family and becomes involved in community gardening. He is able to provide his family with fresh food, makes new connections with local gardeners, and becomes an interpreter for the other New American gardeners since he can speak several different languages. He finds a job at a local nonprofit organization helping other New American families with their transitions to the region and he is working on earning his Master's degree at one of the local universities so he can contribute more of his skills back to his new community. This example represents how sociocultural capital can have a circular exchange between community gardeners and the community at large.

7.1.4. The Harvest

Strong communities are built by community members who are "engaged, participate, and feel capable of working through problems, supported by strong social networks" (Firth et al. 2011:557). In these terms, strong communities are defined as those endowed with "social, economic, and environmental assets, supported also by organizational structures that work towards their use over the long term in an equitable manner" (Firthe et al. 2011:557). The strong social networking ties that community gardens in Fargo-Moorhead are engaged in reach all three levels of sociocultural capital: bonding, bridging, and linking.

From families coming to the gardens to the multicultural connections between New American families and local volunteers to the political and financial support from local, state, and national institutions, the community gardens in the Fargo-Moorhead area are part of the community's foundation that acts as a catalyst for change.

Instead of looking outside the community for answers to societal issues, community garden leaders and participants looked within and created gardens that help New American families (providing fresh food, place to use cultural knowledge, a place to meet new people, a place to build community, a place to increase their own individual sociocultural capital); help promote local food production (growing local instead of having food trucked thousands of miles); providing healthier lifestyles (locally grown food, organic food, physical activity); and promoting learning and exchanging knowledge (sharing of ideas, concepts, local knowledge, cultural knowledge, gardening and horticultural knowledge, learning new recipes, learning new customs). This initiative to take action and help with societal issues helps to build a stronger foundation for communities and help make the communities more resilient and sustainable.

From POCG's partnerships with local businesses and organizations to the addition of on-site events, the garden is working on building it sociocultural capital through all three forms of capital types and improving their economic development strategies. By expanding their partnerships and name to more people in the community, the potential for more social networks increases. At Ellen Hopkins, a concern parent initiated the movement to create a community garden and through the collaboration of other parents, teachers, neighbors, and the community of Fargo-Moorhead, the vision a one parent came to fruition. From students helping their parents pour bags of top soil into raised beds built by local high school students to the generous donations from area business, the vision of this garden would not have been a reality without the

help of the people at all stages of capital formation. The same is true of the Growing Together and LSS gardens. While more assistance was given upfront through the linking capital provided by the associated church and non-profit organization, without the families working the land together and the help of local volunteers, the gardens would not be sustainable.

In the process of building sociocultural capital whether it be through bonding, bridging or linking ties, community gardens are reaching out to new populations of immigrants and refugees, addressing common societal concerns with sustainable solutions, and providing healthy food. So, whether a garden is a Victory Garden, Freedom Garden, school garden, ministry garden, or neighborhood garden, community gardens have and are continuing to taking action through the resources and social connections made through different levels of sociocultural capital and fulfilling different societal needs for maintaining a more sustainable community.

7.2. Recommendations

With having more people involved or having knowledge of the different community gardens, the awareness can spread into the community. In order from the general populace to benefit from programs such as community gardening, it must first have some sense of what this type of place has to offer (Walsh 2000). Without this knowledge, potential patrons [like volunteers or funding sources] may never even consider participating in services or visiting the gardens because they are unaware of the benefit of doing so (Walsh 2000). This lack of easy- to-obtain public knowledge about the different community gardens in Fargo-Moorhead was my first challenge when conducting this research. By not having a forum such as a community-wide website for promoting community gardens and their individual goals, it is hard to find a way to connect to this specific gardening community. As the POCG volunteer coordinator stated, she would like to know more about what other coordinators and gardens are doing. She said she felt

isolated from the other gardening groups. This type of easy- to- access forum would spread the word about what different groups are doing, who needs volunteers, what events are coming up, and what kinds of positive changes are happening at the gardens. I think this would not only appeal to those currently involved in community gardening, but provide a voice about community gardening to the rest of Fargo-Moorhead and welcome more people to become involved. I think it is especially important to bring awareness to the general populous since community gardening can be done by so many different people regardless of socio-demographic background or ability. The forum could also be a platform to encourage the support for alternative food systems such as purchasing food at local farmers' markets, subscribing to a share of a Community Supported Agriculture (CSA) organization, or growing organic vegetables in backyards (Tanaka and Mooney 2010). In addition, today, a broad range of organizations are seeking out to find community building opportunities (Milburn and Vail 2010). This pattern of local groups and organizations volunteering or purchasing community garden plots was a common theme in the semi-structure interviews. The coordinator at POCG stated that she is seeing a shift from individuals and families having plots to more groups and organizations caring for plots. At the Growing Together Garden and some other gardens represented in the survey such as Nativity Church, CHARISM, and The Gathering mentioned that groups such as 4-H clubs, Girl Scouts, Boy Scouts, church groups, some local businesses, and colleges provide volunteer groups to help at the gardens.

Another way to promote community gardens in the area is to have an open house day for community gardens to host events in their garden and it is free to the public. Other communities across the state of Minnesota participate in events such as this. The purpose would be to provide an opportunity for the public to learn more about the gardens from the people who care for them.

One aspect of building sociocultural capital that was only mentioned twice in the research conducted was fundraising. In a semi-structured interview, the coordinator at the Growing Together Garden stated that a local business called the Eighth Street Studio Cooperative which consists of four yoga instructors and one fine artist had a fundraising event for the benefit of the garden. The Cooperative held free yoga classes and in return suggested donations of different gardening tools, gloves, and money to benefit the garden. From the survey, one respondent wrote that a local restaurant called the Green Market worked with the garden on different fundraising events. Fundraising encourages a wider range of individuals to "buy in" to the gardens (Milburn and Vail 2010). In addition, fundraising is an "excellent way to garner good publicity and reach out to the community" (Milburn and Vail 2010:78). Besides creating a website or other publicly accessible forum to share community garden information to the whole community, I think the act of fundraising would not only increase public awareness for the gardens (especially if there is an effective marketing/advertising strategy), it would bring additional social networking interactions-interactions between the local business/organization sponsoring the event, the community garden, and people attending or contributing to the event.

I think the gardens that had communal areas are important for the overall sustainability of the garden in terms of social networking. For instance, the volunteer coordinator at POCG stated that even though there were more groups renting plots, there was a lack of increased funding. I think that if the POCG had more spaces in which the groups of gardeners could be engaged in some sort of activity, this space would allow for more conversations to develop which could lead to open discussions on how to generate more capital to POCG. The space could provide a venue in which the exchange of ideas and the pooling of resources could occur instead of having different organizations working on their individual plots and not engaging with each other.

By using Fargo-Moorhead as the platform for the case study used in this research, the community gardens represented provided a means to begin to understand how sociocultural networks between community organizations and community gardeners form symbiotic relationships. Symbiotic relationships generated through interconnected capital production from the balance of bonding, bridging, and linking social networks that work in the service of community sustainability goals.

WORKS CITED

American Community Gardening Association
N.d. What is a Community Garden? http://www.communitygarden.org/learn/, accessed on January 16, 2012.

Appadurai, Arjun
2000 Disjuncture and Difference in the Global Cultural Economy. *In* The Globalization Reader. Frank J. Lechner and John Boli, eds. Pp.322-330. Malden: Blackwell Publishers, Inc.

Armstrong, Donna
2000 Survey of Community Gardens in Upstate New York: Implications for Health Promotion and Community Development. Health and Place 6(4):319-327.

Askew, Robert G.
1990 Robert G. Askew Papers. Institute for Regional Studies, North Dakota State University, Fargo, ND.

Bolin, Bob
2007 Race, Class, Ethnicity, and Disaster Vulnerability. *In* Handbook of Disaster Research. Havidan Rodriguez, Enrico L. Quarentelli, and Russell R. Dynes, eds. Pp. 113-129. New York: Springer.

Bonfiglio, Olga, with Isabelle Groc and Rocco Pendola
2009. Delicious in Detroit: The City is Plowing Resources into its Extensive Stretches of Vacant Land. Planning 75(8):32-37.

Borrelli, Dorothy A.
2008 Filling the Void: Applying a Place-Based Ethic to Community Garden. Vermont Journal of Environmental Law 9:271-303.

Bourdieu, Pierre
1986 The Forms of Capital. *In* Handbook of Theory and Research for the Sociology of Education. James Richardson ed. Pp. 241-258. New York: Greenwood Press.

Bourdieu, Pierre and Jean-Claude Passeron
1977 Reproduction in Education, Society and Culture. Beverly Hills: Sage.

Brown, Sydney, with Eva C. Worden, Theodora M. Frohne, and Jessica Sullivan
2004 Horticulture Therapy. Gainsville: University Press of Florida.

Charles, Dan
2012. How the Russians Saved America's Sunflower. http://www.npr.org, accessed on September 1, 2012.

Christens, Brian D.
2010 Public Relationship Building in Grassroots Community Organizing: Relational Intervention for Individual and Systems Change. Journal of Community Psychology 38(7):886-900.

City of Moorhead
2012 City Hall Minutes. http://www.ci.moorhead.mn.us/city_hall/agendaMinutesCouncil.asp, accessed on September 1, 2012.

Concordia College
2011 Organic Gardeners, Electronic document, http://www.cord.edu/SPIFFs/history/organicgarden.php , accessed January 16, 2011.

Corser, Bob and Nils Gore
2009 Insurgent Architecture in the Seventh Ward. Journal of Architectural Education 62(4):32-36.

Dodge, Ryan
2006 New Orleans: Built and Altered. *In* Urban Action: A Journal of Urban Affairs. Michelle Jacques-Menegaz and Nina Haletky, eds. Pp. 83-88. San Francisco: San Francisco State University Press.

Draper, Carrie and Darcy Freedman
2010 Review and Analysis of the Benefits, Purposes, and Motivations Associated with Community Gardening in the United States. Journal of Community Practice 18(4):458-492.

Enarson, Elaine, with Alice Fothergill and Lori Peek
2007 Gender and Disaster: Foundations and Directions. *In* Handbook of Disaster Research. Havidan Rodriguez, Enrico L. Quarentelli, and Russell R. Dynes, eds. Pp. 130-146. New York: Springer.

Ensor, Marisa O.
2009 Gender Matters in Post-Disaster Reconstruction. *In* The Legacy of Hurricane Mitch: Lessons from Post-Disaster Reconstruction in Honduras. Marisa O. Ensor, ed. Pp. 129-155.Tucson: University of Arizona Press.

Erickson, Jennifer L.
2010 Citizenship, Refugees, and the State: Bosnians, Southern Sudanese, and Social Service Organizations in Fargo, North Dakota. Dissertation, Anthropology Department, University of Oregon.

Fakharzadeh, Stephanie
2009 Food for Thought: The Intersection of Gardens, Education, and Community at the Edible Schoolyard New Orleans. B.S. Thesis, Environmental Department, University of Vermont.

Fargo Comprehensive Plan
2012. http://www.cityoffargo.com/CityInfo/Departments/PlanningandDevelopment, accessed July 28, 2012.

Feenstra, Gail, with Sharyl McGrew and David Campbell
1999 Entrepreneurial Community Gardens: Growing Food, Skills, Jobs, and Communities. Oakland: University of California.

Firth, Chris, with Damian Maye and David Pearson
2011 Developing Community in Community. Local Environment 16(6):555-568.

Gwynedd-Mercy College
n.d. The Food of New Orleans for the Gwynedd-Mercy College, Electronic Document, http://www.gmc.edu/library/neworleans/NOfood.htm, accessed December 1, 2011.

Haletky, Nina
2006 Rebuilding on Common Ground: Social and Environmental Justice in New Orleans. *In* Urban Action: A Journal of Urban Affairs. Michelle Jacques-Menegazd Nina Haletky, eds. Pp. 83-88. San Francisco: San Francisco State University Press.

Hancock, Trevor
1999 People, Partnerships and Human Progress: Building Community Capital. Health Promotion International 16(3):275-280.

Harker, Richard
1990 Education and Cultural Capital. *In* An Introduction to the Work of Pierre Bourdieu: The Practice of Theory. Richard Harker, Cheleen Mahar, and Chris Wilkes, eds. Pp.145- 158. London: Macmillian Press. .

Hawkins, Robert and Katherine Maurer
2011 You Fix My Community, You Have Fixed My Life: The Disruption and Rebuilding of Ontological Security in New Orleans. Disasters 35(1):143-159.

Henderson, Jason
2006 New Orleans: A Perspective on the Rebuild. *In* Urban Action: A Journal of Urban Affairs. Michelle Jacques-Menegaz and Nina Haletky, eds. Pp. 89-90. San Francisco: San Francisco State University Press.

Historical and Cultural Society of Clay County
2011 A Short History of Clay County.
http://www.hcscconline.org/secondarypages/cch.html, accessed January 18, 2012.

Hoffman, Susanna M.
1998 The Worst of Times, The Best of Times: Toward a Model of Cultural Response to Disaster. *In* The Angry Earth: Disaster in Anthropological Perspective. Susanna M. Hoffman and Anthony Oliver-Smith, eds. Pp. 134-155. New York: Routledge.

Howe, Joe, with Andre Viljoen and Katrin Bohn
2005 New Cities with More Life: Benefits and Obstacles. *In* Continuous Productive Urban Landscapes: Designing Urban Agriculture for Sustainable Cities. Andre Viljoen, ed. Pp. 57-64. New York: Architectural Press.

Krueger, Markus
2011 Germans from Russia and Nepalese from Bhutan: More in Common Than You Might Think. Hourglass 3(1):12-13.

Lawson, Laura J.
2005 City Bountiful: A Century of Community Gardening in America. Berkeley: University of California Press.

Low, Setha M.
1996 The Anthropology of Cities: Imagining and Theorizing the City. Annual Review of Anthropology 25:383-409.

Krasny, Marianne E. and Keith G. Tidball
2009 Community Gardens as Contexts for Science, Stewardship, and Civic Action Learning. Cities and Environment 2(1):1-18.

Krones, Sarah and Shari Edelson
2010. Building Gardens, Rebuilding a City: Baltimore's Community Greening Resource Network. Journal of Agriculture, Food Systems and Community Development 1(3): un.

MacNair, Emily
2002 The Garden City Handbook: How to Create and Protect Community Gardens in Great Victoria. Victoria: Polis Project on Ecological Governance.

May, Theresa J.
2006 Consequences Unforeseen: in Raisin in the Sun and Caroline, or Change. Journal of Dramatic Theory and Criticism XX(2):127-144.

McMillan, Tracy
2010 5 Urban Farms Reshaping the Food World in New Orleans. The Atlantic, November 12.

Minnesota Historical Society
2001 Oliver H. Kelley Farm. http://www.mnhs.org/places/sites/ohkf/aboutkelley.html, accessed January 16, 2012.

Neal, Mark Anthony
2006 Race-ing Katrina. Transforming Anthropology 14(1):22-23.

Oliver-Smith, Anthony and Susanna Hoffman
2002 Introduction: Why Anthropologists Should Study Disasters. *In* Catastrophe & Culture: The Anthropology of Disaster. Susanna M. Hoffman and Anthony Oliver-Smith, eds. Pp. 3- 22. Santa Fe: School of American Research Press.

Patterson, Olivia, with Federick Weil and Kavita Patel
2010 The Role of Community in Disaster Response: Conceptual Models. Population Research and Policy Review 29:127-141.

Probstfield Organic Community Gardens
N.d. Our Gardening Principles.
http://probstfieldcommunitygarden.weebly.com/about-us.html, accessed on January 16, 2012.

Payne, Karen and Deborah Fryman
2001. Cultivating Community: Principles and Practices for Community Gardening as a Community-Building Tool. Philadelphia: American Community Gardening Association.

Putnam, Robert D.
2000. Bowling Alone: The Collapse and Revival of American Community. New York: Simon and Schuster.

Richardson, Troy A.
2011 At the Garden Gate: Community Building through Food: Revisiting the Critique of "Food, Folk, and Fun" in Multicultural Education. Urban Rev 43:107-123.

Ross, Jennifer and Lydia Zepeda
2011. Wetland Restoration, Environmental Justice, and Food Security in the Lower 9th Ward. Environmental Justice 4(2):101-108.

Schwartz, Jeffrey
2010 Making Groceries: Food, Neighborhood Markets, and Neighborhood Recovery in Post-Katrina New Orleans. *In* Culture After Hurricanes: Rhetoric and Reinvention on the Gulf. M.B. Hackler, ed. Pp. 107-138. Jackson: University Press of Mississippi.

Surls, Rachel, with Chris Braswell, Laura Harris, and Yvonne Savio
2001. Community Garden Start-Up Guide.
http://celosangles.ucdavis.edu/garden/articles/startup_guide.html, accessed August 4, 2012.

Tanaka, Keiko and Patrick H. Mooney
2010 Public Scholarship and Community Engagement in Building Community Food Security: The Case of the University of Kentucky. Rural Sociology 74(4):560-583.

Tidball, Keith G. et al.
2010 Stewardship, Learning, and Memory in Disaster Resilience. Environmental Education Research 16(5-6):591-609.

Tidball, Keith G. and Marianne E. Krasny
2007 From Risk to Resilience: What Role for Community Greening and Civic Ecology in Cities? *In* Social Learning Towards a More Sustainable World: Principles, Perspectives, and Praxis. A. Wals, ed. Pp. 149-164. Wagengingen: Wagengingen Academic Press.

Tzanakis, Michael
2011 Bourdieu's Social Reproduction Thesis and The Role of Cultural Capital in Educational Attainment: A Critical Review of Key Empirical Studies. Educate Journal 11(1):76-90.

Walsh, Jeffrey A.
2000 The Value of Place Meaning: Practical Applications for the Future. Parks and Recreation 35(1):42-54.

Weininger, Elliot B.
2005 Pierre Bourdieu on social class and symbolic violence. *In* Approaches to Class Analysis. E. O. Wright, ed. Pp. 116–165. Cambridge: Cambridge University Press.

University of Missouri Extension
2009 Community Gardening Toolkit: The History of Community Gardening. http://extension.missouri.edu/p/MP906-4, accessed on January 30, 2012.

Voicu, Ioan and Vicki Been
2008. The Effect of Community Gardens on Neighboring Property Values. Real Estate Economics 36(2):241-283.

APPENDIX A. SEMI-STRUCTURED INTERVIEW QUESTIONS

1. What is the historical background of the garden?
2. How and why did you become involved in community gardening?
3. Please describe your garden's mission and goals?
4. How many people are involved in the program? How has the number of participants changed over the years?
5. How is the program funded?
6. What happens to the food that is grown?
7. What percentage of the garden is used to grow food/edible items?
8. Community gardens have been noted to be largely self-governing, how do you encourage the engagement in public outreach and communication related to your program and its efforts?
9. How has public outreach helped your garden reach some of its goals and potentials?
10. Besides gardening, which types of activities or events, if any, occur at the garden?
11. Does the garden host volunteer groups?
12. In what capacity, if any, does the garden work with other groups and organizations?
13. What are some of the strategies you implement to build connections with other community gardens?
14. What are some of the strategies you implement to build connections with other community organizations?
15. Do you or your community garden participate in gardening events organized for the Fargo-Moorhead area?
16. Why do you believe people participate in this garden (social, political, environmental, economic reasons)?
17. Do you have any additional comments you would like to share?
18. Thank you for taking part in this study.

APPENDIX B. INFORMAL INTERVIEW QUESTIONS FOR GARDENERS

1. Why did you become involved in community gardening?
2. What do you enjoy most about community gardening?
3. Have you worked with other groups or organizations while gardening here (such as 4-H groups, community food pantries, local businesses)?
4. Have you met people involved in other community garden projects in the Fargo-Moorhead area?
5. Why do you think community gardening is important to a community?
6. Do you have additional comments that you would like to share?

APPENDIX C. ON-LINE SURVEY QUESTIONS

Q1 Where is your community garden located? (essay box)

Q2 How long have you been working at this garden?
- ❍ less than one year (1)
- ❍ 1 year (2)
- ❍ 2 years (3)
- ❍ 3-4 years (4)
- ❍ 5-6 years (5)
- ❍ 7+ years (6)
- ❍ I prefer not to answer this question (7)

Q3 How far do you have to travel to get to your community garden? (essay box)

Q4 Which mode of transportation do you use to get to the garden?
- ❍ Walk (1)
- ❍ Bike (2)
- ❍ Public Transportation (i.e. city bus) (3)
- ❍ Taxi (4)
- ❍ Your own vehicle (5)
- ❍ Scooter (6)
- ❍ Other (7)
- ❍ I prefer not to answer this question (8)

Q5 Which classification best describes your community garden?
- ❍ Neighborhood garden (1)
- ❍ School garden (2)
- ❍ Senior Center garden (3)
- ❍ Public Housing garden (4)
- ❍ Church, Temple, Synagogue or Mosque garden (5)
- ❍ Farm site divided into plot (6)
- ❍ Community Supported Agriculture (CSA) (7)
- ❍ Other (8)
- ❍ Do not know (9)
- ❍ I prefer not to answer this question (10)

Q6 Age of garden
- ❍ Planning stages (1)
- ❍ Starting first season (2)
- ❍ 1 year (3)
- ❍ 2 years (4)
- ❍ 3 years (5)
- ❍ 4 years (6)
- ❍ 5 years (7)
- ❍ 6+ years (8)
- ❍ Do not know (9)
- ❍ I prefer not to answer this question (10)

Q7 What is the approximate number of people who are members or volunteer with the garden? (essay box)

Q8 Who is welcome to participate in the garden?
- ❍ Anyone (open to the public) (1)
- ❍ Limited to members of the sponsoring organization, school, faith community, plot renters, etc. (2)
- ❍ Limited to residents of the neighborhood (3)
- ❍ Other (4)
- ❍ Do not know (5)
- ❍ I prefer not to answer this question (6)

Q9 Is the garden divided into individuals plots where each member takes care of his or her plot or is a communal plot where everyone works together on one larger plot of land?
- ❍ Individual (1)
- ❍ Communal (2)
- ❍ Both Communal and Individual Plots
- ❍ Do not know (3)
- ❍ I prefer not to answer this question (4)

Q10 Which entity owns the land that the garden is located?

- ❍ Private Party (1)
- ❍ Department of Education (2)
- ❍ State (3)
- ❍ Federal (4)
- ❍ Religious Institution (5)
- ❍ Parks Department (6)
- ❍ Other (7)
- ❍ Do not know (8)
- ❍ I prefer not to answer this question (9)

Q11 When it comes to funding needs for the garden, how are the funds collected? (check all that apply)

- ❑ Membership fees (individuals pay to use a plot) (1)
- ❑ Donations from local organizations and businesses (2)
- ❑ Donations from private individuals (3)
- ❑ Grants (4)
- ❑ Other (5)
- ❑ Do not know (6)
- ❑ I prefer not to answer this question (7)

Q12 What happens to the food that is grown? (Check all that apply)

- ❑ Used by growers (1)
- ❑ Shared with other gardeners (2)
- ❑ Distributed to friends and family (3)
- ❑ Donated (4)
- ❑ Sold (i.e. Farmer's markets and local restaurants) (5)
- ❑ Do not know (6)
- ❑ I prefer not to answer this question (7)

Q13 What percentage of the garden is used to grow food/ edible items?

- ❍ 0-25% (1)
- ❍ 26-50% (2)
- ❍ 51-75% (3)
- ❍ 76-100% (4)
- ❍ I prefer not to answer this question (5)

Q14 Why do you choose to be involved in community gardening? (essay box)

Q15 During the summer months, how often do you usually participate in garden activities (working in the garden, going to gardening seminars, canning, etc.)?

- ❍ Never (1)
- ❍ Less than Once a Month (2)
- ❍ Once a Month (3)
- ❍ 2-3 Times a Month (4)
- ❍ Once a Week (5)
- ❍ 2-3 Times a Week (6)
- ❍ 4-5 Times a Week (7)
- ❍ Daily (8)
- ❍ I prefer not to answer this question (9)

Q16 Please rate each of the following aspects of working at this garden:

	Excellent (1)	Very Good (2)	Good (3)	Fair (4)	Poor (5)	Don't Know (6)
The location of garden (distance from your home) (1)	❍	❍	❍	❍	❍	❍
The equipment provided to do the work (2)	❍	❍	❍	❍	❍	❍
The quality of the garden resources (soil, water, etc.) (3)	❍	❍	❍	❍	❍	❍
The variety of food produced at the garden (4)	❍	❍	❍	❍	❍	❍

Q17 Please indicate how much you agree or disagree with the following statements. Because I work in this garden:

	Yes (1)	Kind of (2)	Not Really (3)	Don't Know (4)
I eat more fruits and vegetables (1)	❍	❍	❍	❍
I eat more organic food (2)	❍	❍	❍	❍
I eat more foods that are traditional for my culture/ family background (3)	❍	❍	❍	❍
I eat new kinds of food (4)	❍	❍	❍	❍
I spend less money on food (5)	❍	❍	❍	❍
I am better able to provide food for my family and myself (6)	❍	❍	❍	❍
I feel better about where my food comes from (7)	❍	❍	❍	❍
I am more physically active (8)	❍	❍	❍	❍

Q18 What is your favorite thing about community gardening? (essay box)

Q19 Besides gardening, which types of activities or events, if any, occur at the garden? (Check all that apply)

- ❑ Educational Activities (1)
- ❑ Private Events (i.e. weddings, reunions, etc.) (2)
- ❑ Religious Activities (3)
- ❑ Concerts (4)
- ❑ Movies (5)
- ❑ Arts and Crafts (6)
- ❑ Sports (7)
- ❑ Picnics/Barbecues (8)
- ❑ Other (9)
- ❑ None (10)
- ❑ I prefer not to answer this question (11)

Q20 Does the garden partner with any other community groups, schools or businesses?

- ❍ Yes (1)
- ❍ No (2)
- ❍ Do not know (3)
- ❍ I prefer not to answer this question (4)

Q21 Which other organizations partner with, or support this garden (financial support, technical assistance, source of volunteers, marketing, etc.), if any? (essay box)

Q22 Does the garden host volunteer groups?

- ❍ Yes (1)
- ❍ No (2)
- ❍ I prefer not to answer this question (3)

Q23 In what capacity, if any, does the garden work with other groups and organizations? (check all that apply)

- ❑ Garden workshops (1)
- ❑ Off-site workshops (2)
- ❑ Educational events (3)
- ❑ Working with New American families (4)
- ❑ Nothing yet, but would like to (5)
- ❑ There is currently no interaction with other groups and organizations (6)
- ❑ Other (7)
- ❑ Do not know (8)
- ❑ I prefer not to answer this question (9)

Q24 Are you a member of a local religious or spiritual organization (church, synagogue, etc.)?
- ❍ Yes (1)
- ❍ No (2)
- ❍ I prefer not to answer this question (3)

Q25 Besides community gardening, are you involved in other community organizations (i.e. PTA, sport leagues, neighborhood association, veterans group, charity organizations, etc.)?
- ❍ Yes (1)
- ❍ No (2)
- ❍ I prefer not to answer this question (3)

Q26 If you do belong to community groups, clubs, sporting teams, or other organizations, which ones do you belong to? (essay box)

Q27 How many times in the past twelve months have you done any volunteer work in your community?
- ❍ 0 times (1)
- ❍ 1 time (2)
- ❍ 2-4 times (3)
- ❍ 5-7 times (4)
- ❍ 8-11 times (5)
- ❍ 12+ times (6)
- ❍ Do not know (7)
- ❍ I prefer not to answer this question (8)

Q28 What effect, if any, do you believe that your garden has on your community (be it social, environmental, economic, political, or other reasons)? (essay box)

Q29 Do most of the gardeners at your community garden know each other?
- ❍ Yes (1)
- ❍ No (2)
- ❍ Do not know (3)
- ❍ I prefer not to answer this question (4)

Q30 Do you think of the other people who work in your community garden as friends?
- ❍ Yes (1)
- ❍ No (2)
- ❍ Do not know (3)
- ❍ I prefer not to answer this question (4)

Q31 Do any of your relatives participate in community gardening (i.e. spouse, kids, parents, aunts, uncles, cousins, etc.)?

- ❍ Yes (1)
- ❍ No (2)
- ❍ Do not know (3)
- ❍ I prefer not to answer this question (4)

Q32 In general, do people from your community garden socialize with each other outside of the garden?

- ❍ Frequently (1)
- ❍ Often (2)
- ❍ Sometimes (3)
- ❍ Rarely (4)
- ❍ Never (5)
- ❍ Do not know (6)
- ❍ I prefer not to answer this question (7)

Q33 Do you socialize with other community gardeners outside of the garden?

- ❍ Frequently (1)
- ❍ Often (2)
- ❍ Sometimes (3)
- ❍ Rarely (4)
- ❍ Never (5)
- ❍ Do not know (6)
- ❍ I prefer not to answer this question (7)

Q34 Do you know any gardeners from other local community gardens?

- ❍ Yes (1)
- ❍ No (2)
- ❍ Do not know (3)
- ❍ I prefer not to answer this question (4)

Q35 Do you or your community garden members participate in gardening events organized for the Fargo-Moorhead area?

- ❍ Yes (1)
- ❍ No (2)
- ❍ Do not know (3)
- ❍ I prefer not to answer this question (4)

Q36 Do you think gardeners are active citizens in their communities?
- ❍ Yes (1)
- ❍ No (2)
- ❍ Do not know (3)
- ❍ I prefer not to answer this question (4)

Q37 Why do you believe people participate in this garden (be it social, environmental, economic, political, or other reasons)? (essay box)

Q38 Are you...
- ❍ Male (1)
- ❍ Female (2)

Q39 What is your age?
- ❍ Under 18 (1)
- ❍ 18-34 (2)
- ❍ 35-54 (3)
- ❍ 55-64 (4)
- ❍ 65 or older (5)
- ❍ I prefer not to answer this question (6)

Q40 What best describes your race/ethnicity? (Check all that apply)
- ❑ American Indian, Eskimo, or Aleut (1)
- ❑ Black or African American (2)
- ❑ Hispanic or Latino (3)
- ❑ Asian or Pacific Islander (4)
- ❑ White or Caucasian (5)
- ❑ Bi-racial or Multi-racial (6)
- ❑ Other (7)
- ❑ I prefer not to answer this question (8)

Q41 Before taxes, what is your total annual household income?
- ❍ Under $20,000 (1)
- ❍ $20,000- $29,999 (2)
- ❍ $30,000-$39,999 (3)
- ❍ $40,000-$49,999 (4)
- ❍ $50,000-$59,999 (5)
- ❍ $60,000-$69,999 (6)
- ❍ Over $70,000 (7)
- ❍ Do not know (8)
- ❍ I prefer not to answer this question (9)

Q42 What is the highest level of education you have completed?
- ❍ Less than 12 years (1)
- ❍ High school graduate/GED (2)
- ❍ Some college (3)
- ❍ College graduate (4)
- ❍ Advanced degree (5)
- ❍ I prefer not to answer this question (6)

Q43 How many years have you lived in your community?
- ❍ Less than one year (1)
- ❍ 1-5 years (2)
- ❍ 6-10 years (3)
- ❍ 11-20 years (4)
- ❍ 20 + years (5)
- ❍ Do not know (6)
- ❍ I prefer not to answer this question (7)

Q44 Do you expect to be living in your community 5 years from now?
- ❍ Yes (1)
- ❍ No (2)
- ❍ Do not know (3)
- ❍ I prefer not to answer this question (4)

Q45 Do you or your family own the place where you are living now, or do you rent?
- ❍ Own (1)
- ❍ Rent (2)
- ❍ Do not know (3)
- ❍ I prefer not to answer this question (4)

Q46 Please use the space below to express any additional information you wish to share. (essay box)