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Addressing Food Insecurity and Developing Social Resources Through Community Garden Projects In Low-Income Areas: Qualitative Interviews with Outreach Coordinators From Three Urban Agriculture Organizations

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Addressing Food Insecurity and Developing Social Resources Through Community
Garden Projects In Low-Income Areas: Qualitative Interviews with Outreach

Coordinators From Three Urban Agriculture Organizations

By

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Thesis

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Addressing Food Insecurity and Developing Social Resources Through Community Garden Projects In Low-Income Areas: Qualitative Interviews with Outreach Coordinators From Three Urban Agriculture Organizations

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Abstract

As urban agriculture organizations become increasingly popular, it is important to understand the impact they have on low-income urban communities. Food security and political power are greatly lacking in these areas. Agriculture endeavors, such as community gardens and urban farms, have a significant potential to decrease these deficits. First, this thesis will address how social inequalities, which are products of structural power, prevent the poor from being properly fed and discuss how urban agriculture programs, specifically community gardens, can reduce food insecurity and build a community's social resources. Later, the discussion will focus on how low-income populations become involved in community agriculture projects. This latter discussion will be based on ethnographic interviews done with urban agriculture organization outreach coordinators who work with low-income communities.

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Chapter 1 Background

1.1 Introduction

Despite its vast wealth, poverty exists in the United States at alarmingly high rates. In 2009, 14.3 percent, almost forty-four million, of the people in this country lived in poverty. This percentage is the highest it has been since 1994. The number of people in poverty has risen for the last three years and is the highest number of people in poverty in the fifty-one years that poverty estimates have been published. Between 2008 and 2009, the poverty rate of children under age eighteen increased almost two percent (National Poverty Center March 2011; U.S. Census Bureau March 2011). Most notable, at the turn of the century, the United States has the highest rate of relative poverty compared to twenty of the world's wealthier nations (Smeeding 2008).

While living below the poverty line is not indicative of nutritional deficiencies or food insecurity, it is well understood that people with lower incomes are more likely to experience these social inequalities (Alaimo et al. 2001; Cook et al. 2004; Casey et al. 2001; Algert et al. 2006; Hendrickson et al. 2006; Morland et al. 2001; Moore and Diez Roux 2006; Larson et al. 2009). Food security for a household is defined as all members having access at all times to enough food to support an active, healthy lifestyle and that the food is readily available, nutritious and can be acquired in socially acceptable ways. In the United States, food security differs severely between the economic classes. There are varying levels of food insecurity, the lower levels resulting in persistent hunger. Hunger is a potential consequence

of food insecurity that, because of prolonged, involuntary lack of food, results in discomfort, illness, weakness, or pain that goes beyond the usual uneasy feeling (United States Department of Agriculture September 2010). Hunger creates serious barriers for people, who are struggling economically, such as: increased risk of disease, fatigue, and decreased concentration, all of which could contribute to a loss of school or work (Brown and Jameton 2000). While food insecurity is a household-level economic and social condition of limited access to food, hunger is an individual-level physiological condition that may result from food insecurity. In 2009, 14.7 percent of United States households were food insecure at some point during the year, 5.7 percent of those people were at the lowest level of food insecurity that is associated with experiences of hunger (United States Department of Agriculture September 2010). Two directly observable reasons for these disparities are the inadequate distribution of food and the poor quality of the food distributed, while an unobservable cause is the lack of political power among the low-income populations (Lappé et al. [1986]1998; Larson et al. 2009; Mintz 1996).

Urban agriculture programs, with effective leadership and community participation, can assist in ameliorating the inegalitarian nature of the dominant social structure by initiating resource growth in low-income communities, which will eventually increase the political power they hold. The social problem that urban agriculture means to improve is food insecurity and, the more extreme circumstance, hunger. The most direct cause of these social crises is the inadequate distribution of food of poor quality, which is heavily influenced by economic inequalities. The often unacknowledged cause of food insecurity and

hunger is social inequality: specifically the lack of political power in poor populations and the social and cultural weakening of communities who live in poverty.

1.2 Structural Power

As the human population has increased, social structures have evolved to be more intricate and hierarchal (Townsend 2009). These social structures have come to influence all people to varying degrees and one consequence is social inequality. Anthropologist Eric Wolf (2001:384) defined these social forces as structural power. He describes structural power as a power that determines the structural setting while simultaneously working within it and likens it to the power of capital used to control labor power that Marx proposes. People always exist within a realm of structural power. According to Foucault (1980:133), power is not possessed or used by individuals but results from the relationships between individuals. As Sahlins (1972:37) notes, “Poverty is not a certain small amount of goods, nor is it just a relation between means and ends; above all it is a relation between people.” The variation of social forces among different populations creates these relationships of poverty as well as wealth.

Valuable natural resources, such as productive land, are recognized as politically powerful. The people that have access to these types of resources do so because they have wealth, social status, and a greater access to politically powerful social resources such as positive community identities and strong social networks. Therefore, structural forces have less affect on their environment and behavior than they have on the poor. The poor do not have politically appropriate social resources or economic influence and this severely limits

their power. Because of this, social structures define the behaviors and environment of the poor more than any other economic class. This weakens community empowerment, which disables poor populations from breaking out of the poverty cycle. Wolf (2001:385) states, “Structural power shapes the social field of action in such a way as to render some kinds of behavior possible, while making others less possible or impossible.” It is the access to valuable social resources that separates the rich from the poor, those that can change their environment and those that cannot.

Structural power is unevenly distributed across the human population and most heavily shapes those with less access to resources. Human agency is the concept that people are never fully determined by their environment and can act intentionally according to their own thoughts and understandings (Finn 2008). The structural power that oppresses the human agency of those with fewer financial assets, affecting an individual’s behavior, is known as structural violence. Poor individual physical health due to the inability to access existing health care services, limited to nonexistent options for education on healthy food, and low standards for labor conditions is a prime example of how social structural forces shape human behaviors. Referring to those who bear the burden of the disparities in health across the population, medical anthropologist Paul Farmer (1999:79) argues, “Their sickness is a result of structural violence: neither culture nor pure individual will is at fault; rather, historically given (and often economically driven) processes and forces conspire to constrain individual agency. Structural violence is visited upon all those whose social status denies them access to the fruits of scientific and social progress.” Health inequalities expose the underlying social structures that cause the variations in disease prevalence and distribution

(Singer and Baer 2007:151-180). It is the environment created by the social structure and the hierarchy within it that impedes the ability of a person and not a lack of individual human agency. To understand structural violence is to recognize that poverty, racism, sexism, ageism, exploitation, unemployment, health disparities, and environmental degradation are global forces as opposed to global results.

1.3 How Structural Power Affects Food Security

It is common to hear of the need to increase crop yields as if the cause of hunger is food scarcity, however it is the unequal distribution of access to healthy food that is at the root of food insecurity (Lappé et al. [1986] 1998). It is less surprising to learn of extreme poverty and hunger in ‘Third World’ countries than it is to learn of it in the United States, a highly industrialized nation. As Patricia Allen (1999:118) aptly points out, “While some countries may be unable to meet the nutrient needs of its population in an aggregate sense, this is not the case in the United States, where the sufficiency of the food supply is not in question.” The unequal distribution of food is a social injustice and is one of many examples of unevenly distributed resources by those who have the power to distribute them.

In the market economy of advanced capitalism today, food is considered a commodity and not a necessity of life. Because of this, the production and distribution of food is focused on profit and not on nutritional value, cultural importance, or equal access. Highlighting this point, sociologist Graham Riches (1999:206) observes, “Food is understood less and less as a social and cultural good. ...As a result, individuals, families, and communities have become disempowered and deskilled in their capacity to produce their

own food, make sound choices when they purchase food, and feed themselves nutritional and well-balanced diets.” The industrialized food system, while it has increased the amount of food available, has lowered the standards for the nutritional quality of food.

The class structure of American society, driven by commodities and profit, also significantly contributes to the loss of culture and knowledge. Kloppenburg Jr. et al. argue that it is the lack of connection to and knowledge of the production and distribution of food that immobilizes people from changing their food environment. They state:

If we do not know, we do not act. And even if we do know, the physical and social distancing characteristic of the global food system may constrain our willingness to act when the locus of the needed action is distant or when we have no real sense of connection to the land or those on whose behalf we ought to act. Ultimately, distancing disempowers. Control passes to those who can act and are accustomed to act at a distance... [1996:41]

An absence of cultural knowledge renders any community susceptible to weak individual behavior patterns, but especially those communities who have fewer resources than others.

Social inequalities, conflict, and forms of social and cultural disintegration are representative of societies where maladaptation occurs and where the ecological system is no longer a closed feedback but a positive feedback system (Watts and Peet 2004). Watt and Peet (2004:3) note, “Globalization is dangerously polarizing the “haves” and “have-nots” with little in the way of regulatory structures to counter its risks and threats.” The urban poor environment is intimately linked with the interconnected global environment and is effected

by the same structural powers. The ecosystem takes into account, along with biophysical attributes, other societies as part of the environment.

Most food is produced and distributed by few corporations. While it is not a detriment if corporations control the manufacturing and distribution of commodities such as microwaves or soccer balls, it is a serious concern when they control a substance that is vital to life (Shiva 2010). Consumers, especially those of low-income status, have little control over the origin and ingredients of their food. As Anthropologist Sidney Mintz (1996:29) proposes, structural power sets the terms for how people get their food.

Political power provides the people of a community access to having a say in the way their food is produced and distributed. The urban poor have very limited access to political power. Connections and relationships with community organizations, institutions and leaders assist individuals and groups in having a political voice. The poor in the United States often struggle to assert their political voice because they do not have the access to the politically appropriate resources such as social networking. Lappé et al. ([1986] 1998:4) argue that it is not food that is lacking in this world but democratic structures that allow people to have a say in the decisions that affect their lives and that hold leaders accountable for their actions. Environmental Studies scholar Neva Hassanein describes food democracy as the power of people to make decisions about their food policies and practices at all levels of scale. Dr. Hassanein (2003:79) notes, “At the core of food democracy is the idea that people can and should be actively participating in shaping the food system, rather than remaining passive spectators on the sidelines.” Food democracy has the potential to be the first step toward other democratic social structures in low-income areas.

A similar concept, known as the local food movement, is meant, "...to counteract trends of economic concentration, social disempowerment, and environmental degradation in the food and agricultural landscape." (Hinrichs 2003) The modern local food movement is actually two movements. These two movements, under the guise of one untied front, are separated by income level. The movement of the middle and upper income levels is driven by the desire to have control over their foods' origin and production. Alternatively, the movement based in low-income level populations is founded on addressing food security and community development. Communities that build strong social networks, individual and community empowerment, and a positive communal identity can increase political power in low-income areas.

1.4 Individual Agency: Diet-Related Behavior Patterns

In many low-income areas, the only food options that are financially available are those of poor nutritional quality, meaning that they are high in fats and sugars (Drewnowski and Specter 2004). Fresh, healthy foods are generally difficult to find in these areas. There are less supermarkets and more convenient stores in poor and minority areas than there are in middle or high-income areas (Algert et al. 2006; Morland et al. 2001; Moore and Diez Roux 2006; Larson et al. 2009). Supermarkets generally offer a wider selection of affordable healthy foods than convenient stores, leaving low-income areas with fewer dietary choices than higher income areas. Instead of supermarkets, fast food restaurants splatter the landscape of low-income communities (Block et al. 2004). Referring to the invasive fast food market, local food movement advocate and author Mark Winne (2008:111) states, "While

they presumably serve a community's need for calories, they actually prey upon those who are weakened by insufficient money, choices, and knowledge." The lack of healthy food in a specific area is not a cultural or individual choice; it is a result of a population that naively consumes the surplus of cheap foods.

Structural forces have created physical and social obstacles that hinder an individual's ability to choose a healthy lifestyle. Mintz (1996:120) uses the example of how job settings determine when people can eat and for how long. This influences what the employee eats, with whom they eat it, and where they eat it. Speaking of all consumers, he states, "While individual customers choose freely what they eat, they must do so in terms of what the food service offers. Eating out reduces the individual's ability to choose the ingredients in her food, even though it may increase the length of the menu from which she can choose." These 'situational boundaries' are the result of the structural power that is a prominent and unavoidable feature of complex societies (Mintz 1996). Inevitably, situational boundaries manipulate the behavioral patterns of people and create long-term food habituation.

Eating behaviors are the result of a multitude of environmental influences across a variety of contexts. Story et al. observe (2008:255), "The physical settings within the community influence which foods are available to eat and impact barriers and opportunities that facilitate or hinder healthy eating." Unhealthy eating behaviors can result from a lack of food choices. Studies on the access to fresh produce in low-income areas have shown that fruits and vegetables are available in limited number and type (Algert et al. 2006; Hendrickson et al. 2006). In addition, emergency food programs, such as soup kitchens and food banks, give out foods that have high fats, salts and sugars because that is what is often

donated to them (Berg 2008). A lack of healthy food is a physical limitation that can affect the choices of low-income consumers.

An individual's choice of food inevitably may affect their health. Morland et al. (2002) suggest that the local food environment is associated with residents' recommended dietary intake. Therefore, a lack of healthy foods would inherently affect the physical health of a community (Larson et al. 2009; Story, et. al. 2008). A study comparing community-level grocery store environments and individual dietary practices, found statistically significant correlations at both the community and the zip code levels between the availability of healthy products in the stores and the reported healthfulness of individual diets (Cheadle et al. 1991). There is much evidence that the addition of fresh, quality produce to an individual's diet would improve their physical health (He et al. 2004; Hung et al. 2004). Moore and Diez Roux (2006:330) state, "The infrastructure of the local food environment is yet-another feature of the built environment that varies substantially across neighborhoods and may contribute to disparities and social inequalities of health." Poor health further disables low-income people.

Income also plays a significant role in the food purchasing capabilities of an individual, which directly affects their personal health. James et al. (1997:1551) report that risk factors due to a lower socioeconomic status include, among others, a poor quality diet. Limited options of food choices due to a low income can affect the health of the individual (Kennedy et al. 1998). Low-income children are found to be significantly more likely than high-income children to be reported in fair or poor health (Alaimo et al. 2001). Food insecurity among low-income children, who generally have a higher rate of poverty than

other age groups, is often linked to more health problems when compared to children of food secure households (Cook et al. 2004; Casey et al. 2001; National Poverty Center March 2011). Mental health problems, such as behavioral and emotional, have been found to be more prevalent with children who are defined as hungry or severely hungry than children who are not (Kleinman et al. 1998; Weinreb et al. 2002). The health of the elderly is also significantly impacted by a lack of nutritional foods (Lee and Frongillo, Jr. 2001). It is often the case that the poor can only afford or only have access to low quality foods.

Macro-level environmental factors play a significant role as an influence on a person's eating behavior. Other examples of these factors, besides the production and distribution systems of food, that exist within the social environment are product marketing, social norms, federal and state agricultural policies and economic price structures (Story et al. 2008). Through this understanding, Story et al (2008:254) conclude, "Individual behavior to make healthy choices can occur only in a supportive environment with accessible and affordable healthy food choices." Achieving greater accessibility and affordability of healthy food is imperative for the health of low-income populations.

Regarding low-income populations, maladaptive cultural behaviors are often the best or only option. By maladaptive, it is assumed that these behaviors are non-beneficial to the species however, if there are no better options, the 'mal' adaptation may be the most beneficial option. Maladaptive behaviors are often confused in the larger population with individual human agency and thus are used to blame the poor for being poor, also known as victim blaming. For example, poor health might be mistaken as an individual dietary choice without considering structural barriers such as low paying jobs, lack of convenient private or

public transportation, and high costs of living as factors that disrupt a person's ability to maintain a healthy diet.

The diet-related behavioral patterns that low-income individuals have adapted, due to the unavailability of nutritious foods, have invariably weakened other aspects of the community. It would be hard to miss the fact that high rates of crime, unemployment, and poverty exist in low-income urban and rural areas across the United States (Kawachi 1999). Cultural and social qualities are degraded by structural forces, which disproportionately affect those populations who have little political power. It is not the individual consumers, but structural power that disables community food security, which is vital to individual and community health, and therefore vital to community development.

Chapter 2 Community Gardens

2.1 Introduction

The concept of structural power within society and the disturbing realities of structural violence can be difficult to comprehend without an observable model. Sadly, for the inhabitants of Detroit, Michigan, examples of structural violence are all but unusual. Since the 1950s peak of two million residents, the population of Detroit has decreased to just under 714,000 people (Seelye 2010). Many of those that left urban Detroit were middle and upper income level residents who relocated to the suburbs, leaving a population of low-income residents within city limits. For a city that has grabbed national attention with its high crime, unemployment, and poverty rates, it is not surprising that this population decline has been occurring (United States Department of Labor 2011; United States Census Bureau 2011). In addition, Detroit suffers from a limited number of grocery stores, an excess of convenience and fast food stores, and a lack of reliable transportation: more commonly known as a food desert (Mari Gallagher Research and Consulting Group 2007).

However, as the typical urban employment options have lessened, entrepreneurial agricultural organizations and businesses have risen in its place. Non-profit organizations such as the Greening of Detroit, Detroit Agriculture Network, EarthWorks Urban Farms/Capuchin Soup Kitchen, and the Detroit Black Community Food Security Network, exist to increase food security, mainly by promoting urban agriculture in its many forms (Garden Resource Program 2011; Detroit Black Community Food Security Network 2011).

Hundreds of urban market farms, school and community garden projects, and family plots have received educational and material assistance from these organizations. Some of these organizations hope to influence public policy in order to increase the city's agriculture production and business possibilities by erasing the political barriers that obstruct it. It is estimated that the city of Detroit could potentially produce seventy-five percent of their vegetables and forty percent of their fruit (Colasanti and Hamm 2010). The agricultural businesses, projects, and organizations that are rapidly budding across the city, have the potential to rejuvenate Detroit and many other cities that follow in their footsteps.

2.2 A History of Community Gardens

Community gardens are one example of how agriculture can be incorporated into an urban setting. A community garden is described as a place where a group of people garden together (American Community Garden Association November 2010). They provide greater access to affordable, healthy foods. Some community gardens are a part of a larger urban agriculture organization, while others exist as a solitary garden made up of neighboring residents. The history of community gardens in the United States is predictably patterned: when unemployment is high and food is expensive or in limited supply, community gardens rise in popularity (Lawson 2005; Lautenschlager and Smith 2007; Saldivar-Tanaka and Krasny 2004).

Ironically, Detroit has been the birthplace of the two major urban agriculture movements in U.S. history. In 1894, the Mayor of Detroit, Hazen Pingree, started the first recognized community garden program in the United States, known as vacant-lot cultivation

or, the more charismatic anonym, Pingree's Potato Patches. Environmental determinism, which means that changes in the physical environment produce changes in people's behavior, was a newly accepted concept in the 1890s due mainly to the scientific discovery of germs. Similar to today, people living at the turn of the century made the connection between the ecological settings of the city and the health of its population. As urban areas became more crowded, increasing the risk of disease, those who could leave the city for suburbs, did. This exodus left many city lots abandoned; lots that the Mayor used for the community garden program. Mayor Pingree strongly believed that providing garden space for the poor would solve more than one social problem. By supplying land, tools, and technical assistance, unemployed laborers and their families would have increased access to nutritious foods and the opportunity for income, thereby creating potential for economic stimulus. Mayor Pingree's community garden program was such a success that the program was eventually reproduced in several major U.S. cities. During this time, school gardens were growing in popularity. Eventually, these educational gardens were established as worthy of an office in the Bureau of Education. (Lawson 2005)

The creation of the Food Administration in 1917 began government regulation of the food system. Starting from this point, most resources and technologies that were involved in the production and distribution of food were now supplied by the government and, therefore, politically controlled (Lawson 2005). Today, the centralization of agricultural resources continues; however large agri-technology corporations, such as Monsanto and ConAgra, control more of the food production and distribution systems than the government.

Gardening was publicly promoted again at the start of World War I. With the knowledge of Europe's dwindling food supply, the United States began to look at their own food production capabilities. Americans were encouraged to grow food at home or in community gardens so that more food could be sent overseas. Similarly, World War II brought a new wave of support by the government for community gardens. The 'Victory Garden Campaign', of the early 1940s, promoted gardens for the purposes of personal consumption, increasing morale, and community or personal activity. (Lawson 2005; Brown and Jameton 2000)

The 1970s brought about a regeneration of interest in community gardens, however this time in a new light. The movement was driven by a growing interest in environmental stewardship and ecological balance. Also at this time, social unrest grew as jobs and money left urban centers. Low-income populations were unable to leave these otherwise abandoned cities because of remnant segregation policies and the central location of public services. Increasingly, community gardens came to signify community self-reliance. An important difference between later twentieth century community gardens and earlier ones is that the planning and maintenance of each project was placed in the hands of the local residents. The financial support continued to come from larger, outside institutions. Lawson (2005:229) observes, "Citywide organizations could promote and support a garden, but local involvement was essential for its survival... 'Handed-over' gardens, although developed with the best intentions, were often abandoned because the communities were not involved in their development." The focus on food security was equal in importance to the focus on

community development and leadership roles during this time. (Lawson 2005; Brown and Jameton 2000; Saldivar-Tanaka and Krasny 2004)

Soon, garden organizations began to form relationships with surrounding businesses and institutions. By donating or providing inexpensive financial or tangible resources, these local entities assisted the growth of neighborhood agriculture projects. As community gardens became more common, the USDA initiated the Urban Garden Program in 1976. Offices supporting community garden projects were set up in 23 major U.S. cities by 1988. In 1979, with national interest at a peak, the American Community Garden Association (ACGA) was created. Its founding mission was to promote the initiation of new garden programs and to strengthen the community garden social network. Today, the ACGA estimates that there are over 18,000 community gardens in the United States. Since its inception, the ACGA mission has evolved to include other important social dynamics such as community development, social justice, education, self-reliance, and environmentalism. (Lawson 2005; ACGA November 2010)

Amidst this growth in urban agriculture and community organizations, the Reagan administration of the 1980s intensified qualifications for poverty assistance programs and significantly reduced the food safety net, which compelled these organizations to rely more on nonprofits and local community efforts (Winne 2008:24). The nation's largest network of food banks, America's Second Harvest, grew out of the space devoid of federal support (Feeding America: Hunger-Relief Charity). In 1999, the United States Department of Agriculture (USDA) introduced the Community Food Security Initiative. The goals of this project include creating partnerships between the USDA and local communities to strengthen

local food systems, decrease hunger, and improve nutrition (Kantor 2001). Over time, these developments set the stage for today's mixture of government and non-profit organizations that often work simultaneously on the same problems without coordinating their efforts.

Today, the hungry in America rely heavily on charity organizations. While charitable and non-profit food programs are seen publicly as a valiant effort, there are a few significant problems with emergency food organizations heading the mission to eliminate food insecurity. These types of programs are known as emergency food programs because they provide temporary relief for those who are afflicted with food insecurity or hunger. Being that emergency food programs are logistically demanding for the volunteers involved, the larger political issues are sidelined or left unaddressed (Poppendieck 1998; Berg 2008). As Johnston and Baker suggest, community food security projects must scale up to address structural concerns like state capacity, industrial agriculture, and unequal distribution of wealth (2005). Another pertinent concern that sociologist Janet Poppendieck (1998:12) discusses is that people who use the services of these emergency food programs possess no legally enforceable rights to the food, which renders food an impermanent gift.

Unfortunately, the federal government safety net for the poor and hungry is not strong enough and the existence of these emergency food organizations is evidence of that (Allen 1999). Joel Berg (2008:238), executive director of the New York City Coalition Against Hunger and retired USDA Coordinator of Community Food Security, argues that traditional food programs, such as Food Stamps and Women, Infants, and Children, are too fractured and not funded nearly enough, while Winne (2008:24) claims that welfare assistance programs have overly strict limitations on personal assets. Berg (2008:269) states, "...For a

community to have good nutrition, three things need to happen: food must be affordable; food must be physically available; and individuals and families must have enough education to know how to eat better and regularly choose to perform the extra work necessary to do so... Yet all too often, projects only focus on one of the three.” In general, advocates of the anti-hunger movement emphasize the need for a secure and supportive federal food program first, with the development of strong community food systems as a critical second. Allen (1999:127) states, “Both traditional food programs and community food security projects contain promise for meeting people’s food security needs. Achieving food security requires both a process of developing self-reliant food systems and a political effort to achieve justice and equity.” The solution to food insecurity will come through cooperative efforts between private and public support for low-income area development of efficient food systems and social networks.

Community gardens are an important part of both national action and non-profit work toward food security (Berg 2008; Winne 2008). Following its pattern in history, the number of community gardens are multiplying as unemployment rates and food costs rise. Referring to the urban poor, Ferris et al. (2001:567) note, “The community garden movement in the USA is, in part, one of the positive responses in the struggle to restore these damaged neighborhoods to ecological and social health.” Fortunately, changes in this country’s city planning and design is in favor of increasing urban agriculture, much like it was at the beginning of the twentieth century. Brown and Jameton (2000:21) state, “Ironically, as the new suburban housing and business developments overtake rural farmlands at the city’s periphery, land in the inner-city becomes available when failed businesses and decaying

homes are bulldozed.” The development of urban agriculture in low-income areas has the potential to decrease food insecurity and greatly increase the social resources available to those populations.

Without government and charitable support, it is much more difficult to reduce hunger and poverty. At the same time, it is essential that low-income communities be allowed to develop social and political strength by developing independent organizations and networks. By combining the federal, state, and charitable sectors’ support, community garden projects can offer agricultural and nutritional education, increase access to fresh, affordable produce, and provide employment, volunteer, or leadership opportunities in an effort to assist low-income urban communities who are interested in developing agricultural space. Urban agriculture organizations, often considered part of the local food movement, attempt to meet all of these goals by using assistance from private and public entities.

2.3 Addressing Food Insecurity

Many attempts to solve the rampant problem of food insecurity have occurred to no avail. Pothukuchi and Kaufman (1999:220) note, “Anti-hunger efforts have been unsuccessful in mobilizing a broad constituency or involving diverse food system stakeholders, and tend to capitalize on charitable impulses of citizens and businesses.” Sociologist Janet Poppendieck (1998:5) argues that the decline in public assistance and loss of support for society’s ‘safety net’ “...creates a culture of charity that normalizes destitution and justifies personal generosity as a response to major social and economic dislocation.”

Berg (2008:289) argues that advocacy activities are not reaching out enough to involve the low-income populations in food security solutions.

Community gardens and urban agriculture organizations directly address the problems of food insecurity. Today, urban areas are, once again, ripe for urban agriculture. The local food movement that works in low-income areas could potentially play a much greater role in the urban environment than it does today, enhancing the capabilities of the urban center and strengthening the role that low-income communities have in their environment. According to Berg (2008:271), “Food should be a central organizing tool of neighborhood development, uniting communities through community gardens, farmers’ markets, nutrition education, supermarkets, food cooperatives, and food-related small businesses.” He further argues that today’s food system is dysfunctional because urban and rural areas do not gain the economic advantages of growing and processing food and instead pay high costs to have food transported to them (2008:262). Pothukuchi and Kaufman state that urban food systems contribute greatly to community health by making connections with other urban systems such as housing, transportation, land use, and economic development projects. Also, urban agriculture compliments environmentally friendly urban planning in areas such as solid waste management, health care, crime prevention, and air and water quality (Sommers and Smit 1994; Nugent 1999). Because of this, the production and distribution of food should be considered a prominent part of a city’s planning agency with the creation of a department of food and a food policy council. By reconnecting a community’s consumption with the production of its own food, the community will be ensuring food security in the present and the future (Allen 1999).

Community gardens and urban agriculture organizations provide physical and mental assistance to the barriers that limit access to fresh produce. The ability to make independent choices is an issue of dignity. Any way that the choices a person makes regarding their diet can be preserved, is beneficial to that person's self-esteem (Poppendieck 1998).

Lautenschlager and Smith (2007) argue that the education that youth receive from community garden experiences may expand their understanding of healthy diet choices. Community gardening allows for the individual's active role in their food choices. By increasing the physical options of fruits and vegetables and promoting individual dietary preference, community gardens increase food security.

A low income or an unstable financial situation is a major factor that can limit food options. By working with other local food system sectors, such as farmers' markets, grocery stores and food processing centers, community gardens increase the variety of number, type, and price of healthy food options (Lawson 2005). Urban agriculture programs and associated community gardens attempt to eliminate the cost of input that might prevent a low-income family from growing their own food by providing grant money and donated supplies to increase the productivity of garden projects (Kantor 2001). Community gardens and other agricultural activities can provide opportunities for entrepreneurial community residents to develop successful small businesses. Based in the community, these businesses could support other businesses and institutions there. By incorporating the growing, processing, and selling of food into the local economy, the transportation costs would be greatly minimized and the economic benefits of business would remain within the community. Some projects that compliment community gardens are greenhouses, cold frames, rooftop gardens or a food-

processing center, such as a community kitchen. When discussing community gardens, Brown and Jameton (2000:26) state, “This form of urban agriculture has the advantage of being a relatively accessible industry, especially for low-income entrepreneurs.” Also, healing, therapy, and crime diversion agricultural programs are designed to pay wages to its workers, as opposed to relying on volunteers (Ferris et al. 2001). Not only would an agricultural business add employment and income to the community, but its profits could also contribute to affording a healthy diet.

Community gardens are hailed as positive attributes of a community. A review of 54 studies done between 1984 and 2008 found that a commonly suggested approach for improving access to healthy foods was to encourage involvement in community gardens and community-supported agriculture programs, also known as CSAs (Larson et al. 2009). Lautenschlager and Smith conclude that garden programs positively influence the food choices, social and cooking skills, and nutritional knowledge of inner-city youth (2007:254). Twiss et al. found that community gardens led to an increase in fruit and vegetable consumption in addition to an increase in physical activity (2003:1436). Increased food security is a top priority for urban agriculture organizations and an observed result of community gardening.

2.4 Community Development and Social Resource Building

The problem with emergency food, such as food banks and soup kitchens, is that those who are food insecure will remain that way indefinitely if the contributing factors to food insecurity are not addressed. Long-term, sustainable food security requires the

development of a community's social resources in low-income populations. Those afflicted by food insecurity and hunger are often the same people who live in poverty. The cycle of poverty, as discussed above, is hard to interrupt. As much as outside institutions might help temporarily, the poor will not be able to demand the rights to their own resources if this is always done for them. Elaine M. Power states:

Food solutions will not solve the problem of poverty. Without social justice for the poor in larger society (that is, a guarantee of an adequate and dignified level of material resources to allow every citizen the stability and security to participate fully in society), programs aimed at improving the food problems of the poor will only reinforce individualistic solutions to structural problems, no matter what the intentions of the programmers. [1999:35]

While Power mentions only tangible resources, it is important that intangible resources are acknowledged as equally essential for social justice. Low-income communities need to possess socially significant non-material resources. These social resources are: empowered individuals and leaders, strong social networks within the community and between community organizations and outside institutions, and a positive collective identity.

The urban poor have many barriers that prevent them from having access to political power. While people are not equally empowered, power depends on social relationships and therefore is not in a fixed state (Foucault 1980:141). Community gardens and urban agriculture organizations generally work as a community development tool that assists in empowering community residents. According to Winne (2008:62), "The power of community gardening and other similarly organized small-scale farming efforts in

nontraditional areas such as urban America is not found so much in the rate of return to the food supply, but in the rate of return to the society.” Social barriers, as opposed to the physical ones such as a lack of fresh produce in grocery stores, are barriers that come from the lack of power in a community to change present or persistent problems.

One of the main barriers is academic, charitable, or government programs and projects that come from the middle and upper income groups and are meant to develop a poor community, sometimes in the form of an urban agriculture organization. The most detrimental aspect of this work is that the desire to help can actually create a barrier, or a “wall of needs”, that impedes real community development (Kretzmann and McKnight 1997:2). Braden and Mayo suggest that participation, representation, and communication are essential tools to community development yet they often become rhetorical terms that lead to empty intentions and project failure (1999:195).

Kretzmann and McKnight argue that public, private, and nonprofit work, supported by research and funding, is designed to solve problems instead of highlight a community’s capabilities. There are many problems with focusing on the needs of a community instead of its assets, including the manner in which that funding is distributed. Often, funding is only available if a problem persists. Also problematic is the idea that only experts and charitable services can provide real help because they have the access to financial support. Speaking of problem-oriented community building, Kretzmann and McKnight (1997:2) state: “As a result, many lower income urban neighborhoods are now environments of service where behaviors are affected because residents come to believe that their well-being depends upon being a client. They begin to see themselves as people with special needs that can only be

met by outsiders. They become consumers of services, with no incentive to be producers.” Despite the work of well-meaning professionals, there are key resources or tools that any outside entity are unable to provide.

Social worker Janet Finn (2008:300) recommends remembering that “...addressing how power plays through our positions as representatives of the university, the food bank and the homeless shelter and how so much of what we learn is informed by a middle class sensibility that devalues and discounts the importance of experiences informed by daily struggles for survival.” With the possession of social resources, such as empowerment, community identity, and social networks, a community will be able to assert political power to attain material and financial resources.

The definition for empowerment varies but is generally defined as the result of active participation of an individual within a community in developing social cohesion and reclaiming access and control to valuable resources that have been disproportionately distributed to less marginal populations (Rappaport 1995; Zimmerman 1990). It has been observed that community resident involvement in the organizing and leadership of community gardens can lead to engagement in the political process (Saldivar-Tanaka and Krasny 2004). Community empowerment is defined as how communities strengthen their ability to take collective action on issues that they have chosen to be important and to make positive changes in their environments (Williams 2004:349). Zimmerman (1990:170) states, “Empowered communities comprise empowered organizations, include opportunities for citizen participation in community decision making, and allow for fair consideration of multiple perspectives during times of conflict.” Empowerment of individuals and of

communities is a vital resource for low-income communities working to achieve social justice.

Empowerment is linked to the strength of a community's identity and its collective social network. Rappaport (1995:805) has written that the ability to create and influence one's story, or narrative, is a powerful resource. He argues, "If narratives are understood as resources, we are able to see that who controls that resource, that is who gives stories social value, is at the heart of a tension between freedom and social control, oppression and liberation, and empowerment versus disenfranchisement." Chavis and Wandersman have studied the importance of the relationship between the individual and the social structure, also known as the 'sense of community'. According to them (1990:56), "A central mechanism in this process is individuals' participation in voluntary organizations, which produce collective and individual goods. These groups include neighborhood organizations, professional associations, self-help groups, churches, political parties, advocacy organizations, or unions." In addition, they argue that the relationship between a sense of community and a community's problem-solving abilities as a whole is reciprocal. Twiss et al. (2003:1435) have found that community gardens foster a sense of community, which builds a constituent foundation for a broader political agenda. Positive narratives derived from within a community can prove to be a valuable resource that, like money and political power, is less accessible to the poor than others.

Social networking between residents, associations, and institutions is also an asset that is necessary for strengthening communities because it is a social and political resource (Mansbridge and Morris 2001). One of the barriers found in a study on inner-city youth

community garden success was a lack of social networks (Lautenschlager and Smith 2007). Hancock (1999) contends that community gardens that are created and managed by the community themselves rely on strong cohesive social networks that cross ethno-racial divides in order to maintain it. Beckmann and Hollar (1996:99) note, “The government of a community is not synonymous with its government. A community acts together through a myriad of agencies, informal organization and linkages. These relationships “govern” the community’s sense of itself.” Kretzmann and McKnight (1997:4) discuss the importance of associations, which are groups pertaining to religious, cultural, athletic, recreational interests that are less formal than institutions, as an excellent source for community relationship building. They argue that, in some cases, professional help can divide internal social networks and that the actual depth and strength of existing associational activity is greatly underestimated, especially in lower income communities.

These existing social networks should be allowed to cultivate into stronger social systems. Small (2006:275) argues that organizational ties, or neighborhood institutions such as churches, recreation centers or childcare, are often more efficient than social ties at brokering resources. He suggests, “...The truly disadvantaged may not be merely those living in poor neighborhoods, but those not participating in *well-connected neighborhood institutions*.” Community gardens and their affiliated urban agriculture organizations fit this role well. Hamm and Baron propose that, besides increasing local food production, community and individually owned gardens can be the beginning of relationships between rural and urban agricultural resources (1999:56). This would increase access to local produce

by developing social networks with outside communities and organizations. Social networking is another non-material resource that is imperative to community growth.

Education by community leaders can be source for the social resources discussed above. Those involved in urban agriculture have the opportunity to learn about farming practices, ecological systems, healthy dietary habits, and even social, environmental, and economic justice issues. Farm-to-school programs' first goal is to incorporate local, fresh foods into school cafeterias however their work often extends to educational activities such as farm field trips or nutrition lessons in the classroom (Bagdonis et al. 2009). Dibsall et al. suggest that the major barrier to eating fruits and vegetables for low-income consumers was not so much the unavailability but the lack of motivation to eat healthy and suggest providing education on how to substitute fruits and vegetables for unhealthy choices at the same price or less (2002:166). Unfortunately, due to limited amounts of fresh produce and an excess of microwavable, canned and prepared foods in poor areas, knowledge on processing and cooking fresh produce is occasionally lost over generations. Winne advocates that nutritional education cannot be successful unless there is appropriate access to healthy foods (2008:89). This last conclusion supports the fusion of community development and food security solutions into an agricultural organization.

Cultural values can add to the sense of community in a population. Community gardens provide a place for agricultural customs to be practiced and cultural traditions to be shared with others (Allen 1999). For immigrants, a community garden can be a place to teach cultural skills to their children yet it can also be a place that helps them adjust to life in a new environment (Kortright and Wakefield 2009). In addition, cultural foods for immigrants are

important to their health. Saldivar-Tanaka and Krasny (2004:408) found that the common desire of those involved in the community gardens was to improve their community and their personal lives by keeping the vacant lots in their neighborhood clean and that the gardens appeared more as a social gathering place than a place to grow food. Whether learning or teaching, cultural knowledge can engender positive personal or community identities.

Community gardens that aid in the development of stronger community relationships become a common space or property. The community shares the management responsibilities of the garden. Townsend (2009:94) states, “Traditionally, people have succeeded in managing common-pool resources in sustainable ways for thousands of year. ‘Common property’ does not mean that anybody and everybody have open access; instead societies have systems of rights, duties, and obligations that protect resources held in common.” Problems arise when ownership of the land that the garden is on comes into question. Gardens that are not owned by the garden organization can be revoked or apprehended at any time (Kortright and Wakefield 2009). Sometimes, the city government loans the land, free of charge, to the garden organization or community group (Brown and Jameton 2000). In effect, the garden of a community becomes an additional intangible resource for that community.

Community development is the long-term solution to the problems of hunger and food security because it builds empowerment, positive identity, and social networks within a community. It is important, with urban agriculture organizations as it is with any organization meant to effect change, to not underestimate the necessary leadership and involvement of the community. Finn (2008:299) contemplates this dilemma: “What factors exclude people from having an active role in shaping their life circumstances and how can

we address these to create a space for participation and solution building? ... So it is not a question of people not wanting to be involved but more a question of how to support their involvement.” The structural barriers that low-income individuals disproportionately face, are not permanent and can be mitigated.

Urban agriculture organizations in low-income communities can help to mitigate structural barriers as well as increase food security (Kantor 2001; Kortright and Wakefield 2009; Larson et al. 2009). Urban agriculture can be an internally driven project that enables and the social networking requirements for successful agriculture become tools that can be used to build political power and attain valuable resources for the community involved. Besides its popularity among middle and high-income populations as a supplemental source of organic produce, community agriculture projects generally exist to increase food security in urban and rural populations. Brown and Jameton (2000:29) observe: “...When low-income neighborhoods and market gardeners become involved in transforming their urban landscapes and claiming for themselves a sense of place and pride, agriculture has become a forceful empowerment strategy for community participation and social change.” Berg (2008:269) strongly believes, “...local food production and marketing should play a much greater role in our fight against hunger. Such work is empowering to all people involved – but especially to low-income people.” The purpose of this study was to explore the effect that agriculture has on increasing food security and strengthening social resources and it is clear that community gardens can aid in the development of social resources that further community strength in low-income populations while increasing food security.

Chapter 3 Methodology

The main question used to direct the interview was: How are community garden programs in low-income, urban areas encouraging and maintaining community participation?

Three outreach coordinators from three different urban agriculture organizations were interviewed: Garden City Harvest (GCH) of Missoula, Montana, the Growing Community Project (GCP) of Helena, Montana, and Garden-raised Bounty (commonly known as GRuB) of Olympia, Washington. These organizations were selected for this study because they each work with low-income communities on community garden projects. In addition, all three organizations follow a mission that incorporates the goals of food security and community development.

The interview process was reviewed and approved by the Institutional Review Board (IRB) at the University of Montana (Appendix A). Each organization's outreach coordinator provided informed consent. The interviews with the outreach coordinators from GRuB and the Growing Community Project were conducted over the phone, while the interview with the outreach coordinator from Garden City Harvest was conducted in person at their main office.

During the interviews, the topics covered were: outreach methods, low-income population engagement in urban agriculture projects, observed barriers and enhancers experienced by low-income gardeners, and community empowerment. The style of interview was semi-structured. This type of interview was chosen because it is conducive to a relaxed and flexible conversation, yet it also covers all of the points of interest (Bernard 2006). The

interview questions (Appendix B) were designed to be open-ended with the intention of encouraging topic expansion by the outreach coordinator. This quest was successful, as each outreach coordinator became comfortable and provided applicable examples and experiences to support their initial responses. The data was coded according to specific themes (Appendix C). The organization of the data, based on the coding outline, was done with N-VIVO technology. Descriptive information for each community organization was obtained on their individual websites.

There are two significant limitations of this study. One is that the study has a small sample size, which limits the generalizability of the study. With only three interviews, the results may be considered insufficient to support any broader implications. Also, the evidence concerning barriers and enhancers relating to low-income populations is from the perspective of the community outreach coordinators only. By interviewing gardeners in addition to outreach coordinators, the conclusions of this study would be more applicable to low-income communities. The second limitation is that the outreach coordinators interviewed are a non-representative sample. Randomizing the selection of interviewees and diversifying the type of community environments involved in the study, for example choosing outreach coordinators from large urban, small urban, and rural communities, would also increase the applicability of the results.

Chapter 4 Results

All of the information in Chapter 4 is from the aforementioned qualitative interviews, with a small percentage from the organizations' website. Each of these organizations are non-profit, community-based urban agriculture programs with the shared goals of increased food security and community development. To view a comparison of these organizations characteristics, see Figure A on page 38.

4.1 Descriptions of the Urban Agriculture Organizations

Garden City Harvest (GCH), was established in 1996 when they received a USDA Community Food Grant. It is named after Missoula, Montana's nickname 'The Garden City'. Their main projects include the Youth Harvest Program, the Community Education Program, and the management of seven community gardens in Missoula. The Youth Harvest Program combines horticultural therapy and employment opportunities for "at risk" youth in Missoula. These teenagers grow and harvest food for a local homeless shelter, the Missoula Food Bank, and a community-supported agriculture (CSA) program. In addition, the youth manage a low-priced, mobile food market for low-income seniors at affordable senior housing locations. Garden City Harvest works alongside the Missoula BEANS program (Blending Education, Agriculture, and Nutrition in Schools) to offer field trips and summer camps at the PEAS (Program in Ecological Agriculture and Society) farm, which is also managed by

Garden City Harvest. The PEAS farm also hosts credit-earning internships through the University of Montana's Environmental Studies Program.

Garden City Harvest manages seven community gardens throughout the city of Missoula. All are located in low-income, urban areas and have been developed with the assistance of the surrounding neighborhood. While there are no qualifications for a person to rent a garden plot, the GCH outreach coordinator states that seventy percent of the gardeners at Garden City Harvest community gardens have an income of eighty percent or less of the area's median income, which is based on the Department of Housing and Urban Development (HUD) definition of low-income status. Two of the community gardens, Orchard Garden and the Garden of Eaton operated as partners with affordable housing residences, homeWORD and Joseph's Residence, respectively. Orchard Garden is a combination of ten community garden plots and a one-acre farm. The farm at Orchard Garden has a farm stand and a CSA offered on a sliding scale. Other Garden City Harvest community gardens include: the ASUM, Meadow Hill/ Flagship School, 2nd Street, Northside, and River Road community gardens (gardencityharvest.org, December 2010).

Helena, Montana is home to the Growing Community Project (GCP). This organization began as a combined effort of the groups WEEL (Working for Equality and Economic Liberation) and AERO (Alternative Energy Resources Organization). The Growing Community Project focuses their work on education through community gardens. Five of the ten current or in-progress community gardens in Helena are overseen by the Growing Community Project (helenagcp.wikidot.com, December 2010). The Food Share and Plymouth Community Gardens have garden plots available for the community in addition to

plots specifically for the Helena Food Share Program, which provides access to healthy, local food for those in poverty. The Volunteer-for-Veggies Program opens up the Food Share plots at scheduled times during the week for volunteers to help with the gardening work. In exchange, the volunteers receive free vegetables and an opportunity to ask questions of the on-hand garden supervisor.

The Exploration Community Garden grew out of a partnership between the Growing Community Project and the local children's museum called Exploration Works. The GCP outreach coordinator describes how this partnership provides more opportunities for community members to become involved in gardening: "They were building a garden to use as an outdoor classroom so we talked with them and asked if we could include community beds so half the garden has plots that we rent out for community members and then the other half of the garden is used for the museum." The Exploration Community Garden offers community plots and educational classes on topics such as botany, cooking, nutrition, and environmental science.

The GCP consultant estimates that fifty percent of the gardeners involved with the Growing Community Project community gardens are of low-income status, with the other half being of middle-income status. The garden applicants fill out a questionnaire about their income level and the distance they live from the garden. Priority goes to low-income gardeners but as the GCP informant states:

It doesn't always work out that way, you know, there are gardeners who don't live within walking distance from the gardens, obviously. There are a lot of gardeners that aren't low-income but that's also something that we try, we

don't want to have gardens be segregated, we want them to be integrated.

Having low-income and upper-middle class, or physically disabled and not physically disabled gardeners all in the same garden is what we are aiming for. [Chalgian 2010]

She adds, "...Our mission is to build gardens in every neighborhood so we are not focusing on low-income areas, but that is where we are focusing first." Low and middle-income level people of all ages are reaping the benefits of community gardens in Helena. According to the GCP outreach coordinator, most of the gardeners' ages tend to be from the mid-thirties to early forties while the next largest group is senior citizens. Interest has increased among children with the encouragement of their parents or teachers. The GCP consultant also describes a preschool that has rented a garden plot and brings its' students out to garden.

The GRuB organization, which is located in Olympia, Washington, began as a community garden and has developed into an urban agriculture program. Unlike Garden City Harvest and the Growing Community Project, GRuB does not continually manage any community gardens. However, they have collaborated with many communities who wanted to start a garden. One example of this is the Sunrise Park Community Garden. For this garden, the people from the adjacent subsidized apartment complex approached GRuB about starting a garden. Now a completed 37-plot community garden, the Sunrise apartment tenants hold decision-making and planning authority there.

Besides assisting groups in organizing community gardens, GRuB uses their resources for building 'kitchen gardens' as a part of the Kitchen Garden Project (KGP). A kitchen garden is a term that covers both backyard and community gardens. These gardens

are free to low-income, senior, disabled, or single parent residents of Mason and Thurston counties. The GRuB Kitchen Garden Project provides optional garden instructions, along with three raised beds full of healthy soil, seeds and vegetable transplants. In total, GRuB has assisted with the construction of over 2,200 backyard and community gardens since 2003 (goodgrub.org, December 2010). Another main component of the GRuB organization is the Cultivating Youth program, which is an agriculture-based employment and dropout prevention program, similar to the GCH Youth Harvest Program. Participants of this program work and manage the GRuB farm and CSA program. The GRuB farm consists of a two-acre plot whose harvest is divided between the volunteers, the youth program participants, the CSA, and the food bank.

Figure A. Community Garden Organization Descriptions

	Community Gardens Under Management	Programs	Partners	Gardener Income Demographic
Garden City Harvest	Seven	Youth Harvest Program, Community Education Program	Missoula Food Bank, homeWORD and Joseph's Residence affordable housing, Missoula BEANS program, University of Montana	Roughly 70 percent of gardeners can be described as of low-income status
Growing Community Project	Five, however there are other gardens in Helena that GCP works with	Volunteer-For Veggies Program, a variety of community classes	WEEL and AERO organizations, Helena Food Share Program, Plymouth Congregational Church, Exploration Works museum	Around 50 percent of gardeners are low-income
GRuB (Garden-raised Bounty)	Holds no managerial power over any of the community gardens that they help implement	Kitchen Garden Project, Cultivating Youth Program	The local food bank, soil company, and lumberyard	Kitchen gardens are free to low-income, senior, disabled, or single parent people

4.2 Starting a Community Garden

4.21 Finding Community Interest

Building a community garden takes steps. Before the steps are even begun, there must be interest from the community. The GCP informant (Chalgian 2010) states, “We want the community buy in because otherwise it is not going to be sustainable.” The role of urban agriculture organizations is to find where a community garden is wanted or needed most.

According to the outreach coordinator of the Growing Community Project (Chalgian 2010), “Trying to find people to build new gardens is harder than trying to find people to help maintain gardens that are already built.” The GRuB consultant (Chalgian 2010, parentheses added) describes their initial engagement with a community: “... We’ve just started, as part of our strategic planning process, we’ve had what we are calling stakeholder conversations where we invite folks who have KGP (Kitchen Garden Project) gardens to the farm and basically do a quick sit down and ask them their feedback on where they want the KGP to go and how they see themselves being involved. And so from there we can start to build relationships with folks.” The GCH outreach coordinator notes that their first step is to decide among their partners what area is in need of a garden and then to present their ideas to the neighborhood counsel in that area. If they are interested, she explains, then community leaders are asked to do a neighborhood survey.

Surveying is an outreach tool that Garden City Harvest uses to incorporate community resident opinion on possible garden plans. The GCH consultant (Chalgian 2010) discusses the importance of surveying: “It is both informing people what we are doing as well as asking them what they think about it. So it’s a great way to both, you know, get their

ideas and also see if there is anybody who is totally adamantly against it or for it.” In addition, she described surveying as an opportunity for people to get involved in the long-term project by participating in the garden counsel. She explains how once community residents became interested in building the garden, they would be asked to contribute to the garden design and organization ideas.

In the case where a group of community members come to request help with starting a community garden, the organization starts by assessing the need of the community. The Growing Community Project informant (Chalgian 2010) explains, “...If somebody approaches us and says ‘Hey, we think there should be a garden here or in this neighborhood.’, one of the things that we do is we have a neighborhood meeting and kind of do an assessment of how many of these people have visited Food Share, how many people consider themselves low-income, how many people are interested in having a garden, things like that.” The GRuB outreach coordinator (Chalgian 2010) describes working with interested community groups similarly: “In general, if a group of people come to us and ask or say we want to start a community garden, we sit down and have a pretty thorough conversation and have a list of questions that we ask ahead of time before we will commit to working with them. Just to sort of get a sense of how much of the process they have thought through.” All three organizations interviewed have worked with independently organized community groups who were interested in starting a garden.

The 2nd Street Community Garden of Missoula, Montana is one example of a garden that was both conceived and constructed by the community themselves, with minimal help from Garden City Harvest. The consultant for GCH describes it (Chalgian 2010): “...The 2nd

Street Garden was definitely kind of that process: there is this lot, totally weedy, they got some people together, they got enough signatures, and they made the garden happen. And there is a guy who does the plants around the perimeter; you know perennials, makes it look good.” Having community interest is a requirement when investing valuable resources into building a community garden.

The next step in building a community garden is finding people who want to commit time and energy in its construction and maintenance. The GRuB informant (Chalgian 2010) states, “I think the direction that we are wanting to head is involving more of the people who are “recipients” of the services we provide in doing the recruiting and being part of the vision and part of the creation of the vision and the implementation of the vision as we move forward. I think that is the best kind of recruiting because then it is based on relationships, building relationships with people.” The GCP consultant (Chalgian 2010) explains how neighborhood residents are encouraged to become active participants of the garden’s planning and development: “A lot of how people get involved with a specific garden comes from the neighborhood meetings that are held during the planning process because we really want the people who live around the garden to be actively involved.” At the Garden City Harvest gardens, some of the community gardeners are more involved from the initial steps of building the garden than others. The GCH outreach coordinator (Chalgian 2010) describes what Garden City Harvest works toward: “Ideally, we have a leadership committee and its kind of like a mini-board, you know, for a non-profit. They sign on for two years and they try and fill different roles like treasurer; if there are projects that person would help figure out what the finances are and what we can afford. They would have sort of a membership person

and someone who would look over maintenance and work parties. And then we have our overall community garden coordinator...” This type of recruitment is meant to identify people in the community who are willing to be leaders in the development of the garden or other project.

Community leaders are necessary for the long-term success of each garden. Sometimes, it is the leaders that approach the organization in the interest of a community garden, as in the Sunrise community. Other times, the leaders are found through the initial meetings. The consultant for Garden City Harvest states that when initiating a project it is necessary to have someone in the affected community, a community activist for example, who is interested and willing to invest effort and time into the project. The outreach coordinator at GRuB (Chalgian 2010) has noticed a trend while working with low-income populations who are building community gardens. He states, “Some of them want to, say, be a neighborhood point person and help connect other families in their neighborhoods that all want gardens. Others are happy to have their garden and come to the workshops that we offer and have more of that kind of role.” Community members should be not only supportive but also actively participative in leadership roles if a garden project is to be implemented.

It is important that the community members’ inputs are incorporated into the planning and design of the gardens because it is their garden. Physical attributes of a garden are significant and often unrecognized. The GRuB consultant (Chalgian 2010) explains that the reason they build raised beds for their Kitchen Garden Project is to make gardening more accessible for all types of people: “We can also build them higher for folks who might be in a wheelchair or not want to be bending over all the time so we can do like double or triple high

beds.” Raised beds are accommodating to wheelchair users, the elderly, and anyone who might have chronic body pain. In Helena, the Growing Community Project helped in building ten raised beds at the Cooney Convalescent Home and sixteen raised beds at the Cruse Overlook Community Garden. These community gardens can incorporate more of the community and possibly increase the extent and length of their involvement by making this small adjustment to a standard community garden layout.

4.22 Outreach Methods for Encouraging and Maintaining Involvement of Gardeners

Encouraging and maintaining resident involvement is vital to community garden success. Outreach coordination generally refers to the efforts of initiating and maintaining involvement of participants. “...Its definitely the rule that people need to hear it at least three times if not seven. You know, hear or see”, notes the outreach coordinator at Garden City Harvest (Chalgian 2010). The following outreach methods were those discussed by the three outreach coordinators as methods used to recruit interested neighborhood residents in renting a plot. However, it is not only community garden plots (or the Kitchen Garden Project in the case of GRuB) that are of promotional importance: both Garden City Harvest and GRuB have CSA programs that are vital to the financial stability and productivity of the organization. Community events and classes held by the organization are also important to publicize because they promote interest in agricultural activities.

The least expensive and most instinctive of outreach methods is word of mouth. The GRuB consultant (Chalgian 2010) admits that much of the interest to participate in their

program starts with hearing about them through someone else. He has found that the waiting list for a kitchen garden is always greater than the supply of resources will allow. He states, “At this point, as far as the basic outreach for the Kitchen Garden Project is word of mouth. People know about us and so we have a waiting list every year. It varies in size but there is more demand than there are gardens that we are able to build.” Word of mouth is often the best recommendation that a project or event could have because it becomes more successful as social networks strengthen.

The concept of ‘flying’ is another popular outreach tactic used by outreach coordinators. A relatively inexpensive paper bulletin, flyers bring to mind the coming of a new growing season and the opportunities that the organization has to offer such as garden plots, classes, or events. The GCH consultant discusses how the tenants of Joseph’s Residence change yearly so frequent reminders of Garden City Harvest events and opportunities are important.

Events are a commonly used tool meant to spark community member interest in community gardens and a general interest in agriculture and fresh produce. For outreach specifically to low-income populations, the GCH outreach coordinator (Chalgian 2010) offers free tickets to the organization’s events, adding that this is a great way to expose urban agriculture to people, especially those with children. She describes: “...At the Food Bank, we offer free tickets to our farm party and for our pumpkin carving fall festival. We gave free pumpkin tickets out at the Orchard Gardens housing complex and, you know, there are always some people that start coming. Even if it’s not actually going to garden, its getting

involved and feeling like you can identify with that farmy culture.” She also discusses a few types of events that Garden City Harvest puts on:

...We do a lot of events and they are definitely more general community events and they are not all fundraisers even though they were originally designed that way...We have community potlucks once or twice a year or season...And we also have, every year at the end, we make sure to have a potluck, sort of closing, makes sure everybody sees each other before they go off again. (Chalgian 2010)

Successful events help spread positive feelings and interest about the local food movement and its long-term goals such as community development and increasing food security.

From the information collected about outreach methods, it was clear that having partnerships with other community organizations was a very effective tool for increasing interest and awareness of the urban agriculture organizations among low-income residents. The most commonly mentioned partnerships that these organizations worked with were homeless shelters, low-income housing and food banks. Targeting partner housing is one way to actively promote urban agriculture activities such as community gardens. The Growing Community Project informant (Chalgian 2010) explains, “...If we are having trouble getting plots filled, we can flyer the neighborhood and make sure everybody knows there is a garden going in.” Also mentioned were social workers, domestic violence shelters and the WIC (Women, Infants and Children) Program. Despite already having strong partnerships with the Helena Food Share Program and the Plymouth Congregational Church, the Growing Community Project hopes to make stronger connections with more partners. The GCP

consultant (Chalgian 2010) notes, "...Right now we have loose partnerships with a lot of different organizations in town but I think solidifying select partnerships would be really helpful in moving forward and making sure that, you know, case workers do talk about our program with their clients or things like that." Partnerships with other organizations that serve low-income residents should cooperate on such essential goals as food security.

In addition to the more commonly used methods of outreach, the GCH outreach coordinator mentioned the internet, large outdoor banners, radio, newspaper, and church or neighborhood bulletin ads as alternative outlets for organizational promotion. Referring to the internet, she discussed their website for posting a community calendar and an email list-serve to distribute information on any events, classes or deadlines for garden plot applications. The consultant for GCH (Chalgian 2010, parentheses added) states, "...We call all of our past and email all of our past members and then we'll also put PSAs (Public Service Announcements) out on the radio, try and get an article in the newspaper, put out news releases. Last year we got on MTPR (Montana Public Radio) to just spread the word." Both GRuB and the Growing Community Project have event calendars on their websites as well (goodgrub.org, December 2010; helenagcp.wikidot.com, December 2010). Especially in terms of community garden plots, it is important for these organizations to publicize widely so that community residents of every income level are aware of the opportunities available to them.

Outreach methods, such as the examples described above, are used to educate community members about the urban agriculture programs available to them and to encourage and extend their involvement. As is evident by the long waiting lists for garden

plots, the demand for involvement in urban agriculture is high. Even so, initial interest is not enough to sustain an organization, let alone a garden. Retention of participants is an essential part of the outreach coordinator's role. The GCP informant (Chalgian 2010) notes: "Once people are in the garden and gardening, we have a lot of contact with them, you know, we have meetings throughout the season to make sure everybody's okay, that they have time, that they are not confused, or if they have questions, to give them a forum to ask them..." To support the continuation of gardener participation, the urban agriculture organizations focus on interactions that promote agricultural education and political awareness, as will be discussed in Section 4.4.

Unfortunately, education, provided by the organization, cannot ameliorate all the barriers that low-income gardeners face. In order to keep gardeners involved, organizations must also attempt to mitigate any barriers that might prevent continued participation.

4.3 Institutional Barriers

There are a few realities of non-profit businesses that hinder the potential capabilities of organizations like GRuB, the Growing Community Project, and Garden City Harvest. These barriers deteriorate the quality of assistance they can provide.

Non-profit urban agriculture organizations are accustomed to working on small budgets. Unfortunately, an organization's limited finances can significantly affect the outcome of their projects. Outreach methods could be restricted due to limited funds. The GCP consultant (Chalgian 2010) expresses her thoughts about this limiting factor: "I definitely think that our outreach methods could be more targeted or more aggressive, but

right now we are kind of struggling with capacity and funding and trying to get secure, because right now we are pretty insecure financially and so that is kind of limiting us, in terms of going full force.” Presently, there are state and federal efforts to assist the growth of urban agriculture, in addition to private donations, however this sum comes short of the finances necessary to effectively meet the needs of food insecure populations. Therefore, many projects like these are unable to make a long-term impact on hunger.

Limited finances also determine the number of full time staff an organization can have. The GCH outreach coordinator (Chalgian 2010) describes her experience with this barrier: “...One thing that every non-profit struggles with is...everybody wears three hats in their job and a lot of people on our staff only work in the summer and a little bit in the spring and fall seasons so part time. We are not fully staffed in the winter months so trying to do a lot with a little...” Classes and events often require not only staff but also a healthy turnout of volunteers. The same can be said for the productivity of urban farms. Without volunteers, many organizations like the ones in this study would not function as smoothly or successfully. Financial support and sufficient staff are pies-in-the-sky for many urban agriculture organizations.

4.4 Structural Barriers in Low-Income Communities

While non-profit organizations have barriers, they are minimal compared to the chronic social, physical, and financial obstacles that low-income populations face. A lack of financial resources is a barrier for low-income gardeners. According to the GRuB informant (Chalgian 2010), when comparing gardeners with different incomes, the greatest difference is

the lack of access to resources among low-income gardeners and adds, “Not just financial resources but where do people get soil if they don’t have a yard that has healthy soil. Where do they get lumber to build raised beds, tools, Rototillers, that type of thing is really the biggest hurdle for folks.” While some of these tools may not seem essential in order to have a productive garden, basic methods that use these resources, such as aerating the soil or nutritional additives, are required. Urban agriculture organizations, especially community garden programs, work to provide these resources to those who may not have the budgets to afford them.

The GCH consultant discusses the problem of a lack of available land. She states: “There is definitely a huge demand for people who are inside the Missoula city limits, inside the dense part of downtown.” According to the Garden City Harvest outreach coordinator, the city has offered “odd lots” as possible community gardens. While this land has the potential to be useful for some Missoula residents, it is not always convenient for low-income gardeners. She describes the ideal land situation:

If we could have one garden, I’d put it somewhere in the middle. The North side has one. The West side has no prospects and they definitely could use one and it’s equal to or possibly more low-income folks there. You know, every time you deal with the dense housing then you’re dealing with there is probably not as many spots to put a garden. There are lots of people that call from outside the city that want to start a community garden in their backyard...and, you know, we are not going to bus people out there. The demand and the supply are not in the same spots exactly. [Chalgian 2010]

To mitigate around this barrier, Garden City Harvest works with partner businesses and organizations to find community garden spaces. The GCH outreach coordinator (Chalgian 2010) explains: "...The Garden of Eaton, which is our newest community garden, that land is owned by the church that we partnered with to create the garden. The PEAS farm is on public school property. We don't actually own any of our plots. The city owns Second Street. The Catholic Church of Helena owns the Northside garden that someday will become a graveyard but we get to use it until then." Dense housing in urban areas and polluted soils due to previous land uses limits available land to produce a harvest on, further limiting the options for low-income residents who desire access to fresh produce. Available garden opportunities may not be useful for low-income populations if they are not located in an immediate area because of inconsistent or a lack of transportation.

Limited agricultural knowledge often translates to a lack of interest in gardening or to personal discouragement, as both the GCH consultant and the GCP consultant observe in their work. The GCH outreach coordinator (Chalgian 2010) states, "It's often the people who get discouraged or their garden was just okay, you know, they are not getting the food that they could be for their families, that we need to figure out ways to be educating those folks because that's definitely a barrier." Weather is one of the uncontrollable factors that the outreach coordinator at GCP mentioned as an instigator of this discouragement. While this can clearly be a frustrating reality for any farmer or gardener, experience and education can increase awareness of how to cope with spontaneous acts of Mother Nature. Seasonal change can also decrease interest in garden participation because the gardens are often forgotten about over the winter months.

According to all the outreach coordinators interviewed, a major barrier for low-income gardeners was lack of time. The Growing Community Project informant (Chalgian 2010) explains, “That’s definitely the big one is people are giving up a plot they usually say, ‘Oh, I didn’t have enough time.’” Having observed this same problem among gardeners, the consultant for GCH (Chalgian 2010) comments, “With gardening, money isn’t actually that much of an issue. I think it is more time.” Since tools, seeds and water are provided, time conflicts are more often a barrier than lack of funds for low-income gardeners who are involved with a community garden that is managed by an urban agriculture organization. The GRuB outreach coordinator (Chalgian 2010) observes the same obstacle in the youth programs: “Youth are just, typically have lots of other things going on in their lives, in addition to school, family or lack of family support. That creates a lot of hurdles. Basic needs that aren’t being met that are more important to get met immediately than say, coming to work on that day or going to school on that day.” Both GRuB and Garden City Harvest have programs that engage “at-risk” youth in agriculture-related work. Because of this, it is important for their program staff to recognize and understand the timing conflicts of the program participants. The barriers mentioned above are significant obstacles for low-income gardeners, according to the outreach coordinators of Garden City Harvest, the Growing Community Project, and GRuB.

4.5 Enhancers for Low-Income Populations Who Participate in Community Gardens

As discussed in Chapter 2 of this thesis, the two main objectives of the modern local food movement, in relation to low-income populations, are food security and community development. Therefore, it is important to hear about urban agriculture organizations' efforts toward these goals. To see a list of community enhancers along with structural barriers, see Figure B on page 61.

In terms of increasing access to food for low-income populations, all three of the interviewed organizations emphasize this as one of their main goals. The number one mission listed on the Garden City Harvest website is to grow and distribute healthy food to low-income people (gardencityharvest.org, December 2010). The GCH outreach coordinator (Chalgian 2010) states, "One of our main missions or parts of our mission is to work with and for low-income folks in Missoula and one of the main things is that all over the country, but definitely people in Missoula, low-income people have a really hard time getting fresh vegetables." She describes an example of this mission: "Like if you go to the Food Bank, it's the easiest thing to grab soup cans, you know, that's the stuff that will stay on the shelves...So getting fresh food, fresh, local food, making it an option for people of any income in Missoula, is essential, we think, for the well-being of Missoula." A lot of what is donated to food banks is non-perishables. This, plus the fact that it is easier or takes less time to prepare these meals, increases the likelihood that low-income shoppers will opt for canned or frozen goods instead of fresh produce. The Garden City Harvest mission hopes to encourage the consumption of fresh produce by increasing availability and education.

4.51 Increasing the Availability of Fresh Foods

The aim to make fresh produce more available is possible through community gardens. According to the GCH informant (Chalgian 2010), each garden plot feeds an average of three to four people. To cut costs or to lessen the labor, two households often share a plot. She explains that while community gardens are not perfect, they can increase the accessibility of fresh produce to low-income populations: "...At each garden there are maybe two plots that get abandoned and maybe four that don't produce a lot and maybe that's different at the smaller gardens, but I'm talking about maybe thirty plots or more so there are a lot of people there that are getting a good yield and I think also, interacting with each other in ways that help." Community gardens create direct access to fresh produce for low-income residents.

Cold winter months mean a decrease in the availability of local, inexpensive produce. The GCH consultant discusses plans for a community kitchen that will be built in the Northside neighborhood, close by to Garden City Harvest's Northside Community Garden. While this is not a Garden City Harvest project, GCH hopes to partner with the kitchen to add some garden space. The outreach coordinator for GCH (Chalgian 2010) explains why the importance of the community kitchen for the Northside community: "That would be a yearly thing. Every fall people would start putting their food up for the winter and they could do it together. And I think that would be really cool and I think Missoula in general needs more processing facilities if we are gonna get stuff in the Food Bank, more for all winter." As discussed in Section 4.4, seasonality can discourage those residents who are involved in gardening. Not only would the community kitchen allow for the preservation of their harvest,

but it would also create a community space that could be used year-round for garden counsel meetings and other general community garden events.

As with food security goals, the three organizations interviewed also share the desire to assist in the development of social resources in low-income communities. The GRuB website states that they are dedicated to nourishing a strong community by empowering people and growing good food (goodfood.org, December 2010). The GRuB consultant (Chalgian 2010) supports this statement: “That is the model that we are moving toward; more in that direction, where most of the work that we do is about training people in leadership development, facilitation skills, conflict mediation, and the ways that we have found that work really well to bring groups together to create a safe space so that everyone can be heard and can move toward a shared community vision of a garden or whatever it is that people are wanting to create...” This mission resonates similarly in the Growing Community Project mission.

The Growing Community Project aims to build, with the community’s support, community gardens within walking distance of every neighborhood in Helena, which will bring together diverse neighborhoods in order to create a stronger community and to address food security issues. The GCP informant (Chalgian 2010) adds: “...WEEL works specifically with low-income populations to help them become more self-reliant and to be civically engaged, to have more control over their lives and to increase a knowledge base. So that’s how GCP fits into that mission.” Especially for low-income communities, the GCP consultant believes that the involvement in food production can increase the overall social awareness of poverty as well as being valuable networking and educational pieces. She

(Chalgian 2010) explains, “AERO is involved pretty heavily in legislative actions related to food and WEEL works specifically with food security as well as the Foodshare and things like that so I think people are definitely, as they get involved with our organization, are learn more about those issues through our educational resources people are learning more about those issues and I think because the interest is growing, that’s why we have a wait list or that’s why people are gardening...” Awareness of social issues, like hunger, instigates empowerment and change in a community.

Partnerships with other local organizations or businesses are extremely important to the success of community gardens, not only for the implementation of outreach methods but also for their part in social networking. As discussed in Section 2.3, these social connections are a vital resource to community development. The GRuB outreach coordinator (Chalgian 2010) explains how their organization has worked to think creatively about how they can share these connections with low-income communities who may want to independently build a garden or farm: “We have a really long-standing relationship with a local lumberyard and a local soil company and they both give us significant discounts on all of the materials that we need to build gardens. Using that relationship...discounts might be passed along to folks who might be wanting to build a community garden or low-income people who are wanting to grow food in their backyards.” Encouraging relationships among community members and businesses creates a stronger community social network.

In addition to social connections with businesses, community gardens build social networks among neighbors. The GRuB consultant (Chalgian 2010) describes how social networks grew from their Kitchen Garden Project: “With the individual gardens that we’ve

built for folks in their backyards, one of the consistent pieces of feedback that we get is that people connect more with their neighbors because they give food away to their neighbors. And so that's a way that they get to know their neighbors better." In reference to the Sunrise Park Community Garden that GRuB helped build, he notes, "...the folks at Sunrise Park, who have formed a garden counsel, they are getting to know each other better as they make decisions as a group and face conflict as a group and find ways to work through that."

The outreach coordinator at the Growing Community Project (Chalgian 2010) has also observed that social networks develop from the creation of community gardens: "Even within neighborhoods in the gardens, people are meeting new people that they didn't even realize lived in the same area or worked in the same area" and adds, "Gardens are a great way because they integrate people, they get people talking, and people realize that they actually do have a lot in common regardless of their economic status or whatever they do for work." These examples show how social networks develop from community gardens and other urban agriculture projects.

The building of social networks is an opportunity for the sharing and learning of other people's cultures and backgrounds. The GCH informant (Chalgian 2010) states: "One of the organizers at Garden of Eaton likes to talk about how it's the patchwork of different personalities that everybody's expressing their own way of organization...." She also observed that many gardeners involved with the Garden City Harvest community gardens take pride from working in their garden, which leads them to feel more comfortable interacting with the Food Bank through the sharing of food, recipes, and gardening tips.

Community gardens provide tools for building social resources and increasing food security. The outreach coordinator of GRuB expresses this in a story:

...We built two gardens at the Nisqually reservation about four years ago, one at the elder center and one at the preschool- they are right next to each other. So that's a community that is existing, providing for its own needs, social services- asked us to come and we did. And for, I'd say, two or three years the beds weren't really used. There was one woman who was using them but that was about it. In the last year or two, the Nisqually has further developed those beds and expanded the garden and they are now using them as garden therapy for the folks who are struggling with substance abuse. So they are working in the gardens and what they are growing in the gardens, they are giving to the elders at the elder center... they (community gardens) are a seed and the community takes that seed and creates what they want, something that meets their specific needs instead of just copying the way that GRUB does it.

(Chalgian 2010, parentheses added)

The outreach coordinators at these three urban agriculture organizations have observed community development through empowerment, social networking and identity building. In addition, food security is increasing due to growing interest and a positive experience with urban agriculture.

4.52 Education and Social Resource Development

Education is a resource that aids in the maintenance of resident involvement in gardens. It is also a tool that raises public awareness of the nutritional value and common uses of fresh produce, which increases its consumption. For low-income people who are purchasing produce or receiving produce from the Food Bank, the Garden City Harvest CSA program or from the Garden City Harvest farm stand, Garden City Harvest provides Veggie Cards: a quick and noninvasive educational experience. These cards are filled with nutrition and cooking information about a specific vegetable. When a person is shopping for fresh foods and they want to know more about a certain crop, they have the choice of taking a card home with them.

Each of the outreach coordinators interviewed strongly believes in the importance of having gardening education available at the gardens as much as possible to curb feelings of frustration and discouragement. Every community garden at Garden City Harvest has a community garden coordinator that makes themselves available at specific times in order to assist those who would prefer advice. Referring to the past year, Garden City Harvest had fewer abandoned plots than the years before. The GCH outreach coordinator (Chalgian 2010) observes: “I think having some of that interaction at the beginning of the season was also really important.” She explains that this was possibly because the community garden coordinator kept regular garden hours and was easy to reach by email. The gardens operate in a similar manner at the Growing Community Project community gardens. The GCP consultant (Chalgian 2010) explains, “...If people don’t have enough time to take care of their plots, our garden managers have been really accessible and willing to help out. They are

in constant contact with their gardeners pretty much and if they notice that someone's plot isn't being weeded, they give them a call and ask, you know, 'Do you need some help? Maybe I could find some volunteers to help you weed.' stuff like that." By providing education, urban agriculture organizations encourage and maintain the involvement of low-income residents.

In addition to the garden coordinator or advisor that is available to assist gardeners, there are classes available. Gardening classes on composting, year-round garden maintenance, canning and preserving, and transplanting are offered every year by the Growing Community Project. The GCP informant (Chalgian 2010) describes these classes: "This year we offered seven...they are free, we provide child care, we provide free transportation if people need it, we try to make them as accessible as possible." Garden City Harvest holds classes on gardening and cooking for food bank shoppers and for children at the Garden of Eaton and the Orchard Garden, both of which are in partnership with adjacent low-income housing complexes. "...Offering cooking classes for the kids there and if the parents want to come they can come too, to just sort of break down some of those barriers that take someone from 'I don't garden, I'm not a gardener' or 'I don't cook vegetables, I'm not a chef' to knowing the basics," explains the Garden City Harvest OC (Chalgian 2010).

Figure B. Barriers and Enhancers to Increasing Food Security

Structural Barriers	Community Enhancers
Limited land in urban areas	Find suitable land for food production
Limited financial means to garden and store foods efficiently	Entrepreneurial and leadership opportunities
Limited access to agricultural knowledge	Convenient organized and spontaneous education about agricultural and cooking topics
Lack of time	Year round community spaces, such as community kitchens
Distance to garden, lack of transportation	Social networking between neighbors and between organizations and residents
	Political awareness through civic engagement

Chapter 5 Discussion

This study suggests that the organizations, Garden City Harvest, the Growing Community Project, and GRuB, are of great benefit to their communities. However, the study is small and the social problems discussed are vast and intricate.

In an educational guide entitled, “Are We Making A Difference? Evaluating Community Based Programs”, the logical steps, from the planned work to the intended results, of a community project are laid out. These steps are as follows: 1) attain certain resources that are vital to program operation, 2) implement activities that will address the goals of the program, 3) expect certain outputs (products or service) from these activities, 4) expect short term (a few years) beneficial outcomes from these activities, and 5) expect long term impacts in the community (Pribbenow 2009). Community gardens and urban agriculture organizations are an ideal fit for this model and have the potential to create long term impact in communities by aiding in the development of politically appropriate social resources and decreasing the structural barriers around food security.

Urban agriculture, especially community gardens, develops community food security in short and long term circumstances. More importantly, community gardens build community social resources that will build politically empowered communities. Urban agriculture is not the complete solution to hunger and poverty, however it is an essential component. Allen (1999:121) states, “While appeal and promise of localism is significant for the empowerment goals of the community food security movement, there are aspects of

community-based food systems that may limit their practical relevance for meeting the food needs of the poor. In working toward food security and sustainability, some analyses and actions will need to be local; others will need to be national or international.” By combining the moral compass and prompt action of the emergency food system with the broad scope and far-reaching capabilities of the government, urban agriculture organizations approach the human tragedies, hunger and poverty, with more realistic solutions.

A review of literature in Chapter 2, in addition to the data in Chapter 4, lead to the conclusion that community gardens are an effective tool for long term community security and sustainability.

A major theme from the study was the importance of leadership roles and social networking in the maintenance of low-income gardener involvement in their community gardens. Another reoccurring theme was the educational benefits of community garden programs for low-income participants. All outreach coordinators talked at length about the structural barriers that low-income residents face. The structural barriers, lack of financial means, time, education, and land, are all results of the structural power that forms society.

When asked if the low-income communities who worked with the Growing Community Project, Garden City Harvest, and GRuB to create community gardens had social resources before the initiation of their relationship together, all three outreach coordinators confidently exclaimed that there was always some level of community organization and determination for change in each community. This is an important concept to understand and acknowledge because it recognizes the assets of a community more than the problems. Human communities have social networking and leadership, even at their most basic. Urban

agriculture organizations link with existing networks in a community to establish stronger networks to outer communities, thereby aiding in the community's political development. As the GCP outreach coordinator (Chalgian 2010) explains, "I also think that community gardens help strengthen what is already there. Because, I guess, when we started, WEEL had loose relationships with other organizations in town that did similar work or worked with the same populations but through the GCP, those partnerships have been strengthened or expanded." While these organizations cannot be the sole instigator, their existence is an influential piece of community development.

Industrial food distribution faults aside, individual lifestyle choices play an important role in the diets and health of low-income populations in this country. While a person's individual agency is, in the end, responsible for the food they choose to eat, the social and physical environment that they live in greatly influence their choices. Story et al. (2008: 266) state, "Improving dietary and lifestyle patterns and reducing obesity will require a sustained public health effort, which addresses not only individual behavior but also the environmental context and conditions in which people live and make choices. Individual behavior change is difficult to achieve without addressing the context in which people make decisions." Food insecurity and hunger cannot be alleviated with poor quality foods, no matter how much of it there is. Community gardens and urban agriculture organizations produce healthy food and agricultural knowledge in a community.

5.1 Future Study

This study was a preliminary study on the effectiveness of community garden projects in increasing food security and social resources. A future study could interview low-income community garden participants about barriers and enhancers to participating in community gardens. While increasing food security was clearly an important goal for each organization in the study, the effectiveness of community gardening in doing so was often assumed. Quantitatively studying the relationship between community gardening and changes in food security would be highly informative. One example of this would be a comparison of gardeners and non-gardeners fluctuations in food security over a period of time. In addition, quantitative and qualitative studies on the relationship between food insecurity, hunger, and social resource building would be beneficial to the support of urban agriculture. In general, gardeners and other community members should be heavily involved in the study of an urban agriculture organization's efficacy.

5.2 Conclusion

To truly address the global problem of hunger, the question should be: Should the human race attempt to feed the hungry of today or should we work to eliminate poverty and, inevitably, hunger in the future?

There are two different paths to take, depending on the preferred answer. To feed the hungry today via emergency food programs, as soup kitchens do, access to all types of food is the path. If that is the goal, local, organic, genetically modified or naturally grown foods are not concerns.

If the goal is to eliminate poverty and hunger in the future, than the path should be to increase political power within a community so that they can have long-term access to vital resources such as land, food and energy.

Neither goal is wrong. Both are equally important and necessary. Just as Berg (2008) and Poppendieck (1998) argue, both government support and charitable efforts are needed to realize either of these goals. In the mean time, urban agriculture organizations are diligently working to do both.

Without a doubt, community gardens and their affiliated urban agriculture organizations are of great help to the community's where they exist. They lend help to low-income groups who are working to increase food security in their community. While those populations who have access to resources cannot abruptly change the problems of inequality or structural violence, they can stand side by side with low-income populations to aid in their access to the same resources. Garden City Harvest, the Growing Community Project, and GRuB all represent urban agriculture organizations that effectively and respectively cooperate with populations who suffer from chronic food insecurity.

Anyone, no matter what income, should have the choice to feed themselves, and those that depend on them, healthy, fresh foods; many do when they have the choice. Urban agriculture organizations work to provide land, in the form of community gardens or kitchen gardens, for low-income people: a population with the least amount of choices regarding their physical and social environments. These organizations work to provide the tools to start urban agri-businesses. They work to grow fresh produce for those who do not have the time to garden or those who cannot afford grocery store prices. In sum, they work to give them the

choice of healthy, fresh foods. In addition, they work to keep the community involved in community development through the initiation and maintenance of agriculture projects that incorporate community members in a democratic manner. These projects can be a resource of empowerment and social connections, knowledge and positive community roles. Political power comes from socially aware and active communities.

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Appendix A

Form RA-108
(Rev. 8/10)

THE UNIVERSITY OF MONTANA-MISSOULA
Institutional Review Board (IRB)
for the Use of Human Subjects in Research
CHECKLIST / APPLICATION

IRB Protocol No.:

At The University of Montana (UM), the Institutional Review Board (IRB) is the institutional review body responsible for oversight of all research activities involving human subjects outlined in the U.S. Department of Health and Human Services Office of Human Research Protection (www.hhs.gov/ohrp) and the National Institutes of Health, Inclusion of Children Policy Implementation (<http://grants.nih.gov/grants/funding/children/children.htm>).

Instructions: A separate registration form must be submitted for each project. IRB proposals are approved for three years and must be continued annually. **Faculty members** may email the completed form as a Word document to IRB@umontana.edu. **Students** must submit a hardcopy of the completed form to the Office of the Vice President for Research & Development, University Hall 116.

1. Administrative Information

Project Title: Outreach Methods Used by Urban Agriculture Organizations to Initiate and Maintain Involvement of Low-Income Families Through Community Gardens Programs	
Principal Investigator: Aliza Chalgian	Title: Graduate Student at the University of Montana
Email address: elizabeth.chalgian@umontana.edu	Cell Phone: 406-546-2216
Work Phone:	Office location:
Department: Anthropology	

2. Human Subjects Protection Training *(All researchers, including faculty supervisors for student projects, must have completed a self-study course on protection of human research subjects within the last three years (<http://www.umt.edu/research/complianceinfo/IRB/>) and be able to supply the "Certificate(s) of Completion" upon request. Add rows to table if needed.)*

NAME and DEPT.	PI	CO-PI	Faculty Supervisor	Research Assistant	DATE COMPLETED Human Subjects Protection Course
Aliza Chalgian, Graduate Student	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9/9/2010
Dr. Greg Campbell	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2010
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

3. Project Funding

Is grant application currently under review at grant funding agency? <input type="checkbox"/> Yes <i>(If yes, cite sponsor on ICF if applicable)</i> <input type="checkbox"/> No		Has grant proposal received approval and funding? <input type="checkbox"/> Yes <i>(If yes, cite sponsor on ICF if applicable)</i> <input type="checkbox"/> No	
Agency	Grant No.	Start Date	End Date
Is this part of your thesis or dissertation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If yes, date you successfully presented your proposal to your committee: September 23, 2010	

For UM-IRB Use Only

*** Note to PI:** Study is approved for one year. Use any attached IRB-approved forms (signed/dated) as "masters" when preparing copies. If continuing beyond the expiration date, a continuation report must be submitted. Notify the IRB if any significant changes or unanticipated events occur. Notify the IRB in writing when the study is terminated.

IRB Determination:

- _____ Approved Exempt from Review, Exemption # _____ (*see memo*)
- _____ Approved by Expedited/Administrative Review (*see *Note to PI*)
- _____ Full IRB Determination
 - _____ Approved (*see *Note to PI*)
 - _____ Conditional Approval (*see memo*) - IRB Chair Signature/Date: _____ -
- _____ Conditions Met (*see *Note to PI*)
- _____ Resubmit Proposal (*see memo*)
- _____ Disapproved (*see memo*)

Final Approval by IRB Chair: _____ Date: _____ Expires:

<In an effort to be environmentally responsible, please expand/reduce box size as needed.>

4. Purpose of the Research Project (not to exceed 500 words): Briefly summarize the overall intent of the study. Your target audience is a non-researcher. Include in your description a statement of the objectives and the potential benefit to the study subjects and/or the advancement of your field. **Generally included are literature related to the problem, hypotheses, and discussion of the problem's importance.** Expand box as needed.

The purpose of this study is to identify the methods used to initiate and maintain involvement of low-income residents with community garden projects. Urban agriculture organizations are growing in size and number and with that, their ability to help more people. Community garden projects are one of the several types of projects often available through urban agriculture organizations. Community gardens provide healthy and inexpensive foods in neighborhoods that often lack this type of food source (Dibsdall, et. al, Morland, et. al, Block, et. al). Health and economic disparities reflect the rampant food insecurity that exists in poor urban areas (Morland et. al, He et. al, Cheadle, et. al, Hung et. al). These organizations provide helpful resources, education and community participant training to low-income residents. It is for this reason that the outreach methods they use are found to be efficient and successful.

5. IRB Oversight

Is oversight required by other IRB(s) [e.g., tribal, hospital, other university] for this project? Yes No
If yes, please identify IRB(s):

6. Subject Information:

a. Human Subjects (*identify, include age/gender*):

I will be interviewing adults that are fall within the low-income bracket and who live in the city of Missoula. They will be of both genders and the age range will begin 18. These adults will be residents of low-income housing and participants of the community garden associated with that housing development. I will be introduced to the low-income residents through the outreach coordinator of Garden City Harvest, who will approach those she knows on a personal basis to see if they are interested in being interviewed. The population is socially vulnerable due to the low-income status of most of its residents and the likelihood of being overstudied. I will also be interviewing outreach coordinators at a few community garden programs; one from Garden City Harvest in Missoula, one from GRUB community gardens in Olympia, WA, and one from the Growing Community Project in Helena.

b. How many subjects will be included in the study? 10

c. Are minors included (*under age 18, per Montana law*)? Yes No
If yes, specify age range: to

d. Are members of a physically, psychologically, or socially vulnerable population being specifically targeted?
 Yes No

If yes, please explain why the subjects might be physically, psychologically or socially vulnerable:

This community is socially and possibly psychologically vulnerable because of their low-income status and high unemployment rate. It is also likely that they have been involved in studies before and are hesitant to accept someone who does not identify as a low-income resident and is interested in studying the efficiency of a program that works to improve food security in low-income populations.

e. Are there other special considerations regarding this population? Yes No
If yes, please explain:

f. Do subjects reside in a foreign country? Yes *Specify country* No

If yes, are there human subject regulations listed specifically for this country at <http://www.hhs.gov/ohrp/international/index.html#NatIPol> under "The International Compilation of Human Subject Research Protections?"

- Yes – These regulations **must** be addressed or integrated into your proposal.
- No – Explain how you will approach subjects in a culturally-appropriate manner:

While additional information regarding international research is included in the OPRR memo entitled “[IRB Knowledge of Local Research Context](#),” provide the IRB with the following information as appropriate:

1. Information about where the research will be conducted (both the geographic location and the performance site, where applicable).
2. A copy of the foreign site's assurance with OHRP, when required.
3. A copy of local IRB or equivalent ethics committee approval, when required.
4. Information about the investigator's knowledge of the local research context, including the current social, economic, and political conditions.
5. Information about whether there are any additional risks subjects might face as a result of the population being studied and/or the local research context.
6. The language(s) in which consent will be sought from subjects and the research will be conducted, as well as whether the investigator is fluent in this language, or whether an interpreter will be used. If an interpreter will be used, it should be clear what risks, if any, this might pose for subjects, as well as how the risks will be minimized.
7. Copies of the translated informed consent documents and instruments, including verification of the accuracy of the translation(s).
8. Information on how the investigator will communicate with the IRB while in the field.

g. How are subjects selected or recruited? What is inclusion/exclusion criteria? (*Attach copies of all flyers, advertisements, etc., that will be used in the recruitment process as these require UM-IRB approval*)

The outreach coordinator from Garden City Harvest will assist me in finding community gardeners who are low-income residents. Since she knows many community gardeners, who are residents of the low-income housing developments, on a personal basis, she feels comfortable asking them whether they are interested in being interviewed. I do not believe that this approach will make those that are asked to be interviewed, more vulnerable than the general population. After identifying people who are interested in being interviewed, the outreach coordinator will supply me with individual contact information, with their approval, or will supply them with my contact information.

h. How will subjects be identified in your personal notes, work papers, or publications: (*may check more than one*)

- Identified by name and/or address or other
(*Secure written [e.g., ICF] or verbal permission to identify; if risk exists, create a confidentiality plan.*)
- Confidentiality Plan
(*Identity of subjects linked to research, but not specific data [e.g., individuals identified in ICF but not included in publications]; identification key kept separate from data; or, data collected by third party [e.g., Select Survey, SurveyMonkey, etc.] and identifiers not received with data.*)
- Never know participant's identity
(*An ICF may be unnecessary [e.g., anonymous survey, paper or online] unless project is sensitive or involves a vulnerable population.*)

i. Describe the means by which the human subject's personal privacy is to be protected, and the confidentiality of information maintained. If you are using a Confidentiality Plan (as checked above), include in your description a plan for the destruction of materials that could allow identification of individual subjects.

For the outreach coordinators, we will use only their first name if they consent to it. Their location will be identified because it is their place of work and not their living location. For the low-income community gardeners, we will use a code name and their location information will not be identified in the results. During the recruitment process, the coordinator, through which I will find interested interviewees, will not provide me with any personal information until a person has confirmed their interest in being interviewed for the study.

j. Will subject(s) receive an explanation of the research – separate from the informed consent form (if applicable) – before and/or after the project? Yes (*attach copy and explain when given*) No

7. Information to be Compiled

a. Explain where the study will take place (*physical location not geographic. If permission will be required to use any facilities, indicate those arrangements and attach copies of written permission*):

The home base for the study will be the campus of The University of Montana. Interviews of the outreach coordinators will take place at each urban agriculture organization in the study: Missoula, Olympia, and Helena. Interviews of the low-income residents will take place at either their community garden or at a public place that is convenient for them to get to.

b. Subject matter or kind(s) of information to be compiled from/about subjects:

During the interviews, I will ask about the person's interest in their interest in getting involved with a community garden, their ideas about what healthy food is, their barriers to eating healthy food and opinions on greater health/food issues in the community. I will also be giving each interviewee a brief demographics questionnaire, see attached.

c. Activities the subjects will perform and how the subjects will be used. Describe the instrumentation and procedures to be used and kinds of data or information to be gathered. **Provide enough detail** so the IRB will be able to evaluate the intrusion from the subject's perspective (*expand box as needed*):

The interviews are nonphysical, only verbal. Each interview will be around one hour, no more than one and a half hours. The interviews will be individual, not group interviews. I will record the interview with audio.

d. Is information on any of the following included? (*check all that apply*):

- | | |
|--|--|
| <input type="checkbox"/> Sexual behavior | <input type="checkbox"/> Drug use/abuse |
| <input type="checkbox"/> Alcohol use/abuse | <input type="checkbox"/> Illegal conduct |
| <input type="checkbox"/> Information about the subject that, if it became known outside the research, could reasonably place the subject at risk of criminal or civil liability or be damaging to the subject's financial standing or employability. | |

e. Means of obtaining the information (*check all that apply*). **Attach questionnaire or survey instrument**, if used:

- | | |
|--|---|
| <input type="checkbox"/> Field/Laboratory observation | <input checked="" type="checkbox"/> In-person interviews/survey |
| <input type="checkbox"/> Blood/Tissue/Urine/Feces/Semen/Saliva Sampling (<i>IBC Application must be submitted</i>) | <input type="checkbox"/> Telephone interviews/survey |
| <input type="checkbox"/> Medical records (<i>require HIPAA form</i>) | <input type="checkbox"/> On-site survey |
| <input type="checkbox"/> Measurement of motions/actions | <input type="checkbox"/> Mail survey |
| <input type="checkbox"/> Confidentiality | <input type="checkbox"/> Online survey (<i>attach Statement of</i> |
| <input type="checkbox"/> Use of standard educational tests, etc. | <input type="checkbox"/> Examine public documents, records, data, etc. |
| <input type="checkbox"/> Other means (<i>specify</i>): | <input type="checkbox"/> Examine private documents, records, data, etc. |

f. Will subjects be (*check all that apply*):

- Videotaped Audio-taped Photographed N/A

(*securing an additional signature is recommended on consent/assent/permission forms*)

Explain how above media will be used, who will transcribe, and how/when destroyed:

We will record with audio the interview with the subjects, with their full permission to do so. The low-income community gardeners will not be identified and the interview will be conducted accordingly. The outreach coordinators will have to option of using their name or not. If they do consent to using their name, I will have them introduce themselves at the beginning of the interview. We will then code and extract information from these interviews. The recordings will be destroyed after the transcription is completed.

g. Discuss the benefits (does not include payment for participation) of the research, if any, to the human subjects and to scientific knowledge (*if the subjects will not benefit from their participation, so state*):

The informants will not directly benefit from their participation in the study except for a possibly feeling of individual/community empowerment. The results of the study are expected to benefit the interviewees indirectly as it is an analysis of their opinions of community accessibility to healthy foods via community gardens and may contribute to future adaptations of community outreach methods.

h. Cite any payment for participation (payment is not considered a benefit):

i. Outline, **in detail**, the risks and discomforts, if any, to which the human subjects will be exposed (*Such deleterious effects may be physical, psychological, professional, financial, legal, spiritual, or cultural. As a result, one can never guarantee that there are no risks – use “minimal.” Some research involves violations of normal expectations, rather than risks or discomforts; such violations, if any, should be specified*):

The possible risks or discomforts are minimal. The informant will not be asked questions that are too personal, all will relate to food consumption and accessibility, and community involvement in urban agriculture. The discussion of food security may be an uncomfortable or unhappy subject for some people. I will be scheduling interviews around a time frame based on the interviewee’s schedule.

j. Describe, **in detail**, the means taken to minimize each such deleterious effect or violation::

I will make sure to offer to the informant the option of declining a question, if they feel that it is too personal or emotionally upsetting. They also will be invited to bring their children to the interview if they have no other source of care.

8. Informed Consent

An informed consent form (ICF) is usually required, unless subjects remain anonymous or a waiver is otherwise justified below. (*Templates and examples of Informed Consent, Parental Permission, and Child’s Assent Forms are available at <http://www.umt.edu/research/complianceinfo/irb/forms.aspx>*).

- A copy of the consent/assent/permission form **must be offered to all subjects**, including parents/guardians of subjects less than 18 years of age (minors).
- Use of minors
 - All minor subjects (under the age of 18) must have written parental or custodial permission (45 CFR 46.116(b)).
 - All minors from 10 to 18 years of age are required to give written assent (45 CFR 46.408(a)).
 - Assent by minor subjects: All minor subjects are to be given a clear and complete picture of the research they are being asked to engage in, together with its attendant risks and benefits, as their developmental status and competence will allow them to understand.
 - Minors less than 10 years of age and all individuals, regardless of age, with delayed cognitive functioning (or with communication skills that make expressive responses unreliable) will be denied involvement in any research that does not provide a benefit/risk advantage.
 - Good faith efforts must be made to assess the actual level of competence of minor subjects where there is doubt.
 - The Minor Assent Form must be written at a level that can be understood by the minor, and/or read to them at an age-appropriate level in order to secure verbal assent.
- Is a written informed consent form being used? Yes (*attach copy*) No (*justify below*)
To waive the requirement for written informed consent (45 CFR 46.117), describe your justification:

- Is a written parental permission form being used? Yes (*attach copy*) No
(*If yes, will likely require minor assent form*)
- Is a written minor assent form being used? Yes (*attach copy*) No
(*If yes, will likely require parental permission form*)

The Principal Investigator agrees to comply with all requirements of The University of Montana-Missoula IRB, the U.S. Department of Health and Human Services Office of Human Research Protection Guidelines, and NIH Guidelines. The PI agrees to ensure all members of his/her team are familiar with the requirements and risks of this project, and will complete the Human Subject Protection Course available at <http://www.umt.edu/research/complianceinfo/irb>.

Principal Investigator’s Statement

I certify that the statements made in this request are accurate and complete. I also agree to the following:

- If I receive approval for this research project, I agree to inform the IRB in writing of any emergent problems. I further agree not to proceed with the project until the problems have been resolved.
- I will not make any significant procedural changes to procedures involving human subjects without submitting a written amendment to the IRB and will not undertake such changes until the IRB has reviewed and approved them.
- It is my responsibility to ensure that every person working with the human subjects is appropriately trained.
- I will not begin work on the procedures described in this protocol until I receive notice of approval from the IRB.
- I will keep a copy of this protocol (including all consent forms, questionnaires, and recruitment flyers) and all subsequent correspondence.

Signature of Principal Investigator: _____ Date: _____

NOTE: I AM AWARE that electronic submission of this form from my University email account constitutes my signature.

Students Only (students must submit hardcopy of IRB application complete with original signature of faculty supervisor)

Faculty Supervisor: _____ Date: _____

Signature: _____

My signature confirms:

- 1) I have read the IRB Application and attachments.
- 2) I agree that it accurately represents the planned research.
- 3) I will supervise this research project.

Department: _____ Phone: _____ Email: _____

Appendix B

Staff Questions:

My name is Aliza Chalgian. I'm a student at the University of Montana and I am interested in local food systems and their ability to increase food security. I'd like to talk to you about the urban agriculture organization that you are a part of. I am interested in the outreach work you do for low-income community residents. At any point during this interview that you feel uncomfortable with a question that you do not have to answer it. Could you please introduce yourself.

What do you do here at this organization?

Do you believe it is important to involve low-income residents of the community with this organization? Why?

What are your outreach methods?

What areas of the city are you most actively promoting this organization in?

Which areas respond with the strongest interest? What age group?

Do you approach low-income residents differently when encouraging involvement? How?

What have you found to be the response when working with low-income residents?

Have you observed obstacles to low-income resident involvement?

How have you tried to lessen these obstacles?

Do you think there would be better ways to recruit and keep low-income residents involved in organizations like this one?

Do you believe that there was any amount of community empowerment or organization preexisting this organization in the low-income areas?

How has this organization aided the growth of the low-income community empowerment?

Appendix C

Coding Scheme

1. Role of community gardens
 - a. Description of projects
 - i. Project size, number, property rights, etc
 - ii. Guidelines for low-income status
 - iii. Average age for gardener
 - iv. Associated farm
 - v. Role of Outreach coordinator
 - b. Missions of community garden projects
 - i. Assist neighborhoods in starting their own gardens
 - c. Alternative to emergency food (Food Share, Food Bank)
2. Outreach methods used by outreach coordinator for low-income gardeners
 - a. Word of Mouth
 - b. Partnerships
 - i. Why partnerships are helpful
 - ii. Organizations that are involved in partnerships with community garden projects
 - c. Events
 - d. Flyering
 - e. Classes
 - f. Advertising
 - g. Internet
3. Barriers observed by outreach coordinator for low-income gardeners
 - a. Education access
 - b. Time
 - c. Financial
 - d. Distance to garden
 - e. Lack of tangible resources
4. Barriers for community garden projects
 - a. Seasonality
 - b. Limited access to land
 - c. Limited finances to support a full, annual staff
5. How outreach coordinators maintain involvement
 - a. Forming partnerships between low-income gardeners and supply businesses
 - b. Garden staff available to gardeners
 - c. Community kitchens
 - d. Promoting leadership positions/ social networking/counsels
 - e. Physical attributes of garden
6. Benefits of community garden projects to low-income residents
 - a. Education
 - b. Access to healthy fresh food
 - c. Social networking
 - d. Community empowerment
 - i. Recognition

- ii. Sharing
 - iii. Leadership roles
 - e. Using garden for neighborhood specific purposes
 - f. Resources like soil, seeds, etc
- 7. Resident involvement in community garden development
 - a. Surveying
 - b. Neighborhood counsel
- 8. Existence of community foundation and identity