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by

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A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science
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Numerous researchers have shown that community gardens have the potential to eliminate social, communal, health, agricultural and economic problems that many in the United States and the rest of the world are facing. Yet, throughout history allotment and community gardens have been seen as improper elements of urban landscapes and used predominately for crisis mitigation and not as sustainable solutions. This thesis shows that the current U.S. community garden movement is inherently different than past unsustainable movements and may establish community gardens as sustainable features of many municipalities in the U.S. This is because the modern U.S. movement is supported by more research and infrastructure than in the past; it is composed of many more social and financial groups; it is sponsored by multiple groups (private, public and non-profit); it incorporates multiple uses; and it was spurred by many unconnected catalysts rather than by a single major crisis. The histories of, and connections between, past movements in the U.S. and the U.K. are validated by extensive documentation and records. Additionally, surveys and interviews were conducted with community gardens in Kansas, New York and Texas and the results of these surveys and interviews indicate the current movement is indeed strong, diverse and expanding.
Chapter 1: Introduction

Numerous researchers have shown that community gardens have the potential to eliminate social, communal, health, agricultural and economic problems that many in the United States and the rest of the world are facing. Yet, throughout history allotment and community gardens have generally been seen as improper elements of the municipal landscape and used predominately for crisis mitigation and not as sustainable solutions to common reoccurring problems. Recent shifts in societal views, however, would indicate that the United States is currently sitting at a cross roads between the typical separation of rural and urban elements and the more progressive view that would utilize community gardens as a sustained and vital part of a new style of urban design.

In order to see if the current U.S. community garden movement has the potential for sustainability, unlike previous U.S. movements, the history of British allotment gardens and U.S. community gardens need be discussed (in combination with current data and research) to indicate patterns and trends concerning the role of community gardens in the U.S. The historical trends will be validated by multiple histories of U.S. and British urban planning and environmental thought, while recent and events and patterns will be validated by data collection (surveys and interviews) that reveal many aspects of U.S. society’s current interaction with community gardens.

My research, including a historical comparison, is important because if a trend towards the acceptance and permanence of community gardens has begun to take shape it could have major implications for future urban planning, municipal politics,
environmental science and much more. The questions which my research aims to answer concern how community gardening movements developed in the U.K. and U.S., how past gardening movements have shaped the current gardening movement and what the future course of U.S. community gardening will be. I hypothesize that the current U.S. movement has the potential for sustainability because it is supported by more research and infrastructure than in the past; it is composed of a more socially and economically diverse population; it is sponsored by multiple groups (private, public, religious, non-profit, etc.); it incorporates multiple uses; and that it was spurred by many unconnected catalysts rather than by a single major crisis.

In order to answer these research questions my thesis will be divided into three separate sections. The first section will focus on the roots of the current U.S. community garden movement. This section will act to provide a context for analyzing the current movement by showing the development of community gardening in the U.K. and U.S. and how these developments may have shaped current gardening trends. The second section will look at the current conditions of the U.S. community garden movement by using surveys and interviews as indicators of garden and gardener trends within three study gardens. The final section will discuss the future prospects of the community garden movement by analyzing potential factors which could contribute to its sustainability. In other words I will attempt to predict the future path that U.S. community gardening may take based on the multiple data sources that I have brought into this thesis.

The work of this thesis is intended both to complement and expand upon previously completed research. My work complements the existing literature because it
consolidates the many separate histories, and connects them in an original manner. My work also expands the current literature on community gardening in the U.S. by adding new information and data to the field, which provides new insight about community gardens and community garden culture, and also sheds light on urban planning and environmental policy. In addition, this research fills a lacuna in the available literature on community gardens in the U.S. Though other authors (Burchardt, 2002, Hayden-Smith, 2007, Basset, 1981 and Lawson, 2005) have extensively covered community garden movements, a comparative study of these movements, with a specific focus on the modern U.S. movement is still needed. Additionally, attempting to predict the future trends concerning community gardening in the U.S. is also important because anticipating the future is a vital facet of social action, especially when dealing with a movement made up of countless organizations from various backgrounds and sectors.

In order to adequately quantify and qualify my hypothesis I have utilized a mixture of historical literature and documents, current articles and research, surveys of individual gardeners and interviews with gardeners, garden organization leaders and prominent garden historians and researchers. The majority of my research concerning past U.S. garden movements and all British garden movements comes from the historical literature and documents, while data concerning the modern U.S. community garden movement was extrapolated from the surveys and interviews I conducted in three community gardens, along with recent journal and newspaper articles and research papers.

I will begin by defining community gardens and explaining how this definition will be used within my work. Following this I will briefly go over the benefits of
community gardening and of urban green spaces in general. I will then discuss the British roots of U.S. community gardening; explain how these multiple national movements are connected; and then discuss in detail the history of the many U.S. movements. Following these historical overviews I will discuss the views and uses of community gardens throughout the many movements and then explain how these views and uses are beginning to shift towards the possibility of supporting a sustained community garden movement in the U.S. and how my research aims to both quantify and qualify this assertion. I will then report my research methods and research results followed by a discussion of how these findings both support and bring up additional questions concerning my hypothesis. My paper will conclude with a discussion of research limitations followed by a look towards future research.
Chapter 2: Background

Defining “Community Gardens”

As a result of the current awareness of environmental and sustainability issues that have begun to permeate American culture, it is no wonder that many new ideas have sprung forth and old, once mostly forgotten or unused, practices have been uncovered and revitalized. One such practice that has come back as a result of many new processes is that of community gardening within municipalities of all sizes. Although local farms, community supported agriculture, community gardens, etc. had never disappeared completely from the U.S. landscape since their last zenith in the mid 1940s; the frequency with which they are formed and sustained has been growing at a steady rate since the early 1970s.

Before embarking on a discussion of community gardens and their place in history and culture, however, it is necessary to define what a community garden is within the context of this paper. The American Community Garden Association (ACGA) believes that a community garden

“...can be urban, suburban, or rural. It can grow flowers, vegetables or community. It can be one community plot, or can be many individual plots. It can be at a school, hospital, or in a neighborhood. It can also be a series of plots dedicated to "urban agriculture" where the produce is grown for a market (ACGA, 2008)”

What we obtain from this definition is that community gardens can take on any number of sizes, styles, locations and can be used for many different purposes. Since much of this paper will focus on community gardens within urban, suburban and semi-urban areas
I will be adopting the ACGA’s definition of community gardens except for their inclusion of gardens in rural (outside of a municipality’s boundaries) areas as these bring in other issues related to large and small scale agricultural practices that are beyond the range of this piece.

**Benefits of Community Gardens**

Before beginning a discussion on the history of community gardening I will present a summary of the many benefits of community gardens in particular and green spaces in urban environments in general. This information is presented in order to set up a strong argument for the importance of community gardens and thus the importance of embarking on community garden research.

In addition to the positive aesthetic reasons for developing a community garden within a municipality there are also a number of compelling community, education, economic, environmental and health rationales. Green spaces in the urban environment have been proven to be key components in economic development. Much research has been done on the effects of green spaces on property value. Numerous studies have shown that an increase in the amount of urban green in an area has a significant impact on the property value of the adjacent and surrounding locations (Rodbell 1991, Altunkasa 2004, Irwin 2002). More so, recent studies in New York City have indicated that small-scale agriculture specifically (in this case of community gardens) has a positive effect on the property value of the surrounding community. This research indicated that community gardens had a statistically significant effect on property values within a 1000 foot radius, and as a result each garden caused an average $1 million net tax benefit per
garden over a 20 year period (Voicu and Been, 2008). In addition to these large scale economic benefits, community gardens have proven to be a successful tool for providing both food security and financial savings for individuals; especially the unemployed and those with low incomes (Community Greening, 23, 2005).

Along with the municipal and individual economic benefits, urban gardens also serve to improve the environmental state of a city through ecological restoration and stabilization which improves the quality of soil, water and air and can prevent the possible costs associated with environmental degradation (Rodenburg 2002). Separate studies have also shown that urban green spaces can save money through storm water retention and purification (Giving Tree 2007). Besides the ability for these gardens to mitigate pollution and regulate an ecosystem they also have the potential to increase the biodiversity of an area (Colding 2006).

Though economic and environmental benefits are important byproducts of these gardens, some of the most essential benefits come from what these areas can do for the health of an individual and the community as a whole. For an individual, gardening offers a place to get extensive physical activity and thus decrease the chance of many health problems. Along with this benefit green spaces in urban environments also offer mitigation for Attention Deficit Disorder (Faber 2001), increases in self discipline in youth (Faber 2002), healthy mental development in children (Kuo 2004), stress relief (Wells 2003), and sustained health for the elderly (Takano 2002). From these examples one can see that the health benefits of green spaces are both universal (across all ages) and widespread (mental and physical). Community gardens also promote community health by making neighborhoods safer and giving communities a center for activity and
congregation. The enhanced amount of safety comes from the fact that areas of green in urban settings have been shown to reduce crime rates (Kuo 2001), and reduce the amount of aggression individuals exhibit through the abatement of mental fatigue (Kuo 2001 (2)). Urban gardens can also act as a place, or context, through which communities can define themselves (Sullivan 2004), and where communities can grow into vibrant healthy units (Coley 1997). Also, research has shown that community gardens have the ability to mitigate “urban blight” in a number of capacities and act as a source of permanence for traditionally transient communities (Schukoske, 2000).

**Introduction to Community and Allotment Garden Histories**

An understanding if the historical roots of community gardening is key to our discussion of the current U.S. community garden movement. For this reason I will now focus my attention on the roots of the U.S. community garden movement beginning with the allotment garden movements in the U.K. of the 19th century and then moving to the community garden movements in the U.S. during 19th and 20th centuries. This brief overview simplifies the rich and complex history, focusing on the most salient aspects of these movements. Although there is a complex gardening history throughout much of history around the world only the macro elements of the British and U.S. allotment and community garden movements will be analyzed.

There are a few points to keep in mind. First, even though I will mention many distinct movements in both the U.K. and U.S. these movements do not always have clear initiation dates or end points. This is dually caused by the national scale and general fluidity of the movements. One could say that in both the U.K. and U.S. the gardens and
gardeners never fully go away. Moreover, some researchers and historians have suggested that it may be somewhat misleading to divide community garden trends into distinct movements, favoring instead the view that they each represent one large continuous national movement with different periods of growth and abatement (Hayden-Smith, personal communication, Feb 8, 2009). This, however, seems to be a largely semantic argument and thus for the purpose of this paper I will consider these national trends as distinct movements, while still recognizing that between each movement there is a continuous culture of gardening – if at only a smaller scale.

Finally, it is important to establish an understanding of the term “movement” within the context of allotment and community gardening. Within social science academia the term “movement” often carries with it many connotations dealing with political action, political agendas, and social issues. Others studying community gardening history, such as Laura Lawson, however, use the term “movement” without many of these connotations such as her reference to the “School Garden Movement” of the early 1900s and the “Community Gardening Movement of the 1970s and 1980s”. For the purposes of this thesis I will use the term as another way of describing a heightened period of community gardening, funding and attention, rather than attaching extra social and political fetters to it.

**History of Allotment Gardens in the U.K.**

Allotment gardens, in their original and most common form, were parcels of land usually less than half an acre in size. These plots were held by large landowners and leased out to tenants who would then use the land to grow fruits, vegetables and herbs,
and occasional raise livestock, that would be used as their main source of food. As England transitioned from the 18th to 19th century the country’s population began to increase universally. At this same historical stage the industrial revolution also began which created many new jobs for the ever expanding population. These jobs, however, were mostly situated within urban environments and because of this, and the increased industrialization of agriculture, large swaths of rural and urban populations were jobless and in desperate conditions. In general, the initial major allotment garden movements grew out of this situation because, though tending a successful garden was extremely labor intensive, the food produced from the work had the potential to offset a lack of living wages (Burchardt, 231, 2002). This was not, however, the first instance of allotment gardening in Brittan as the practice can be traced back, in smaller quantities, to the 17th century and the time of the English Civil War (Crouch, 2000).

The use of allotment gardens in England was not, however, a gradual movement that eventually caught on and stayed relevant in the minds of commoners and proletariats. Instead, English society experienced multiple waves of allotment gardening, each a response to extreme crises that struck the country (Burchardt, 2002). The first waves of allotment gardening occurred twice within the 1790s. Both of these cases occurred as a response to poor harvests which led to major food shortages across the country. Yet, in both cases, once the crisis had been adverted and the harvest yield returned to normal the interest in allotment gardening, by both the issuing proletariats and purchasing peasants, faded.

The second major allotment movement came in 1830 and was the result of an understanding by government officials and the affluent ruling class that the working and
living conditions of the proletariat was becoming obviously unviable. This realization was driven home by the Swing Riots of 1830-1831, in which many farmers and labors rebelled against the industrialization which was taking their jobs. These riots effectively ushered in a new movement of allotments as the bourgeoisie saw small scale agriculture as a way to provide jobs, food and improved living conditions for the lower classes. This second movement had quite a bit of sustained presence within the country and even became a common site in many cities as of 1845 (Burchardt, 2002). This period of growth continued, and by 1873 the number of allotments in the country had nearly doubled; yet from this point on the public and governmental interest in allotment gardening began to dissipate. This stagnation came as a result of a shifting focus of the power-elite from a rural perspective to a more “proper” urban perspective and thus much more attention was paid to housing developments than to create more allotments. Wages and jobs within the city were also improved and so once again the allotment movement was pushed down the latter of important matters by all parties.

Allotments in the early 20th century were common but continued to be a topic of little importance to governing bodies or people other than the direct participators. The influential work of urban planner Ebenezer Howard and his idea of the “garden city”, or that of a combination between the town and the country, was the first real suggestion that rural landforms could exist within urban areas and thus allotment gardens were once again seen as relevant projects (Burchardt, 2002 (2)). Although the original idea of the garden movement in Brittan was more focused on having a small central urban area surrounded by a large agricultural area, the idea of putting the features so close together was the major trigger to the increased acceptance of allotment gardens in the city as
residents and planners realized the benefits of having agricultural features near residential areas. It is also interesting to note that the garden city movement did not gain any real government interest until vast unemployment and World War II hit Brittan during the 1930s and 40s; once this crisis began the government quickly responded by implementing ideas put forth by The Town and Country Planning Association (TCPA) (Hardy, 1999). As a result the peak activity for allotment gardening in the U.K. occurred from World War I until World War II with some drop off in between (Crouch, 2000). (This reaction and timing is very similar to events which took place in the U.S. which I will discuss later in this paper) Yet this integrated model lacked staying power, and within the last 50 years the allotment gardens within England’s major urban areas have declined (London Authority, 2006).

The English narrative on allotment gardens, however, does not end in the mid 20th century. The issue of what role allotment gardens should play in the English urban environment is still intensely debated. One example of such an instance can be found in the documented decline and disappearance of numerous historic community gardens all across England. (London Assembly, 2006) Another, less directly related, article explains a new movement called “guerilla gardening” that focuses on planting many forms of vegetation within urban centers without permission or control (Mooallem, 2008). Although the idea of guerilla gardening does not fit directly into the community garden mold, the act does often involve numerous individuals working together to quickly plant a garden or vegetation in an urban area. This sort of action displays an extreme example of grassroots environmentalism whose goal is directly tied to bringing “rural vegetation” into city centers. Still, until recently, allotment and community gardens across the U.K.
have been seen as politically weak and easy targets for prospective development which has resulted in reduction of allotment gardens from approximately 500,000 to 300,000 in the last half century (Crouch, 2000). Yet, there is still hope for the future as increases in environmental and community awareness across the U.K. have led to resurgence in allotment interest from many groups and individuals that look to regain some of the past glory of the gardens.

**Connecting the U.K. to the U.S.**

The historical overview of community gardens in the U.K. which I provided simplifies four centuries and therefore cannot do justice to the many political, social and ownership layers that underlie many facets of each allotment movement since the 1790s. Yet, the history of British allotment gardens is still an important tool in understanding community gardens in the U.S. because many of the ideas and conceptions concerning urban planning, environmentalism and rural prejudices stem from Brittan. Author James Howard Kunstler has written numerous books and essays describing the evolution of American urban planning and how this development has been motivated through our old world connections and through more modern technologies. Kunstler provides a relatively detailed description of U.S. urban design from the 17th century through the 1990s in his book *The Geography of Nowhere*, and makes more observations about the future role of small-scale agriculture in America in his more recent works. Key in Kunstler’s introduction to colonial America’s urban makeup is the connection that it had to the British Empire. Since the U.S. was originally founded by British settlers it is no surprise
that many of the ideas about what a city should look like and how it should function would parallel the old country (Kunstler, 1993).

Along with Kunstler’s interpretation of U.S. urban planning history, David Gosling’s *The evolution of American Urban Design* also offers a rich description of how the British idea of the Garden City movement was manifested in the U.S. Gosling describes how the ideas of Ebenezer Howard were adopted by many city planners in the U.S. and as a result, locations around Philadelphia, New York, Milwaukee and Cincinnati were chosen as areas for the development of “garden cities”. The garden city idea in the U.S. was focused on decreasing the density of housing in cities so that each individual could have more land to work with as well as connecting all parks and communal centers through pedestrian friendly walkways; but it also fostered the idea that green spaces besides parks (especially those used for gardening) could be integrated into cities. This idea also influenced Fredrick Olmstead and his work, which focused on creating large open spaces for the urban population to enjoy (Gosling 2003). Though Olmstead’s parks were much larger than the typical community garden and not designed for that type of use, the idea which Central Park, one of Olmstead’s most famous designs, came to represent shows how the original British idea of the Garden City was adopted and morphed into a new U.S. ideal. The central representation of this ideal was the City Beautiful movement which focused on reducing crowding in dense urban areas. (It should be noted that the exchange of ideas between the Garden City movement and the City Beautiful movement occurred in both directions and in some cases planning projects drew off of both philosophies equally).
The parallels between the U.K. and the early U.S. colonists are also discussed by community garden historian Laura Lawson. Lawson points to locations such as Boston Common and Santa Fe’s Plaza as well known places which originally served the purpose of providing an open area for recreation and communal activity in early American history (Lawson, 2005). Though community gardens typically have more defined uses and tend to be smaller locations, they still act in a similar capacity as city commons in that they provided a small-scale space to take part in outdoor agricultural activities. Beyond this, the ideas of using allotment gardens as ways to provide opportunity to marginalized populations and the previously mentioned Garden City and City Beautiful movements all acted as influencing factors on the use of community gardens in the U.S.

This connection, however, only goes so far and one must understand that although the U.S. was rooted in British traditions it quickly evolved to have a completely separate cultural and political identity that made the connections weaker as time went by (though many parallel patterns dealing with perceptions, obstacles and periods of use have emerged). Along with this, Kunstler also points out that very early on the U.S. colonists lost the British ideal of land being for the communal good rather than just for profit; or as the historian Sam Bass Warner puts it; U.S. law made land a civil liberty rather than a social resource (Warner, 1972).

**U.S. History of Community Gardens**

City commons, with their indirect connection to agriculture and their direct connection to open green urban spaces, paved the way for community gardens in the U.S. which began to spring up as early as 1890 in such cities as Detroit, New York and
Philadelphia. Much like the allotment gardens in England, these gardens were a result of the efforts of reformers and educators who saw chances for children and the unemployed to learn many skills and become more connected to the land, thus making their lives more enriched. A key difference between U.S. community gardens and English allotment gardens, however, is that the gardens formed for the poor in England were meant to act as permanent compensation for low wages, while the gardens created for poor Americans were meant to act as temporary opportunities until social and financial conditions improved. As a result of this philosophy allotment gardens in England were leased by the government for long periods of time while those in America tended to be much shorter. Also the gardens in England were predominately focused in more rural environments (as many of the marginalized laborers were farm hands) while the gardens in the U.S. were almost all originally located in major metropolitan areas (Lawson, 2005).

The U.S. gardens were also formed in response to the growing separation of people from their food sources. First suburbs became more popular. Second many rural farmers, due to poor conditions and poor finances, abandoned their homesteads and moved into cities which were becoming more and more congested and industrial. In addition, food security was a problem during the panics of 1893 and into the turn of the century in major urban areas. This shortage and insecurity spurred the “Vacant Lot Cultivation Association” of the late 19th century. These programs were extremely important in this era due to the lack of governmental assistance such as social security and food stamps (Hayden-Smith, personal communication, 2009). In this time period community gardens were seen as a form of charity that not only allowed people to reap
the rewards of their labor directly, but also as a way to combine education and exercise and gain solid financial returns on charitable investments (relative to other common charities at the time) (Lawson, 2005).

Some, during this time, also saw gardens as a way to get women and children out of the unhealthy crowded tenements and into a more favorable environment, or to teach unskilled laborers agricultural skills that could potentially lead them towards country living and subsistence farming. Furthermore, many felt that the replacement of vacant lots with community gardens made neighborhoods safer and more attractive and thus saw community gardens as a positive aesthetic feature. School gardens were also prevalent during the 1890s and early 20th century as many saw them as a strong educational tool that not only taught kids valuable lessons about agriculture and responsibility but also contributed all of the traditional perceived benefits of more “typical” community gardens (Hayden-Smith, personal communication, 2009).

This modest initial movement did not, however, function as a vehicle to a universally accepted and implemented community garden initiative. One of the main reasons for this was the reclaiming of land which the gardens were located on to quench the thirst for new development that was growing due to increasing city populations and better economic times. Even though some talked about the possibility of making land permanently available for community gardens, action was never taken – most likely as a result of the lack of political power that the urban poor possessed. As a result discussions about, and reports concerning, community garden programs across the country quickly dissipated and by 1898 much of the national attention the gardens had been receiving in press and policy was absent (Lawson, 2005).
The catalyst for a much broader and more supported community garden initiative would come in the early 1900s when support for community gardens was revitalized as a reaction to America’s involvement in World War I. Many individuals and families would plant backyard gardens or start community gardens in an effort to provide more locally grown food so that more food production could be sent overseas. Since this new wave of community gardening was supported by the U.S. government and made into a national cause these gardens quickly grew and remained stable due to government assistance and organization. In particular federal departments such as the federal Bureau of Education started programs such as the United States School Garden Army which was meant to encourage school children to grow in community gardens located in and around schools to support the war effort (Hayden-Smith, 2007). Another example of how much the idea of community gardening (and personal gardening for that matter) was pushed by the U.S. National War Garden Commision is found in the document “War Vegetable Gardening and the Home Storage of Vegetables” produced in 1918. This book outlines the importance of community gardens as measures “essential to the feeding of the people of the United States and the Allied Nations” (National War Gardens Commission, 1918).

Once the First World War ended areas that had been set up for community gardens were often either abandoned or converted into more typical urban landforms. As could be expected the occurrence of the great depression in 1929 once again fueled the American public’s interest in community gardens as they provided a source of relatively inexpensive food. The involvement was so great that over 20 million American’s applied for local, state and federal assistance and once the gardens were operational they produced nearly $36 million worth of produce (Lawson, 2005). These gardens were
aimed mainly at the unemployed and were advertised as cures to economic and employment problems. There were two main types of gardens during this period; the “subsistence” garden which was usually worked by a family in order to provide food for their household and the “work-relief” garden which employed men at an hourly rate to work a plot and produce food (Lawson, 2005).

Also during the depression era (1929-1939) there were many separate garden organizations backed by a variety of donors and sponsors that looked to community gardens as a way provide work opportunities for the unemployed and affordable food to the homeless and hungry. Some of these programs were met with opposition from leaders who did not think the depression would last for very long and from farmers and politicians who saw a threat from this new source of production (Warman, 1999). There were also a number of government sponsored work garden programs that received funding between 1933 and 1935 but these gardens had specific requirements and were subject to strict government oversight (Warner, 1987). Once government funding for many garden programs was cut in 1935 there was a decrease in the number of community gardens across the country and even though the program was generally successful (in both quantitative and qualitative terms) the community gardens once again had a social stigma surrounding them. This is particularly evident through the gardens being relabeled as “welfare gardens” rather than “work-relief gardens” (Bassett, 1981).

The interest in community gardens was again fueled by the entrance of the U.S. into the Second World War. Much like in World War I, The Second World War inspired people to once again participate in community gardening by creating victory gardens in order to provide locally grown food as well as raise community morale (Lawson, 2005).
Also, liberty and victory garden programs, the United States School Garden Army and the Woman’s Land Army, all of which were programs implemented during World War I, were again used during World War II because of their previous success. The victory gardens of World War II differed from their predecessors, however, in that they were more focused on encouraging recreation, community involvement and morale than they were on actually providing food or financial relief, as food security was not as high of a priority as in the first world war (Hayden-Smith, personal communication, 2009). This is not to say that food and financial relief did not play some role in many community gardens. In fact, the war garden effort during World War II was so successful that the USDA estimated that these gardens produced around 44% of the nation’s fresh vegetables in 1942 (this, of course, includes individual gardens as well as community and school gardens) (Bassett, 1981). Though supporters hoped that this success would translate into the continuation of community gardening after the war, once government funding ended and the war crisis was gone many community gardens were abandoned.

The reduction of community gardens during the war was also caused by the increasing land value of the locations of the gardens and a lack of local leadership to sustain the individual gardens. The lack of leadership in local areas came as a result of the top down approach which had dominated the movement due to the involvement of the national government. Though there were individual leaders within many gardens once the national administrative structure disappeared the local leaders were left with very little power or resources (Lawson, 2005).

During the 1950s and 1960s most gardening was limited to family plots in the backyards of suburban homes as gardening became less of a national duty and more of a
part-time hobby. A small number of school and victory gardens persisted, however, and were the foundation for a revitalization of the movement in the mid 1970s; which saw the creation of organizations like the American Community Garden Association, Philadelphia Green, and the Green Guerillas. This, in many ways, was the beginning of the modern era of community gardening which has acted as a way to rebel against the current function and design of urban landscapes and to act as an educational and therapeutic activity for citizens of all ages, races and genders. Many gardens created in the 1970s were also formed as a reaction to gas shortages, high food prices and poor urban conditions. Countless community groups began forming which assisted groups of people in acquiring land and resources so that they could start their own gardens in their community. Even though there was still some top-down interaction in order to assist in garden management, formation and resource acquisition, overall the current movement had a much more bottom-up and mixed approach than in the past (Lawson, 2005).

The popularity of gardening, in general, grew throughout the late 1970s and early 1980s and as a result more community gardens were formed; especially by those who did not have access to enough space to garden on their own. Many gardens were acquired through government sponsored renter and squatter programs which allowed for citizens (especially in “blighted” areas) to use undeveloped parcels of land as garden locations. An example of this was the Comprehensive Education and Training Act (CETA) which was a block grant awarded in 1975 that funded the formation of many community gardens (Community Greening, 41, 2005). This reliance on government assistance was not without problem and in the early 1980s many gardens were either abandoned or made into smaller units due to the reduction of assistance by the U.S. and state governments.
(funding through CETA was ended in 1983). Yet even though government support began
to fall away, the desire of urban citizens for more gardens and garden programs kept
growing and as a result more volunteer and non-profit organizations, such as the ACGA,
began to form resource and assistance networks to foster the continued growth of the
garden movement (ACGA history, 1984). From the late 1970s through 1992 there was
governmental support from the USDA through the Urban Garden Program, which was a
multi-million dollar program aimed at promoting 4H-style activities in the most
populated cities throughout the U.S. This program, although ambitious and helpful, had a
fixed ceiling for its budget while the number of cities it targeted continued to grow. This
led to financial troubles in all of the local offices and eventually the program was
dismantled leaving the local offices to either completely disband or attempt to find ways
of non-governmental funding (Lawson, 2005).

In the early 1990s a major sea change occurred as community gardens began not
only to be formed regularly in vacant lots run by small organizations, but also started
popping up as a result of more organized programs centered around children, the elderly
and immigrant populations (Johnson, personal communication, Feb 9, 2009). The
community gardening movement continued to grow throughout the 1990s and into the
new millennium. Although there were always fluctuations on the local level as a whole
the number of community gardens in the U.S. steadily increased and in the late 90s the
ACGA reported that it had representatives from over 700 different gardening
organizations within its members. What accounts for the continuing growth and
sustainability of this current U.S. movement will be discussed in greater detail later, but
the central focus of the new movement is that community gardening is becoming
extremely diverse in its purpose, participation and location. This diversification even led to some within the ACGA to change the “G” from “gardening” to “greening” in an attempt to encompass all of the uses that community gardens are beginning to represent (Lawson, 2005). This diversification includes recent growth in the formation of school gardens that has begun to push the movement even further especially in rural and suburban communities (Johnson, personal communication, Feb 9, 2009) and an invigoration of young adults in their 20s and 30s who look at the gardens as a representation of a larger community, sustainability and environmental movement (Hayden-Smith, personal communication, Feb 8, 2009).

**Perceptions of Community Gardens in the U.K. and U.S.**

In order to understand what these histories tell us about our current situation it is necessary to mine the community gardening narrative for information concerning societal trends and views concerning the many movements. It can be seen that throughout the history of the U.S. movements, many forms of community gardens have often been looked at as undesirable landforms necessary only in times of great disturbance or social need; they are seen as the refuge of only the poor, homeless and unemployed. These gardens have many times been a common reaction to a societal feeling of panic or desperation when it is believed that life within the city, or the nation as a whole, is being threatened. Yet once the war is over or the unemployment rate decreases, the “normal” faces of urban design take over and the gardens are once again lost until the next disaster arises.

This pattern can be recognized by realizing that each spike of public or governmental interest in community or allotment gardens within the U.S. (and to a large
extent with in the U.K.) generally follows a crisis period. Although easily comparable quantitative data for each one of these spikes is not available, studies do suggest that as public and governmental interest in community and allotment gardening increases, so does the number of gardens (Burchardt, 2002, Lawson 2005, and ACGA, 1998). Given this information, the histories of both the U.S. and the U.K. and further anecdotal evidence, we can conclude that there have been approximately eight major crises and seven major spikes (within the U.K. and the U.S). These crises and spikes include – two reactions to poor wages and living conditions in 1790s (U.K.); reaction to the swing riots of 1830 (U.K.); reaction to poor conditions and unemployment in the 1890s (U.S.); reaction to World War I (U.S. and U.K.); reaction to the great depression (U.S. and U.K.); reaction to World War II (U.S. and U.K.); and reaction to marginalization, oil shortages and environmental hazards in the 1970s (U.S.). The current movement has been steadily growing since the 1970s (ACGA, 1998) with slight reductions during the 1980s due to pulled government funding and support (ACGA, 1984).

Another important aspect of the historical views concerning community gardens that directly influence current perspectives, are the beliefs that gardens are not desirable urban landscapes and that they connote poverty and desperation. Many historians explain that in 19th century England, allotment gardens were seen as functional but very visually displeasing, and therefore best kept hidden or at least not actively represented (Crouch, 2000). These gardens were viewed as a necessity of poor rural culture and thus had no place within in urban “working” environment (even though the conditions and wages within that working environment were far from satisfactory). Even at the height of the
allotment movement a majority of the 300,000 allotment gardens across the country were primarily in poor rural areas (Burchardt, 2002).

This sort of value structure can also be seen during the decline of the second English allotment movement. In this period of time it was shown that the central metropolitan areas were of more concern than those of the surrounding periphery, which contained many of the gardens, by the shift of government focus from allotments to urban housing (Burchardt, 2002). This shift once again shows the engrained values which represent typical urban areas with housing projects and industrialized businesses as being more valuable than the surrounding rural areas with gardens and agriculture. It is also an example of the stark division that Victorian society placed between the city and any form of agriculture.

It is important to note, however, that those who took part in the allotment garden movement of the mid 1800s, and those who worked near them, did not view these landforms as undesirable or aesthetically unpleasing. Those who worked within the garden viewed them as a source of livelihood and thus as a welcomed space (Burchardt, 2002). Yet, these citizens only represented a segment of English society; and a very politically impotent one at that. It is most likely a result of this lack of political and societal influence that the idea of community gardening as an acceptable practice that could be implemented within Victorian cities was never accepted or proposed. This stigma was not permanent, however, and by the late 1880s the allotment movement was viewed by many as a way to combat poor living standards and rural poverty. Although this societal shift did prove to usher in a new vision of the value of allotment gardening it did not change the idea that gardening was to be kept outside of the city.
This is not to say that there were not cases by 1914 of allotments within urban areas (Burchardt, 2002) but on the whole the allotment movement was still predominately a rural phenomenon. Even the “garden city” idea proposed by Howard was eventually corrupted so that instead of cities which combined the best aspects of the country magnet (pristine nature, sustainable agriculture, ascetically pleasing land, etc.) and the town magnet (jobs, community, culture, etc.); residents got suburban areas outside of town that provided the worst aspects of both magnets. This failed combination of town and country would prove to be a very detrimental setback, especially in America where the town and country idea had also taken hold, to the idea that rural landforms could be successfully integrated into urban areas.

The societal views of allotment gardens within 19th century England offer a parallel to the ways community gardens were viewed in America in the 20th Century. This is not surprising considering the aforementioned connections in urban planning and societal views regarding nature and society. The multiple waves of community gardening in the U.S. were largely seen in their time as a necessity only spurred by the previously mentioned crises and thus not part of a healthy functioning urban culture. Many of the community gardens that were formed on vacant lots during the late 19th century started out in urban areas but were quickly pushed to the outskirts of town as the other interior areas were developed or reclaimed to prepare for development once the economic troubles of the 1890s subsided. The transplanting of community gardens from the urban core to the semi-urban/rural periphery is another indication of the place that community gardens held in the philosophies of many leaders and planners. This separation of the gardener from the garden also caused increased transportation costs and
sometimes discouraged the gardeners from working at all and thus many gardens were abandoned or lost soon after the move (Lawson, 2005).

An example of how negative perceptions of community gardens in the late 19th century affected public policy and perception can be identified in the refusal of many wealthy citizens in Detroit to help fund charities that supported community gardens and also by the refusal of some merchants to sell produce produced by the gardeners. These actions came from the belief that community gardens only catered to the lazy and unintelligent and thus charities believed it was a financially and morally poor investment while the merchants felt they would possibly be black balled by some of their affluent customers (Lawson, 2005). With the success of the gardens and the support of government, these feelings began to subside. Gradually, as the community gardens became more necessary, people began to see them as a moral form of charity. They were based more on self-help than on handouts and thus, in the minds of philanthropists and the affluent, separated the truly deserving hard laborers from those who simply wanted to take advantage of the system (Lawson, 2005). This pattern is also found during both world wars when the perception of gardens seemed to change from that of an urban landform which was suitable for all people as recreational and functional feature (during the wars) to that of an area only fit for the poor, homeless and unemployed (after the wars) (Bassett, 1981). The fluctuation of societal and governmental views and actions directed at community gardens and community garden organizations was a key contributor to the unsustainability of the community garden movement.

A specific case of the abandonment of community gardens after crisis periods can be seen in Columbus, Ohio during the early 20th century. Historical data show that
subsistence gardens held a significant role in the urban landscape of Columbus, Ohio from 1900 – 1940, but afterwards were discontinued and replaced with other forms of more “modern” urban landscapes (a specific example of the previously mentioned crisis reaction pattern). The data stress that these gardens were viewed as very important due to their usefulness in aiding the relief effort of World War I and the depression; but once these historical periods ended the gardens were erased from the cities landscape because they were not viewed as “normal” parts of the urban environment (Moore, 2006).

This process of eliminating and moving away from community gardens in Columbus becomes even more intriguing when the scale of the gardens at their height is considered. At one point the gardens covered over 600 acres within the Columbus metropolitan area (Moore, 2006). In addition, Moore argues that the perception and understanding of community gardens has been manipulated by certain aspects of academia and city planners so that they are viewed as a more rural type of landscape and thus not suitable or necessary in the urban realm. This perception became so pervasive that many within Columbus were completely unaware of the city’s rich community gardening history because all traces of the gardens in the urban environment had been practically erased (Moore, 2006). The narrative provided by Moore is a small snapshot of what was happening across the U.S. at the end of World War II. Most cities which had some form of community gardening were experiencing a loss of funding, interest and participation as the government and many other organizations saw the end of the war, and the good economic times that followed, as an indication that the crisis was over and that community gardens were once again not necessary (Community Greening, 40, 2005).
It is also interesting to note that although community gardens in the U.S. have gone through multiple fluctuations in popularity, a common trend throughout the years (excluding more recent years) is the presence of many community gardens in areas with a population consisting primarily of marginalized groups. From the many hundred community gardens present in Columbus, Ohio’s primarily African American communities prior to 1940 (Moore, 2006) to the enormous amount of community gardens established in New York city in the 1970s in poor and ethnically diverse, areas (Smith and Kurts, 2003), community gardens have served to empower groups that are traditionally marginalized. This is most substantial during non-crisis periods when the more affluent and socially accepted groups quickly drift away from community gardens.

Even though the participation of marginalized groups is very positive due to obvious overtones of social equity that these gardens are providing, the participation of marginalized groups (especially the financially poor) still functions as a reinforcement of the historical belief that community gardens and their brethren are meant to be a refuge of the impoverished. In other words, because many community gardens are located in areas with high populations of marginalized people, the power-elite who do not traditionally relate to these groups are more likely to see these landforms as less valuable than a typical urban landform which is organized, used and managed by people of their own social or financial class. There has been a gradual abatement of this trend over the past three decades, however, and the community garden movement as a whole has begun to become more diverse with regard to the social and financial status of the gardeners and to the locations of the gardens. It is still to be seen whether this is a permanent trend that
can increase the sustainability of the movement or simply another fluctuation that will eventually subside.

When all of these events and examples across the U.K. and U.S. are analyzed together a few key themes pervade emerge. The societal and governmental perception that community gardens are not fit for the municipal core and instead belong on the fringes of cities, closer to rural areas, is a repeating trend in both Brittan and the States. In addition planners and municipal officials have tended to view community gardens as less important than commercial, industrial and residential development and as result the land that community garden plots exist on has often been claimed for other uses. Many also held the mindset that community gardens were the refuge of the poor, homeless, unemployed, lazy or unintelligent – except, that is, during times of crisis. This exemplifies the last major trend which is the continual fluctuation of societal and governmental perceptions about community gardens from the positive, during crisis periods, to the negative, between crisis periods. In the last three decades, however, we have seen a shift in this pattern. I hypothesize that there are numerous causes for this which will keep the modern U.S. community garden movement sustainable for the foreseeable future.
Chapter 3: Methods

Introduction to Research Methods

The ideal strategy for quantifying the growth and stability of the current U.S. community garden movement, compared to past movements, would be to find extensive empirical evidence of the number of community gardens in existence for each year since 1970 and then analyze how that rate has grown or decreased. Following this process would then be to analyze the staying rate (number of years in existence) for these gardens and to identify trends to predict the future direction of the movement using these data. That process, however, is quite unrealistic due to two major factors. First, it would be virtually impossible (given the resource and temporal constraints of this study) to actually identify every currently operational community garden. Even if unlimited resources and time were available it would still, in all probability, be unfeasible to come up with an accurate estimate of community garden totals as many gardens are quite small, unconnected to major organizations, or known only to those within each close-knit garden circle. Secondly, because community garden creation and termination is extremely fluid and because any process to identify the total number of gardens would be very time consuming; once the total number was obtained it would already be partially inaccurate.

For these reasons I have sought to incorporate empirical evidence, anecdotal evidence, historical data and contextual data to describe the community garden movement. This includes surveying community garden members in three gardens across
the U.S.; interviewing community garden organizers; conducting brief case studies of gardens and garden organization leaders; interviewing prominent garden historians and organizational leaders; reviewing current and past literature; and reviewing other community garden studies.

**Reasons and Techniques for Choosing the Study Gardens**

To obtain quantitative and qualitative data concerning currently established community gardens in the U.S. I surveyed three separate gardens. I chose three gardens because I feel this number allowed me to gain insight into current garden motivations and trends while still having the capacity to complete my work and obtain timely information and detail. The three gardens that I chose are described in the “Table 1” below and detailed maps of the gardens location are shown in “Appendix 1”.

**Table 1: Summary Information about the Three Study Gardens**

<table>
<thead>
<tr>
<th>Garden</th>
<th>City, State</th>
<th>Plots</th>
<th>City Population</th>
<th>Year Founded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hollenback community Garden</td>
<td>New York, NY</td>
<td>40</td>
<td>8,247,527</td>
<td>1980</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2,465,326 (Brooklyn)</td>
<td></td>
</tr>
<tr>
<td>Manhattan Community Garden</td>
<td>Manhattan, KS</td>
<td>175</td>
<td>51,707</td>
<td>1974</td>
</tr>
<tr>
<td>Sunshine Community Garden</td>
<td>Austin, TX</td>
<td>200</td>
<td>743,074</td>
<td>1979</td>
</tr>
</tbody>
</table>

Note: This table shows information concerning the three study community gardens. The gardens which I selected were chosen based on what I considered their primary and secondary attributes. The primary attribute which I selected for was the garden’s formation date. Since my hypothesis focuses on the idea that the current community garden movement in the U.S. will sustain itself, I am interesting in looking at gardens that have been in existence since the beginning of the current movement in the 1970s. I believe that these gardens and their members will reveal information about why
they have lasted for over three decades and may offer a glimpse of what lies ahead for the community gardening movement. The secondary attributes which I sought were those that would allow me to achieve a decent variety of other garden characteristics such as region, history, garden size, city size, funding source, race and economic status of participants, and associated organizations. My hope was that these secondary characteristics would provide a variety of selected gardens and thus show the universality of the sustained modern movement. In other words, I have held one characteristic constant (age of the gardens) and looked for variety in the other characteristics in order to assess features that may contribute or prevent garden sustainability. “Table 1” shows some of basic differences in garden location, size, city population while also showing that all of the gardens were founded in the beginning stages of the modern community garden movement.

It is also worth noting that although the three gardens are located in what some may consider “college towns” (except possibly Brooklyn, though it does have a number of universities, colleges and institutions) there is still variety in this category due to the relationships and geographic distance between the gardens and the institutions. The Manhattan Community Garden, on the one hand, is located relatively close to Kansas State University and has direct connections to university organizations, while the Sunshine Community Garden is locate further away from the University of Texas-Austin and has no connection with the University (though it does have a connection with the Texas School for the Blind and Visually Impaired). Finally, The Hollenback Community Garden is located equidistant from a number of smaller colleges with which it has no connections.
There were a few limitations to obtaining the desired variety of garden types. One problem was attempting to include gardens with large first or second generation immigrant membership bases. Although there are numerous examples of these gardens across the U.S. many times the gardeners do not have a good understanding of English or reliable contact information. An example of the research obstacles associated with these types of gardens is the East Dallas Community garden, which is made up almost entirely of Laotian immigrants. Although I was able to contact someone familiar with the community garden’s activities and operation I was advised by this representative that obtaining detailed survey and interview responses would be difficult (Lambert, personal communication, Jan 7, 2009).

Another obstacle to achieving garden diversity in this research was the lack of background and contact information for many gardens that were not affiliated with the ACGA. Although there are almost certainly countless community gardens that have been around since the 1970s and that would also offer more variety than the selected gardens, without any reliable organizational or contact information research into these gardens could be very difficult. This unfortunately biases the choices to those gardens that are structured in such a way that makes them likely to register with an internet-based registry.

To combat some of these diversity problems I have supplemented my surveys and interviews with information taken from newspaper and journal articles that deal with more recently formed gardens (thus not fitting my survey and interview requirements) that represent populations and locations not covered by the three study gardens. Though this is not as pure as direct research, nor consistent with the survey and interview
methods used on the study gardens; it still provides valuable insight and comparable information for community garden types that were unable to be reached by more desirable techniques.

**Survey and Interview Design**

In order to conduct the surveys and interviews within these gardens I used the national database provided by the American Community Garden Association (ACGA) to obtain addresses and contact information for the garden leaders. Once I established communication (through email) with a representative of each garden I discussed with them the most appropriate and effective ways to disseminate the surveys amongst the gardeners. This involved using an online surveying site (Survey Monkey). The surveys were less than twenty questions and were specifically explained to prevent any confusion. I avoided using more than a few “double-barrel” questions and follow up questions and most questions gave the respondent an option to write in an answer that did not appear in the list. The survey was broken into three sections. The first sectioned dealt with informed consent and explained the survey to the gardeners. The second section consisted of questions focused on gardening activities including the number of years respondents gardened for, their motivation for gardening, the reasons they choose community gardening over (or in combination with) other forms of private gardening and other such questions aimed at obtaining detailed information about gardening perceptions and motivations. The final section of the survey consisted of questions focused on demographic characteristics of respondents including age, gender, and race. A complete copy of the survey is included in “Appendix 2”.
The survey does not include questions about personal financial information because this information is not only sensitive, and could dissuade some participation, but it also can be misleading as the cost of living is different in all locations and people’s perception of wealth and poverty rarely breaks along consistent numerical financial lines. For example, two people may both make $30,000 a year yet, based on budgeting, costs, responsibility, expectations, etc. may be in completely different mental and physical financial situations. It is for that reason that I chose to find out financial information (in relation to community gardening) through more abstract surveying methods. These methods are based on the idea that someone who gardens in order to grow produce to sell for profit is less financially well off than someone who only gardens for fun or community (while someone who gardens in order to grow extra produce for their own use would be in the middle). Although I realize this methodology and interpretation can be flawed I believe that in the context of community gardening it is very valuable. That is to say that if almost all of the members of a garden are gardening mainly as a means to earn money then it is safe to say that (from a community gardening perspective) they rely on the garden as a source of income and vice versa if they do not garden for profit.

Along with surveying the gardeners I also conducted a series of open ended written interviews with the garden leaders. The purpose of these interviews was to obtain more contextual and historical data about specific gardens and the gardening movement as a whole. These interviews were offered to the garden leaders in the form of either a phone conversation or as a list of questions in a word document that they could respond to via email. The interviews mostly served to add depth to the garden case studies and
thus more completely contextualize the survey results. Thus, in short, what I hoped to obtain was as complete as possible a view of the current state of U.S. community gardening through information obtained from the three main levels of community gardening – individual gardeners, local leaders and national organizations. A copy of the interview questions is shown in “Appendix 3”.

Other Research Methods

Along with the surveys and interviews that I conducted with the three community gardens I also utilized a number of other research methods to obtain additional data. This additional data include information received from other community gardens that were not surveyed but provided comments through direct on indirect contact such as the East Dallas Community Garden. The additional data also include information gained through phone interviews with prominent garden historians and researchers and national garden organization representatives. Information about each of these interview subjects is available in “Appendix 5”. There are also data referenced from other community garden studies, internet webpage statistics and garden newsletters and journals. These research results will not be extensively outlined in the following section but they will be referenced and cited throughout the discussion of my results and used to further validate my conclusions.
Chapter 4: Research Results

Case studies

In this section I will provide a concise overview of each of the three gardens with which I have conducted surveys and interviews. These overviews will cover a brief history of each garden, successes and obstacles that each garden has encountered their organizational structure, and specific garden features. My hope is that these overviews will help to inform the results of the interviews and surveys that I have obtained by providing a richer context for the analysis. These overviews will also provide a glimpse at how three successful community gardens have operated over the years and how they overcame obstacles to stay functional and relevant. I will also provide a brief study of the American Community Garden Association which has the largest U.S. community garden directory and plays a substantial role in the current community garden movement.

Hollenback Community Garden

The Hollenback Community Garden (HCG) is located in Brooklyn, New York just south of the Pratt Institute, Fort Greene Park and Long Island University-Brooklyn. It is technically a part of the Clinton Hill neighborhood but is also close to other areas such as the Fort Greene and Bedford-Stuyvesant neighborhoods. This garden was founded in 1979 and has been growing and evolving ever since. The garden was built on the site of an old mansion (from which its name was derived) after the building burnt down due to suspected arson. Members of the community decided to clear the rubble
away and plant the seeds of what is now a vibrant community garden. Initially the
gardeners not only focused on tending individual plots but also on working with
handicapped children from the neighborhood school. The school eventually discontinued
this program, however, and the gardeners thus continued work on their individual plots
and hosting the occasional neighborhood barbeque while focusing on issues of
sustainability, education, local and organic urban food production and improved
community access.

Since 2000 the garden has introduced numerous features, including a 700 gallon
rainwater collector; a composting toilet; community composting projects; replacement of
a chain link fence with a more durable and more attractive wrought iron fence; tapping
into the city water system; the creation of two welcome gardens with areas for sitting;
reestablising a relationship with the neighborhood school; and annual event combining a
yard sale, bake sale and a free barbeque and movie night; and the creation of garden by-
laws to more successfully manage increased garden interest and involvement. The
addition of these features and events has steadily grown membership and community
interest in the garden, while enhancing the community gardening experience and
fostering sustainability and environmental awareness.

Although autonomous, the garden itself is part of a larger community garden
network called the Brooklyn Queens Land Trust (BQLT), an organization made up of
roughly 33 other community gardens. In addition to being a member of the BQLT the
HCG, also interacts with many other local organizations through city-wide garden tours
and a “Green Thumb Grow Together” each year. In addition to participating in these
annual events, the HCG also acts as inspiration and an educational resource for groups
like the Brooklyn Botanical Garden, the Lower Eastside Ecology Center, and the Queens Botanical Garden who utilize the HCG composting system as a classroom tool for their staff. Along with having strong connections within Brooklyn and the surrounding boroughs the HCG has also made ties across the rest of the world. Examples of this can be seen in the garden’s assistance and communication concerning community garden growth and management with groups and individuals in places like New Mexico, Tel Aviv and elsewhere. This international connection can also be seen in the garden’s recent hosting (along with three other gardens in NYC) of a UN delegation involved in a conference concerning sustainable development.

The garden is currently comprised of around 45 members who either work as individuals or in small groups to tend personal plots of varying shapes and sizes. Each member of the garden pays on a sliding fee scale from $10-$50 per season and is responsible for his or her individual plot as well as communal areas with that are maintained by the group. Also, anyone wishing to become a full garden member must be over 18 years old. As part of their inclusion in the HCG members are required to attend a certain number of meetings and events and are also required to work a certain amount of time throughout the growing season. The garden also has an extensive and well maintained website which includes monthly meeting minutes and news updates as well as a section where individual gardeners can post links to their own sites (garden related or otherwise).

In order to maintain garden organization and productivity, by-laws have been formed that cover issues such as sabbaticals, garden keys, contacting members without email, and many other practical matters. When rules are broken, warnings are issued and
eventually other disciplinary actions can be taken, including in the most extreme cases, the removal of plot privileges. Within the garden seniority does matter in some regards and there is a waiting list when there are too many gardeners interested in joining the community garden. In order to address all of these concerns a number of positions exist within the garden to coordinate work days, help new members get familiar with the gardens, enforce rules, and take care of many other tasks. The garden’s limited funding comes from membership dues, occasional fund raising events and grants -- when a specific project is in need of funding. Since the garden does not have extensive financial resources, it primarily relies on volunteer work to make sure that everything is managed and organized effectively.

Some of the issues that the garden has faced in recent years have come from neighborhood homeowner block associations who take issue with the smell that is produced from the composting system. Along with this there is also always concern when any food that is produced in the garden goes wasted or is not properly utilized. One of the garden’s biggest issues, however, came in dealing with the obstacle created during the 1990s when many gardens across New York were put up for sale to potential developers in the city’s bid to turn a profit and create new housing by selling off surplus property. This potential disaster for the HCG was averted due to the help of the Trust for Public Land (TPL), a national organization, which was one of three groups that worked to purchase land from the city that community gardens were located on. The TPL still holds the deed for the land and is currently working with the BQLT to transfer the deeds for the 30-plus gardens to the BQLT.
Manhattan Community Garden

The Manhattan Community Garden is located in the south part of Manhattan, Kansas (home of Kansas State University) and was formed in 1974. It has been recognized as not only one of the oldest community gardens in Kansas but also as one of the oldest community gardens in the entire U.S. The garden was founded through a grant secured by UFM (University for Mankind) and the land is provided by the city of Manhattan. With this grant money, and assistance from the city’s urban renewal programs, the garden purchased basic supplies and the land which was zoned as green space and still maintains that status.

The garden site, and its original sixty plots, was prepared by clearing a few old houses and many trees with help from the city and numerous volunteers. Once the site was ready a local nursery provided both a tractor and fertilizer to prepare the soil while the city donated water, water meters and spigots. In addition a local bank also provided seeds for the garden’s first year and, with the help of a grant from the Social Rehabilitation Services, a developmental center donated a shed for the property. The garden has been growing ever since its inception and currently the lease on its three acre site is held by the UFM Community Learning Center and is renewed every five years by the city of Manhattan, KS.

UFM Community Learning Center is a non-profit organization formed in 1968 to create a stronger connection between Kansas State University (KSU) and the rest of Manhattan and Kansas. UFM was formed by KSU students and faculty, and is committed to community development, community education and outreach. The organization was founded on the ideals that learning and personal development can last
over a lifetime and thus UFM not only acts as a forum for exchanging ideas but also as a vehicle for new programs and services that improve the quality of life for everyone.

Throughout its history the garden has seen a number of significant events. In 1979 a children’s garden was added next to the main gardening area. Throughout the 80s 90s and turn of the century the garden received a number of awards such a national garden award in 1986, the *America The Beautiful* award in 1990, the *International Peace Pole* award in 1996 and recognition of its status as the oldest community garden in Kansas in 2006. Over the last few years the garden has also seen the addition of a new shed donated by a local construction company, an increase in the number of social events, weekly newsletters and email group networks.

In addition to all the positive growth, recognition and development of the garden there have also been some obstacles over the years. The biggest of these obstacles arose in the fall of 2006 when the city of Manhattan sold a section of the garden to a private company. This sale affected some 46 plots and forced the garden to reorganize and revaluate its setup. As a result of the downsizing the garden created a number of new plots (out of the children’s garden that was not getting much use) and, in total, only lost around 20 plots. Although this event caused some problems within the garden there were, fortunately, also positive aspects. It not only forced the garden leadership and members to more closely evaluate their current plan and commitment but it also created a relationship with the new land owner which provides trash hauling and large equipment assistance for certain projects.

The garden’s structure and organization are vital to its continuing success and stability. Currently the garden consists of over 150 plots which are available on an
annual basis. The garden has a small annual budget of approximately $5,000 and funds are raised through special events and plot rental fees which are administered on a sliding scale. The rental fee also allows members to utilize the garden’s resources such as water, mulch, tools, seeds, and advice. The garden is open to all residents in the city of Manhattan and each year orientation and plot rental starts in the beginning of February and lasts until all of the plots are filled. The garden is made up of a diverse group of individuals who come from different backgrounds, age groups and income levels.

Management of the community garden is taken care of by the Board of Directors which consists of active gardeners. Each board member serves a three year term and oversees a working committee. These committees are made up of volunteers and cover things such as grounds maintenance, rules, garden socials, etc. The Board of Directors also makes decisions concerning garden policies and development. The sitting UFM director has a vote on the board and also has the ability to veto any decisions that do fit with the best interests of the UFM. This veto power, however, has never been utilized. In addition to the board, a Kansas State University student is occasionally hired as a garden coordinator.

Along with the volunteer work the gardeners can participate in, there are also a number of requirements in order for membership to be maintained. For instance each gardener has responsibilities concerning the management and mowing of common areas and participation in two garden activities during the season. Failure to meet these requirements can affect future membership with the hope that members will get more involved in all of the numerous activities and events that the garden organizes.
Sunshine Community Garden

The Sunshine Community Garden (SCG) was formed in 1979 in North Central Austin, Texas and acts as an “urban oasis” for gardeners wanting to grow their own produce and ornamentals. The garden is situated on 4 acres of land, currently offers over 150 plots for lease and is Austin’s oldest and largest community garden. In addition to the growing plots the garden also has other features such as a chicken coop, mulch and compost piles, and two greenhouses. The land is leased to the garden at no cost by the Texas School for the Blind and Visually Impaired and the garden also receives support from the Lower Colorado River Authority. As a result of the continued support and growth of the garden over the last 40 years it has been voted the best Community Garden in Austin for 1998, 2004, 2006 and 2007.

The SCG is a project of Greenlights for Non-Profit Success, a central Texas organization that focuses on helping non-profits successfully grow and sustain themselves. Funds for garden maintenance, supplies and special operations are raised through rental fees, various deposits and special events such as the Annual Spring Plant Sale and Benefit which draws thousands of people and is assisted by local grower San Gabriel Valley Farms. The garden is an all volunteer organization and has no paid staff but still manages to support educational tours, donate seeds and plants and provide meeting space to other non-profit organizations. The garden also sets aside a number of plots to grow produce for a local food bank and has other plots specifically assigned for at-risk youth and members of the Texas School for the Blind and Visually Impaired.

The garden has an extensive set of organizational rules and by-laws that aid in its continued success and sustainability. For someone to rent and keep a garden plot they
must not only pay the appropriate fees but also participate in work days and keep the plot relatively well maintained and in use. There are also specific rules for garden use and activities that address garden safety, produce purity, appropriate behavior and legal issues. If these rules are broken fines are levied and eventually gardeners forfeit their plot privileges. There are also guidelines concerning roads, parking and the management of common areas; that serve to keep the garden safe, secure and attractive.

The SCG is managed by a Board of Directors which consists of five elected officials as well as up to four extra directors which are appointed by the board members. Each official is elected by the garden members and serve a one year term. In addition to the board there are also seven zone coordinators which are appointed by the President to a one year term (or longer if necessary). These zone coordinators are typically selected from gardeners who have volunteered for the position. When an amendment to the site rules are desired the Board makes the initial suggestion and then the garden members must ratify the amendment.

*American Community Garden Association*

The American Community Garden Association (ACGA) was formed in 1979 as a result of national community garden conferences that were held in Chicago during the late 1970s. The organization has experienced a somewhat chaotic growth but has always maintained its commitment to providing a foundation for urban community garden growth. The ACGA has always been a predominately volunteer based organization which works off of a relatively low budget and funds major projects through national and regional grants.
In 1982 the organization declared itself as a nonprofit 501(c)(3) and was receiving funding from the Pennsylvania Horticulture Society and had a central office located in Ann Arbor, MI. The original board of directors consisted of 16 members from different regions in order to create a network across the country. As the organization continued to slowly grow they hired an executive director for the first time in the early 1990s but found that there was too much work for one person to do and thus the structure was predominantly unsuccessful. The organization also relocated to Pennsylvania in the early 90s as the result of funding provided by the William Penn Foundation that lasted until 2002. During this stretch of time a part-time staff was hired to work for the ACGA and respond to enquires as well as deal with organizational operations.

Starting in 1994 the ACGA began running a mentoring program that would last for around three and a half years called “From the Roots Up”. This program aimed to pair mentors from the ACGA with communities that already had some level of community garden involvement. This was the first real effort for fundraising that the ACGA launched. At this point the organization had a fluctuating membership of between 350 and 700 people. These numbers, however, do not accurately represent the amount of influence the organization had as its goal was not so much to grow its membership total but rather to act as a resource to community gardens across the U.S. and Canada. Nonetheless, the ACGA continued to attract new members especially from hosting workshops and presenting publications on “growing communities” that occurred between 1998 and 2001. In 2002 the funding from the William Penn Foundation was no longer available so the ACGA soon thereafter relocated its central offices to Columbus, OH.
During and after the headquarters move the association continued presenting there Growing Communities workshops that lasted until 2007. These workshops were generally two days long and were presented in over twenty cities. Much of the funding for these programs came from national grants which acted as a big enhancement to the organizations budget and allowed them to hire a few in-house staff members. By 2006 the organization had over 1200 members and three permanent staff members. Membership numbers have declined slightly over the last year because of a lack of conferences and workshops but the ACGA list serve has grown from 500 to 1000 over the last few years and does not show any signs of slowing down.

Betsy Johnson, the executive director of the ACGA from 2005-2007, believes that the slow and steady, albeit somewhat chaotic, growth of the ACGA over the last two decades is not an accurate reflection of the general growth in community gardens across the U.S. Indeed, it seems as though most anecdotal evidence would support this. Although the membership numbers of the association have not skyrocketed as one might expect, the amount of community gardens that can be located, and contacted, through the ACGA website is extremely large and growing. This discrepancy is most likely caused by the amount of free information and resources that the ACGA’s website provides. Though there are extra benefits to membership almost all of the necessary tools for starting and maintaining a successful garden can be accessed on the website – an example of what many political scientists refer to as the “free rider” problem. It may also be that many new and established gardens across the country simply want to use the site as a way to try and connect to other gardens and gardeners across the country and only need the website as a communication tool.
Though the ACGA is by no means the only extensive community garden organization in the U.S. its history is an indicator of many trends and themes within the modern community garden movement. Not only does the association’s history show the attraction and growth of community gardens in the U.S. since the 1970s but it also points towards the resilience of organizations to all sorts of obstacles as a result of the financial and volunteer support of a strong network of community, gardening and community gardening organizations. The ability of the ACGA to survive and grow over 25 years and become an influential resource and leader in community gardening activities is in of itself a testament to the strong reemergence of community garden support since the 1970s.

Survey Results and Figures

In this section I will present the results of my surveys of participants in the three study gardens in a number of separate figures and tables. I will show figures for each question on the survey and then provide a quick written summary of the results. Figures 1-9 show the number of people who responded on the Y-axis and which garden these people belonged to on the X-axis. The total results from all of the respondents (all three gardens combined) are also indicated on the X-axis as “combined”. Figures 10-17 are set up differently and are explained further on. The respondent totals for each of the three gardens are as follows:

- Hollenback: 16/35 = 40%
- Manhattan: 26/150 = 17%
- Sunshine: 23/175 = 13%
- Combined: 65/360 = 18%
Since the respondent rate is just around 20% there are obvious limitations to the survey data that follows and the number of non-respondents renders the data less informative than it could be with a higher response rate. Specifically, the survey data is biased towards gardeners that not only had access to a computer and a reliable internet source but also had the time and desire to complete the survey. This would indicate that the majority of respondents are most likely active gardeners with adequate computer resources.
How long have you been gardening?

Figure 1: This figure shows the approximate amount of time that the community garden members have been gardening.

According to “Figure 1” each of the three gardens exhibit similar patterns amongst respondents, concerning the length of time that their members have been gardening. Each of the gardens show a large group of experienced gardeners (more than five years) and smaller groups of less experienced gardeners indicating there is clearly a majority of members who have been gardening for more than five years.
On average how often do you participate in the community garden throughout an average week during your region’s growing season?

**Figure 2:** This figure shows how often the community garden members garden in a given week.

The results summarized in “Figure 2” show more than 90% of the surveyed members are active in their community garden at least once each week and, furthermore, more than 40% of the members are active in the garden at least three times each week. Each of the three gardens exhibit relatively similar patterns in weekly involvement amongst the respondents. The main difference comes from the Manhattan garden which shows the least amount of respondent variety while both the Hollenback and Sunshine gardens show significant respondent variety. This slight difference is most likely attributed to differences in garden culture or garden rules concerning hours of operation.
How long do you plan to continuing gardening within your community garden?

**Figure 3:** This figure shows how long members of the three gardens plan on continuing their involvement in their respective community gardens.

According to “Figure 3” we can see approximately 90% of the respondents expect to continue gardening within their community garden for more than just the current growing season. The results are similar for all three gardens with the vast majority of responding members expecting to garden for at least another growing season. Of everyone surveyed only one respondent planned to stop gardening at the end of the current season.
Whom do you garden with (you may choose more than one)?

**Figure 4:** This figure shows who garden members generally participate with in the community garden.

The results in “Figure 4” show that approximately 40% of respondents garden with their immediate family while just over 30% do not generally garden with anyone. Both the Manhattan and Sunshine community gardens have a high number of respondents who garden alone and respondents who garden with their immediate family; while the Hollenback and Sunshine gardens have a large number of respondents who garden with friends. In addition, the Hollenback garden had the highest number of respondents who worked with other garden members; while the respondents of all three gardens spent little time gardening with their extended family (although not stated in the survey results, this is most likely due to their extended families’ location).
Is this your first experience gardening in a community garden?

Figure 5: This figure shows how many garden members have worked in community gardens before their involvement in their current community garden. The results shown in “Figure 5” indicate approximately 70% of those surveyed have not participated in a community garden before their current involvement. The results also indicate that amongst the respondents both the Hollenback and Sunshine community gardens have a substantially higher number of “new gardeners” rather than “repeat gardeners” while the Manahattan garden has an equal amount of both.
Do you garden in a private garden as well as in a community garden? (A private garden refers to a garden at a private residence such as your or someone else’s home.)

**Figure 6**: This figure shows the number of gardeners who work in a private garden as well as in the community garden.

From the results outlined in “Figure 6” we can see that around 57% of those surveyed work in a private garden as well as in the community garden. The results also show that both the Manhattan and Sunshine community gardens have a large number of respondents who participate in a private garden while the Hollenback community garden has a large number of respondents who only participate in the community garden. This difference is most likely due to the lack of available land and small yard sizes that are found in Brooklyn compared to Austin and Manhattan.
If you answered yes to question 7 please answer the following: Do you prefer gardening in a community garden or gardening in a private garden? (A private garden refers to a garden at a private residence such as your or someone else’s home.)

Figure 7: This figure shows the number of people who prefer private gardens, community gardens or both equally (this question was only answered by those who participate in a private garden and a community garden).

The results seen in “Figure 7” indicate that out of those respondents who participate in both a private garden and a community garden approximately 20% prefer their private garden, 23% prefer a community garden and 57% like them both equally. The results also show that only the Manhattan community garden has more respondents who prefer their private garden to the community garden.
Do you work in the community garden because you do not have access to a private garden?

![Bar chart showing the number of members who work in a community garden because they do not have access to a private garden.](image)

**Figure 8:** This figure shows the number of members who work in a community garden because they do not have access to a private garden.

From the results shown in “Figure 8” we can see that roughly 44% of those surveyed participate in their community garden because they do not have access to a private garden. In addition the results indicate that both the Hollenback and Manhattan community gardens have slightly more respondents without access to private gardens while the Sunshine community has significantly more respondents who do have access to a private garden. The Hollenback results make sense due to land scarcity within Brooklyn. The Manhattan results, however, are harder to explain but may be attributed to those who live in apartment complexes or have smaller yards (Appendix 4)
(If you answered “No” to question 9 please skip this question). If you had access to a private garden would you still continue to work within the community garden?

**Figure 9:** This figure shows the number of people who would continue to work in a community garden even if they had access to a private garden (Only those who do not have access to a private garden answered this question).

The results in “Figure 9” indicate that of those surveyed, who did not have access to a private garden, approximately 40% would continue to garden within a community garden if they had access to a private garden, 23% would stop gardening in a community garden and 37% were unsure whether they would continue or stop. Each of the three gardens had very different results. The Hollenback community garden had the largest percentage of respondents who were unsure; the Manhattan community garden had the largest percentage of respondents who would stop working in the community garden; and the Sunshine community garden had the largest percentage of respondents who would continue working in the community garden. It is also worth noting that the Hollenback
community garden had no respondents who would stop gardening in a community garden and all three gardens had respondents who would continue working in the community garden. The reasons for these varying results could be attributed to anything from the respondent’s distance from the community garden to their satisfaction with the community garden both of which were mentioned in the gardener’s open ended responses.
Figure 10: This figure shows the number of members from the Hollenback Community Garden who identified certain reasons for gardening. Each respondent was asked to list up to 5 reasons gardening.

Figure 11: This figure shows the weighted value given by members from the Hollenback Community Garden who identified certain reasons for gardening. Each respondent was asked to list up to 5 reasons for gardening and rate them in order from 1-5. 5 points were allotted to the top reason, 4 points for the second, and so on.
**Figure 12:** This figure shows the number of members from the Manhattan Community Garden who identified certain reasons for gardening. Each respondent was asked to list up to 5 reasons gardening.

**Figure 13:** This figure shows the weighted value given by members from the Manhattan Community Garden who identified certain reasons for gardening. Each respondent was asked to list up to 5 reasons for gardening and rate them in order from 1-5. 5 points were allotted to the top reason, 4 points for the second, and so on.
Figure 14: This figure shows the number of members from the Sunshine Community Garden who identified certain reasons for gardening. Each respondent was asked to list up to 5 reasons gardening.

Figure 15: This figure shows the weighted value given by members from the Sunshine Community Garden who identified certain reasons for gardening. Each respondent was asked to list up to 5 reasons for gardening and rate them in order from 1-5. 5 points were allotted to the top reason, 4 points for the second, and so on.
Figure 16: This figure shows the total number of members from the three study Community Gardens who identified certain reasons for gardening. Each respondent was asked to list up to 5 reasons gardening.

Figure 17: This figure shows the combined weighted value given by members from the three study Community Gardens who identified certain reasons for gardening. Each respondent was asked to list up to 5 reasons for gardening and rate them in order from 1-5. 5 points were allotted to the top reason, 4 points for the second, and so on.
Table 2: Top Three Reasons for Gardening

<table>
<thead>
<tr>
<th>Garden</th>
<th>Method</th>
<th>1st choice</th>
<th>2nd choice</th>
<th>3rd choice</th>
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<tbody>
<tr>
<td>Hollenback</td>
<td>count</td>
<td>community</td>
<td>recreation</td>
<td>extra produce</td>
</tr>
<tr>
<td></td>
<td>value</td>
<td>community</td>
<td>recreation</td>
<td>extra produce</td>
</tr>
<tr>
<td>Manhattan</td>
<td>count</td>
<td>extra produce</td>
<td>recreation</td>
<td>outdoors</td>
</tr>
<tr>
<td></td>
<td>value</td>
<td>extra produce</td>
<td>recreation</td>
<td>save money</td>
</tr>
<tr>
<td>Sunshine</td>
<td>count</td>
<td>outdoors</td>
<td>extra produce</td>
<td>recreation</td>
</tr>
<tr>
<td></td>
<td>value</td>
<td>extra produce</td>
<td>outdoors</td>
<td>recreation</td>
</tr>
<tr>
<td>Combined</td>
<td>count</td>
<td>extra produce</td>
<td>outdoors</td>
<td>recreation</td>
</tr>
<tr>
<td></td>
<td>value</td>
<td>extra produce</td>
<td>outdoors</td>
<td>recreation</td>
</tr>
</tbody>
</table>

Note: This table shows the top three reasons for gardening in each of the three community gardens (and the gardens combined) using both the count and value methods.

“Figures 10-17” and “Table 2” show the results to the question

“Why do you garden within the community garden? (Please choose the top 5 reasons from the below list and rank them in the order of importance with 1 being the top reason you garden and 5 being the least important reason you garden).”

“Figures 10, 12, 14, and 16” show the total number of respondents who choose each category as one of their reasons for gardening. In these figures labeled “count” there is no weight given to the order of their responses; rather I am just looking at the total number of respondents that indicated each example as a reason for participating in the community garden. In contrast to this methodology “Figures 11, 13, 15 and 17” show the weighted “value” of the respondent’s answers. In this analysis a weighted point total was given to the respondent’s ranking of the examples where their first choice received 5 points their second choice received 4 points and so on to their last choice receiving 1 point. As a result the selections which are the most prevalent and substantial should receive the largest number of points.

These two separate methodologies were employed so that both the quantity and magnitude of the “reasons for gardening” could be known. The straightforward “count” method shows the number of people who garden for each reason while the “value”
method shows the degree of interest that the gardeners have in each reason. Knowing both the quantity and magnitude of the reasons is helpful because it gives two separate pictures of diversity and presents a clearer picture of the motivations behind participation in the community garden.

“Figures 10 and 11” show the “count” and “value” results for the Hollenback Community Garden. The “count” results show that recreation, growing extra produce and being involved in the community were the top three reasons for gardening while saving money, helping the environment and being outdoors were also indicated by around half of the respondents. When the responses are “weighted” the principal reason that those in the Hollenback garden participate is to be involved in the community. The weighted results also show that growing extra produce, recreation and being outdoors are also important to the respondents.

“Figures 12 and 13” show the “count” and “value” results for the Manhattan Community Garden. The “count” results indicate that recreation, growing extra produce, being outdoors and getting exercise were the major reasons for gardening while saving money and being involved in the community were also indicated by a large number of the respondents. When the responses are “weighted” the leading reason that those in the Manhattan garden participate is to grow extra produce with recreation very close behind. The weighted results also indicate that saving money, being outdoors and getting exercise are also important to the respondents.

“Figures 14 and 15” show the “count” and “value” results for the Sunshine Community Garden. The “count” results show that growing extra produce and being outdoors were the top two reasons for gardening while saving money, helping the
environment, getting exercise, being involved in the community and recreation were also indicated by a large number of the respondents. After the responses are “weighted” the major reasons that those in the Sunshine garden participate is to grow extra produce and be outdoors. The weighted results also show that all of the other reasons for gardening, excluding making money and being around specific people (to a lesser extent), were also significant reasons for participation. (It is important to note that the absence of a “value” for the “make money” choice in “Figure 15” is the result of one of a few respondents choosing more than five reasons for gardening; thus their choices were included in the overall “count” but not within the “value” calculations).

“Figures 16 and 17” show the “count” and “value” results for all three community gardens combined. The “count” results indicate that recreation, growing extra produce and being outdoors were the top three reasons for gardening while saving money, helping the environment, being involved in the community and getting exercise were also indicated by around half of the respondents. Once the responses are “weighted” the main reason that the gardeners participate is to grow extra produce with being outdoors and recreation not far behind. The weighted results also show that all of the other choices, except for making money, received a decent amount of interest.

“Table 2” indicates the top three responses for each of the three garden’s respondents and the gardens combined using both the count and value methods. From these data we can see some of the similarities and differences between the three gardens. All three of the gardens have providing extra produce and getting recreation within their top three reasons for gardening. In addition both the Sunshine and Manhattan gardens have being outdoors in their top three. Each garden, however, has a different number one
choice which indicates the many types of gardens that are present throughout the current movement. The Hollenback garden is more focused on gardening for community interaction and development while the Manhattan gardener’s tend to desire extra produce and the Sunshine gardeners participate for extra produce and being outdoors equally.

**Demographic Data**

Table 3: Demographic Data

<table>
<thead>
<tr>
<th>Demographic Source</th>
<th>Average Age (years)</th>
<th>Male (%)</th>
<th>Female (%)</th>
<th>other (%)</th>
<th>White (%)</th>
<th>African-American (%)</th>
<th>Hispanic (%)</th>
<th>Other (%)</th>
</tr>
</thead>
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<tr>
<td>Hollenback Garden / Zip Code</td>
<td>35.6</td>
<td>27</td>
<td>73</td>
<td>0</td>
<td>80</td>
<td>7</td>
<td>0</td>
<td>13</td>
</tr>
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<td>Manhattan Garden / Zip Code</td>
<td>53.6</td>
<td>54</td>
<td>46</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sunshine Garden / Zip Code</td>
<td>47.8</td>
<td>36</td>
<td>60</td>
<td>4</td>
<td>95</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Other Garden / Zip Code</td>
<td>35.2</td>
<td>49</td>
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<td>79</td>
<td>3</td>
<td>14</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: This table shows demographic data concerning age, gender and race for each of the three study gardens and for their related zip code.

From “Table 3” we can see that there are substantial demographic differences concerning age, gender and race between the three community gardens and the zip codes which they are located. These demographic data are important because they can help determine how the community garden fits into the surrounding larger municipal community and show how this influences the garden’s developmental narrative. It is important, however, to keep in mind that the sample size for each garden is quite small compared to the larger zip code data and thus must be analyzed with an understanding of those limitations.
Age

In all three community gardens the average age of the respondents are greater than the residents of the surrounding area. The difference is most noticeable in the Manhattan community garden where the members are an average of around 30 years older than those of the surrounding community. The difference can be attributed to a number of different things. In some cases garden rules do not allow membership for people under 18 years of age; in other cases much of the membership may be made up of retirees who have more time to commit to staying involved in the garden and logically we can suppose that very young children may not have the capability to fully commit themselves to community garden activities. The extreme difference in the Manhattan garden may be due to the high amount of college students who reside in the city during the academic year but then leave during the summer months, which in Kansas is the prime growing season and most active time in the community garden.

No matter the reasons, the data do clearly show that for these three gardens the average member tends to be older than the average member of the surrounding community. If these data were analyzed in a vacuum then there would be some cause for concern as it would appear that the gardens are not sufficiently reaching out to all age groups within their community or are not appealing to certain age groups. This, however, is not the case and we must also look at the commitment that each garden has shown to incorporate children’s gardens into their structure and educational outreach efforts with local schools and organization as well as the numerous accounts of teenagers and young adults participating in gardening and garden leadership (Hayden-Smith, personal...
communication, Feb 8, 2009). Therefore we can conclude that even though the average age of the garden members is higher than their community it does not necessarily mean that the younger members of the community are not incorporated into the community garden’s activities or that there are not active younger members.

**Gender**

The gender demographics of the three community gardens are relatively similar to those of their related zip codes which point to a general integration of both genders into the three community gardens indicating a healthy representation of gender diversity in the movement. The biggest difference is between the respondents in the Hollenback Community Garden and its surrounding area. Although the Hollenback garden does contain more females than males, like its surrounding area, the percentile difference is the largest of the three at around 19%; compared to between 1% and 13% for the other two gardens. This difference, however, is not too alarming considering the low number of respondents for the question. Yet, there is some evidence which indicates that starting in the 1970s women became very active in community development organizations which focused on a holistic approach to developing neighborhoods (Gittell, et. al., 2000). These data may explain the high percentage of female participation in some of the gardens as community gardens tend to be a community development tool with broad goals beyond the typical commercial and residential development techniques.
Race

The racial compositions of the three gardens share some broad similarities in that the respondents from each garden predominately identified themselves as white at rates of 80% to 100%. These high percentiles are expected for the Sunshine and Manhattan gardens whose white population in the surrounding area is 79% and 85% respectively. The high percentage of white respondents in the Hollenback garden, however, does not line up with the zip code that the garden is located in which has a white population of 15%.

There are numerous explanations for why this disparity exists. One likely determining factor is the population density which the garden exists in. Since the zip code areas within Brooklyn are small relative to cities with lower population densities (such as Manhattan and Austin) the participation in the community garden from members outside of the garden’s zip code are more likely to occur. In addition, the Hollenback garden is near many institutions which draw in many “outsiders” on a daily basis that may become members. These assumptions are backed up by numerous comments from respondents within the Hollenback garden who stated that the distance they must travel to the garden is one of their least favorite aspects of community gardening.

Even with these explanations it is important that we not ignore the implications of these demographic statistics. In each of the three gardens there was an under representation of non-white racial groups that points towards the possibility of low diversity within these garden communities. This information brings up many questions of agency, integration and representation that, in their entirety, are beyond the scope of this paper and may be premature based on the limited amount of data. Yet, it is necessary
to acknowledge these data and view other results and conclusions in this paper within the context these statistics provide.

**Open Ended Questions**

I have included selected responses for the two open ended survey questions in “Appendix 4”. These questions dealt with the respondent’s favorite and least favorite aspects of community gardening plus any other general comments or statements they wanted to share. Many of the comments are generally positive and speak to the benefits of community gardening as well as the challenges involved in cultivating produce and relationships. There were also some negative comments that mostly dealt with the typical challenges which are present in most moderate sized organizations with rules and regulations.

The comments that the gardeners provided acted as a rich source of first hand data concerning many aspects of the current U.S. community gardening movement. I have integrated much of this information into many sections of this report. In general, the comments for each garden were similar with a few geographical and organizational differences concerning growing seasons, produce variety, insect variety, travel times and garden politics.

There were a few common themes which emerged from the gardener responses. One topic that showed up frequently was the interaction between experienced and inexperienced gardeners:

“As a first time gardener, I like learning from the experienced gardeners...”
“Learning from other gardeners is great.”
“I enjoy the knowledge of gardening that I get from other more seasoned gardeners.”
“I like seeing the other gardens and people out there and I can ask questions from more seasoned gardeners than myself.”
“It provides an opportunity to help and be helped by others…”

These quotes indicate the benefits that having a diverse set of gardener backgrounds can have. This exchange of information does not just occur between gardeners of different experience levels, however, as many other respondents indicated a less specific exchange:

“I love to get ideas and suggestions, share seeds, etc with other nearby gardeners…”
“I think it is interesting to see what other gardeners do with their plots and to see how people work together in a community.”
“Enjoying seeing other gardens and exchanging info and produce…”

Another major theme that was frequently discussed by the respondents was the ability to meet people of diverse backgrounds within their community garden and in the surrounding neighborhoods:

“I have met and continue to meet people, outside of my demographic, from the neighborhood.”
“The community garden is a wonderful place to meet people outside of my own age and personal interest spheres.”
“… [the] community garden gets people of disparate backgrounds together for something that is only good.”
“I meet different people than I do anywhere else.”

Not only do these quotes show that some participants in community gardens cherish the ability to interact with gardeners and community members of differing backgrounds but they also provide an indication of the participant diversity present within the gardens.
Many of the respondents also mentioned that the community garden was vital to them because they did not have access to a garden of their own due to their living arrangement:

“[I’m] able to have a garden when otherwise it wouldn't be possible living in an apartment”
“I love having more space to work than my small flower garden at home”
“I live in an apartment complex so I don't have the ability to have a private garden.”
“I garden because my space at home is limited and shaded so I'm not able to grow the diversity and quantity of produce that I can in the community plot.”

This further supports the survey results that suggest that the respondents come from differing backgrounds (living conditions). It also shows that even those respondents who do have available land in their private resident come to the community garden for better growing conditions and extra space.

A final theme that emerged from the opened ended questions was the diversity of garden uses or “reasons for gardening” that the respondents indicated:

“Positive interactions with plants and people”
“...getting to know my neighbors and working together with them; being rooted in my neighborhood; growing my own food; ... educating ourselves and our community about waste and sustainability...”
“Quality of soil and connections with other gardeners...”
“It's great to get exercise outdoors rather than going to the gym...”
“...enhanced flavor of food...”
“To grow organic vegetables and help the environment”
“I can grow things I could not get at a store.”
“Our economy is too unstable and agribusiness is destroying our soil AND our food.”

The multitude of reasons listed here shows the many different reasons that people garden and further supports the numerical survey results concerning “reasons for gardening”.

These responses also further show that many of the respondents enjoy the community
gardening experience for more than just one main reason. Instead these gardeners seem to use the community garden to fulfill many needs and desires in their daily lives.
Chapter 5: Discussion

The Sustainability of the Modern U.S. Community Garden Movement

Before I discuss the relevance of my data and the information it provides it is important that we first revisit the main hypothesis and once again lay out the major claims of my work. My belief is that the current U.S. movement has the potential for sustainability because it is supported by more research and infrastructure than in the past; it is composed of many more social and financial groups; it is sponsored by multiple groups (private, public, religious, non-profit, etc.); it incorporates multiple uses; and that it was spurred by many unconnected catalysts rather than by a single major crisis.

As has already been shown, each community garden movement has exhibited a few of the features that are present in the existing movement. Whether it is the diversity of gardens that appeared during the great depression, the variety of organizational support in World War I, or the multiple uses exhibited during World War II; each garden movement has shared a few, and in some cases many, of the same characteristics as we see in the current movement. The difference, however, is that both the magnitude and multitude of the characteristics present in the current movement are far greater than those present in past movements and they are all contributing at once creating a type of “perfect storm” scenario for community garden sustainability.

The following sections will provide an overview of the elements of this “perfect storm” scenario using the survey and interview information I obtained along with multiple other sources of evidence. I will start by providing a synopsis concerning the
vitality of the current movement and then I will show how the multiple features of the current movement provide the potential for sustainability. The features I will discuss are increased research; variety of garden use; variety of garden type; gardener diversity; organizational diversity; garden networks and changing political scale; and catalysts and crises.

**Research Results Concerning the Vitality of the Modern U.S. Movement**

Before delving into the specific elements of the modern community garden movement I believe it is important to present a summary of the movement’s current conditions so that we have a strong foundation to build an argument for sustainability. I specifically want to go through the characteristics of the three study gardens as I feel they act as an effective indicator of the general patterns and motivations of active gardeners within the current movement.

First, it is interesting to note the results in “Figure 1” (in the “Research Results” section of this report) which point towards the three successful gardens composed of a membership consisting of seasoned gardeners who have a commitment to gardening. The results also show a smaller group of relatively inexperienced respondents who may either continue on in the gardening process or learn that it is not for them. This approximate breakdown of two-thirds experienced respondents and one-third inexperienced respondents may be one reason for the success of the three study gardens. This success comes because the experienced majority may act as both a stable group to continue garden functionality while also acting as mentors to new gardeners who are able to increase the garden’s vitality. This theory is backed up by many gardener responses
that indicate they actively seek out advice from older more “seasoned” gardeners and that more experienced gardeners indicated they valued sharing knowledge with newer gardeners.

We can also see from the study gardens that the respondents are both very involved in the garden and plan on staying involved in the future. “Figure 2” shows a respondent population which is regularly active in the community garden by making it, at least, a weekly activity. It also shows that, for some, participation in the community garden is an almost daily activity. This regular involvement in the garden is a sign of healthy community gardens having members who value the gardening experience and their time spent serving as well as benefiting from the garden. In addition, the fact that the majority of the respondents are planning on continuing to participate in the community garden, as shown in “Figure 3”, is a positive predictor of the future growth of the three gardens. Furthermore those respondents who are currently involved in a community garden are anticipating continued activity, whether out of necessity or by choice, and thus will continue to support (either directly or indirectly) the growth of community gardens and the modern U.S. movement. Also, as shown in “Figure 5” there is a large number of respondents (just over 30%) who have been involved in other community gardens and continued gardening at a different site. This shows there are an entirely new group of community gardeners as well as a solid assembly of seasoned gardeners who provide a stable foundation the current movement continues to grow from.

These results are no surprise when past survey data are also considered. According to the National Community Garden Survey published by the ACGA in June, 1998 the number of community gardens in most cities increased significantly during the
mid 1990s. The survey looked at a number of cities with community gardens in 1992 and 1996 to see what the growth statistics of the gardens in these cities were. Overall most cities gained community gardens and as a whole there was 9% drop off of existing gardens (from 1992) and a 31% increase of community gardens (from 1992) making the total growth of community gardens in that five year period approximately 22% (ACGA 1998).

Along with the positive growth and participation statistics the study gardens also show a great deal of respondent diversity. Specifically, when the variety of gardener partnerships outlined in “Figure 4” is considered, along with the continuing prosperity of each of the three gardens, we can correctly conclude that who the respondents garden with does not greatly affect the health of the garden as a whole and that the size, structure and location of each garden most likely contributes to the varying results. It also shows different kinds of member interactions are not detrimental to garden growth and may actually encourage involvement as all three gardens have a variety of member interactions and have sustained themselves. Furthermore the respondents answers illuminate the strong amount of communal activity which takes place in the gardens as 70% of those surveyed do garden with other people and many respondents indicated the communal aspect is very important to them. It should also be noted, however, that those 30% who garden alone are not necessarily separate from the community as they often may maintain their own plot while interacting with others within the garden in a variety of other ways. What this tells us about the three study gardens, and potentially the movement as a whole, is modern community gardens generally accept, encourage and foster variety; and continue to thrive as a result.
More evidence for diversity is shown concerning respondents who work in both a private garden and in a community garden. What we can take from the results shown in “Figure 6” is that even though 57% of the members surveyed have access to a private garden they still choose to participate in the community garden. There are a few conclusions that can be drawn from this information which revolve around trying to figure out why many gardeners feel the need to participate in both a private and community garden. One likely possibility is that many respondents feel that even though they may not need extra room to grow more produce, herbs or ornamentals they lack the community and relationships that can be cultivated in a community garden. This is backed up by respondents indicating their fondness for the community activities beyond just growing produce and ornamentals. It may also be that some gardeners do indeed need the extra space as their own private garden is too small or limited as many respondents indicated. The gardeners could also be looking to assist in the development of their neighborhood or help support environmental sustainability and other issues. Whatever the case may be it is important to realize that these gardeners show that community gardeners are not just for those who lack access to their own private garden but instead that they serve many different purposes for many different people. This once again indicates that potentially a central strength of the modern movement is its diversity of motives and variety of participants.

Further evidence of community garden health and diversity is presented in “Figure 7” which indicates a number of things. First, it shows that even though one-fifth of the respondents prefer a private garden to the community garden they still participate in the community garden. This is further evidence to support that some gardeners do not
garden just out of want or enjoyment but also out of need, purpose, obligation or perceived obligation. The results also show that four out of five of those respondents involved in both private and community gardening either see the experiences as equal or see community gardening as preferable. This is a good indicator of the health of community gardens and their ability to include and please both individuals who have access to a private garden and those who do not once again showing the wide appeal that community gardens have to the current populace.

The approximately equal split between respondents with access to a private garden and those without, shown in “Figure 8” provides additional evidence concerning the variety of backgrounds and motivations of the respondents that exist within the three community gardens surveyed. These results, along with individual responses, also provide more evidence that the modern U.S. movement is made up of a wide variety of gardening participants who come from many different areas concerning land accessibility and potentially have many different motives for participating in community gardens.

Finally, the fact that 40% of respondents would continue to garden and 77% would not stop gardening for certain if they had access to a private garden, as outlined in “Figure 9” shows that there is a commitment to the community garden regardless of access to a private garden from many of the participants. The results also further solidify the notion that the current U.S. movement is made up of many different types of gardens; in this case specifically those who garden out of a lack of options and those who garden regardless of other options.

All of these results and data show signs of a community garden movement that has been growing steadily in size and diversity, with only minor lulls, over the last 30
plus years. This, in and of itself, is impressive because most movements have not been able to sustain growth more than ten years, let alone thirty. It is now important that we build further on this foundation and discuss the individual characteristics of the movement that have encouraged its sustainability.

**Increased Research**

The probability of a sustained acceptance and integration of community gardens into the municipal realm is growing, in part, because the research and literature concerning the health, economic, environmental, social and cultural benefits of community gardens and green spaces is growing at what seems to be an exponential rate. This, however, is not the first time these topics have received some attention. During each past movement there was certainly research and literature that indicated the benefits of community gardening to cities and people. Yet we can be fairly certain, from just a brief browsing of current work, that the quantity, breadth and depth of community garden based research in this modern era is much greater than of similar research in past movements.

The addition of more quantitative research along with the already existing qualitative research concerning the benefits of green spaces is of particular benefit to the prospects of a sustained movement. By being able to provide quantitative proof that community gardens have positive effects on adjacent property value, environmental health, patient recovery rates and community health (as describe earlier in this paper) the tendency to see gardens as simply a tool for crisis management, and not as a long-term functional part of the urban environment, will likely be mitigated.
There is also growing interest in the relationship between urban-dwellers and their environmental surroundings that looks at green spaces and community gardens as proper and necessary features of the urban landscape. A recent text which describes some of these trends is *The Granite Garden: Urban Nature and Human Design* which deals with the importance of realizing the connection between cities, nature and human activities. The book goes into great detail about how incorporating parks, flora (large and small), gardens and other “natural” elements can vastly improve the quality of a city and heighten the environment as well. Also *The Human Metropolis: People and Nature in the 21rst–Century City*; which is a collection of articles and essays dealing with how urban design has been, and is being, influenced by nature and environmental policy, indicates the growing acceptance of “green” areas in cities. Many of the essays in this text are specific case studies dealing with the implementation of new urban design and environmental projects while other articles look at broad ideas about how new design plans dealing with things like watershed management and park design can significantly improve municipal life. There are a myriad of other recently published books, volumes and texts that provide research, case studies and policy suggestions concerning everything from sustainable urban development (Wheeler and Beatley, 2004) and urban-nature relationships (Barlett, 2005) to social welfare and environmental issues (Cahill and Fitzpatrick, 2002).

Along with the increasing research into the urban-environment relationship, there has also been a broadening of the definition of what nature is and where it can be found. The most prominent example of this is William Cronon’s volume *Uncommon Ground: Toward Reinventing Nature* in which Cronon and many others argue rather than
excluding nature and separating from our everyday live we should expand our understanding of what “nature” is work to integrate it into our lives in a sustainable manner (Cronon, 1995). Though the ideas of Cronon and others may not be widely consumed by the general public or leading policy makers it does underscore a growing acceptance of identify and supporting many different types of “nature” and not just those forms that are located beyond the city in the steadily shrinking “wilderness”.

The continuing research and expanding philosophies regarding community gardens, green spaces, environmental issues, urban planning and urban-environment interactions summarized here are extremely important for the sustainability of the current movement. This research provides an essential resource for garden proponents to draw off of when attempting to start, expand or maintain a community garden in the face of political, social or financial challenges.

**Variety of garden uses and garden types**

Another factor which I believe separates the modern U.S. movement from other past movements and which makes it potentially more sustainable, is that modern community gardens are no longer created for just food, money or morale. Instead the modern community garden tends to be a place where people intentionally try to gain a better understanding of their connection with nature, become more physically active, establish better social connections, understand the improvement public health has on quality of life, enhance their nutrition, etc. Modern gardeners also embrace the opportunity to improve their access to fresh produce, become involved in strong volunteer networks and local leadership, and to learn about important agricultural and
environmental issues. Though there may be examples of gardens and gardeners in the past that did embrace some of these ideas; they were the minority. Now, however, these multiple uses are a common occurrence in gardens, as are multiple types of gardens, and my research indicates as much.

The results acquired from the study gardens, outlined in “Figures 10-17” and from individual gardener comments, indicate a number of key characteristics about the garden respondents specifically and potentially the current U.S. community garden movement as a whole. Most noticeably there is evidence that supports my hypothesis that people participate in community gardens for numerous separate reasons. This is shown by the high “count” and “value” results that 9 out of the 10 possible “reasons for gardening” received. In addition, there were also numerous different reasons given within the “other” category that the respondents identified as being important. These included supporting healthy eating, passing on knowledge to grandchildren, providing food for local food banks, etc. This not only shows an even wider variety of reasons for participating in community gardens but it also indicates that there are potentially countless more reasons that other gardeners in other community gardens may have for participating. In other words, since a large degree of diversity has been found within this specific group of respondents it is logical to believe that even more diversity would be found if a more diverse set of participants were surveyed.

Another piece of information which is made obvious from these results is that respondents within the three gardens predominately do not participate in order to make money. This could be interpreted in a number of manners. First, we might conclude that the participants within the community garden are not in financial need and thus do not
see gardening for profit as a major draw. This conclusion may be tempered, however, if we take into account the fact that one of the major reasons for gardening that the respondents did list was to save money thus suggesting some form of financial incentive. In addition the possibility of actually making a meaningful profit from a small plot may not be realistic for many gardeners or may take too much time in relation to the actual profit gained. Yet, we do know that many gardeners, in other gardens such as the Dallas Community Gardens, grow food in order to turn a profit (Hominick, 2005) so the possibility of this being a reason for gardening within community gardens on the national level can not be discarded.

A final indication that these results provide is concerned with the uniqueness that each of the three gardens respondent’s exhibit. That is to say that from the respondent’s answers we can see that each garden has a different use profile. The Hollenback garden seems mostly focused on community interaction and recreation while the Manhattan garden seems generally concerned with recreation opportunities and saving money through the growth of extra produce and the Sunshine garden members seem to take an all of the above approach. Even when the small sample size of gardeners is considered, what this shows is that these gardens are capable of supporting many different types of gardeners with many different reasons for being involved. It also points towards the possibility that the community gardening movement as a whole may be made up of a similar variety of gardens that cater to a wide variety of gardeners and uses.

The results I obtained are only a small sample of the overall variety of garden types and functions across the U.S. In many places school gardens and educational gardens are being created to not only provide opportunity for youth involvement but also
to provide food for school lunch programs (Johnson, personal communication, Feb 9, 2009 and Hayden-Smith, personal communication, Feb 8, 2009). There are also gardens focused on producing flowers to raise money for local environmental causes (PHS, 2009) and others intent on mixing urban agriculture with community environmental education (Sager, 2008). The diversity of garden type was also cataloged in the ACGA’s community garden survey which showed garden types were quite varied with the most popular type being neighborhood gardens such as the three study gardens (ACGA survey, 1998).

Yet, even these “neighborhood gardens” have a variety of different uses and functions as my research results and case studies indicate. For example, the Hollenback Community Garden has many features such as their composting toilet and water reclamation system that is not only focused on sustainability for the garden but also providing sustainability education for the community. On the other hand, the Sunshine Community Garden in its partnership with the Texas School for the Blind and Visually Impaired provides a community service to a marginalized section of the community and also has plots set aside to grow food for local food banks.

This variety of garden type, garden functionality and gardener uses is a vital part to the sustainability of the current movement for a number of reasons. The first reason deals with the number of people that community gardens are appealing or applicable to. We can logically assume that the more types of gardens there are in a community the more “eligible” gardeners and community participation and assistance there will be. In other words a community that has three school gardens will be less likely to draw as
many people as a community that has one school garden, one garden designed for elderly participants and one neighborhood garden.

Garden variety is also central to sustaining the current movement because if for some reason one section or type of garden is lost (due to development, policy change, societal shifts, etc.) it does not mean the entirety of the movement is lost. This same principal is also why the multiple “reasons for gardening” indicated by the survey respondents is so important to sustainability. If, for example, the only reason everyone in a garden participated was to save money due to strained economic conditions and those economic conditions disappeared there would be a very good chance that many gardens would cease to function (this is, in fact what happened during the end of the depression and World War II). If, however, people in that same community garden participated to not only save money but to also spend time with their friends, help the environment and get exercise then the loss of a need to save money would not cause the garden to go under. The latter of the two situations is a parallel example to what many of the gardens formed in the 1970s have experienced, including, to some degree, the three study gardens. Though the economic climate has changed many times throughout the last three decades these gardens have been able to survive, in part, because the gardeners themselves have many different reasons for participation.

**Diversity of participants**

A limiting factor to the growth and perception of many community gardens from 1890-1970, excluding the war years, was the lack of participant diversity within the gardens. As the histories show, since the garden participants were predominantly
financially poor, unemployed, homeless, etc. the perception of community gardens was usually quite negative. These negative perceptions not only kept many potential gardeners from participating but it also decreased their political and social power; which generally lay in the hands of affluent politicians and constituents. Thus it was a common occurrence for gardens to be lost due to a lack of political or financial capital.

Fortunately, a lack of diversity in the modern community garden movement is not a problem. In fact, I believe that participant diversity is a major element in the movement’s ability to sustain itself as the mix of people with different race, gender, financial and social class, background and age strengthen the ability of community gardens to adapt to change and gain the political and financial capital that was often a limiting factor in the past.

Proof of the increased participant diversity within the current movement comes from a number of sources. First, each of the three study gardens I looked at would generally be characterized as having a predominately affluent member base (though there are obviously some individual exceptions) which generally comes from non-minority groups. This gives a direct indication of the increasing participation from groups that, in the past, may not have always been keen on community gardening. There is also evidence from the gardener’s comments that many within the three study gardens seek out, enjoy and learn from the demographic diversity that is present within their garden. In addition to the study gardens it is not hard to quickly find numerous other community gardens located in affluent communities as is seen in many areas around the country including Tampa, FL (Sager, 2008), Naperville, IL (Naperville, 2009), Plano, TX (Roebuck, 2006) and San Jose, CA (San Jose, 2009).
Even with the increase of affluent community gardeners there are still many gardens that are made up of predominately financially poor, marginalized and unemployed groups of people. A group of community gardens in Dallas, TX, overseen by the Gardeners in Community Development (GICD), are an example of these less affluent gardens. Within the organization there are gardens that are meant to supply plots for families in need financial assistance as well as multiple gardens for Asian immigrants and communities (GICD, 2009). Another example was a large group of predominately immigrant and financially poor gardeners in southern Los Angeles that worked in a large plot to sustain themselves until developers and the city forced them to find other gardening locations in 2006 (Hoffman, 2006). In addition to these more prominent examples there are undoubtedly countless other community gardens of all types and sizes across the U.S. that are made up of marginalized and underrepresented groups. Often times these types of gardens are the ones which are the most difficult to locate and face the biggest battles.

Finally, anecdotal evidence of increased garden diversity comes from Rose Hayden-Smith a leading community garden historian who has noted many demographic shifts within community gardens. Hayden-Smith notes how in the past gardening was not seen as an activity that affluent society participated in, as is evident through second generation immigrant populations who refrained from the small scale agriculture, which their parents had used for survival, once they acquired a greater degree of financial wealth. This trend, however, has reversed as one can see by the number of “high end” community gardens that continue to spring up across the country. Hayden-Smith also sees a strong age-based demographic shift in the current community garden movement.
where twenty year olds are beginning to become much more prevalent in garden organizations and regard community gardens as part of a larger movement. There are also many younger community garden advocates in Washington D.C. and throughout the rest of the country that are pushing for policy reform and will most likely be involved in supporting community gardens well into the future.

**Diversified Organizational Support and Land Ownership**

Another factor which strengthens the prospect of a sustained community garden movement is a new diversity among garden sponsors and land owners. Even in the recent past (1980s) many gardens were reliant upon government funding and leased land to maintain their gardens. However, when new governmental administrations came into power or policies concerning community gardens and land development changed, both locally and nationally, many times the funding and land for the gardens were drastically reduced or taken away altogether (ACGA, 1984). This is also exemplified by the many cases of garden collapses after each crisis period from 1890-1945 as gardens, which relied on government and charity land grants as well as financial aid, quickly dissolved once support was pulled.

Now, however, many private organizations, charity groups and religious groups, along with local governments, are starting to sponsor community gardens in larger numbers. At the same time, the diversity of land ownership and funding is greatly increasing. This diversity among sponsors leads to increased security because even if one type of sponsor dissolves locally or nationally, the movement itself still stays intact and it can continue to move forward and grow. In the same regard, when there are many
different types of land ownerships (including autonomous gardens), having one type of owner reuse their land for a separate endeavor (thus eliminating a community garden) will not force the community garden movement as a whole to collapse because there will still be many other types of land owners who will support community gardening. In other words the increased diversification of sponsorship and ownership heightens the overall prospects for community garden sustainability, as the movement is less susceptible to collapse based on the loss of support from one type of group.

I will now provide an overview of the many different levels of support and ownership starting with governmental support and then moving on to local and regional organizations and concluding with a discussion of land trusts specifically for community gardens.

Many times, especially in non-crisis periods of the past, local governments acted as obstacles to community garden development. There is evidence the current political leadership of many municipalities, however, is becoming very receptive to the idea of community gardens as accepted parts of the urban landscape because gardens are being created as ways to improve their communities and potentially revitalize local economies, and localize food sources. According to the ACGA community garden survey, many of the cities which participated in the survey noted increased attention and positive policy directed at the establishment and sustainability of community gardens (ACGA, 1998).

One municipality, not featured in the survey, with committed political leadership structures, is Lynchburg, Virginia. This municipality proves to be a very good example of how community gardens are being integrated into the economic and social fabric of many cities. Along with numerous redevelopment projects, Lynchburg has actively
started many community gardens, revitalized large local agricultural plots and successfully tied these efforts into a local farmers market (Salomon, 2008). These efforts have also been nurtured and assisted by Lynchburg Grows, a non-profit organization based in the city, which is focused on community gardens and community supported agriculture in the area (Lynchburg Grows, 2009). Lynchburg, however, is not entirely unique because a myriad of other cities across the country have also embarked on, or have already had such projects for the past few years.

In addition to the many municipal organizations and political structures, there are numerous regional groups that are committed to the sustainable growth of community gardens in the U.S. One very successful example of such an organization is the Food Project located in Boston, MA and the surrounding area. This organization was started in 1991 and since then has worked to promote local organic agriculture networks (The Food Project, 2009). Another example of a community garden related organization is The Pennsylvania Horticulture Society (PHS). The PHS is an example of one of the many organizations that, although not solely committed to the growth of community gardens, supports a wide range of activates and endeavors that assist in their formation. Based in Philadelphia, Pennsylvania the PHS was founded in 1827 as a not-for-profit organization that supports urban horticulture and community improvement through horticultural inspired activities and programs. Since its beginning over 175 years ago the society has grown its membership base to 14,500 individuals and continues to produce publications, events and activities that are aimed at meeting the society’s organizational mission to "motivate people to improve the quality of life and create a sense of community through horticulture” (PHS, 2009).
One of the most popular activities that The PHS provides each year is the Philadelphia Flower Show; an eight day event that draws roughly 250,000 visitors. The ticket and sponsorship proceeds of this event go towards funding The PHS as well as some of its other projects, including Philadelphia Green. Philadelphia Green is a program offshoot of The PHS that has been existed since 1974 and works to support the “development and ongoing care of community gardens, neighborhood parks and high-profile public green spaces in Philadelphia” (PHS, 2009). Specifically this has meant helping fund organizations such as the ACGA, restore public landscapes such as Penn’s Landing, and many other projects which improve the quality of life throughout the city.

The efforts of PHS concerning community gardens is indicative of many other organizations across the country which have a rich history of helping to form community gardens and assisting in community gardening efforts. Botanical gardens (Chicago, 2009), university extension offices (University of Florida, 2009) and religious organizations (Weakley, 2006) have made substantial contributions to the current U.S. movement and represent the wide variety of groups and agendas that spur community garden growth.

The relationship between community gardens and regional, local and governmental organizations can also be seen in the three study gardens. The Manhattan garden is sponsored by the local non-profit University For Mankind and leases its land from the city of Manhattan, KS. The Sunshine Community Garden has its land provided by The Texas School for the Blind and Visually Impaired and receives additional support from the Lower Colorado River Authority, a regional organization. The Hollenback Community Garden receives its land and support from the Brooklyn Queens Land Trust
through the nationally based Trust for Public Land. Hence, we can see the three study gardens represent a microcosm of the community garden movement as a whole and its diversified support structure.

The relationship that the Hollenback Community Garden has with the Trust for Public Land (through the BQLT) is of particular interest because it represents a major type of source that many community gardens across the U.S. rely on – land trusts. This type of organization is very beneficial to the sustainability of the community garden movement because not only is their main purpose centered around conserving land for gardens and other natural/rural uses, but often times many land trusts will help pass ownership of the parcel directly to the community garden or to a regional garden group in order for them to become self-owned and operated. Besides the national TPL’s work in New York City to form local land trusts and save community gardens, there are numerous local and regional land trusts which are formed for similar reasons. An example of one of these local land trusts is the South End/Lower Roxbury Open Space Land Trust, (SELROST) which was formed in order to purchase land from the city of Boston, MA for the Berkeley Community Gardens (Berkeley, 2009).

Of course it would be unrealistic to go through every local, regional and national organization that is committed to the creation, development and sustainability of community gardens in the U.S. This brief overview should make a few things quite clear and, most importantly, it should express the large diversity of organizations that create and support community garden in the U.S. From small local organizations to national land trusts, and non-profit groups to religious and government entities, the modern community garden movement draws strength from virtually every corner. In addition,
this data shows how many government organizations have started supporting community
garden efforts, rather than opposing them as well as how land the gardens rely upon
slowly becomes held by parties whose sole interest is in the continuation of the
community garden.

**Strong National, Regional and Local Networks**

Just as there has been a growth in the diversity of community gardens and the
organizations which support them, there has also been a growth in the capability of these
organizations and gardens to network with one another on many different levels. During
past community garden movements, there were many organizations at the local, regional
and national level which worked to promote community gardening. These organizations,
however, did not have the same networking abilities as modern gardens and
organizations.

Much of this new capability for connectivity is due to the exponential expansion
of the internet, as well as the organizations and gardens which take advantage of the
possibilities for communication it has opened. The ACGA, in particular, has been a
leading national organization which has used the internet to grow its base and more
successfully reach its goal of helping create and strengthen community gardens.
Although the ACGA had the same goals before the growth of the internet, its ability to
reach gardens across the U.S. relied on word of mouth or workshops which introduced
new techniques and resources to struggling gardens or citizens who wanted to start
gardens. Though the ACGA was able to reach many gardens and slowly grow its base
there was no viable way, especially with limited funds, to reach a large section of the
populace. With the popularity of the internet the ACGA has been able to make many resources and tools available to virtually any passerby who had some interest in community gardening. In addition the internet allowed the ACGA to create a user friendly map and database showing every community garden within the U.S. which had signed up with the organization – creating a magnificent networking tool for gardens and gardeners alike.

Garden databases such as these are not only found on the national level. Organizations within numerous cities and states have also developed websites where potential gardeners can search an online database or map to determine which community gardens they are near or even determine if there is a need for a community garden in their area. The Los Angeles Community Garden Council is one such organization which provides a detailed website for local residents or community gardeners to connect with gardens and gardeners across the entire Los Angeles metropolitan area (LACGG, 2009).

These networks are not only seen on the national level with groups like the ACGA but also on the regional and local level where many organizations have been able to reach a much larger group of participants. They do this by displaying their messages online where people from inside and outside of the community can see and participate. Many of the groups discussed within this paper, such as the PHS, the BQLT, The Food Project, and Lynchburg Grows, are good examples of organizations which have taken their message to the internet and strengthened the community garden cause as a result.

In addition to connectivity through the internet many organizations (including many of those already covered) have connecting to local, regional and national networking as one of there central objectives. Groups like Growing Power Inc., an
organization based in Milwaukee, WI focused on providing healthy food systems for a diverse group of citizens, have been very successful at expanding from a small group on the north side of Milwaukee to a national organization which puts on numerous workshops every year and also provides services all over the upper Midwest (Growing Power, 2009). This group has been so successful and influential that the CEO and founder, Will Allen, was recently awarded a Macarthur Foundation genius grant for his continued work (another sign of the growing influence and strength of the community garden movement) (Miner, 2008). Another group that has similarly networked and connected with the community in order to strengthen community garden initiatives is the Gateway Greening organization in St. Louis, MO. This organization is of particular importance because in order to carry out its goals it states that its mission is

“…accomplished by forming alliances with non-profit organizations, faith based institutions, institutions of higher learning and neighborhood groups to provide resources for citizen-managed open spaces that encourage healthier, safer and more enriched lives. (Gateway Greening, 2009)”

This acts as an exemplary sample of the networking goals which many modern community garden organizations have as well as the variety of partners they seek out.

*Changing Political Scale*

One of the biggest benefits of this increased connectivity between community gardens, organizations and the rest of the world is the ability networking has to change a garden’s political scale. The use of the internet and organizational connections by these groups allows for smaller gardens with limited power and resources to instantly be able to connect to stronger and more developed organizations around the country. Coalitions
such as these, increase the social and political capital of the movement and thus increase its chances for longevity by changing its political scale from that of a local issue to that of a regional, national or even global issue.

A situation which exemplifies the process of changing political scale can be seen in the attempt of the New York City government in 1999, under the direction of then Mayor Rudolph Giuliani, to auction off 114 separate community gardens for the development of public housing and commercial buildings (One of which was the Hollenback Community Garden) (Smith and Kurts, 2003). Though many of the individual community gardens were located in areas with high minority populations and had very little political or social power, they did have the power of networking on their side. Not only were the gardens able to coalesce and gain local support, they were also able to garner regional and national support by working with other organizations and by using the internet to reach a national audience. This then led to the involvement of numerous celebrities and eventually to the TPL’s purchase of much of the land once the city government felt the public pressure caused by these small community gardens (TPL, 2009). In other words, because the individual community gardens were able to create one large network; the political and social power was shifted from that of an individual parcel of land to a regional movement which could not be ignored.

A similar event occurred in Los Angeles, CA in 2006 when the city sold a large plot of land being used by over 350 gardeners, self-named the South Central Farmers. Through their sheer numbers and networking efforts the gardeners reacted to the selling of the land, which seemed as though it would quietly occur, by turning it into a local, regional and global issue, not only attracting activists and organizations but also many
forms of media. Through their efforts, enough publicity was raised that the struggle between the gardeners and the city was eventually documented by Scott Hamilton Kennedy in the Academy Award Nominated film, *The Garden*, released in 2008 by Black Valley Films (Black Valley Films, 2009). Though the gardeners eventually lost the land to development, they were able to raise support from both the local community and around the globe. This support network has led to other successes and has enabled The South Central Farmers to gain new land, though not near the same location, to begin gardening on (South Central Farmers, 2009).

These examples show a shift in power where once politically weak gardens and gardeners are now able to face large political, financial and social obstacles. These examples also show how gardens can successfully keep their land and community or at least raise regional and national attention about the issue. These examples are also showing that there is an extremely large amount of support for community gardens from many different sectors across the U.S. Although there were certainly national, regional and local public, private and non-profit organizations within past movements which supported community gardening, the multitude and magnitude of the organizations in this modern era is much greater. The modern community garden also has a much easier ability to network on a national level and change the scale of a community garden from that of a neighborhood issue to a national issue. This is a key feature in the ability of the current community garden movement to sustain itself.
Catalysts and Crises

It is preferable to believe the information presented in the previous six sub-sections indicates that over the last three decades there has been a significant paradigm shift regarding the creation and preservation of community gardens. This shift would indicate community gardens are no longer seen as simply a tool for crises mitigation but instead as a permanent functional and beneficial feature of the municipal landscape. However, if we take the somewhat cynical, but potentially realistic, viewpoint that society has not significantly changed in the last three decades then we must contend with the possibility that the current movement can only be sustainable with the continued existence of crises and catalysts. Therefore in order to show the possibility of a sustained community garden movement, even in the absence of a paradigm shift, I will briefly present a number of recent and current crises and catalysts which have contributed to the growth of the current U.S. community garden movement and could contribute to its future sustainability. Many of these catalysts were listed as specific reasons for gardening from respondents within the three study gardens.

Local and Global Environmental Awareness

Environmental concerns and awareness have been growing steadily since the early 1960s. Events like the publication of Rachel Carson’s “Silent Spring”, the passing of the “Clean Air Act” and “Clean Water Act”, the increased focus on environmental lawsuits due to pollution and the most recent awareness of global warming and sustainability have all contributed to a greater degree of environmental awareness and
activism. This, in turn has manifested itself in the form of many activities including the formation of and participation in community gardens.

Desire for Improved Emotional and Physical Health

As more jobs become based in offices and television, computers and video games become more common, the amount of U.S. citizens who spend less time outdoors and less time exercising is greatly increasing. This has also led to a crisis of obesity, heart disease, depression and countless other clinical illnesses which are caused by a lack of exercise and connection with nature. As a result many look to community gardening as a way to face this crisis by providing healthy environments which promote exercise and social interactions.

Desire for Organic/Local Food and Dissatisfaction with Present Agricultural System

The growing displeasure with the U.S. agriculture system and the desire for organic and local foods is spurred by a number of events including numerous national and local food scares, growing prominence of fast food, large subsidies to commodity farmers, lack of subsidies to most fruit and vegetable farmers, decreased connection to food, and the increased food mile. All of these issues have caused many to demand more support for local and organic agriculture as well as massive revisions to U.S. food and agricultural policy.
Increasing Gas and Food Costs

Recent fluctuations in gas prices have led many to question the distance that their food travels as well as the distance they must travel to get their food. These questions lead many to advocate the support of, and participation in, community gardens and community supported agriculture in order for the cost of food to be substantially decreased and the amount spent on gas (directly and indirectly) is also decreased.

Community Development and Urban Sustainability

Many urban areas occupied by marginalized or underrepresented groups are continually neglected or gentrified, and available urban space in all capacities is beginning to disappear. These issues along with urban crime, an increasing gap between the rich and poor, and a lack of natural and green spaces in the urban realm are leading many to suggest new ideas of urban planning and equity. Central among these ideas are the use of community gardens to reduce crime, reduce neighborhood turnover rates, increase property values and provide a healthy space in an otherwise bleak environment.

Economic problems

The national recession of 2009 has once again made citizens and policy makers reevaluate how money is spent and how much their everyday necessities cost. In addition, the increasing unemployment rate is leaving many people unsure of where they will find food or the money to pay for food. As a result of these concerns the demand for community gardens, to both supply food banks and to provide a means of income and food for the unemployed and financially unstable, is growing.
Organizational Example

The aforementioned Food Project based in Boston, MA is a prime example of an organization which exemplifies the multiple catalysts that provide growth and agendas which aid in the sustainability of many organizations within the modern U.S. movement. A brief excerpt from the group’s mission statement shows many of these catalysts:

“Our mission is to grow a thoughtful and productive community of youth and adults from diverse backgrounds who work together to build a sustainable food system. We produce healthy food for residents of the city and suburbs and provide youth leadership opportunities. Most importantly, we strive to inspire and support others to create change in their own communities (The Food Project, 2009).”

Within this short paragraph the organization has identified sustainable food systems, youth and adult activism and involvement, youth leadership opportunities, and community growth and change as reasons for their existence and growth. In addition to this brief overview, the organization goes into more detail identifying health, environmental, economic and educational improvements as key goals of the organization (The Food Project, 2009).
Chapter 6: Conclusion

Summary of Findings

When it was stated, in the ACGA National Community Garden Survey, that the reason for garden growth and stability may be attributed to the “Success of the ACGA’s mentoring program to help cities establish gardens; or a more favorable outlook on gardens by city officials.” or “…a sensitivity to the general public’s concern about the environment and food security issues…” they were only partially correct. Where the authors went wrong was in underestimating the number of reasons that community gardens have continued to grow and thrive.

The data which I have just presented indicates that the modern U.S. community garden movement does have the potential for sustainability for a significant number of reasons. Through case studies, surveys and interviews I have shown that the respondents within three gardens in Brooklyn, NY, Manhattan, KS and Austin, TX act as a strong foundation for their garden’s sustainability based on growth and diversity. I have also shown that research concerning the quantitative and qualitative benefits of community gardens has increased along with the diversity of the participants which are affected. I also indicated a growth in the diversity of community garden uses, types of community gardens, organizational support and land ownership as well as the establishment of local, regional and national networks for community gardens which assist in increasing the political scale of individual gardens. Finally, I have indicated a numerous number of
catalysts that have spurred the current movement and continued to draw new participants. It is because of all of these characteristics that the modern movement has the capacity to withstand numerous obstacles and challenges where past gardens would have simply faded away and left large portions of the U.S. population without the many benefits of community gardens.

Possible Obstacles to the Sustainability of the Modern U.S. Community Garden Movement

Although all of these factors offer a very promising future for the sustained acceptance and integration of community gardens into the municipal core, there are possible problems that may quell the current movement which should also be acknowledged and discussed. Though I believe that the previously mentioned “perfect storm” scenario protects the sustainability of the current movement from many of these problems, there are still potential challenges ahead.

One challenge could potentially come as a result of many crises and catalysts ending at once. For example, there is a possibility that the current environmental movement could lose some of its mass-appeal if different societal issues were to take its place or if some of the problems which the community gardening movement seeks to alleviate were solved. For example, if a pandemic or other major crisis became a reality, it may have the effect of trumping the current issues of sustainability and urban green spaces and, thus, squelch the movement before it could truly become established. Another possible scenario could come in the form of mass amounts of technological advances that lead to extremely healthy and sustainable mass-scale agriculture processes as well as cheap renewable fuels. This sort of advancement in technology could make the
financial and nutritional incentives of gardens decrease thus making the attractiveness of community gardening wane.

In addition to the possibility of reduced crises and catalysts to spur the continued growth and stability of the community garden movement, there is also the possibility that since community gardens are still, at times, associated with marginalized people, the past social stigmas which were once associated with community gardening could reappear. If this happened it may prevent a new group of power-elite from becoming involved in the movement, potentially reducing the political power that the movement has gained and make integration much more difficult. Although this may seem unlikely in light of the aforementioned discussion on new social and financial classes joining and starting community gardens, the possibility still remains for such a shift to be negated due to its relative youth.

These continued stereotypes about gardeners and gardens (especially in the economic realm) present the current largest problem to the community garden movement. As we saw in the publicized cases of both New York City and Los Angeles, even with large support networks, many gardens still face challenges from governmental leaders and private developers who refuse to look at community gardens as proper elements of the municipal core. It should also be realized that these types of land grabs do not only occur in the mega-cities throughout the U.S., as both the Manhattan Community Garden in Manhattan, KS and the East Dallas Asian Community Gardens in Dallas, TX (Lambert, personal communication, Jan 7, 2009) have faced challenges from local governmental officials. Fortunately, in three out of these four cases, a large section of contentious land remained in the hands of the community gardens as a result of increased
political scale which may give an indication that the tide in this area is finally beginning to turn.

Rose Hayden-Smith also sees land ownership and use as a potential obstacle as well as the continuing problem of garden-by-garden participation and politics. However, on a more broad scale, she sees a shift in obstacles from those of social and cultural issues, which were more prevalent in the past, to obstacles associated with natural resource limitations at the present and in the near future. More specifically the limitations of fresh water and fertile land may play a major role influencing the future growth of new community gardens and the continued livelihood of current gardeners (Hayden-Smith, personal communication, Feb 8, 2009).

Though the current movement has shown the capability to overcome some traditional obstacles, it is still relatively young and, as a result, potentially susceptible to future paradigm shifts as well as resource limitations and restrictions. As we continue to progress further into this new era of community gardening in the U.S., the true resilience and potential of the current movement will only be fully understood once more obstacles begin appearing and old obstacles, which plagued past movements, reappear.

Research Limits, Caveats and Possible Flaws

Due to the temporal and resource restrictions of this study, there are a number of limits and caveats which must be addressed. First, as I stated throughout the paper, the three gardens I choose do not represent all the possible garden types present in the current movement. Although I did provide numerous examples of other gardens to fill in these
research gaps, I did not directly compare the results of my three study gardens with other garden types.

In addition to the gardens themselves, another caveat which must be considered is the fact that all the gardener surveys were administered online and thus were only available to those with access to a computer with online capability. Though the issue of computer/internet access grows less significant by the year, it is still a present bias in my work and must be acknowledged.

These survey and garden restrictions necessitated the use of significant anecdotal evidence acquired through phone interviews, email conversations, online articles and numerous organizational web pages. Although I feel the majority of these sources of information were extensively checked and traced, I must submit the possibility that some flaws in data and information may exist as some of the information was not peer reviewed, present in academic journals, or trusted media sources.

Another possible flaw in this research may come from my simplification of both the U.K. and U.S. community garden histories. Through I specifically tried to avoid leaving out valuable information concerning each major movement, it is feasible, due the enormity of the research done on these movements, that I have oversimplified some theories or actions due to a lack of detail and depth in my own work. I would, however, submit that any errors are almost certainly inconsequential and that if the reader desires more historical depth or clarification they should refer to the superior histories which are available.

A final limitation of this work is concerned with the amounts of community gardens, garden participants, food produced, etc. which are hard to compare to past
movements as the collecting and classification techniques have changed and the collection efforts are not on the same scale as they were during past periods. This means current trends and quantities are hard to empirically compare with the past and the true scale of the current movement, in relation to past movements, is hard to express. This, however, only truly presents a direct empirical problem, since the vast amount of anecdotal and historical evidence available concerning the past and present community garden movements more than supplies assurances of trends and patterns.

**Improvements for Future Work**

Given the flaws and limitations of my research there are numerous changes and improvements I would make for future work on this topic. First I would attempt to obtain a more in depth overview of the entire community garden movement. This would mean looking at many more gardens and many more gardeners as well as attempting to cover as many garden types and garden situations as possible. In addition I would develop a more complete picture of the gardens that I did study by obtaining more background information and better response rates. All of these improvements would lead to a better, or more complete, understanding of the mechanisms and features which cause garden sustainability. This, of course, would also entail administering many more surveys and possibly asking more detailed questions.

In addition to obtaining data from more gardens and gardeners, I would attempt to acquire and include more statistical data concerning past movements, the current movement and the rates of growth in each time period. Along with getting more statistical data, I would also increase the amount of anecdotal information from garden
leaders, organizational leaders, historians, and government officials. By interviewing many of the key players within the current movement, I believe I would be able to more aptly predict future trends and decipher current motives and moods.

Closing Statement

The major goals of this thesis were to develop a history of past U.K. and U.S. community garden movements, connect these histories and past perceptions with the modern U.S. community garden movement, look at the conditions of the current movement, and develop a more clear understanding of where the current movement is heading and for what reason. My hypothesis stated that the current U.S. movement has the potential for sustainability because it is supported by more research and infrastructure than in the past; it is composed of many more social and financial groups; it is sponsored by multiple groups (private, public, religious, non-profit, etc.); it incorporates multiple uses; and that it was spurred by many unconnected catalysts rather than by a single major crisis.

Through the use of historical data, information obtained through surveys and interviews, and anecdotal data concerning current events and garden organizations I exhibited extensive proof that each facet of my hypothesis is substantially supported. These data lead me to believe that even if multiple sections, sponsors, reasons for gardening, social classes, or locations are lost, the national movement as a whole will still have the power and networking ability to remain strong and unified; unlike in past movements when a change or obstacle could cause a multi-decade lull in community garden activity and support.
It is my hope that this thesis will not only act as another academic interpretation of the history of community gardening in the U.S. but that it will also shed new light on the current community garden movement and all the implications that this movement may have on numerous academic fields and real-world problems. Hopefully, by having a more complete understanding of the mechanisms which make community gardens sustainable and effective, we, as a society, can more quickly receive the countless benefits they have to offer.
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Appendices
Appendix 1 – Addresses and Maps of Three Study Gardens

The Hollenback Community Garden
460 Washington Avenue
Brooklyn, NY 11238-1805
The Manhattan Community Garden
S. 9th st. and Riley Lane
Manhattan, KS 66502

The Sunshine Community Garden
4814 Sunshine Drive
Austin, TX 78756-3113
Appendix 2 – Complete Community Garden Survey

Community Gardening Survey
Prepared by Joshua Birky
Advisor: Dr. Elizabeth Strom
University of South Florida -- Tampa

Survey section 1: Informed consent - please check the "I consent" box at the end of this page to proceed with the survey:

I agree to participate in this research study being conducted by Joshua Birky, graduate student member in the Department of Geography, University of South Florida, Tampa, Florida.

The purpose of this study is to better understand community gardens and community garden culture. Completion of the survey will take between 5 and 20 minutes.

I understand my participation in this study is entirely voluntary, such that refusal to participate will not involve penalty or loss of benefits. I also acknowledge I may discontinue participation at any time without penalty.

I understand that if I have questions concerning this project, I can contact Joshua Birky (jbirky@mail.usf.edu) or the USF Internal Review Board.

This project has been reviewed and approved by the University of South Florida Internal Review Board.

I consent:
Instructions: Please fill out the following survey to the best of your ability. Indicate your response by circling the letter that corresponds to your answer (unless otherwise stated).

1. How long have you been gardening?
   A. A month or less
   B. One month to a year
   C. One to three years
   D. Three to five years
   E. More than five years

2. On average how often do you participate in the community garden throughout an average week during your region's growing season?
   A. Less than 1 time a week
   B. 1-2 times a week
   C. 3-4 times a week
   D. 5-6 times a week
   E. More than 6 times a week

3. How long do you plan to continuing gardening within your community garden?
   A. Just for this season
   B. For more than just this season
   C. Not sure

4. Why do you garden within the community garden? (Please choose the top 5 reasons from the below list and rank them in the order of importance with 1 being the top reason you garden and 5 being the least important reason you garden.)
   _____For recreational purposes (as a hobby)
   _____To grow extra produce or flowers for personal use
   _____To make money by growing and then selling produce or flowers
   _____To save money by growing produce and flowers rather than purchasing them
   _____To help the environment
   _____To be involved in the community
   _____To be around specific individuals
   _____To be outdoors
   _____For exercise
   _____Other ____________________________
5. Whom do you garden with (you may choose more than one)?
   A. Immediate family
   B. Extended family
   C. Friends
   D. Other community members
   E. I don’t generally garden with anyone
   F. Other ________________________________

6. Is this your first experience gardening in a community garden?
   A. Yes
   B. No

7. Do you garden in a private garden as well as in a community garden? (A private
garden refers to a garden at a private residence such as your or someone else’s home.)
   A. Yes
   B. No

8. If you answered yes to question 7 please answer the following: Do you prefer
gardening in a community garden or gardening in a private garden? (A private garden
refers to a garden at a private residence such as your or someone else’s home.)
   A. Community Garden
   B. Private Garden
   C. Both Equally

9. Do you work in the community garden because you do not have access to a private
garden?
   A. Yes
   B. No

10. (If you answered “No” to question 9 please skip this question). If you had access
to a private garden would you still continue to work within the community garden?
    A. Yes
    B. No
    C. Not sure

11. Please describe your favorite and least favorite parts of working within a
    community garden.

_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________

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12. If you have any other comments or thoughts that you would like to express about your community gardening experience or community gardening in general please do so here.

The following information is optional but would be helpful for improving our research.

Age_____________ Gender:  M  /  F    Race___________________________

THANK YOU FOR YOUR TIME AND COOPERATION!
Appendix 3 – Interview Questions for Community Garden Leaders

Community Gardening Questions
Prepared by Joshua Birky
Advisor: Dr. Elizabeth Strom
University of South Florida -- Tampa

By agreeing to participate in this research study being conducted by Joshua Birky, graduate student member in the Department of Geography, University of South Florida, Tampa, Florida; you are confirming that you understand that your participation in this study is entirely voluntary, such that refusal to participate will not involve penalty or loss of benefits; and that you understand that if you have questions concerning this project, you can contact Joshua Birky (jbirky@mail.usf.edu) or the USF Internal Review Board.

This project has been reviewed and approved by the University of South Florida Internal Review Board.

DIRECTIONS: Please answer the following question to the best of your ability. Take as much, or as little, space as is needed and feel free to skip any questions if you are unable to answer or feel that the question is inappropriate. Please return this questioner via email to jbirky@mail.usf.edu before December 20th, 2008.

1.) How is your community garden organized and managed?

2.) What obstacles has the garden faced (in its initial development and since then) and how were these obstacles overcome?
3.) Do you feel that you are part of a larger community garden movement?

4.) Are you aware of past garden movements in the U.S. and abroad?

5.) Can you please provide me with a history of the community garden (including major and minor events, growth, changes, etc)?

6.) Who owns and funds the garden and how has this relationship steered the garden’s development?

7.) Are there any main themes that the garden tries to represent or establish?

8.) Is the garden (or aspects of the garden) geared towards a certain group of people?

9.) Do you have any other comments or information that you would like to express?

10.) What is your role within the garden?
Appendix 4: Selected Responses to Open Ended Survey Questions

Question: Please describe your favorite and least favorite parts of working within a community garden.

Hollenback
As a first time gardener, I like learning from the experienced gardeners. I don't like that rules for continued participation aren't clear.

Learning from other gardeners is great. There are growing obligations to being a member, however, and that is a bit of a stress and burden.

I love learning how to grow things and knowing people in the garden. I don't mind the meetings or work days. I just wish the meetings could be shorter and there could be more flexibility with attendance.

There are so many favorite aspects of community gardening: being outdoors, making things grow, the great feeling of putting in a day's work, building something wonderful as a group effort, being able to eat my own food. Least favorite aspects would have to be the sometime clashes of opinion that can get a little heated when involved in a group effort such as this.

Favorite: learning from other gardeners; getting to know my neighbors/community members with shared interests. Least favorite: having to travel from home to garden

Favorite-- sense of community, our garden is a great place to host outdoor events and meet others (including non-gardeners) in our neighborhood. Least favorite-- very long monthly meetings

Favorite: sense of community; meeting new and interesting people Least favorite: limitation of space; distance from home

Some of my favorite parts of being part of this community garden: getting to know my neighbors and working together with them; being rooted in my neighborhood; growing my own food; talking with neighbors who are not members of the garden but who stop by to enjoy our little green oasis; educating ourselves and our community about waste and sustainability, primarily through our rain water harvesting system, our community compost project, and our composting toilet; the effect that it has on my own sense of the seasons and the passing of time; the patience and faith required for every seed, no matter how many you have planted before; the free community BBQ's; the messy but powerful process of discussing and deciding things democratically
Manhattan
favorite-everything equipment-wise that I need is right there. Able to have a garden when otherwise it wouldn't be possible living in an apt. least-have to drive to get there, so not as handy as a garden in the backyard

More space than at home. Least favorite---distance to community garden

I enjoy getting to grow my own food, the shared tools, and knowledge of more experienced gardeners. There are times in the growing season in which it can be difficult to keep up due to having a small child and travel.

Favorite- Abundance of fresh produce  Least Favorite- Distance to travel to plot

I love to get ideas and suggestions, share seeds, etc with other nearby gardeners; we're just learning about organic gardening and others are advising us on the best strategies. It's great to get exercise outdoors rather than going to the gym, and working together there has improved relations with my husband. Others unattended weeds that can spread is a least favorite parts, along with seeing others unattended crop go to waste.

I love having more space to work than my small flower garden at home; I dislike having produce disappear.

I enjoy the knowledge of gardening that I get from other more seasoned gardeners. In a situation such as a community garden there seem to me to be more problems with insects and volunteer crops.

Spending time with my spouse and seeing the garden grow are my favorite. My least favorite is watching other garden plots being unattended.

Talking with gardeners and how they are successful with their gardens.  Least favorite is sharing water.

Favorite part is the access and use of tools, equipment, and water. I live in an apartment complex so I don't have the ability to have a private garden.

Sunshine

Favorite: spending time with friends and meeting new people. Least: Occasional politics within organization.

Favorite: To grow organic vegetables and help the environment. Least: It requires a lot of time
My favorite is I think it is interesting to see what other gardeners do with their plots and to see how people work together in a community. My least favorite is having to go from my home to the garden. I'd rather have my garden handy to my home.

Favorite-the size and full sun of my plot, the many other gardens. Least Favorite -plots that are not taken care of.

Favorite: Having compost available. Comparing notes with other gardeners. Least favorite: Others seeing your failures and judging your gardening skills.

Favorite: Being outdoors with others, seeing the delights they grow, getting advice, and chatting~ Least favorite: the drive across town to the garden

I like seeing the other gardens and people out there and I can ask questions from more seasoned gardeners than myself. (I am brand new at this and not good at it yet at all.) I don't dislike anything about it yet other than maybe the cost.

Enjoying seeing other gardens and exchanging info and produce

the sense of community; the conflict that occasionally occurs within a community

Favorite - Working with my gardening partner to prep soil and plan seeds and starts. Least favorite - dealing with fire ants

Question: If you have any other comments or thoughts that you would like to express about your community gardening experience or community gardening in general please do so here.

**Hollenback**

I believe all people should experience gardening, especially kids; I think that would greatly contribute to heighten respect for food and its production, and diminish wastefulness. Thank you for putting this survey together!

Our garden works hard on its community aspects (how to share work, make decisions, include new members, etc); I find this work simultaneously rewarding and frustrating

I have met and continue to meet people, outside of my demographic, from the neighborhood.

The community garden is a wonderful place to meet people outside of my own age and personal interest spheres. Also, living in NYC, it is too easy not to know one's neighbors. However working in a community garden I meet so many people who live in my neighborhood. I'm not necessarily friends with these people but they are friendly
acquaintances, and they make my neighborhood feel more like a home when I run into
them on the streets and chat with them.

I think the biggest draw to the garden is for people who want to grow vegetables, but
people end up staying because we've created a community here.

**Manhattan**

Our community garden here in Manhattan Kansas is truly a wonderful asset to the
community. The soil is so much nicer to work with (as opposed to the heavy clay soil
that I have in my own yard.

Many of the members are at least 20 years older than my husband and myself. It is
difficult to connect with others when socials that are planned do not work within your
schedule. When you don't have connections within the garden, it is difficult to ask for
help from other gardeners when you need it. Though overall, I would recommend a
community garden to anyone.

Really like to see things grow. Like the relation with other gardeners

I garden because my space at home is limited and shaded so I'm not able to grow the
diversity and quantity of produce that I can in the community plot

Sometimes a vegetable garden can be an eyesore with all the cages, so having a place
other than my yard is a positive attribute.

It is fun and working with a friend allows each of us freedom to leave town for a while
and not have the garden go wild.

Good quiet break in the day. Wife likes fresh vegetables. I can grow things I could not
get at a store.

**Sunshine**

community garden gets people of disparate backgrounds together for something that is
only good.

Its difficult to put in as much time as I would like while I work full time. I hope to
belong to a community garden if I should ever retire so I can have a better garden and
maybe an additional plot.

I think it is imperative that Americans all across the nation do more and more community
gardens if they cannot garden where they live. Our economy is too unstable and
agribusiness is destroying our soil AND our food.

I've done it for decades so it is understatement to say it's an important part of who I am.
Our community garden has a large plot that donates all produce to a local food bank. Gardeners can also donate produce from their individual plots. I know that the food bank appreciates the fresh produce.
Appendix 5: Bios of Interviewees

Rose Hayden Smith
Rose Hayden-Smith is a Kellog Food and Society Policy Fellow who is currently researching national gardening programs during World War 1 and their ability to affect current public policy concerning agriculture, education, nutrition and gardening. She is also looking at these programs from a historical perspective with a concentration on women’s movements, war time culture and visual culture and representation. Hayden-Smith has also done work on garden based education and its ability to improve literacy and nutrition amongst other things. In addition to her current and past research Hayden-Smith is on the advisory board for the California State Department of Education’s Instructional School Garden Program and is Chair of the University of California Garden Based Learning Work Group.

Betsy Johnson
Betsy Johnson is the current treasurer of the American Community Gardening Association (ACGA). She was also the executive director of the ACGA from 2005-2007 and prior to that she was involved with the organization dating back to the mid 1990s.

Don Lambert
Don Lambert has been active in the community garden movement since 1986 and is the founder of the non-profit Dallas based community garden organization Gardeners in Community Development (GICD). The organization was founded in 1994 and has grown to include six community gardens in the greater Dallas area. Lambert is still intimately involved in the organization which produces numerous newsletters and donates large quantities of food.