SOWING THE SEEDS OF A VIBRANT COMMUNITY

by

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INTRODUCTION
Throughout many cities and states across the United States, an increasing number of community gardens are being developed, planted, and enjoyed. Community gardens are defined as “any piece of land that is gardened by a group of people” (Baldwin, et al, 2009, p. 2). While community gardens vary by type, size, and organization, the common link between all community gardens is that they are developed and maintained by community members (Kirby, et al, 2008, p. 5). Community gardens are distinguished from private gardens in that community gardens are “in some sense a public garden in terms of ownership, access, and degree of democratic control” (Ferris, et al, 2001, p. 560). Community gardens can be created in any neighborhood, be it urban or rural, and can serve a variety of participants, be they schoolchildren or the elderly. Many varieties and types of gardens exist. Each garden is structured in a different way or offers different services depending upon the needs of the local community (Ferris, et al, 2001, p. 560). For example, they can be located in urban, suburban, or rural settings on municipal land, land trusts, or private land (Kirby, et al, 2008, p. 5). They can be established at schools, parks, places of worship, public housing, or vacant lots (Baldwin, et al, 2009, p. 2). Some gardens are large, encompassing many acres, while other are located in pocket parks or on small half-acre lots. Some community gardens are official and sanctioned by the municipalities where they are located while others are “guerilla acts of cultivation” (Kirby, et al, 2008, p. 5). At some community gardens, hundreds of volunteers participate while at others just a few gardeners work collectively or individually. The flexibility of community gardens make them ideal for wide use. Community gardens have no set criteria or structure; they can be suited to the needs of their participants and neighborhoods. This adaptability has encouraged and allowed the implementation of community garden programs throughout the United States.

While community gardens are a recreational activity, they have been earning the attention of many urban planners and community development advocates. The field of planning is expanding, and many planners are becoming concerned with the issue of public health. As Kimberly Hodgson notes in her article “Where Food Planning and Health Intersect,” Food plays a central role in our health, customs, heritage, and culture. For planners, the corollary is that healthy communities require healthy food systems. That is why [planners] are now going beyond transportation, land use, and urban design when considering public health (2009, p. 9).

Issues of healthy communities are starting to play an increasing role in the planning profession. A creative way to address public health needs as well as community development concerns is with community gardening programs. Community gardens offer a variety of benefits, ranging from producing food to teaching business skills to encouraging community organizing and building leadership. Developing individual skills and talents and creating tight knit communities are activities which planners and community development advocates work to foster, especially in low-income communities which may not have easy access to resources to help them develop and grow. Many community garden activists tout community gardens as a great way to develop individuals’ skills and a sense of community.

While many people encourage the creation of community gardens, are community gardens truly able to provide tangible benefits to communities? Could they provide additional benefits to low-income and urban residents? What types of factors are necessary for successful community gardens in low-income
neighborhoods? What are the planning and policy implications of community gardens? And how can planners encourage their cities and communities to implement community gardening programs?

In order to answer these questions, four community gardens which are each located in low-income neighborhoods in the United States were interviewed about their programs and outreach activities. Also, an in-depth look into the current literature discussing community gardens and their benefits was undertaken. Some difficulties exist with creating community gardens, and these problems are addressed to provide a planners and neighborhoods with a better understanding of the process of implementing community garden programs.

The lessons learned from this literature review and the case studies were synthesized into policy suggestions for cities and communities. Encouraging the development of individuals and communities is an important goal for many urban planners, and community gardens may provide a unique tool for community development.

SECTION 1: COMMUNITY GARDENS: LESSONS IN THE LITERATURE

HISTORY OF COMMUNITY GARDENS

While community gardens may be a new phenomenon in many cities, they have quite a long history and have been used by many cities and residents to provide food and community during times of crisis and prosperity. The first recorded community gardens appeared in England during the 18th century (Warner, 1987, p. 7). At this time, large landowners were beginning to turn the countryside into fenced commercial farms. Land which was once public, such as open fields, waste lands, and commons, was now being separated into private parcels under Parliament’s enclosure acts. In order to receive this land, a person must have an established title; therefore, many laborers and small farmers who had once used the common land were now left with no land and no way to grow their food (Warner, 1987, p. 8). As a philanthropic response, wealthy landowners leased small parcels of land to laborers upon which they grew their own food. These gardens were the first “allotment gardens,” as they were gardens that were “allotted” to the villagers and were often separate from people’s cottages; these plots were the precursors to today’s community gardens (Warner, 1987, p. 10). The use of these gardens was encouraged by the government because it supplemented the public cash relief provided to the poor.

At the same time that the countryside was being subdivided, cities were growing, and many small farmers began moving to urban areas in search of work. They were accustomed to the practice of growing their own food, so many urban dwellers came together to rent “fringe land” which was located on the edges of cities to cultivate their own vegetables and flowers (Warner, 1987, p. 8). A century later, these urban and rural groups merged and developed a national policy which called for the municipal provision of land for community gardening (Warner, 1987, p. 8).

The first recorded community garden in the United States was created in 1753 by a group of Moravian immigrants at Bethabara in Winston-Salem, North Carolina. The group created the garden to grow their vegetables and medicinal herbs (Kirby, et al, 2008, p. 13). The use of community gardens became more widespread during the late 1800s, and beginning around this time, the United States experienced seven distinct “movements” of community gardening. These include the following movements: the Potato Patches, the School Gardens, the Garden City Plots, the Liberty Gardens, the Relief Gardens, the Victory
Gardens, and the Community Gardens. In all eras, community gardening was encouraged as a way to “help society adjust to living under stressful social or economic conditions” and as a way to “[sustain] morale and [support] the social framework” (Bassett, 1981, p. 1).

**Potato Patches (1894-1917)**

The first period began in 1893, when a financial crisis hit the United States; this crisis caused the failure of over 490 banks and greatly impacted the railroad industry which was the “core industry” of the country. Thousands of people lost their jobs, and “armies of young native and immigrant laborers were stranded in cities without work” (Warner, 1987, p. 13).

Cities, such as Detroit, whose economies centered around the railroad industry were especially impacted. In order to provide assistance during this economic crisis, Detroit Mayor Hazen S. Pingree asked owners of vacant land along the periphery of the city to loan land to the unemployed so that they could raise potatoes to feed their families. Over 600 acres were donated, and these “Pingree’s Potato Patches” allowed the families to survive the winter. In “Reaping on the Margins: A Century of Community Gardening in America,” Thomas J. Bassett notes,

> Beside providing food, supplementing incomes, and relieving strains on limited Poor Commission funds, the aim of [Pingree’s] plan was to promote self-respect and independence and to encourage the jobless to remain useful to society” (1981, p. 2)

Thus, the potato patches sought to increase self-sufficiency and self-respect, similar objectives for today’s community gardens.

Detroit’s Poor Commission donated $5,000 for the creation of these gardens, and mostly potatoes, beans, and turnips were raised (Bassett, 1981, p. 2). Other cities, such as Boston, Denver, New York, and Seattle, took notice of this program, especially when Detroit estimated that the gardens raised approximately $28,000 worth of produce. The cities soon encouraged the creation of their own allotment gardens (Warner, 1987, p. 13-14; Bassett, 1981, p. 2). These gardens were beneficial because they allowed poor and unemployed families to grow their own food and were an “escape from the social stigma of being on the dole” (Bassett, 1981, p. 2). The gardens also relieved the government of some of the responsibility for the provision of adequate welfare support” (Irvine, et al, 1999, p. 36). Gardening on vacant lots was a way of “infusing hope and self-respect” in the gardeners while lowering taxes for the property owners (Bassett, 1981, p. 2).

**School Gardens (1900-1920) and the Garden City Plots (1905-1910)**

Soon after the potato patches movement, community gardens became popular among education reformers who were interested in using gardens as ways to educate children about nature and to overcome the “absence of nature in the urban world.” Many “civic improvers” were concerned that city life was affecting children’s physical, mental, and moral development, and they hoped that gardens could instill civic responsibility and healthy work and social habits into children (Basset, 1981, p. 3). Similar to today’s gardens, community gardens in the early 1900s were used for purposes beyond growing vegetables and for community and civic improvement.
Community gardens also became popular among proponents of the “civic beautification movement” who wanted to use gardens to brighten up tenement districts and urban landscapes (Lawson, 2005, p. 1-2). Civic improvers, along with “nature study” teachers and schoolchildren, began cleaning unproductive land, backyards, and vacant lots so that these could be turned into vegetable gardens (Bassett, 1981, p. 4).

**Liberty Gardens (1917-1920)**

The use of community gardens increased exponentially during World War I. In order to combat rationing and high food prices, people planted thousands of community gardens in the open spaces throughout their cities (Warner, 1987, p. 17). During war times, the social status of gardeners was raised because they were now seen as patriotic citizens instead of the poor laboring for their food.

In 1917, the National War Garden Commission was created to encourage the plantings of “urban war gardens.” The committee issued press releases and created slogans with catchy phrases such as “Every Garden a Munitions Plant,” “Sow the Seeds of Victory,” and “The Kaiser is Canned.” Many gardens were created, and according to a 1918 estimate, five million gardeners produced $520 million worth of food. Land not put towards gardens was termed “slacker land,” and everyone was encouraged to join the war effort by planting a garden (Warner, 1897, p. 17-18; Bassett, 1981, p. 5).

**Relief Gardens (1930-1939)**

Gardens were also utilized during the Great Depression as a way to maintain the physical and mental health of the unemployed. Relief gardens provided a way for the unemployed to supplement their food while also “maintain[ing] self-respect and independence” (Bassett, 1981, p. 5-6). Cities, railroads, and industrial corporations provided land for these “relief gardens” which were reminiscent of the potato patches of the 1890s (Warner, 1987, p. 18). Under the Works Projects Administration (WPA), municipal land was provided to the unemployed and impoverished as a way to grow their own provisions. Almost 5,000 gardens were grown on 700 acres of land in New York City through the WPA program (Hynes, 1996). Community gardens have often had a resurgence during times of economic crisis as illustrated by their implementation during the 1890s, the 1930s, and again in the 1970s during an inflationary period (Irvine et al., 1999, p. 36).

**Victory Gardens (1941-1945)**

Gardens continued to be grown during World War II when planting and cultivating gardens again became a patriotic duty to aid in the war effort. The War Food Administration’s National Victory Garden Program encouraged the creation of victory gardens for the following five reasons: (1) to lessen the demand on commercial vegetable supplies which would make more land available to the Armed Forces and lend-lease programs; (2) to reduce the demand on “strategic materials” used in food processing and canning; (3) to ease the burden on railroads transporting war munitions by releasing produce carriers; (4) to maintain the vitality and morale of Americans on the home front by encouraging them to produce vegetables in the outdoors; and (5) to preserve fruit and vegetables for future use when shortages might become worse (Bassett, 1981, p. 7). The program was very successful, and in 1944, the “peak year” of
growing, twenty million victory gardeners produced 44% of the fresh vegetables in the United States (Warner, 1987, p. 19).

**Community Gardens (1970s-present)**

Community gardens continued to be used throughout the next few decades and became especially popular during the 1960s and 1970s when land was being cleared for new developments due to urban renewal policies. In many instances, these parcels were never developed, and urban residents began claiming the land for use as community gardens (Flisram, 2009, p. 16). Gardens were also used as “acts of resistance to urban abandonment”; to address the issues of inflation and environmental concerns; and to “reconnect neighbors during a time of social unrest” (Lawson, 2005, p. 2). Gardens remained popular during the 1980s as a way to combat inflation and unemployment during the economic recession (Basset, 1981, p. 7).

**Increasing Popularity of Community Gardens**

Today, community gardens have become increasingly popular throughout many cities and neighborhoods in the United States. According to the Wasatch Community Gardens in Salt Lake City, reasons for this increase include the lack of easily accessible locally-grown produce; the increasing awareness of the destructiveness of “fossil-fuel dependent industrial agriculture”; concerns about E. coli bacteria and other food-related risks; and the demise of the family farm (Kirby, et al, 2008, p. 12). Other reasons are more basic; for example, accessibility to better-tasting food, enjoying nature, and saving money are often-touted reasons for participating in community gardens (Kirby, et al, 2008, p. 17). Also, the popularity of the local food movement has caused many people to question the safety of supermarket foods and to begin looking for alternatives (Kirby, et al, 2008, p. 19). While the reasons vary from simply enjoying nature to being aware of the destructive habits of industrial farming, there is no doubt that community gardens are gaining a larger presence in many neighborhoods and cities.

**TYPES OF COMMUNITY GARDENS**

Different types of gardens have emerged to address different types of needs. As Laura J. Lawson notes, “It takes many people to nurture a garden, and many types of gardens to nurture individuals and communities” (2005, p. 4). Gardens serve a wide range of purposes which are evident in the many types of gardens that exist. While not all gardens can be categorized, certain common types have emerged. The most common type of garden is the leisure garden which is found in neighborhoods with many apartment-dwellers and others who do not have access to their own land. Leisure gardens usually contain around 20 to 50 plots in which gardeners grow flowers and vegetables with the intensive deep-bed method (Ferris, et al, 2001, p. 562).

Another common type of garden is the school or youth garden which serves as “outdoor learning laboratories” (Baldwin, et al, 2009, p. 2). These offer many activities which involve schoolchildren and their parents. Often, certain raised beds are assigned to different grade-levels, and the children will tend these gardens throughout the school year. The gardens often integrate science and nutrition education and try to directly connect lessons from the classroom to lessons in the garden (Ferris, et al, 2001, p. 563).
In an entrepreneurial or market garden, gardeners raise produce to sell at farmers’ markets or local grocery stores; thus, they learn lessons about growing food and running a business (Baldwin, et al, 2009, p. 2). As John Ferris, et al, note in “People, Land and Sustainability: Community Gardens and the Social Dimension of Sustainable Development,” a major function of market gardens is to alleviate poverty and social exclusion. He found that the gardens had the “dual purpose” of offering job training while also generating an income for the gardeners (2001, p. 563).

Other common types of gardens include crime diversion gardens/work training gardens; healing and therapy gardens/quiet gardens; neighborhood pocket parks; ecological restoration gardens/parks; and demonstration gardens (Ferris, et al, 2001, p. 561-562). These categories are not mutually exclusive, and gardens may serve multiple functions. For example, crime diversion gardens focus on creating alternatives for young people so they do not fall prey to guns, drugs, and violence. The St. Mary’s Youth Farm in San Francisco is an example of such a garden which is paying youth nearly double the minimum wage to work in its gardens (Ferris, et al, 2001, p. 564). Thus, the crime diversion garden also has an aspect of a youth garden and an entrepreneurial garden. But gardens do not have to be placed into one category or even multiple categories. Instead, community gardens can be wherever a group of people join together to garden.

COMMUNITY GARDENS AS TOOLS FOR COMMUNITY DEVELOPMENT

Communities and neighborhoods have a wealth of resources and assets. Some of these assets, such as strong neighborhood associations, are easy to identify, and its members are easy to mobilize for community causes. These communities, which are vibrant, healthy, and well-organized, are pleasant and enjoyable places in which to live and work (Homan, 2008, p. 33). But sometimes a neighborhood’s assets and resources are not as easily seen or identifiable. A neighborhood might gain the reputation for being dangerous or undesirable, and these labels can become strongly connected with the neighborhood. These communities are considered devoid of assets and resources and are often ignored or disdained by the media, outside residents, and even the city.

This ignorance and ambivalence towards a community’s assets is dangerous and leads to the devaluation of neighborhoods. Every community has resources and wealth upon which to build. Community development advocates recognize that each community has strengths and assets, and community development techniques help neighborhoods understand how to identify, highlight, and build upon those assets. These strengths may be considered unusual; often, assets are only believed to be financial wealth, but a person’s time, talents, and energy can be an even greater asset for a community. For example, a community member whose hobby is metal-working could provide the neighborhood with a strong resource by creating a unique sculpture or mending a broken fence. Or someone who enjoys baking could provide the key to the next neighborhood fundraiser. According to Mark S. Homan in Promoting Community Change, community development strives to “[p]ut into place new, additional, or improved community resources, behaviors, attitudes, and practices that strengthen community health, capital, and relationships” (2008, p. 52). Community development advocates see the “sources of wealth” that are present in communities, “helps those sources to grow” and develop, and “links them with one another in order to form a stronger and more capable community” (Homan, 2008, p. 52). By nurturing the resources in a community, the residents can use their own strengths and knowledge to benefit their neighborhoods.
Homan suggests eleven “elements” of community development which can aid in identifying and utilizing these resources. These elements include the following: build on community assets; increase skills of individuals; connect people with one another; connect existing resources; create or increase community resources; have communities assume ownership of direction, action, and resources; promote the expectation that community members will do all work possible; create beneficial external relationships; foster community self-reliance and confidence; build self-sustaining organizations; and enhance the quality of life (Homan, 2008, p. 53-54). An emphasis is placed on the talents that are already in the community and how community members can embrace and use these talents. When these elements are used together to help foster the skills and knowledge of a community, the community will benefit immensely. Relationships will develop, self-confidence will build, talents will emerge, and communities will prosper.

Many different projects encompass these elements of community development. The best types of projects are those in which community members can demonstrate and nurture their talents. Projects which bring the community together to work as a group to achieve a goal can help build valuable relationships. An example of a project which includes each of Homan’s eleven elements of community development and provides the community with many benefits is a community garden. Community gardens build upon the skills of leadership and the knowledge of gardening and farming which exist in the neighborhood; residents could gain additional knowledge about gardening which would increase the skills in the neighborhood; and participating in gardens would connect neighbors to one another and the time spent gardening would help relationships develop. Community gardens would use the physical resources that are already present in the community such as vacant land, tools, and water connections as well as human resources such as the residents’ time, energy, and talents. In order for the community garden to be successful, residents would be responsible for creating and maintaining the garden which fulfills Homan’s criteria of having residents assume ownership of the direction, action, and resources of the project and managing the work. External relationships would be fostered by creating linkages with other community gardens and organizations. Also, community gardens foster self-reliance and confidence and can build self-sustaining organizations. In addition, the benefits of neighborhood beautification, increased physical and mental well-being, and the development of relationships illustrate community gardens’ ability to enhance a neighborhood’s quality of life. Therefore, community gardens could be useful as a community development tool.

As Ruth Eckdish Knack notes in “Dig These Gardens,” there is a “growing number” of people who are recognizing the importance of community gardens as a community development tool (1994, p. 20). One of the greatest assets in a community are the people, and community gardens are able to use the human resources that are already present in the community, such as knowledge, talents, and physical strength, to create a commodity that will benefit the entire area.

**BENEFITS OF COMMUNITY GARDENS**

According to the literature, community gardens can provide a wealth of benefits to participants, neighborhoods, and cities. These benefits range from providing green space in cities to encouraging social interaction to reducing crime (American Community Gardening Association, 2009). Many studies and research have been conducted in order to identify the benefits that community gardens provide.

The benefits that community gardens provide is extensive. The following is a list of benefits that individuals receive from participating in community gardens:
• **Produces food.** Community gardens allow families and individuals who do not own land to produce their own food. Community gardens are a viable way for families to sustain themselves and can be incredibly productive. Urban agriculture, of which community gardens are a part, are three to five times more productive per acre than large-scale farming (Kirby, et al, 2008, p. 11).

• **Increases vegetable and fruit consumption.** Adults who participate in community gardens eat 1.4 times more fruits and vegetables per day than those who do not. Also, community gardeners are 3.5 times more likely to eat five or more fruits or vegetable servings per day. Fruits and vegetables grown in community gardens are more readily available and less expensive than produce at the grocery store. Gardening is a great way for people to learn about new foods and feel comfortable with fruits and vegetables, and gardens provide access to nutritionally rich foods which may not otherwise be accessible (Baldwin, et al, 2009, p. 3; Kirby, et al, 2008, p. 11).

• **Improves skills in food preparation.** Fruits and vegetables are an easy, nutritious snack, but many people may not have the knowledge about preparing these foods. Community gardens often provide information about food preparation to their participants, and through events such as potlucks, people can learn about and taste produce grown at the garden (Baldwin, et al, 2009, p. 3).

• **Saves money.** Gardeners can lower their grocery bills by supplementing their store-bought food with the food they grow in the garden. Gardeners can also sell their produce to earn extra money and supplement their incomes (Baldwin, et al, 2009, p. 3).

• **Increases interaction with nature.** Gardening helps to bring people closer to nature and teaches people how to care for the environment (Baldwin, et al, 2009, p. 3).

• **Increases physical activity.** Gardening provides exercise through the physical activities of creating and caring for a garden. Gardening also tones muscles and increases flexibility (Baldwin, et al, 2009, p. 3).

• **Improves health.** Consuming locally-produced foods can help reduce asthma rates because people consume manageable amounts of local pollen which can help them develop immunities. In addition to the physical benefits, gardens also provide emotional and mental benefits. Being in green spaces increases a person’s sense of wellbeing and belonging and helps to reduce stress. Gardens can also provide a retreat from the noise and activity of urban environments (Kirby, et al, 2008, p. 11).

• **Supports youth development.** Community gardens provide an opportunity for young people to learn about the source of their food; the importance of community-building and stewardship; how to interact with diverse groups of people; and issues of environmental sustainability. Youth can also gain practical knowledge such as math skills and basic business principles while developing job and life skills (Kirby, et al, 2008, p. 11).

• **Teaches life and business skills.** Participating in community gardens helps teach life skills such as discipline, timeliness, pride, leadership, patience, and responsibility. Some gardeners sell their produce, and for them, their gardens are a business which can teach skills such as
marketing, packaging, customer service, troubleshooting, and leadership (Baldwin, et al, 2009, p. 3).

Community gardens also provide many benefits to communities. The following is a list of benefits that communities receive from creating and caring for a community garden:

- **Builds community.** Community gardens bring people together to interact and work with one another. These interactions help to build strong and healthy communities and can increase community involvement and personal satisfaction in the neighborhood (Baldwin, et al, 2009, p. 3).

- **Creates opportunities to connect.** Community gardens bring neighbors together who have similar interests in gardening and being in nature. Gatherings in the gardens, such as on work days and for potluck dinners, can provide opportunities to build relationships (Baldwin, et al, 2009, p. 3).

- **Encourages community organizing.** Gardens can foster a community’s sense of identity, ownership, and stewardship and can provide a “focal point” for community organizing. Gardens allow people from diverse backgrounds to work together towards common goals and share information and knowledge about neighborhood groups and community activities (Kirby, et al, 2008, p. 11).

- **Builds leadership.** Gardens can encourage leadership and responsibility. These relationships and interactions can lead to community-based efforts to address other social concerns (Kirby, et al, 2008, p. 11).

- **Prevents crime.** Gardens provide an opportunity for neighbors to meet and interact with one another which increases communication networks. Gardens also increase the “eyes on the street” which will help deter crime because there is more activity in and observation of the neighborhood. Community gardens are recognized by many police departments as an “effective community-based crime-prevention strategy.” Studies have shown that crime decreases in neighborhoods as the amount of green spaces increases (Kirby, et al, 2008, p. 11).

- **Improves community services.** Ellen Kirby and Elizabeth Peters note in *Community Gardening* that the presence of a community garden in a neighborhood often leads to improved community services such as increased police support and sanitation pickup or amenities such as streetlights (2008, p. 10).

- **Creates green space.** Since over half the world’s population now lives in urban areas, having a place to relax and enjoy nature is necessary for urban dwellers. The flowers, vegetables, fruits, and trees grown in community gardens add to the beauty of neighborhoods and increase people’s awareness and appreciation of plants. Community gardens also play an important role in filtering rainwater which can keep lakes, rivers, and groundwater clean while the plants restore oxygen to the air and help reduce air pollution. In addition, garden space is less expensive to develop and maintain than parkland, so it is a viable option for communities with tight budgets (Kirby, et al, 2008, p. 11).
• **Increases property values.** The presence of gardens has been shown to increase local property values especially when vacant lots are turned into productive and beautiful gardens (Kirby, et al, 2008, p. 11).

Community gardens are a unique tool for communities because they are able to address multiple community issues with one program. This can be especially beneficial if funding or personnel are limited. Many people are starting to recognize the potential that community gardens present. As Kirby and Peters note,

> Community gardens can be neighborhood crossroads. Gardens foster bonds of friendship and support among diverse people, shape the life of a neighborhood, and provide needed community services. Residual benefits include safer neighborhoods, leadership development, and economic revitalization . . . likewise gardens provide a chance for plain old friendship and the evolution of neighborhood support groups (2008, p. 9).

By spending time with one another in the setting of a community garden, relationships grow and evolve. Neighbors share victories and concerns with one another, and a system of trust develops. As those who live in urban areas become increasingly concerned about the loss of connectivity with their neighbors, community gardens provide a great place for neighbors to meet and enjoy each others’ company while working towards a goal (Landman, 1993, p. 2).

**COMMUNITY GARDENS IN LOW-INCOME NEIGHBORHOODS**

While community gardens provide benefits to people at all levels of income, they are especially valuable in low- and moderate-income communities. Community gardens have a true home in low-income neighborhoods because many low-income residents live in rental property and therefore do not have their own space for gardening. Community gardens provide a cultivated space for vegetables, fruits, and flowers which may not exist elsewhere in the community. Higher-income people often own their land and thus have gardening space in their backyards or elsewhere on their property and do not need communal spaces for gardening.

**Addresses Vacant Land**

Lower-income communities tend to have more vacant land and brownfields than do higher-income communities which provide more space for the gardens. According to a study by Ann O’M. Bowman and Michael A. Pagano, approximately 23% of land in the average American city is vacant (Schukoske, 2000, p. 353). Some of this land was left vacant when residents moved from the center cities to the suburbs after World War II due to attractive governmental loans which provided funds for Americans to purchase homes but not to rent homes or apartments in the urban core (Campanella, 2009). Employers and jobs soon followed the residents, and this led to more abandonment of land in the city. Also, shifts such as de-industrialization, the declining reputation of inner-city schools, and racial prejudices led more people to move to the suburbs. And some land is vacant due to its small or irregular size or because it is undeveloped (Schukoske, 2000, p. 353).

Vacant lots have many repercussions for downtowns and urban neighborhoods. As Jane E. Schukoske notes,
In declining neighborhoods, vacant houses often fall prey to trespass and arson, resulting in rapid deterioration. Some of the most dangerous structures are condemned and razed, leaving vacant lots as monuments to neighborhood disinvestment. In addition to being economically unproductive, vacant lots endanger public health and safety by becoming illegal dumps for refuse that can contain noxious chemicals and breed disease (2000, p. 353).

Thus, vacant lots are more than an eyesore for many communities. They are an indication of disuse and abandonment and can lead to a cycle of disinvestment by residents, business owners, and the city. People may use the sites for dumping waste, assuming that no one cares about the lots, which increases the overall sense of neglect and apathy.

But in many neighborhoods, this sense of desolateness is not representative, for many residents are interested in reclaiming this land. Different alternatives exist as to how the vacant land can be used, but over the last thirty years, many neighborhoods have begun establishing community gardens on these vacant spots (Schukoske, 2000, p. 354). In their article titled “Community Gardens and Politics of Scale in New York City,” Christopher M. Smith and Hilda E. Kurtz note, “Community gardens [in New York City] were often built on vacant plots of land that had been abandoned by their owners as the city literally crumbled” (2003, p. 197). Thus, community gardens are great uses for this vacant land.

Community gardens are an ideal way to address the ills of vacant land because a well-tended garden inherently beautifies the landscape and indicates that people care about the area. As Kimberly Shinew, et al, note,

> By converting urban spaces into gardens, neighborhood liabilities are transformed into tangible (e.g., fresh produce, sitting gardens for recreation) and intangible (e.g., community cooperation, citizen empowerment) neighborhood assets (2004, p. 338).

Community gardens have the ability to transform an unused eyesore into a beautiful asset for a neighborhood.

**Provides Open Space**

Many low-income neighborhoods are lacking in green space, especially in African-American and Hispanic neighborhoods. In *From Junkyards to Gentrification: Explicating a Right to Protective Zoning in Low-Income Communities of Color*, Jon Dubin states,

> Apart from land use controls that placed blacks in residentially inferior environments, governments have also engaged in practices that diminish the quality of life for the residents within African-American communities such as not providing adequate parks and green public space (1993, p. 760). The following have been identified by Dubin as factors that have led to “an inequitable distribution of urban facilities in communities of color” (Schukoske, 2000, p. 358): racially discriminatory zoning practices; urban renewal; discriminatory siting of noxious land uses; and the relocation of communities due to redevelopment (Dubin, 1993, p. 764-768). Community gardens are a creative way to “green” areas, such as the ones that Dubin cites, that do not have municipal parks or other open spaces. And cities such as Berkeley, CA;
Madison, WI; and Seattle, WA are beginning to place community gardens within their open space planning projects (Schukoske, 2000, p. 361).

**Provides Healthy Produce**

Another major benefit of community gardens is that they provide a supply of healthy produce. Many low-income neighborhoods are located in food deserts which are “poor neighborhoods often populated by ethnic or racial minorities that lack convenient access to affordable, healthful food” (Shigley, 2009, p. 28). Grocery store chains are wary about locating in urban neighborhoods because the area’s demographics may not meet the “industry’s ideal,” and the stores do not believe they can make a profit (Shigley, 2009, p. 26). In other cities, supermarkets which were once located in inner-city neighborhoods have since abandoned them, leaving these areas “starving” for food options beyond fast food restaurants and corner stores which offer unhealthy foods at high prices (Gray, 2009). Nearly half of Detroit has been declared a food desert, and almost 633,000 of Chicago’s three million residents live in areas that are either lacking in a supermarket or the markets are inconveniently located (Gray, 2009). Another problem is that many people who do not own cars have trouble transporting their food. A 1993 study by Robert Gottlieb and Peter Sinsheimer found that 30% of residents in South Central Los Angeles reported “problems bringing home large amounts of groceries” due to lack of a car or nearby public transportation (Malakoff, 1995, p. 23). One way that neighborhoods are dealing with this issue is by establishing community gardens which provide fresh produce and herbs at easily accessible locations.

**Supplements Incomes**

Community gardens allow people to supplement their incomes with the produce they grow themselves; thus, instead of spending their incomes on fruits and vegetables, the gardeners can eat their own fruits and vegetables that they have grown. In a 1992 study, the American Gardening Association and Kansas State University found that community gardens supplemented budgets for unemployed persons, students, and retirees. Unemployed gardeners reported the highest amount of savings with 16% of unemployed gardeners saving more than $250 a year, and 32% of unemployed gardeners saved $150-$250 a year (Mattson, et al, 1994, p. 13). The study also found that 25% of low-income families (average income of $5,000) who responded to the survey saved 5% or more of their incomes by supplementing their incomes with produce from the garden (Mattson, et al, p. 14). The study concludes by stating:

> Community gardens provide significant economic benefits to unemployed people and impoverished families . . . Investment in community gardens and their expansion will return significant economic, physical, and psychological benefits (Malakoff, 1995, p. 23).

Another study performed by Robert Gottlieb and Peter Sinsheimer found that “a 64-square-foot plot can save a family up to $600 in food purchases per year” (Malakoff, 1995, p. 23). Community gardens can provide tangible financial benefits as well, and neighborhoods would do well to invest in developing their community garden programs.

**Uses in Public Housing**

The American Community Gardening Association’s 1989 conference, “The Beet Goes On: Community Development Through Greening,” focused on ways that community gardens could be used “as
instruments for the creation of community in some of America’s toughest urban settings” (Landman, 1993, p. 100). One of the sessions provided examples of community gardens in public housing complexes. Some of the speakers were residents of public housing who participated in the programs. They spoke about the “good they see coming from their gardening efforts” as well as the difficulties of the program. The programs in Philadelphia, for example, were supported by Philadelphia Green which emphasized that financial support would only be given to groups of gardeners, not individuals; therefore, anyone interested in creating a community garden in a public housing complex must assemble a group to work at the garden and to support the project (Landman, 1993, p. 100).

The tenant gardeners reported many benefits from the program which included the tenants getting used to working with one another and developing pride in their work. Also, the gardens helped beautify the area, and trash around the complex was reduced. Ruth H. Landman notes,

> With their sense that they know how to take joint action [because of the time they spent together gardening], the tenant gardeners reported that they were better able to resist drug dealers who thrive in a messy setting (Landman, 1993, p. 100).

In addition to these benefits, the gardeners were also able to form relationships with other Philadelphia gardeners who did not live in public housing complexes. Similar outcomes were seen in Los Angeles, New York, and Wilmington, Delaware, public housing/community garden projects (Landman, 1993, p. 100).

**Conclusion**

While community gardens can provide benefits to all individuals and communities, regardless of their income, much of the published literature indicates that community gardens are especially useful for low-income neighborhoods. Many low-income families and individuals do not have access to fresh produce, an issue which urban planners are becoming increasingly concerned. Community gardens can provide easy access to produce as well as provide open space, supplements to income, and activities for public housing residents. Thus, community gardens can be quite beneficial to low-income communities and their residents.

**COMMUNITY GARDENS IN URBAN AREAS**

Previous studies and research have also been undertaken to study community gardens and their effects in urban areas. One example is Ruth H. Landman’s 1993 study in which she looked at groups of people in Washington, D.C., who participated in activities that created a sense of community. Her study focused on community gardens, a cooperatively-owned housing development, a cooperative wholesale bakery, and a cooperative food market (Landman, 1993, p. xi). Through her research, she found that the participants “share a longing for community with many others in contemporary America” (Landman, 1993, p. 1). Kimberly Shinew, et al, echoes these thoughts by stating that studies have found that “urban life offers special challenges” to building community because even though urban residents come into contact with many people, they tend to only associate with a small group of people, and a deep sense of community is difficult to build when one only spends time with four or five people (2004, p. 339). But Landman’s study identified that the participants have “found just that [a sense of community] in some of the most ordinary activities and places: in their housing, and in growing, preparing, and selling food” (emphasis added; Landman, 1993, p. 1). Community gardens are unique tools for urban areas because
they act as a “neighborhood commons” which “build social capital by encouraging neighborhood to work together and socialize” (Shinew, 2004, p. 339). Many urban residents are searching for a community and for bonds of friendship, and through organizations such as community gardens, the participants developed relationships and found the community that they were seeking.

For many residents in large cities, developing a sense of community is more difficult than for residents in small or mid-sized towns. Landman notes that in small towns,

> everyone knows that you were born and that you have died. This, in ordinary parlance, is what we often mean by the term community – a sense of sharing knowledge of each other through a relatively dense set of interconnected paths. And it is in this sense that urban life offers special challenges because our paths are not ordinarily interconnected (1993, p. 2).

One of the benefits of living in a large urban area is anonymity; people can do as they please without others becoming greatly involved in their lives. But this anonymity comes at a price; friendship ties can be difficult to develop and creating a community can pose challenges.

But through activities such as community gardens, people can create these networks and connections. This ability of gardens to enhance the sense of community was demonstrated in Maria de Luca’s 1990 independent film Green Streets which examines community gardens in the “most desolate areas” of the South Bronx and Brooklyn. She found that the gardens have “transformed some terrible, mean streets” into places where residents of all races “have made their peace with one another.” These gardens have become serene, tranquil areas “in otherwise distressed neighborhoods” (Landman, 1993, p. 116-117). Many of the gardeners which de Luca interviewed mentioned how the gardens created a sense of community, both for the gardeners themselves and for the surrounding areas. Most gardens have no fences or barriers to entry, and very few gardens had been vandalized. “[De Luca’s] portrait of New York’s gardens supplies a very positive answer to the question [of how to build community]: her gardeners are positive that their gardens provide a key to the creation of community,” concludes Landman (1993, p. 117). Community gardens can play a special role in urban neighborhoods by bringing people together who would not otherwise normally interact.

An example of an urban garden organization is Growing Power created by Will Allen in Milwaukee, Wisconsin. His organization is located in one of Milwaukee’s most economically distressed neighborhoods in which the closest food provider is a corner grocery store which sells beer, cigarettes, and processed foods. Growing Power began in 1993, when Allen purchased a roadside farm, the last remaining farm in the city, and used the land to provide a place for teenagers to earn money by renovating greenhouses and growing produce to provide food for their community (Miner, 2008; Growing Power, Inc., 2009). Allen recognizes that the unhealthy diets and health problems of many low-income, urban residents are due to their limited access to safe and affordable fresh produce. Allen’s farming practices focuses on educating youth about food, agriculture, and environmental concerns through “hands-on” experiences. He has also worked to create “food distribution network[s]” for urban areas (MacArthur, 2008; Flisram, 2009, p. 15). Many companies in Milwaukee and Chicago now have Growing Power food stands in their parking lots so that their employees will have easy access to healthy produce.

In 2008, Will Allen was awarded the MacArthur Foundation Genius Grant, and his work is being recognized by community development advocates as a community and economic development tool (Flisram, 2009, p. 15). In a speech at North Carolina State University on November 9, 2009, Allen remarked that Growing Power’s Community Food Centers work to bring people together around food.
Everyone has food in common, he stated, and this similarity of needs is a key building block for community development (Allen, 2009). By bringing people together around a common element, a sense of community can be created.

Community gardens offer unique benefits to urban areas, similarly to the unique benefits they offer to low-income communities. They help to draw neighbors together who might not otherwise interact, and they build a sense of community in urban areas where people could easily remain strangers.

**CHALLENGES TO CREATING COMMUNITY GARDENS**

**Control of the Land**

While community gardens can offer a variety of benefits to low-income and urban communities, certain difficulties and issues can arise when implementing community gardening programs. The most common, and pressing, issue is the control of land. Many community gardens have difficulties with finding land which they can rent on a long-term basis. Many cities or property owners are only willing to lease land for a year or two at most. If a garden is able to find land to lease, some leases can be terminated on short notice. For example, a Baltimore program called Adopt-A-Lot offers one-year leases to community gardens, but with the caveat that the city can terminate the lease with thirty days notice if the city wishes to use the lot for another public purpose. In addition, if the city receives complaints about the condition of the lot, it can terminate the lease upon five days notice. While other cities are also willing to provide community gardens with land, some are reluctant to provide a lease because they do not want to provide liability insurance (Schukoske, 2000, p. 365).

Other gardens may find land available for purchase, but they might not be able to afford the land. This has historically been an issue for community gardens; as Bassett notes, “The rise and fall of virtually all community-garden movements has hinged on the availability of vacant urban land,” and he advises, “If community gardeners today wish to profit from their [gardening] tradition, they would be wise to have the title to their garden site” (1981, p. 8). While purchasing the land provides the “greatest degree of control,” Schukoske notes that “the process of obtaining title may require a greater investment of resources and a longer time commitment than less established garden organizations can provide” (2000, p. 366). Also, if a garden is able to purchase the land, the property taxes might be so high that the gardeners are not able to afford them. A property might also have liens which can complicate the process even further (Schukoske, 2000, p. 366-167). Thus, while a garden might be interested in purchasing the land, the participants may not have the legal knowledge to navigate the process or the financial resources to purchase the property.

During times of economic crisis when real estate values are low, property owners are willing to lease their land to community gardeners, but once the market revives, property owners are “quick to develop their interests” (Basset, 1981, p. 8) and look for higher rents or a purchaser for their property which evicts community gardens. This highlights another issue which is that community gardens often lose their land to development (Get Green Columbus, 2009). Since community gardens often only have short-term leases for their land, they have no guarantee that the land will remain undeveloped and will be available in the long-term.
Lack of Funding
Another issue which can hinder the development of a community garden is the lack of financial resources. This can especially be a problem for low-income communities. Some gardens are able to apply for grants to receive funding, but this requires grant writing expertise which may not be available to all garden organizers. Some organizations, such as the Rock County UW-Extension, will provide gardens with assistance in locating funding, but this assistance does not guarantee that the gardens will have secure funding. Without capital, gardens will have difficulty purchasing seeds and tools, renting equipment, and paying for other necessities. Without funding, gardens cannot operate, and while in higher-income neighborhoods, the participants may be able to personally fund the program, lower-income communities may not have this option.

Lack of Community Involvement
One of the most important ingredients to a successful community garden is the involvement of community members. Each of the gardens interviewed for this project stated community involvement and community interest is the most important factor for success. If community gardens do not have the support of nearby residents, then the program will not succeed because community gardens cannot sustain themselves for long if they are only tended by outsiders. Also, neighborhood residents must feel as though they have ownership of the gardens; a garden will not be successful if the residents feel as though the garden has been thrust upon them (L. Harris, personal communication, February 15, 2010).

Theft and Vandalism
Theft and vandalism can also cause problems for many community gardens (Get Green Columbus, 2009). SEEDS, a community garden in Durham, North Carolina, had many difficulties with thefts during its early years. People were stealing their vegetables and newly-planted trees and then selling them. People were also using SEEDS’ corner lot as a short-cut to the street corner. In order to stop people from stealing and trampling their garden, the participants erected a fence (L. Harris, personal communication, February 15, 2010). While a fence is a deterrent to thefts, many community garden organizations advise against fences because they can be exclusionary and unwelcoming. Some gardens choose instead to plant rose bushes or blackberry bushes whose thorns often keep out intruders. Even though SEEDS was forced to erect a fence, they did not want to keep produce away from those who might have been taking it because they were hungry, so the organization planted the “Garden of Eatin’” outside the fence which provides free produce for any takers (L. Harris, personal communication, February 15, 2010); thus, creative ideas can help to lessen the harm caused by thefts.

Other Concerns
Community gardens are faced with other concerns as well such as the access to water sources which can be scarce especially in urban areas (Get Green Columbus, 2009). Also, community gardens are advised to obtain liability insurance; sometimes this is even necessary to obtain a lease (American Community Garden Association, 2009). This can be a complicated, and expensive, process for young community gardens. In addition, well-organized gardens often create bylaws, develop a purpose and mission, manage their funding, and hold their gardeners responsible for their actions. These activities can be overwhelming for some community gardens, especially if they do not have the knowledge required for
such tasks. Inter-gardener squabbles, such as over policies and rules, can also pose problems for gardens. While these problems may seem mundane, they cause complications for many community gardens which must be addressed in order to have a healthy, functioning garden.

Conclusion
While community gardens may be a unique project for low-income and urban neighborhoods, they are not always easy to start or implement. Problems such as access to land and funding, lack of community involvement, and theft and vandalism can often be major issues for gardens. Low-income communities which traditionally have low access to financial and educational resources may have difficulty in obtaining the needed requirements for starting a community garden. While organizations exist to provide assistance and knowledge to the gardens, a strong importance is placed on community gardens being initiated by community residents. If a community garden program is begun by low-income residents, they may not have the financial capital or legal knowledge to navigate the process of starting a community garden which may be a deterrent to starting gardens at all. While community gardens can provide many benefits to low-income communities, the difficulties they present must be addressed in order to have successful community garden programs.

SECTION 2: COMMUNITY GARDENS: EXAMPLES IN ACTION
COMMUNITY GARDENS SERVING LOW-INCOME COMMUNITIES
Many organizations throughout the United States have created community gardens in order to serve low-income and urban communities. These gardens are actively providing technical assistance, training programs, educational classes, and the tools needed to start community gardens. Four community gardens which serve low-income communities were interviewed in order to learn more about their programs, the types of services they offer, and their advice on creating successful community garden programs. These programs were chosen because they serve low-income neighborhoods and have been successfully working with these communities for over fifteen years each. Also, two of the community gardening organizations are private, non-profits while the other two are operated by county governments. This provides examples of how public and private sectors can operate community gardening programs.

The following people were interviewed about their community gardens: Luci Beachdell, the Program Director for the Montgomery County Five Rivers MetroParks’ “Grow With Your Neighbors” program in Dayton, Ohio; Amy Klein, the Executive Director for the Capital District Community Gardens in Upstate New York; Mike Maddox, the Horticulture Educator for the Rock County UW-Extension Community Garden Program in Janesville, Wisconsin; and Lucy Harris, the Executive Director at SEEDS in Durham, North Carolina. Each of these gardens focuses on low-income communities and works to bring healthy produce to these neighborhoods. Examples from these gardens provide a variety of creative ideas and programs which can be used as models for other organizations.
“Grow With Your Neighbors” Community Garden Program

An organization which focuses on helping low-income and urban residents create and maintain community gardens is the “Grow With Your Neighbors” program in Montgomery County and Dayton, Ohio. “Grow With Your Neighbors,” or GWYN, was started by volunteers in 1986, at the Wegerzyn Garden Center. In 1995, Wegerzyn was adopted by the Five Rivers MetroParks park district, and the program has been maintained by the Five Rivers MetroParks since then. Five Rivers MetroParks is supported by a Montgomery County property tax level, and GWYN now has a staff of two people (one full-time and one part-time) (L. Beachdell, personal communication, February 5, 2010). The organization has been successful in transforming vacant lots throughout the Dayton area into productive gardens and open spaces.

The Five Rivers MetroParks staff provide technical support to gardeners who are interested in starting community gardens. MetroParks’ support includes assistance with landscape design, land acquisition assistance, leadership development, community organization, soil amendments and tilling, soil fertility management, community building events, training and consulting, construction oversight, seeds and plants, educational materials and workshops (Grow With Your Neighbors, 2010).

While the program is county-wide, most gardens are located within the city limits of Dayton, but people in suburban areas and at local schools are becoming interested as well (Gottschlich, 2009). GWYN currently helps 36 community gardens, but all gardens are owned, managed, and maintained by community groups, except for two which are located on MetroParks’ property and are maintained by the MetroParks staff. Most communities either own or lease the land where their gardens are located, and most are located in low- to moderate-income neighborhoods (L. Beachdell, personal communication, February 5, 2010).

Benefits of GWYN Gardens

Luci Beachdell, the Program Director for GWYN, has found that most gardeners participate in their neighborhood gardens because the gardens provide a place to grow food and offer economic benefits. People find that they can save money gardening instead of buying food and that their produce is tastier (Gottschlich, 2009).

The gardens also provide residents with the opportunity to get to know their neighbors and their neighborhood (L. Beachdell, personal communication, February 5, 2010). Through this interaction, each garden develops its own character and sense of community. One gardener, Amiee Noel, who rents a 9-by-12 plot on McPherson Street near downtown Dayton, has noticed this sense of community and remarked, “It’s just been really fantastic. I’ve met people I wouldn’t have met otherwise. [The garden’s] kind of a gathering place now” (Gottschlich, 2009).

An example of a garden fostering community can be seen in a Dayton neighborhood where six to ten houses and one large vacant lot backed an alleyway. A van had been driven into the lot and then burned. With GWYN’s help, the neighbors reclaimed this space, by clearing out the van and debris and planting a garden. Due to cleaning the space and creating the garden, the neighbors came into contact with each other and developed relationships (L. Beachdell, personal communication, February 5, 2010). This garden benefited these households in numerous ways by creating an impetus to clear dangerous waste, beautifying the neighborhood, and building relationships.
Elements for Success

The most important element of a successful community garden is having a “solid group” of people who are interested in creating the garden. When someone contacts Beachdell about creating a garden, her first question is “Do you have people who are interested?” He/she will often answer, “Yes, I’m interested,” but having only one person who is engaged in the project is not enough; three to four people are essential for the success of a garden (L. Beachdell, personal communication, February 5, 2010). A large amount of work and many decisions go into creating a community garden, and it is best if this work can be shared among a group of dedicated people. Beachdell has also found that it is important to have some participants who already have gardening skills so that they can share this knowledge with others at the garden.

In addition, another important factor is the location of the garden. Gardens that are within walking distance of the gardeners are more successful because the gardeners live nearby and will pass the gardens every day. The gardeners can keep an eye on the gardens and take better care of the gardens because they are accessible. Beachdell noted that gardens can “absolutely build community,” but if they are not well-maintained and are overgrown, they will not benefit or uplift the neighborhood (L. Beachdell, personal communication, February 5, 2010). Gardens that are well-tended can increase security in a neighborhood because the gardeners are invested in the space and pay attention to the garden and the area around it. Gardens which are well-maintained can also lead to reduced levels of waste dumping. This is especially true for reclaimed land because once the area is no longer vacant, people tend not to dump trash on the land (L. Beachdell, personal communication, February 5, 2010). Gardens which are well-located and have invested participants can be important assets which beautify and improve neighborhoods.

Characteristics and Examples of GWYN Gardens

Many GWYN gardens are located on vacant lots throughout the city of Dayton. In some places, the concrete foundations of buildings are gone, but the land has a crummy, clay soil. Depending on the land’s and the neighborhood’s needs, GWYN will help residents test the soil for heavy metals, till the land, and/or provide horse manure and leaves to make the land ready to garden (Gottschlich, 2009; L. Beachdell, personal communication, February 5, 2010). In some gardens, GWYN will place “modified lasagna beds” on land that has poor soil; lasagna beds are raised beds in which thick layers of organic matter are placed on top of the soil so that the plants will have nutrient-rich soil in which to grow (L. Beachdell, personal communication, February 5, 2010).

This lasagna bed technique was implemented at an apartment complex which housed elderly residents. The residents paid for their plots on a sliding scale depending on their income levels. Lasagna beds were planted, but the residents soon found that they needed more space, so they began planting vegetables and other plants in the landscaped area around the apartment complex. Soon tomatoes and squash could be seen mingling with hostas. For residents who were not physically able to garden, their neighbors would plant tomatoes underneath their windows so they could enjoy the produce too. The gardens kept the elderly residents active, and the residents could put their skills and knowledge to use by growing produce.
GWYN has found that some land is too contaminated to use as gardens, so GWYN provides creative alternatives for these spaces. For example, a lot in a low-income neighborhood had lead in the soil, so the organization planted prairie grasses and fruit, such as raspberries, June berries, and grapes, on this plot. Prairie grasses and fruit are ideal for spaces containing lead because prairie grasses will not be eaten by people and unlike greens, fruits and berries do not uptake lead. A concrete example of the beneficial effects of this field is that a family bought a house across from the field because they liked the look of the grasses and trees (L. Beachdell, personal communication, February 5, 2010). Planting the grasses and berry bushes in the lot beautified the area and drew new residents to the neighborhood.

GWYN community gardens have become increasingly popular. Beachdell noted that 2009 was “the busiest year as long as most folks here can remember.” Some people are creating gardens because they enjoy the activity and the beauty that gardens provide. Others are finding that gardens are a good way to weather the current economic downturn (Gottschlich, 2009). Gardens provide healthy food at low costs along with the added benefits of exercise and friendship. Also, people are brought together by the gardens, and the gardens become a reflection of the neighborhoods that they are in (L. Beachdell, personal communication, February 5, 2010). Community gardening is a unique activity for low-income residents because it encompasses a variety of benefits, both for communities and for individuals.

Capital District Community Gardens

Another example of a community garden that is active in low-income neighborhoods is the Capital District Community Gardens based in Troy, New York, an industrial city about ten miles from Albany. The organization was established in 1975, and is a private, non-profit community service organization whose mission is to improve the area’s neighborhoods through community gardening, access to healthy food, and urban greening programs (Capital District Community Gardens, 2009). While the organization is based in Troy, it also operates in Albany, Rensselaer, and Schenectady counties which are a part New York’s Capital Region and encompasses the towns of Albany, Cohoes, Latham, North Greenbush, Rensselaer, Schenectady, and Troy. Amy Klein, the Executive Director of Capital District Community Gardens, said that the organization sponsors 46 community gardens which serve approximately 3,700 people in the Capital Region (personal communication, January 27, 2010). Some gardens are small and only have a few gardening plots while others are much larger, covering up to an acre or more. The average price for a garden plot is $20 a year. For gardeners who cannot afford this amount, Capital District Community Gardens (CDCG) works with them to find a more manageable price. While the gardeners sign-up for one growing season, most are invited back to garden for many seasons. Some gardeners have had CDCG plots for ten, twenty, and even thirty years (A. Klein, personal communication, January 27, 2010).

The organization provides many resources for its gardeners such as a variety of educational classes. Examples of these classes include “Cover Crops,” “Fall Soil Enrichment,” “Planting Garlic” which help to educate gardeners about different aspects of gardening. CDCG also provides physical resources for the gardeners such as tools, seeds, and equipment (Capital District Community Gardens, 2009). All gardens are managed organically, only using organic fertilizing and growing methods. CDCG also provides information on using organic methods for the gardeners.

Veggie Mobile

The organization also has a number of programs which help to bring produce, green space, and nature into urban areas. For example, CDCG operates a mobile produce market called the Veggie Mobile which sells fresh produce to low-income and inner-city residents. Many of the neighborhoods that CDCG
serves are lacking in available healthy produce and grocery stores. The goal of the Veggie Mobile is to make healthy produce accessible and affordable to low-income residents by selling directly to them year-round and at wholesale costs. The Veggie Mobile offers fruits and vegetables at nearly half the cost of the nearby small grocery store (Bauman, 2009). Due to the Veggie Mobile, low-income families can purchase more fresh produce than they could if they relied on local high-priced convenience stores.

The Veggie Mobile program began in April of 2007, and operates from a refrigerated truck. The truck was retrofitted by a group of volunteers with shelves that displays the fruits and vegetables. The truck has a solar panel on its roof which provides the energy to refrigerate the truck and to power the electrical equipment. The truck runs on biodiesel and has a sound system that plays music to “announce its arrival” (Capital District Community Gardens, 2009).

The Veggie Mobile operates Tuesday through Saturday and has one-hour stops at locations such as senior centers, public housing complexes, and other densely-populated areas in Albany, Schenectady, and Troy. Each Wednesday, the Veggie Mobile operates a “Taste & Take” program which provides free tastes and samples of different fruits and vegetables to residents from the public housing complexes. A schedule of the truck’s route is provided online and clearly states where the truck will be each hour. The Veggie Mobile also has a blog that provides recipes and information about preparation of the food. For example, recipes can be found for homemade applesauce, sweet potato fries, and roasted cauliflower (Capital District Community Gardens, 2009).

The Veggie Mobile is funded by a five-year grant from the New York State Department of Health’s Hunger Prevention and Nutrition Program. Other funds are provided by donors; this money supports the start-up and first year operational costs. Also, a donation button is provided on the CDCG website so donations can be easily made. The Veggie Mobile, or “produce market on wheels,” has been so successful in addressing hunger and health concerns that in 2009, it was selected as one of ten finalists for the international “Designing For Better Health” competition; the project was selected from 281 entries from 29 countries. The competition was sponsored by changemakers, which is part of Ashoka, a global network of social entrepreneurs, and the Robert Wood Johnson Foundation which recognizes the creativity and importance of the Veggie Mobile project (Staff Reports, 2009).

**Squash Hunger**

Another program operated by CDCG is Squash Hunger which connects people who have an abundance of fresh produce to those who are in need. The program was created in 2004, and since then it has collected more than 70,000 pounds of fruits and vegetables. This produce is donated by community members who can drop-off their items at eleven collection sites located throughout the Albany, Schenectady and Rensselaer counties. The food is then delivered to shelters, food pantries, and soup kitchens by volunteers (Capital District Community Gardens, 2009). While many shelters and soup kitchens provide food for their clients, the food is not necessarily healthy which is due to the type of donations they receive (Graziade, 2009). Through this program, shelters are able to provide fresh and nutritious meals to their visitors.

CDCG encourages gardeners to keep the hungry in mind when gardening and shopping. The organization recommends that gardeners plant an extra row in their gardens specifically for the hungry; harvest and share extra produce for their gardens; purchase extra produce to share with the hungry; or pick a little extra when they are apple or berry picking (Capital District Community Gardens, 2009; Graziade, 2009). This program makes it easy for community members to share their home-grown or store-bought
produce with those in need. The Capital District Community Gardens is an example of a community garden which goes beyond engaging people in gardening and has become an active resource for low-income and inner-city residents.

**Other Programs**
The organization also has programs such as the following: the Produce Project in which CDCG staff works with students from Troy High School to create an organic urban farm business; a street tree planting program which has been successful in planting over 2,500 trees during the last decade; and the Taste Good Series in which CDCG staff works with kindergarteners through second-graders to expose them to nutritional foods and the importance of a healthy diet (Capital District Community Gardens, 2009). Through these programs, CDCG works to bring healthy foods and healthy eating practices to low-income youth and households. In addition to the lack of grocery stores, many low-income residents may not have the knowledge about the importance of nutritious eating habits. This community garden program is providing an important service to its community by helping to develop skills and knowledge about a healthy diet while also drawing people together and connecting them with one another and important information.

**Characteristics of the CDCG Gardens**
Klein stated that many people come to the gardens because they have a desire to grow food, stay healthy, and be self-sustaining (personal communication, January 27, 2010). While some people have gotten jobs by using the skills and knowledge they gained from the community garden, most participants are involved with CDCG gardens to satisfy their basic physical needs such as feeding their families and getting exercise. Capital District Community Gardens staff has noticed that gardeners often receive emotional and mental benefits as well; many participants experience a boost in their self-confidence after participating in the community gardens. For many participants, gardening is the first, or only, activity in which they are successful (A. Klein, personal communication, January 27, 2010). The organization wants its gardeners to succeed and works to provide materials and educational programs to ensure that people use and enjoy the gardens. Many participants have recovered from drugs, alcohol, or abusive situations, and the community garden has become a safe haven for them (A. Klein, personal communication, January 27, 2010).

Another major benefit that community gardens provide is an opportunity for people to come together and work with one another. The gardens allow people from all levels of income and from different racial and ethnic backgrounds participate in the gardens; therefore, the gardens bring together people who would not otherwise encounter each other in their personal or professional lives (A. Klein, personal communication, January 27, 2010). This interaction often leads to the development of personal relationships and a sense of community.

Through its programs, the Capital District Community Gardens organization has provided many services to urban and low-income residents. Through its gardening activities, the Veggie Mobile, and the Squash Hunger program, CDCG is addressing the issues of hunger and poor nutrition in low-income communities. Its community gardens actively bring residents to interact and create friendships. CDCG finds that gardening is a powerful activity; it is “relaxing, rejuvenating and offers opportunities for exercise, self-esteem building, recreation, education, neighborhood unity and urban beautification”
(Capital District Community Gardens, 2009). These benefits, such as self-esteem building, neighborhood unity, and urban beautification, are important goals for community development actions. CDCG is achieving community development aims through its creative gardening and hunger-prevention programs which are making an important impact in the lives of many low-income residents.

**Rock County UW-Extension Community Garden**

The Rock County UW-Extension office, in conjunction with the Rock Prairie Master Gardener Association, the Rotary Botanical Gardens, and other community organizations, is actively promoting the use of community gardens in low-income neighborhoods throughout Rock County. The program is based in the Janesville/Beloit, Wisconsin, metro area. The broad goals of the community gardening program are to increase food security activities; to develop capacity among existing community food resources in low-income and underserved communities; to improve economic self-sufficiency; to increase community access to nutritious and culturally-appropriate food; and to make connections between community members, organizations, and resources which will ensure the viability and longevity of a county-wide food system (Rock County, 2007). Other “specific,” or more focused, goals include the following: improving family fruit and vegetable production, consumption, and access in low-income neighborhoods; increasing interaction among people in low-income neighborhoods; strengthening relationships between low-income people and their resources with the city, the county, and extra-neighborhood resources; expanding access to fresh perennial foods for low-income residents; and expanding economic activity associated and increasing food production in existing community gardens (Rock County, 2007).

In order to achieve these goals, the Rock County UW-Extension not only encourages the creation of community gardens, but also acts as a “go-to resource” for groups interested in starting community gardens. Mike Maddox, the Horticulture Educator at the UW-Extension, and his staff provide technical assistance to interested parties and help them find the resources necessary to start community gardens. The organization helps interested gardens with the creation and maintenance of garden space which includes the initial tilling, soil testing, and soil amendment recommendations. The UW-Extension also collaborates with local vendors for seeds, transplants, and other donations for the community gardens and provides access to grants and assistance in locating financial funding and donations. The organization is also available for general support and information and offers many educational programs throughout the year including Community Garden Tours, Community Garden Socials, seeds and seedling exchanges, and maintenance, compost, and harvesting courses (Rock County, 2007).

Another important function of the UW-Extension is to “play the reality check.” Many people are interested in starting community gardens, but it is critical that enough people are engaged in the project. An organizer can have the enthusiasm and the land, but he/she must also have the people (M. Maddox, personal communication, February 5, 2010). These thoughts were echoed by Luci Beachdell, the Program Director for the “Grow With Your Neighbors Program” in Dayton, Ohio. Community gardens can be great assets to neighborhoods, but they must have a large group of people dedicated to the garden in order to succeed.

**Characteristics of UW-Extension Gardens**

All UW-Extension gardens are located in low-income neighborhoods. Maddox notes that none are in wealthy, “ritzy” neighborhoods because residents of higher-income areas own their own land and therefore have their own space to garden. Many lower-income residents live in rental property without
much open space, so the gardens provide them with their only gardening space. Also, most higher-income areas do not have brownfields that need to be reclaimed or vacant lots that need to be beautified whereas brownfields and vacant lots are often common sights in low-income neighborhoods. In addition, lower-income areas may lack gardens because their residents may not have the knowledge or expertise in gardening (M. Maddox, personal interview, February 5, 2010).

Maddox has found that some low-income residents become involved with community gardens through their children. The UW-Extension has created some community gardens in parks throughout the county, and children living in the nearby neighborhoods are drawn to these gardens. They become active participants in the gardens and then bring their parents. An example of such a garden is located in Beloit on an old abandoned lot in a Hispanic and African-American neighborhood. The lot was notorious for drug sales and was a dangerous space in the neighborhood. A white Master Gardener who lived in the neighborhood decided to reclaim the lot and build a community garden on the lot. In the beginning, it was difficult for the Master Gardener to get the neighborhood residents to participate, but eventually the neighborhood children began coming to the garden. After the residents realized that the Master Gardener lived in the neighborhood and was dedicated to the area, they began coming to the community garden as well, and now it is very successful. Neighborhoods that have community gardens, especially those in Beloit have seen a “resurgence of positive activity” since the creation of the gardens (M. Maddox, personal interview, February 5, 2010).

Just in the last year, Maddox has worked with many different organizations which are interested in starting community gardens. Some of these groups include local municipalities, the headquarters of an office supply store, a school district, and a church. The UW-Extension provides educational and technical assistance to the gardens, but each garden is responsible for its own space and acts as “rouge, independent nation-states” with its own bylaws, guidelines, and structures (M. Maddox, personal interview, February 5, 2010). This allows neighborhoods and organizations the flexibility to tailor the gardens to their specific needs.

The UW-Extension also works with local food pantries and supplies them with vegetables. The city of Janesville experienced an economic hit when General Motors announced it was closing its Janesville plant. The plant, which employed 2,600 people, ended the production of medium-duty trucks at the end of 2009, and is scheduled to end production of SUVs by the end of 2010, if not sooner (Channel 3000, 2008). This closure, along with other effects of the economic crisis, has resulted in a 12% unemployment rate in the Janesville/Beloit metro area. Maddox has seen a definite increase in the use of food pantries which are being “maxed-out.” While the UW-Extension supplies the food pantries with produce, the organization cannot keep the pantries full of fresh vegetables (M. Maddox, personal interview, February 5, 2010). Community gardening has a history of providing relief during economic recessions, and necessity of community gardens and the produce they provide during this economic downturn is no exception.

RECAP Community Garden Program

One innovative program that the UW-Extension operates, in conjunction with the Rock County Sheriff’s Department, is the Rock County Education and Criminal Addictions Program, or RECAP. The program began in 2006, when the organization built a community garden on a half-acre parcel of land near the local jail facility to provide space for a gardening program for the inmates (Rock County, 2008). Studies have shown that inmates who are placed in rehabilitation programs while they are in jail have the potential to develop life skills, and this reduces recidivism; the RECAP program is one of many programs
that the Rock County Sheriff’s Department offers to rehabilitate its inmates (M. Maddox, personal interview, February 5, 2010).

At the beginning of the program, the participants receive gardening lessons and then plant and maintain a garden. Once the produce has grown, they receive a lesson about the nutritious value of the produce and how to prepare the food. All information is provided verbally due to the participants’ varying literary levels (Rock County, 2008). At the end of the lesson, each participant is asked “What have you learned today?” and their responses are recorded.

The program has provided a wide array of positive outcomes such as cognitive benefits because the participants are learning a new skill and gaining knowledge; social benefits because they are interacting with each other, the UW-Extension staff, and Master Gardeners; psychological development because the participants’ self-esteem and self-confidence often improves; physical benefits from working outside in a non-threatening environment. The garden also has become a safe space for the inmates to have time for reflection and restoration (Rock County, 2008).

The program has been very successful in providing food for the inmates’ consumption as well as for food pantries. The following table provides an overview the amount of food produced by the program as well as the number of participants, the hours of community service, and the distribution of the produce:
<table>
<thead>
<tr>
<th>Year</th>
<th>Amount of Produce Raised</th>
<th>Distribution</th>
<th>Number of Program Participants</th>
<th>Hours of Community Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>9,846 pounds total</td>
<td>20% to county institutions and 80% to food pantries</td>
<td>47 Inmates (27 Male, 16 Female, 28 White, 11 African-American, 1 American-Indian, and 3 Latino)</td>
<td>RECAP: 797 hours</td>
</tr>
<tr>
<td></td>
<td>(5,385 pounds of miscellaneous produce was donated to food pantries or used by county facilities)</td>
<td></td>
<td></td>
<td>Master Gardeners: 958 hours</td>
</tr>
<tr>
<td>2007</td>
<td>7,385 pounds of miscellaneous produce was donated to food pantries or used by county facilities. (No pumpkin crop was raised this year.)</td>
<td>10% to county institutions and 90% to food pantries</td>
<td>54 Inmates (47 Male, 7 Female, 37 White, 13 African-American, and 4 Latino)</td>
<td>RECAP: 1357 hours</td>
</tr>
<tr>
<td></td>
<td>(300+ pumpkins were donated to the youth fundraiser &quot;Spotlight on Kids&quot;)</td>
<td></td>
<td></td>
<td>Master Gardeners: No hours were reported, although they were involved again this year.</td>
</tr>
<tr>
<td>2008</td>
<td>4,300 pounds of miscellaneous produce was donated to food pantries or used by county facilities. (Inclement weather had a negative effect on the harvest this season.)</td>
<td>5% to RECAP and 95% to food pantries</td>
<td>44 Inmates (40 Male, 4 Female, 30 White, 13 African-American, 1 American-Indian, and 1 Latino)</td>
<td>RECAP: 744 hours</td>
</tr>
</tbody>
</table>

Originally, the project was partially funded partly by a United States Department of Agriculture grant which has since expired, but this grant allowed the organization to build the infrastructure for the garden. The program now supports itself through Community Supported Agriculture (CSA) sales (M. Maddox, personal interview, February 5, 2010).

The inmates who are involved in the program are short-term, nonviolent offenders, most of whom have two-year terms or less. The program prepares the inmates to go back into the community and helps to build skills. The garden also functions as a “life lab” where the inmates can use what they learn in the Sheriff’s Department’s other programs (M. Maddox, personal interview, February 5, 2010). The UW-Extension also emphasizes that the skills learned in the garden can be used as resume material. Maddox often writes letters of recommendation based on the inmates’ work in the gardens; it is beneficial for the inmates to have a letter of recommendation from the UW-Extension office instead of the Sheriff’s Department. Some participants are able to get jobs due to the skills that they learned in the garden.
example, one former inmate was able to get a job at a local restaurant, and she has now become the manager (M. Maddox, personal interview, February 5, 2010). Thus, the program is able to provide skills and lessons which can be used in both the inmates’ personal and professional lives.

The produce grown by the inmates serves other groups as well. In 2009, Wisconsin’s WIC program provided farmer’s market vouchers which allowed participants to use their vouchers at local farmer’s markets. In the beginning, the program was unsuccessful because many of the WIC participants had difficulties getting to the farmer’s markets or felt uncomfortable at the markets because they perceived them as being for higher-income shoppers (M. Maddox, personal interview, February 5, 2010). The WIC program recognized these issues and created their own farmer’s markets at the WIC clinics. The clinic employees explained what the farmer’s market program was so that the participants were able to gain a better understanding of the vouchers; they also showed the participants the produce and provided recipes.

The RECAP inmates were able to support the program by growing produce which was then sold by Master Gardeners to the WIC participants in exchange for the farmer’s market vouchers. The inmates were able to use the money from the WIC vouchers to purchase new seeds for their next growing season; thus, the program was able to help WIC participants have better access to healthy produce and also allowed the inmates to use their skills and knowledge to help their community.

The UW-Extension and the Sheriff’s Department have noticed many positive results from the garden project. While gardening, many of the participants speak about how they plan to “improve their lives upon release” and about their potential employment and educational careers. The garden provides the participants with a chance for introspection and personal reflection which the program hopes will provide them with feelings of self-worth, success, and positive self-images which may lead to reduced recidivism (Rock County, 2008). Also, some individuals were uninterested and guarded in the beginning, but as the program progressed, they became much more engaged with the project and have taken on leadership roles and responsibility for certain areas of the garden.

The participants were also able to demonstrate their cooking skills and cultural backgrounds. The Latino participants showed the non-Latino participants how to eat the hot peppers they grew in the garden. And an African-American participant used vegetables from the garden to prepare a “culturally unique lunch” with recipes from his grandmother; the lunch included collard greens, beet tops, and fried-green tomatoes. The inmates had a “noticeable, positive change in attitude” after they participated in the program (Rock County, 2008). The RECAP has provided the participants with a constructive and beneficial activity while they are incarcerated, and the skills that they gain from the garden can be used after their release.

Factors for Successful Community Gardens

During his time as the Horticulture Educator, Maddox has worked with many community gardens throughout the Janesville and Beloit metro area. Some community gardens, such as one located on the abandoned lot in Beloit, have been successful projects and have involved many residents from the surrounding neighborhoods. Other projects have not been quite as successful. Maddox recounts one garden which was planted in an African-American neighborhood by white college students. While the students had the financial and educational resources to create a beautiful garden, they did not have “buy-in” from the residents of the neighborhood. This garden has not thrived since the residents were not included since the project’s inception.
The main ingredient for a successful community garden is community involvement. The community must be enthusiastic about the garden and must have input from the beginning of the project. A community cannot have a garden thrust upon them, notes Maddox. The organizers of the garden must cultivate relationships with the participants, and the participants must develop a sense of trust and ownership of the garden (M. Maddox, personal interview, February 5, 2010). Community gardens that are the most successful have many members from the local community, and these members feel that they have a stake in the garden.

**SEEDS Community Garden**

Another community garden which is reaching out to low-income communities is SEEDS which is located in Durham, North Carolina. While SEEDS works with all age groups, the organization places an emphasis on youth and educating them about gardening, nature, and healthy living practices. When the organization began in 1994, it had a slightly different mission which focused upon social justice issues and the reclamation of vacant lots. The founders, Brenda Brodie and Annice Kenan, believed that “holding property owners accountable for their vacant public spaces could be a seed of neighborhood transformation,” and they hoped that their new community garden could be an example of how reclaimed land could be used (Kenan, n.d., p. 1). After searching for a site, they found their ideal location on a vacant corner lot in the low-income neighborhood of Cleveland-Holloway located in Northeast Central Durham; Southern States, a Virginia-based company, rents the land to SEEDS for $1 a year (Kenan, n.d., p. 1; Detwiler, 2009, p. 83).

SEEDS wanted to encourage other groups and individuals to transform idle industrial areas into open green spaces which could be used and enjoyed by the community (Detwiler, 2009, p. 82). SEEDS was able to merge its two missions of social justice and reclamation during its first project of clearing the site and preparing it for use as a community garden. They hired homeless men from the nearby half-way house to help with cleaning the site, and many of these men had construction and masonry skills which were important assets to the project (Detwiler, 2009, p. 84).

During its early years, SEEDS was active in helping interested parties, such as community groups or schools, start community gardens throughout Durham. But beginning in 2000, SEEDS began to shift its focus from reclaiming urban space and providing technical assistance to working with young people and educating them about gardening and nutritious eating practices. SEEDS wanted to help youth who were “headed in the wrong directions” and steer them towards healthier habits (L. Harris, personal communication, February 15, 2010). Also, as Kenan notes,

> Durham is a fairly green city, with trees, plants, and lawns. It does not have the concrete feel of New York City or Washington, DC. Durham is cultivating the green mind which can lead to green actions (n.d., p. 2).

In order to educate young people and to cultivate “green minds,” SEEDS created the DIG program and the SEEDlings after-school and summer program to provide a space for youth in the garden and to encourage them to work with nature.

**DIG Program**

The Durham Inner-City Gardeners (DIG) program began in 2000, with a grant from the Warner Foundation, a non-profit organization focused on improving the quality of life for low-wealth individuals
and communities in North Carolina. The program hires youth, ages 14-18 years old, to work in the SEEDS Market Garden growing produce and flowers which they sell at the Durham Farmer’s Market. The proceeds from these sales go back into the DIG program (Detwiler, 2009, p. 87).

The DIG garden is maintained by five youth from October to March, and ten additional youth are hired to work during the summer sessions, from March to July and from July to October. Their initial hourly pay is $1 below minimum wage, but their pay increases the longer they remain in the program (Detwiler, 2009, p. 86). The program is open to youth throughout Durham, no matter their parents’ income level, but most participants are from low-income and working class families and are Hispanic or African-American. Lower-income youth are more attracted to the program than higher-income youth because the lower-income youth usually do not receive an allowance from their parents, and the DIG program pays them for their work. SEEDS advertises the program to all youth, and they are hoping to have more diversity and income levels represented in the DIG group (L. Harris, personal communication, February 15, 2010).

SEEDS is committed to encouraging the physical and emotional well-being of their DIG youth. The staff members teach the students about healthy eating practices and the importance of a balanced diet; the staff has found that the youth are more inclined to eat vegetables if they grow them. The participants also gain cooking skills, and they cook for each other after the Saturday work sessions. The DIG program has been very successful in encouraging the youth to eat the foods that they grow, and the youth often change their diets for the better after working with SEEDS (L. Harris, personal communication, February 15, 2010).

The participants also develop their leadership skills while in the DIG program. Participants who have been involved more than one year become crew leaders, and they oversee the DIG group for the year (L. Harris, personal communication, February 15, 2010). They also work on their public speaking skills, team building activities, and personal development. In addition, the youth attend conferences and rallies about local food justice issues and urban farming practices. In the past, the participants traveled to Berkeley, California, for a rally; they became active participants by marching in the streets and beating on pots while cheering, “Fast food panic; we want organic!” (Detwiler, 2009, p. 93). The students also go to lectures in the local area; for example, they attended Will Allen’s lecture, “Steps to Successful Urban Farming” at NC State University.

Since the students are paid, they also learn valuable lessons about opening bank accounts and saving money. As Kavanah Ramsier, a SEEDS coordinator of the DIG program, said

Not only are they learning about gardening and the importance of creating a sustainable food system and food politics issues, but we can also sneak in information about how to open a bank account and how to responsibly manage a credit card and how to write a resume and health issues and diet related disease and illness and . . . for most of them this is totally new (Detwiler, 2009, p. 93).

Thus, the youth are exposed to skills and lessons that will be beneficial for their futures.

The DIG program also fosters the development of relationships. Many youth develop strong friendships while they are in the program, especially the older students who have been involved for many growing seasons. The youth come from a variety of schools, and they often look forward to getting together at the SEEDS garden (L. Harris, personal communication, February 15, 2010). The DIG program offers students a unique opportunity by providing them with paying summer jobs in which they can get their
hands dirty growing vegetables that they also prepare and eat. SEEDS is playing an important role in youth education and development through activities in their community garden.

**SEEDlings Program**

Another program that SEEDS offers young people is the SEEDlings program. The program began in 2003, as a response to community concerns. A group of community members from Duke University and residents from Durham met at SEEDS to discuss local and city-wide issues. The group soon realized that many people did not have a safe place for their children to go after school. In order to address this concern, SEEDS created the SEEDlings after-school program with the help of a grant. In the beginning, the program was free, it met three days a week, and it was geared towards 1st through 5th graders. While the program still serves the same age ranges, it is now five days a week and a nominal fee is charged (L. Harris, personal communication, February 15, 2010). The program is open to twelve students who participate for the entire school year; this small program is beneficial because it can provide the students with individualized attention (SEEDS, 2002).

The program provides the students with an “educational environment” that focuses on gardening, nature, healthy eating habits, and exercise. SEEDS also provides fun projects for the students which takes place both inside and outside. Tutoring and homework time is also a part of the program, and students also learn about their community and ways that they can “make a difference” to help others (SEEDS, 2002).

SEEDS also offers SEEDlings summer camps which are week-long, half-day camps. The camps focus on a wide range of issues and activities; for example, during the summer of 2009, the topics ranged from “Bountiful Birds” to “Fun, Food and Fantastic Fabrics,” “NC Animals of the Garden,” and “You are what you eat” (SEEDS, 2002). These camps help children engage in their surroundings and learn more about the environment and human and animal life. The camps cost $100 a week, but SEEDS offers sibling discounts, and scholarships are available.

The SEEDlings after-school and summer programs are a great service to the community and provides a concrete example of a community garden responding to community needs. In “Examining the Contributions of Community Gardens to Social Capital,” Breanna Detwiler remarked, “The SEEDlings program is a glowing example of how community gardens are finding out the needs of the community and addressing them” (2009, p. 88). The SEEDlings program is a unique service provided by a community garden and illustrates another way in which community gardens are helping to solve community needs.

**Lessons Learned**

During its early years, SEEDS had some difficulties being accepted by the neighborhood residents. The garden was started by Brodie and Kenan who lived in Durham, but they did not live in the Cleveland-Holloway neighborhood. Also, the garden is located in a predominately African-American neighborhood, and Brodie notes that when they started the program, “We were really white . . . SEEDS had to figure out how to break bread with the community, to be accepted as a legitimate community presence” (Detwiler, 2009, p. 84).

While the organization has come a long way in regards to increased relationships with neighborhood residents, they still do not have as much neighborhood involvement as they would like. One of their top
priorities is to encourage more involvement from the neighborhood residents. In the past, SEEDS has co-sponsored the Dias de Los Muertos Festival with the Latino community (Detwiler, 2009, p. 89). This summer, they are hosting a variety of programs to draw people to the garden. For example, in July, they are hosting a tomato party which is being held for the neighborhood residents. Later in the summer, they are hosting a Skills Auction, and the organization is handing out free tickets to their neighbors to specifically invite them to the event (L. Harris, personal communication, February 15, 2010). Through these programs, SEEDS is actively reaching out to community members to involve them in the garden.

Another way that SEEDS encourages neighborhood residents to become involved is by inviting them to garden one of the twenty-six garden plots located in SEEDS’ Southside Garden. The rent for the garden plots is on a sliding scale (beginning at $1 and going up to $35 for a year) depending on the gardener’s ability to pay. Currently, 60% of the gardeners are from the surrounding neighborhoods, and 40% are rented by people who live in apartments and do not want to garden alone. Approximately 60% to 70% of the gardeners are low-income (L. Harris, personal communication, February 15, 2010).

SEEDS has learned from this experience, and Lucy Harris, the Executive Director for SEEDS, echoed the advice provided by other community gardens when asked about factors that lead to a successful community garden. She stated that one of the most important factors is having at least one to three people from the neighborhood who are committed “for the long haul” to the garden. These people have the responsibility of finding other enthusiastic gardeners, securing a space, and creating a budget for the garden. Gardening is hard work, (especially in July), and it is important to find committed people who are able to stay excited about the project; this excitement will last them to harvest time. Participants must also feel as though they have ownership of the garden; people from outside organizations cannot tell people that they need a garden (L. Harris, personal communication, February 15, 2010); the impetus must come from within the community.

As a participant in the Cleveland-Holloway community, SEEDS provides gardening space, a safe place for parents to send their children after school, and positive summer jobs for Durham residents. The community garden also hosts many parties, festivals, and outreach activities to draw the neighborhood together. The organization has also achieved its original goal of beautifying a vacant lot, and hopefully, this program will encourage other individuals and groups to do the same.

ANALYSIS OF THE INTERVIEWS
Each of the community gardens interviewed offers technical support to community groups and residents who are interested in starting community gardens, but the programs also provide other services which reach out to the low-income communities in their cities. For example, Capital District Community Gardens operates the Veggie Mobile, Squash Hunger, and many other creative programs, and SEEDS involves youth in gardening through its DIG and SEEDlings programs. Not only do the community gardens offer plots for gardeners, but they also operate programs which actively combat hunger and health issues in low-income communities.

Each director emphasized the importance having community members involved in the community gardens. Without the enthusiasm and commitment of neighborhood residents, a community garden will not succeed for long. Communities do not want gardens thrust upon them, and community garden
advocates much ensure that the neighborhood residents want the gardens and will be actively involved in the project.

Each director also commented on the positive benefits and potential that community gardens can have in low-income communities. As Luci Beachdell from the “Grow With Your Neighbors” program said, “community gardens absolutely build community” (personal communication, February 5, 2010). The directors saw well-maintained community gardens as a way to unite neighborhood residents, beautify urban areas, reclaim vacant spaces, and provide healthy, fresh food. While each program is unique in how they are operated and the types of programs they provide, they all agreed that neighborhood involvement is key in community garden projects, and if neighborhood involvement is provided, then community gardens can be a great way to build communities.

POLICY IMPLICATIONS AND CONNECTIONS TO PLANNING

Due to the growing population, open space in cities is becoming increasingly valuable. City officials and urban planners are recognizing the need of providing areas of open space to their residents while also using the land to its highest and best use. Many cities are beginning to creatively rethink their communities’ open space, and one use under consideration is community gardens. Community gardens are a unique resource for planners and community development advocates due to their flexibility and the variety of benefits they provide. They can also offer innovative solutions to many difficult community issues such as lack of identity, crime, or disinvestment. Many planners and cities have started recognizing the impressive benefits of community gardens and have begun implementing programs and policies to encourage the use of community gardens.

Some cities are starting to include ordinances and guidelines which support the use of community gardens in urban neighborhoods. For example, in January of 2009, Vancouver created “urban agricultural guidelines” which allows for food-producing gardens in high-density residential neighborhoods. The guidelines permit the use of shared garden plots and edible landscaping, but they also recommend that developers create “shared gardening space” for 30% of the residential units that do not have private outdoor space (Groc, 2009, p. 17). Mary Clare Zak, the director of social policy for Vancouver, stated that this policy “encourages social interaction and a sense of community in high-density places, and it is supporting an environmentally sustainable city” (Groc, 2009, p. 18). In May of 2006, the city also issued the 2010 Community Gardens Challenge to individuals, families, and community groups to create 2,010 new community garden plots by 2010, the year the city hosted the Winter Olympics; this would be in addition to the 950 plots that already existed in the city. By December 31, 2009, community members had already created 2,029 gardens which exceeded the number originally stated by the challenge, and more were being planned for 2010 (City of Vancouver, 2010). Gardens were planted all over the city from the city hall lawn, to underneath bridges, and on former gas station lots (Groc, 2009, p. 18).

Support for community garden initiatives by cities is important for the creation of community gardening programs. By publicly supporting urban gardening and creating guidelines which encourage the inclusion of community gardens in developments emphasizes the importance that community gardens can play in the life of cities. One criticism of the Vancouver program was that the city did not provide any funding for the challenge. Andrew Pask, the director of the Vancouver Public Space Network, a volunteer organization that develops community garden sites, stated
We feel there is a need for a proactive community gardens policy. It is not enough for the city to say in principle that it likes community gardens. If the city is committed, it has to set targets and resources (Groc, 2009, p. 18).

Pask has a valid concern; cities must do more than provide lip-service support to community garden programs. Yet, even without city funding, over 2,000 gardens were created. Community gardens may be useful projects for cities with low discretionary funds but high community or sustainability concerns since community gardens can grow with relatively low financial investment.

Another initiative in British Columbia is a law which allows private developers the opportunity to apply for a land reclassification (from business/commercial to recreational or nonprofit) when they convert vacant land into community gardens (Groc, 2009, p. 18). While some city officials do not like the law because they believe that too many tax dollars are being lost from the city treasury, the law has been successful in creating new community garden projects. For example, ONNI, a Canadian development company, turned a vacant lot into a 193 community garden plots which were available on a first-come, first-serve basis to community groups and residents. The land will be available for use as a community garden until the site is developed in one to three years; currently, 100 gardeners are on the waiting list for available plots (Groc, 2009, p. 18). Creating such a law can be a great incentive for the creation of community gardens. While the British Columbian officials may complain that tax dollars are being lost, cities do receive some financial benefits, or “returns to the public purse,” which include lower maintenance costs and “greater neighborhood care of these public assets” (Flisram, 2009, p. 19).

Vacant land can be a common concern for many cities because empty spaces give the impression of disinvestment by the public and private sectors and can lead to the dumping of trash, an increase in crime, and an overall sense of neglect. Cities, such as Chicago and Philadelphia, are combating these ills by encouraging organizations to use vacant properties for urban farming and community gardens. This has the twofold goal of brightening an area and promoting the cities’ “sustainability agenda” (Flisram, 2009, p. 18). Some cities are offering “scraps of underused public land” such as the lawns of public buildings, utility rights-of-way, rooftops of public housing projects, and underused parks for use as community gardens. Examples of such cities include Montreal which is encouraging urban farming in some of its city parks and Chicago which has provided space in Grant and Jackson Parks for Growing Power, Inc. to operate microfarms (Flisram, 2009, p. 19).

In order to provide space for community gardens and to emphasize their importance, some cities are creating zoning overlay districts and ordinances which accommodate and plan for community gardens. For example, Milwaukee is considering creating “green overlay zones” as part of its zoning ordinance as a way to protect space for community gardens. The city is also looking into the idea of setting aside up to 10% of vacant city-owned land in all of its planning districts to be used for “urban gardening activities.” Other areas are considering creating land trusts which would provide permanent space for community gardens (Flisram, 2009, p. 19). Ron Doetch, the executive director for the Michael Fields Agricultural Institute, a non-profit organization focused on sustainable agriculture and regional food systems, has suggested using permanent or semi-permanent easements or affordable long-term leases in order for community gardens to secure places in which to garden, and other community garden advocates have supported this suggestion (Flisram, 2009, p. 17; Schukoske, 2000, p. 360).

Other cities have begun building community gardens directly into their comprehensive plans. These policies highlight the importance of community gardens to communities and their overall health and vitality. Planning for Healthy Places, a California-based organization, provides toolkits for healthy zoning...
and development plans and policies for integrating community gardens into comprehensive plans (Freeman, 2009, p. 29). In 2009, the organization produced a document titled “Healthy Planning Policies” which provides “health-promoting policies in traditional planning topics” which include land use, transportation, physical activity, and environmental quality. The document also includes “health-promoting policies in innovative land use topics” such as public health, health care and prevention, healthy food access, equity, and the environment. The healthy food access section provides examples from zoning policies which support the creation of urban agriculture and community gardening. “Community gardens,” the document states, “help increase availability and appreciation for fresh fruits and vegetables, in addition to providing green space, an opportunity for exercise, and a place for community gatherings” (Planning Healthy Places, 2009).

The document provides zoning examples from the following cities and counties: Richmond, San Francisco, Santa Rosa, Sonoma County, and Watsonville. One such zoning example is Richmond which has incorporated community garden policies as a Community Health and Wellness Element of its comprehensive plan. The following is an excerpt from this plan:

**Goal HL-B. Access to Healthy Food and Nutrition.** Ensure that all Richmond residents have access to affordable and nutritious food to support improved nutrition, reduced incidence of hunger, and healthy eating choices.

**Policy HH-11.** Support and promote urban agriculture on publicly owned, noncontaminated vacant land in the city. Explore the potential for designating an urban agricultural zone in the city. Identify and revise ordinances that may limit or restrict urban farm stands and urban agriculture.

**Policy HL-12.** Promote farmers’ markets, farm stands, and community gardens in the city. Supplement the availability of fresh produce in the city while encouraging social cohesion, supporting local farmers, and reducing greenhouse gases (Planning Healthy Places, 2009).

Sonoma County has similar policies as a Land Use Element; the following is an excerpt from its policy:

**Objective LU-6.8:** Encourage food production as an integral part of institutional land uses on public lands where such uses and lands have the capacity to grow food products.

**Policy LU-6f.** Where feasible and appropriate, encourage food production and recommend curricula related to food production issues as part of the County’s review of permits for institutional land uses such as day cares, private schools, places of worship, etc.

**Policy LU-6g.** Where appropriate, encourage and support the use of public lands for community gardens and expanding agricultural opportunities (Planning Healthy Places, 2009).

These goals, objectives, and policies provide tangible examples of ways in which cities and counties can encourage and implement community gardens. Building community gardens into land use policies is one way for cities to ensure that community gardens have a place to develop. Not having secure land is often the greatest program for many community gardens, and land use policies could help to address this issue. While the real estate market is currently down, in the future, vacant lots in city centers may be in high demand which could force many community gardens from their current locations. By creating land-use policies which set aside space for community gardens and place an emphasis on their importance, community gardens will be able to have long lives in the middle of urban centers.
CONCLUSIONS

Currently, access to healthy food and using urban space to its fullest potential are two popular issues in planning. With food production becoming more industrialized and with the difficulty in finding healthy produce in urban areas, people are becoming increasingly concerned about the safety, quality, and freshness of their food, and planners have become more involved with addressing these concerns. Also, as the population grows, cities are becoming increasingly concerned with the highest and best use of urban space and providing amenities for their residents to enjoy. Community gardens provide solutions to these, as well as many other, municipal and individual concerns. Community gardens are increasingly being seen as a way to tackle difficult community issues. Planners have begun to take notice of the conversation revolving around community gardens, as is evidenced by the multiple articles concerning community gardens in the August/September 2009 issue of Planning, the magazine of the American Planning Association. Many cities have developed creative, yet simple ways to integrate community gardens into their cities’ policies and initiatives. Providing for community needs and enjoyment is critical for fostering a healthy and vibrant city, and community gardens are a great project with which to achieve multiple community goals.

While community gardens offer benefits to individual and families of all income levels, gardens are especially beneficial in low-income communities because they provide open space for those who do not have their own yards and a safe place for those who need a quiet place in which to relax and enjoy nature. Many organizations, such as SEEDS and the Capital District Community Gardens, have started community gardens in low-income neighborhoods and have successfully encouraged the participation of low-income residents in community gardening activities. Many cities have started incorporating community gardening into their ordinances, zoning policies, and health-focused initiatives.

Some problems do exist with using community gardens in low-income neighborhoods, such as access to land and financial and educational resources to start the garden. This issue can halt the development of community gardens, but if cities and community gardening groups, such as the Master Gardeners, reach out to these neighborhoods that are interested in starting community gardens, then a community gardening program could become a viable option for many communities.

The American Community Gardening Association estimates that approximately 18,000 active community gardens are located throughout the United States and Canada (American Community Gardening Association, 2009). While this is an encouraging number, due to the benefits and flexibility of community gardens, cities, non-profits, and community organizations should actively champion community gardens through policies that support community gardens and by actively planting community gardens in communities throughout the United States.
REFERENCES


Detwiler, Breanna Carrie. (2009). Examining the contributions of community gardens to social capital. Elon University.


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