# Community Gardens and Urban Agriculture: Reclaiming the Market Place

By

Sara Prendergast

Advised by

Professor Christopher Bickel

SOCS 462, 462

Senior Project

Social Sciences Department

College of Liberal Arts

CALIFORNIA POLYTECHNIC STATE UNIVERSITY

Spring, 2010

#### Introduction

Upon entering East Los Angeles, the amount of concrete was overwhelming. The cracked asphalt roads bounded by sidewalk shops formed a corridor of fast food restaurants and liquor stores. Nature was non-existent, as nothing about this manufactured world felt organic. Blaring sirens, bustling cars, and wafting fumes overran my senses. Nonetheless it was here that I went to visit Vermont Square: the first garden ever owned by a Los Angeles community. Guarded by a chain-linked fence, the garden blended in so well with its concrete surroundings that I almost missed the entrance. Inside its gates, the calm of the place provided a stark contrast to the blighted neighborhood out of which I had just stepped. A gazebo marked the entrance, signifying a place for people to sit and gather, and beyond were over a dozen garden boxes, sectioning off individual's shares of soil. Glen Dake, the director for the Community Garden Council for the city of Los Angeles, greeted me. As a landscape architect, he worked with the council on a volunteer basis, giving his time to ensure that people have access to the fresh foods. Dake shared one story that embodied the current dilemma in our food system. It was about a child's first experience in pulling a carrot out of the ground. Upon discovering what he had grown, he hesitantly inquired, "Wait, can I eat this?"

The boy had never seen a carrot in its natural form. He had only consumed carrots that had been sliced, pealed, plastic-wrapped, and shipped from a far off place. Thus, holding this vegetable grown blocks from his home was a foreign experience. He was ignorant to the basic concept that food comes from the ground. On a whole, Americans

have become increasingly removed from their food source and simultaneously reliant on the giant food conglomerates, that food in its natural state appears foreign. Especially those who live in low-income blocks, a carrot in its natural form is uncommon, non-existent, or most likely costs more than a bag of potato chips. Yet, this trend has potential for reversal as started in Vermont Square. It begins by putting seeds back in the hands of the people, giving them power over their own nutrition and the natural right to healthful food.

This paper will first explore the health of low-income communities living in inner cities. I will use obesity as one of the main indicators of poor health and explore the lack of access to holistic diets, high costs of fresh foods, and minimal education, with the aim of revealing how hunger is a consequence of a capitalist dominated market. Following, I will investigate how urban agriculture is a holistic solution in subduing the advent of food deserts and food insecurity by serving health, educational, and social needs in low-income communities, which further creates a more socially just market.

## The Paradox of Food Insecurity and Obesity

Since the United States stands as one of the most affluent societies in the world, issues of hunger and malnutrition seem contradictory for Americans. Food appears so readily available that it is even labeled "fast". In fact, assumptions based off of high obesity rates relay that Americans over eat and over consume. Yet the States Department of Agriculture estimated that in 2008, 17.1 million families in the US faced food insecurity (Food Security in the United States, 2009). Furthermore, the rates of food insecurity are higher among people of color and single mother headed households.

Deleted:

Deleted: .

(Corcoran, 2004; p. 171), Ironically, people who live off of food stamps and in food insecurity also have the highest rates of obesity and diabetes. (Drewnowski, 2004), The

personal responsibility argument contends people freely chose not to abide by dietary recommendations to eat whole grains, fresh fruits and vegetables as well as foods low in fat and sugar. While this line of reasoning holds some validity, the stronger counter argument is that these foods are not readily available or affordable in low-income communities. With obesity rates on the rise, and the accumulation of research demonstrating food's direct correlation to cancer occurrences, diabetes, and heart disease, there has been a push to solve our country's problems of poor nutrition. The central source of this problem can be traced to the capitalistic ideology of our current food system that fixes on profit over people. In this section I will defend the claim that low-income groups have the highest rates of obesity. Next, I will outline poor health as a consequence of a shortage of nutritious food in low-income neighborhoods, the higher cost of nutritious foods, as well as minimal nutritional education being substituted with media education. Finally, I will expand on how capitalistic ideology is tracked as the root of these problems.

## Low-Income Leads to Obesity

Extensive research has been dedicated to investigating causes poor health in our country, with emphasis on obesity and diabetes. Svetkey, a professor of medicine at Duke University, states, "Overweight and obesity are the leading cause of high blood pressure, diabetes and abnormal cholesterol, which are leading causes of cardiovascular disease, which is, in turn, the leading cause of death in this country." (Drewenowski, 2004; p. 10) According to researchers at John Hopkins Bloomerg School of Public Health, "The U.S.

obesity prevalence increased from 13 percent to 32 percent between 1960 and 2004." (Lowe, 2007). Additionally, they state, "minority groups and low-socioeconomic status groups... are disproportionately affected." (Lowe, 2007) According to the 2006-2008 data provided by the Center for Disease Control, blacks had 51 percent higher prevalence of obesity and Hispanics had 21 percent higher obesity rate in comparison to whites (Overweight and Obesity, 2009). In order to conceptualize the presence of obesity within in low socioeconomic groups, the definition for "food insecurity" and national rates should be noted. Food insecurity is defined as, "limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways." (Food Security in the United States, 2009) As of 2008, the USDA reported 14.6% of US households are food insecure, equating to 17.1 million people. (Food Security in the United States, 2009) The American Society for Nutritional Sciences confirms, "Food insecurity... may be associated with disordered eating and a poor diet, potentially increasing risk for obesity and health problems." (E. Adams, 2003; p. 1070) Currently, among the population living in hunger and food insecurity, one fifth is obese. (E. Adams, 2003; p. 1070) Dr. Adam Drenowski, a prominent leader in the research of prevention and treatment of obesity, expands on this pervasive issue:

Whereas links between food insecurity and lower diet quality might be expected, the association between food insecurity and overweight was something of a paradox. Given that low-income families are the chief beneficiaries of food-assistance programs, exploration of the causal connections between food insecurity and obesity has major implication for food and nutrition policies in the United States. (Drenowski, 2004; p. 6)

Further, cases of obesity hide the fact that a person is living in a food insecure state, as obesity appears to be a problem of over nourishment. While true for some, in low-income communities it is chiefly a symptom of only having access to an energy dense diet.

No Fresh Foods

Obesity occurs in areas that lack access to fresh food. Anna Lappe, cofounder of Small Planet Institute supports this claim stating, "The biggest crisis in our food system is the lack of access to good, healthy, fresh food, for people living in cities, particularly in low-income communities." (Connelly & Ross, 2007; p. 1) She explains that areas that are "food insecure" are known as "food deserts". (Connelly & Ross, 2007; p. 2) In other words, the environments of low-income neighborhoods contain a higher concentration of fast food restaurants and liquor stores and a lower access to properly stocked grocery stores. University of Connecticut conducted a study to test this claim, examining neighborhoods in Hartford. They found that low-fat milk was available in 50 percent of the sites in the suburbs, but only 26 percent in the inner city. (Winne, 2008; p. 112) Additionally, "almost twice as many Hartford sites (50 percent) had no vegetables as compared to their suburban counterparts." (Winne, 2008; p. 112) Parallel research from the American Dietetic Association disclosed that, "Poorer neighborhoods have three times fewer supermarkets than wealthier neighborhoods but contain more fast-food restaurants and convenience stores." (Booth, 2004; p. 110) Another large issue is proximity as those who are transit-dependent shop at the market closest to them. The study from the University of Connecticut also found that those without access to cars have a forty-minute commute in order to reach a decent grocery store. (Winne, 2008; 112) This inconvenience creates the reliance on the fast-food restaurant that are within walking distance. Further,

for the individuals reliant on food emergency centers, fresh produce is often unavailable. (Hassell, 2002; p. 117) Therefore, the assumption cannot be made that health problems such as obesity are consequences of individual choice made my people living in low-income communities. If someone does not have control over their food options or the accessibility to reach them, their poor health is not a consequence of personal choice, but rather a consequence of injustice.

# High Cost of Nutritious Diet

Adding to the issue of limited access to fresh foods in low-income neighborhoods is the high monetary cost of a well balanced diet. People living in food insecurity chose to buy energy-dense foods because they are cheaper. These energy dense diets can be classified as those that contain the least fruit, vegetables, and milk. (Drenowski, 2004; p. 10) In a study conducted Jetter and Cassady, PhDs and researchers for University of California Davis, they investigated cost differences between buying standard market basket foods versus low-fat and whole grain products. On average, the healthier basket was\$36 more expensive. (Cassady & Jetter, 2006; p. 39) They concluded, "The lack of availability in small grocery stores located in low-income neighborhoods, and the higher cost of the healthier market basket may be a deterrent to eating healthier among lowincome consumers." (Cassady & Jetter, 2006; p. 38) Lower income groups buying and eating unhealthy food is intrinsically linked to their lack of monetary support. Drewenowski touches on this, stating that more and more Americans are "becoming overweight and obese while consuming more added sugars and fats and spending a lower percentage of their disposable income on food." (Drewenowski, 2004; p. 6) With limited funds to feed a family, an individual living in food insecurity faces the predicament of

spending more money at the cost of still being hungry. Drewenowski highlights this comparison: "The cost of cookies or potato chips was =20 cents/MJ (1200 kcal/\$), whereas the cost of fresh carrots was =95 cents/MJ (250 kcal/\$)." Thus, potato chips cost less and provide more energy, supporting why low-income consumers choose the nutrient lacking food.

## Limited Education

There is a lack of education surrounding nutritional eating and a constructed social context that enforces poor health. The Centers for Disease Control and Prevention "showed that the highest obesity rates were associated with the lowest incomes and low educational levels." (Drewenoski, 2004; p. 6) As the food system becomes more corporately dominated, generations of children are growing up without understanding of where their food is coming from or how it is produced. This educational piece can be put into perspective through a study of Hartford's school system's curricula. The conclusions are shocking, revealing that the average city student only received four hours of health-related instruction per year. (Winne, 2008; p. 115) Even more startling is that the average child watches four hours of television each day. (Winne, 2008, p.115) When McDonald's can afford to spend hundreds times the amount on commercials in comparison to federal health campaigns, a child's eating habits are easily manipulated. What should be addressed here is the argument concerning personal responsibility. As Paul Roberts writes in his book *The End of Food*,

Granted, adults see a lot of food ads, yet adults presumably have the cognitive capacity to judge accuracy and intent of ads; young children do not. Development experts say that before age eight, children lack the ability to understand the persuasive intent of ad and instead take their claims as truthful. (Roberts, 2008; p. 104)

A study of media use among Latino preschoolers supports this claim, revealing 55% of mothers reported that their child asked for an advertised food or drink and 67% noted that their child asked to go to an advertised store of restaurant. (Kumanyiki, 2006; p. 192) Corporations do not only utilize the marketing of unhealthful food products to children, but also exploit the lower socioeconomic communities through targeting ads to specific racial groups. Advertisements in African American magazines are more likely to include unhealthy-oriented food messages in comparison to higher socioeconomic groups. (Kumanyika, 2006; p. 192) Not only is this trend consistent through magazines but television commercials as well. Content analyses of commercials featured during African American shows revealed that they had more energy-dense food commercials in comparison to general prime-time shows. (Kumanyika, 2006; p.193) The problem with being so heavily saturated in advertisements is even once cognitive capacity is developed, low socioeconomic groups are lacking in basic health education. In a study conducted by Dr. Rafael-Pérez-Escamilla, a nutrition professor at the University of Connecticut, two hundred women from the Hispanic community were interviewed, half who said they had diabetes and half who said they did not. A main theme across the entire group of women was their lack of knowledge around the "food guide pyramid, and few were able to read a food label." (Winne, 2006; p. 125) Thus, education is a huge source of unhealthful eating. If generations continue to grow up in toxic food environments, knowledge around healthful eating will continue to be nonexistent.

#### Capitalist Run Food Industry

All these trends hinge on the capitalistic nature of our food system. As summed up by the Community Food Security Coalition, they concluded that there has been a shift

from "a decentralized, market-coordinated system of food production and distribution to a transnational capital intensive system coordinated through ownership and contractual arrangements between conglomerates." (Hassell, 2002; p. 117) With that, large corporations have complete control over the food supply, and are able to control the costs and the way in which food is produced. The outcome has been more processed foods at lower prices and healthy foods at higher prices. Vandana Shiva, environmentalist and feminist, further expands on this paradox as she critiques rich countries that push a capitalist based development model that ends up equating to packaged foods for the poor. She points out that, "In industrialized countries, the rich eat fresh, not packaged food. It is the poor who are forced to eat heavily processed and packaged food." (Shiva, 2000; p. 87) Therefore, the lack of access to healthy food, the high monetary cost of a balanced diet, and minimal health education comes directly out of the capitalist run system. The shift from decentralized markets to transnational intensive markets had been a building process over the past century, but took its largest turn during the trickle down ideology of the eighties. During the Reagan years, where there was a huge emphasis on a top down economic strategy with a complete reliance on the free market control. The outcome was growth in corporate control with increasing poverty rates. On average people were given around \$44 per month in food stamps, but after the Reagan years the amount went down to \$10. (Winne, 2008; p. 22) Another stark example in cuts can be seen through the Community Renewal Team, Hartford's community action agency, which originally served 380,000 meals, but was reduced to 30,000 meals. (Winne, 2008; p. 23) This pattern continued further. Between 1989-1993, a 25% increase in occurred in the number of children living in families who had incomes below 75% of the poverty line (Koc,

1999; p. 177). After the several large food program cuts of the eighties, the *Personal Responsibility and Work Opportunity Reconciliation Act* of 1996 nearly cut the safety net all together. Three major programs were hit: Aid to Families with Dependent Children, Supplemental Security Income, and Food Stamp Program, all of which had been the primary assistant programs to the poor. (Koc, 1999; 177) In accordance with a neoliberal economic theory, policymakers said that private charities could close the gap, but this has not proved to actually play out. Mark Winne, former executive director of the Hartford Food System who worked in the field twenty-five years, summarizes the predicament:

Federal subsidies, along with intervention of private charitable organizations, are designed to close the gap between the marketplace and the actual capacity of people to pay for goods ad services. But as the marketplace changes, which generally making goods and services less accessible to the poor and often more expensive for everybody, and the support of the public sector waivers, which means never keeping up with the marketplace, the poor get less, pay more, or simply go without. (Winne, 2008; p. 23)

Currently replacing the Food Stamp Program is the Supplemental Nutrition Assistance Program (SNAP). Although the monthly stipend is significantly greater than previous decades, when put in perspective it is still astounding. The latest data from 2009, reports that an individual on average receives \$124.45 monthly. (Supplemental Nutritional Assistance Program, 2010) This equates to \$4.15 per day, which works out to \$1.38 if one eats three meals a day. These numbers explain why cheap fast food becomes be the primary option for participants of SNAP. The continuous capitalistic ideologies lead to the subjugation of minority groups. As assistance programs continue to be cut in the arenas of food assistance and nutritional education, the problem of poor health only increases.

The problem of poor health affects all American citizens since our tax dollars support food assistance programs as well as Medicare and Medicaid. For example, "about half of the \$98 billion to \$117 billion in obesity costs each year are paid for by the public in the form of Medicare and Medicaid payments." (Winne, 2008; p. 121) Cutting back on food assistance programs, only comes back to burden the system with health care costs. Therefore, it is imperative to look for outside solutions to curbing these expensive programs by providing people with access to fresh, healthful foods.

In conclusion, a highly centralized food system only perpetuates problems for the poor who suffer from mal health. Currently, we have a broken food system resulting in lack of nutritional options in food deserts, high prices for nutritional diets, and media influence taking the place of health education.

# **Urban Farming: Reclaiming the Market Place**

The urban farming movement is a solution that brings communities into a handson market and learning environment where they can chose to take control of their health.

It is an innovative solution that loosens the grips of a corporate dominated food system,
where varying sizes of vacant lots and schoolyards are being turned into productive spaces
bringing the food source directly to communities. Advocates for urban agriculture claim
that a myriad of needs will be served in the areas of health, social, educational and
entrepreneurial opportunities through these green spaces. In fact, this movement is often
defined as a bottom up approach where the power of the food system is put back into the
hands of the people who need access to fresh foods the most.

## History of Inner City Gardens

A close examination of the history of urban agriculture reveals much about how current projects can lead to success and sustainability. The idea of bringing green spaces into the urban community is by no means defined by our current decade; it is one that dates back to the late 1800s. The common thread through the various community garden movements is periods of economic downturn. The first established initiative was documented in 1894 during a slight depression. Mayor Pingree of Detroit opted to start gardening projects rather than simple hand out program for unemployed laborers. (Lawson, 2005, p. 23) Although other community leaders stood in opposition, the program was a huge success proving to decrease the city's poor roll by 60%. (Lawson, 2005; p. 26) The positive results spurred several surrounding Eastern cities to implement similar programs because this form of sustainable charity allowed people to help themselves. Although garden projects advanced over the next decade, they eventually dismantled as the economic prosperity returned and the will to organize diminished.

Although Pingree's plan ended due to lack of funding and return of economic prosperity, urban gardening became part of the national agenda when World War I hit in 1917. This movement served multiple interests including food security, nutrition, and recreation not just for the poor population, but all groups. Although financial gains were important, "the psychological and recreational benefits associated with gardening were particularly important to offset effects of war and depression." (Lawson, 2005; p. 113) Therefore, the government supported these gardens as a propaganda push to keep up people's moral during the two World Wars. What should be noted about these movements is the difference between gardens and agriculture. Where agriculture is much more

intensive, this movement relied on gardens where small scale plots of land produced food in yards and community areas. With the support of government agencies and volunteer groups, "American households in 1917 planted approximately 3.5 million gardens, produced \$350 million worth of food, and canned 500 million quarts of fruits and vegetables canned." (Lawson, 2005; p. 118) A year later, the food production expanded producing over \$500 million from 5.2 million gardens. (Lawson, 2005; p. 118) In order to encourage production that was benefiting the greater good, the gardens were called "war gardens" seen as just as patriotic as an act as the sailors and soldiers on the front line. (Lawson, 2005; p. 124) With the end of WWII, the gardens changed into "victory gardens" to celebrate the triumphant outcome of the war. The amount of momentum this movement received is hugely admirable. These gardens were far more than a "simple symbolic gesture toward food security," as 20 million Americans worked to grow 40% of the nation's fresh vegetables. (Brown, 2000; p. 22) However, as the dust from wartime settled the spaces that were not private gardens were given back to the original owners. Gardening became rare in the cities as people moved to the suburbs. Again, with the onset of prosperity, gardens in the urban setting ceased to sustain.

The next large upswing of inner city gardens presented itself in the 1970s as an expression for "self-reliance amid the energy crisis, rising food prices, and an emerging environmental ethic." (Lawson, 2005; p. 205) The social situation occurring in cities at the time was defined by urban decline, as the suburbs continued to be a desirable place to live, leaving the city population low-income and minority groups. This resurgence of community gardens stood as an "expression of grassroots activism." (Lawson, 2005; p. 205) Gardening was seen as a way in which to mend broken neighborhoods and subdue

racial tensions, with an emphasis on community and social needs. Unique to this movement was the local control and management of the gardens. Groups such as the Green Guerillas and other environmental groups took it upon themselves to create a solution rather than waiting on legislation. (Lawson, 2005; p. 216) The attitude toward the type of solution the gardens provided is best summed up by one of the founders of Boston Urban Gardeners, Kahn, who stated, "'For me, the gardens were a symbol of the opposite of what was going on- the possibility for a better city and a real centered community, an expression of people getting along together.'" (Lawson, 2005; p. 214) By 1976, the federal government joined the moment and formed the Urban Garden Program, giving \$1.5 million worth of support. However, just as in previous agricultural movements, economic improvement slowed the garden progress, as land was regularly lost to development.

The history of urban gardens is one of community members coming together to make large progress for the greater good. Yet, the persistence of economic prosperity leading to diminishing efforts to sustain green spaces seems to have culminated into the current state of the inner city: no local control of food systems and people lacking access to fresh foods. Therefore, as a new wave of urban agriculture is coming to the forefront, sustainability must be at the forefront of policy.

#### The Current Urban Farming Movement

"There is a quiet revolution stirring in our food system. It is not happening so much on the distant farms that still provide us with the majority of our food; it is happening in cities, neighborhoods, and towns. It has evolved out of the basic need that every person has to know their food, and to have some sense of control over its safety and security. It is a revolution that is providing poor people with an important safety net where they can grow some nourishment and income for themselves and their families. And it is providing an oasis for the human spirit where urban people can gather, preserve something of their culture through native seeds and foods, and teach their children about food and the earth. The revolution is taking place in small gardens, under railroad tracks and power lines, on

rooftops, at farmers' markets, and in the most unlikely of places. It is a movement that has the potential to address a multitude of issues: economic, environmental, personal health, and cultural."—Michael Abelman, "A Quiet Revolution"

Urban gardening is a quiet revolution indeed. A revolution defined by roof-tops and community gardens, by roadside urban fringe agriculture and field-to-direct-sale farmers' markets, by live stock grazing in parks and feedlots. It is a revolutionary idea that "promotes food security, improving each participant's health and quality of life, while creating dynamic, aesthetically pleasing cityscapes" (National Agricultural Library, 2000). With a heavily marketed food system that has a grip on low-income groups, a call for social justice is the keystone for the urban agriculture. It is a basic right that people have access to unprocessed, safe food. Advocates argue that urban agriculture will provide food security and curb the increasing rates of health issues. Additionally urban agriculture is beneficial for the environment in that lower chemical intensive methods are utilized. Finally, urban agriculture will provide social outlet for communities, offering education opportunities, alternative to crime, and a sense of belonging.

## No More Insecurity

As outlined previously, health in inner cities among low-income populations is in an emergency state. Due to the high rates of diet related disease, there has been closer examination as to how define food insecurity. Tom Forster, policy director for the Community Food Security Coalition, comments about the issue: "Ten years ago, food security was mainly a question of adequate calories, irrespective of where they came from, but that's completely changed." (Roberts, 2008; pg. 309) His statement captures the new recognition of poor nutrition keeping people in the cycle of food insecurity. This occurs because calories obtained are empty. Therefore, one of primary goals of the urban farming movements is to eliminate this kind of hunger. Detroit has been a leader in this

movement as their infrastructure has badly crumbled under the pressures of the economy. Ashley Atkinson, who is a director of urban agriculture and product development for the Greening of Detroit, has kept close records of their collaborative which is composed of 320 family and community gardens totaling 80 acres. (Benedetti, 2008) In 2007 this collaborative was able to produce 120 tons of food which was "sold at farmers' markets and to restaurants and food banks, but the majority end[ed] up on family tables." (Benedetti, 2008) At the current rate, 1 in every 100 Detroiters is a farmer. (Porter, 2009) With a population rapidly declining and infrastructure crumbling, Detroit's city planners are suggesting that community gardens and larger-scale commercial farming be among their solutions. (Smith, 2009) Detroit based organizations such as Earthworks Urban Farms seem to be tackling the economic down turn as they have farms with "no fences and are open to anyone who needs food," with the mission to "rid the world of hunger." (Beneditti, 2008) A small plot of land boasts an unprecedented amount of produce. City Slickers, an urban farming organization in the Bay Area, reports that on less than one acre of land, they grew 6,500 pounds of produce in a year. (Connelly and Ross, 2007; p. 4) As more gardens prove success, many soup kitchens and poor houses are starting to incorporate agriculture into their programs. St. John's Bread and Life program located in Brooklyn, serving over 130,000 meals per year, started a community agriculture project in 2004. (Winne, 2008; p. 143) Their plan is to make "good food affordable and accessible" through the promotion of food education activities in hopes of reversing the unhealthy diets brought on by "poverty, food insecurity and poor food access." (Winne, 2008; p. 144) In my interview with Glen Dake, lead organizer for Community Garden Council in LA, he referenced a WIC study which concluded, "Families who participate in gardening get one extra serving of fruits and vegetables per day than folks who don't garden." He added that, "gardening itself is vigorous work". Therefore, gardens offer an element of health and exercise for those who participate. In regards to community gardens, he stated that they do not provide complete security, but do change nutritional habits of a family. Although he makes a valid statement that gardens supplement rather than sustain a diet, Kim Allen, garden director at Berkeley Youth Alternative, provides a broader view of what a garden accomplishes: "No one lives completely off the food from the garden, but kids have an awareness of how to grow their own food. If all else fails in life, at least they have to skills and knowledge of how to garden." Thus, gardens provide an invaluable nutritional supplement, widen people's perspective of available food, provide an exercise outlet, and give people knowledge and skills to create food security. *Greening of Cities through Gardens* 

Environmental concerns are also addressed within the urban agriculture movement. Currently, urban environments are defined by a "growing gap between rich and poor, urban sprawl, pollution, vanishing green spaces, inner-city deterioration and gentrification." (Hassell, 2002; p. 116) The need to create a reliable food supply through urban agriculture will not only help issues of food insecurity but environmental injustice as well. Environmental justice is the "conceptualization of 'limited good' in terms of the earth's resources" and strives to understand the "hazards of various forms of soil, air, and water pollution and the treatment of waste products." (Hassell, 2002; p. 128) With that, there is often the strong correlation between the local movements working in collaboration with urban farms. Groups such as the Slow Food Movement, encourage people to try to eat a local diet in order to cut down the amount of fuel needed to

transport their food. (Roberts, 2008; p. 283) While the push to decrease "food miles" (the amount of miles food travels to reach one's plate) is part of decreasing environmental impact, the greater solution urban agriculture offers is an alternative to "energy-intensive and ecologically dubious fertilizers, irrigated water, and imported grain." (Roberts, 2008; p. 286) In other words, when people have access to grow their own food, there is less reliance on conventional agriculture and an opportunity to practice sustainable methods of farming. A garden in New York City, for example, is run by a groups of Latinos in their fifties and sixties who share their extensive knowledge of organic gardening, effects of soil erosion, and ground pollution. (Hassell, 2002; p. 128) Gardens are thus learning centers to better understand the environmental issues of our times. For the gardens in Los Angeles, each incorporates their own regulations about how they want the garden to run, ensuring that the people have a say in what sort of environmental practices their garden would like to advocate. Malve Von Hassel states in his book The Struggle for Eden, "Patterns of consumption and waste management in community gardens provide some of the most poignant challenges to the market-driven consumer society." (Hassell, 2002; p.128) Thus, community gardens are notorious for creatively recycling and reusing items. A prime example is City Slickers, an urban farming project in Oakland, which operates under a system that boasts complete environmental awareness:

We collect food scraps from local homes and businesses on a weekly basis using our bicycle carts. These scraps, along with sawdust and manure, are used to create compost that builds soil to support year-round growing. At our six market farms we grow culturally appropriate, nutrient-dense seasonal vegetables and fruits, as well as raise hens and bees for eggs and honey. All the food is marketed and distributed for West Oakland residents at our centrally located Saturday farm stand. Items are sold at sliding scale to ensure that all residents are able to afford health-promoting foods, and no one is turned away due to a lack of funds. (City Slicker Annual Report, 2008; p. 5)

Thus, community gardening focuses on a sustainable system, where the environment and resources are not exploited. It is a system that counteracts the capitalistic run market, with an emphasis on cutting waste.

## Uniting Communities

Finally, urban agriculture provides immense social benefits working to counter the side effects of community fragmentation created by our corporate food system. Not only have inner cities been victim to problems of poverty and environmental degradation, but also "alienation... fragmented existences, and disintegration of family and community life." (Hassell, 2002, p. 116) Sevelle, a founder of the Earthworks Urban Farming organization, attests, "'The gardens have created hope in the community. People work on them who are all ages and races. We learned the gardens cut down on crime." (Benetti, 2008) The director of the Berkeley Youth Connection, Kim Allen, emphasized that gardens take the place of empty lots that had histories of crime and drug use, making bountiful creation out of an otherwise eyesore. Building on that, while interviewing Dake, he asserted that gardens "make the statement that there is ownership. Having a community gardens says people care about this block." A shinning example of an organization fully working to serve those who are marginalized is Home Grown located in Chicago. Their three certified organic farms function as follows:

About half of the people working on the farms are homeless, and an estimated 90 percent have been incarcerated. Growing Home pays all employees minimum wage, provides them one-on-one work counseling and requires them to attend job training classes for six months. More than 100 people have graduated from Growing Home's program, with 65 percent in stable jobs and 90 percent in stable housing. Additionally, all proceeds from the farms - through sales to farmers markets and restaurants - go back into the organization, creating a sustainable social enterprise. (Gergen, 2009)

Other organizations are working vigorously to create models that have similar results. An organization with a comparable focus of serving to those in the lowest socioeconomic status is Miss Allen's Growing power, composed of three strategically placed farms: one community garden by a public housing project; another in a park with half community gardening, half intensive food production; and last a 12,000-square-foot garden, farmed mainly by school children who sell produce to local restaurants and farmers markets. (Gergen, 2009) Having a place where people can farm and work together in a positive environment is highly beneficial for those who suffer from social isolation. Within this social outlet, there is also a cultural need being served, where taste and food tradition can be considered part of the equation in a garden. For example, while at the Vermont Community Garden, everything from cilantro to bananas was growing. At the Berkeley Youth Connection garden, over fifty-three varieties of food had been planted. Director of the Catholic Charities program, Sister Dorothy Strelchum, notes the importance not only of having access to culturally appropriate foods, but also sustaining the traditional connection between land and agriculture. (Winne, 2008; p. 145) She states, "We have to study every refugee group we work with... because we know how important food is to each culture, particularly how it brings people together." (Winne, 2008; p.145) Therefore, a garden starts as a place where people feel a sense of inclusion and leadership and from these plots can grow other community needs that go beyond food.

#### Interconnected Learning

Gardens not only take the form of plots owned by community members, but also have secured residence in school-yards. Regarded as "learning laboratories", gardens are spaces where children can play, create and explore healthful substitutes for nutrient

lacking diets. Thus, advocates of school gardens aim to utilize them as a means to curb obesity rates. (Ozer, 2006; p. 1) In 2006, there were estimated to be about 2,000 school gardens across California alone. (Ozer, 2006; p.1) and in places like Berkeley every schoolyard now boasts a garden. (K. Allen, personal communication, April 20, 2010) As gardening in schools has built momentum, studies are being formed to track the exact effect gardens play in education. Using a pre/post evaluation of 338 youth that had gone through school gardens programs, researchers found an increase in consumption of fruits and vegetables as well as exercise. (Ozer, 2006; p. 5) In a qualitative data research project, interviews with program directors were conducted to get further insight into the school gardens. Those in direct contact with the garden observe not only their benefit in teaching nutrition, science, and environmental awareness but also they "promot[e] students' achievement, motivation to learn, psychosocial development (e.g., self-esteem, responsibility), behavioral engagement, and cooperation with peers." (Ozer, 2006; p. 6) A model program in Berkeley is the Edible Schoolyard at Martin Luther King Jr. Middle School whose mission is "to create and sustain an organic garden and landscape which is wholly integrated into the school's curriculum and lunch program." (Lawson, 2005, p. 282) The school serves 800 students in sixth through eighth grade, where classes are held in the garden according to subject and season. (Lawson, 2005, p. 284) This model connects the child directly to their food source, and teaches them stewardship over the land. Not only do children begin to live in rhythm with the seasons, but the take part in the nurturing of their body and experience nature in an urban environment.

Berkeley Youth Alternatives: A Multidimensional Garden Model

A garden is attached to the Berkeley Youth Alternatives (BYA) Center, which is an after school program for teens. Youth tend to the back end of the two-acre lot, while the

front is a designated a community garden open to the public, where twenty-five families are currently leasing plots. The success of this garden rests in the diverse outlets it serves in the community. First, the garden has a positive impact on the youth. Each year the garden hires seven youth interns, ages 14-18 to work the garden part time over the course of the school year and full time once summer begins. In order to participate, the interns have to keep up their grades, and attend study hall twice a week. Therefore, the program has proved successful in pushing teens to graduate, in a population where drop out rates are high. Additionally, the garden has secured partnership with various community food services to share its production. The produce the students grow goes to food for the BYA, local cafes, Community Supported Agriculture (CSA) boxes, supplements for emergency food bags provided by the Food Bank, and community dinner nights. The variety of outlets allows for the food to be used to its greatest capacity. Last, the garden has become a learning site for other members in the community. Everywhere from individual volunteers to college classes have ventured out to witness urban farming in action. Kim Allen, the director of the garden, noted that she has encountered companies, arts and crafts teams, nutrition and culinary classes, and academic researchers all whom come to survey and explore the garden. Thus, the garden is not just about youth education, but community education. Further, in order to connect students to the larger food movement, teens participate in an advisory council, where they are able to meet kids in California participating in similar work.

Allen lives and breathes the community life, as she works day in and out to manage and keep track of the garden's progress. She notes that west and south Berkeley, which are the lower income neighborhoods, are heavily concentrated with liquor stores

and lacking in grocery stores. While Berkeley is home to several farmers markets, they are often out of reach to lower income neighborhoods due to lack of transportation. Thus, having the garden for students to work in allows them to take food home and share with their families. The unique learning environment equips them to then teach their family how to prepare different foods based on the growing season. Additionally, in order to promote healthier eating, BYC has begun to sell produce out front of their garden on weekends, counteracting the food desert in which it is located. The set of needs served by the garden is boundless. When I asked Allen to described themes in regards to needs that the garden serves she came up with quite the diverse list:

It is an environment for education, training, teamwork, and production. It teaches the importance of community service, volunteering, learning about the food system, and understanding where your food comes from. It teaches about the connection to nature, the cycles and where we fit in. It place where the community has a positive interaction with and the youth are seen doing something positive. It is relaxing; it is about experimentation, taking risks, and trying new things. It is about expanding. It's a classroom and a place for positive modeling.

The Berkeley Youth Connection is just one of thousands of farm programs that are occurring across the US. As shown, they are a creative venue for getting troubled youth plugged into something positive which in effect begins to involve the whole community as well.

#### Moving from "Quiet Revolution" to Reform: Sustaining Urban Gardens

Urban gardens are incredible pictures of hope for food desert communities. They are transforming attitudes not only about eating patterns, but also assumption that farming is a task performed in a far off, rural setting. They are multidimensional, fulfilling various human needs including access to health, and interconnectedness with the earth and others. Policy makers must work to incorporate garden projects as a means

to serve community development. Perhaps the largest benefit the garden offers to skeptics is their alternative solution to a pure food hand out. As history tells, Mayor Pingree of Detroit utilized gardens as means to put the unemployed to work rather than give the food directly to them. It proved to be a huge success. Therefore, funding should be allocated for the start up costs of garden programs that would further empower people to have control over their diet. Gardens serve as a means to productively transform and sustain a society. They are a symbol of a new sort of victory, a victory over a profit based, over consumption run system. They are a way to get in touch with ones roots, and understand how precious of a gift food is.

In summary, poor health in inner cities is derived from a corporate market system. The side effect has been an increase of people who live in food insecurity while suffering from a myriad of health illnesses, namely obesity. As the consumer has been cut out of the picture of in regards to production and sales, a lack of access to fresh foods for marginalized consumers has become a dire consequence. Those living in inner cities do not have the option to buy a nutritiously balanced diet due to lack of grocery stores, limited options, or the far distance to market. With that, liquor stores and fast food restaurants become the primary food source. Next, if nutritious foods are available, they cost a significant amount more in economically oppressed neighborhoods. Finally, education around healthy eating is minimal among low-socioeconomic groups, while junk food media is increasingly high. This causes unawareness about healthful eating and ignorance of where food comes from. Markets tend to capitalize off the uninformed consumer cornering them through media persuasion to purchase their goods. Therefore, the system is deemed socially unjust. An innovative way to counteract the rising food

conglomerates is through community gardening and urban agriculture. Involving people in the food production process can create more food security, a more environmentally just system, and further the awareness of healthful eating and lifestyles. Thus, the grimiest of places can be transformed into infinite diversity. How do we start this transformation? Glen Dake insists that the most important element in sustaining a community garden comes from strong organization. Perhaps inspiration to start organizing urban gardens can come from the young boy in East Los Angeles; for everyone deserves the right to understand that when you pull back the black, cracked asphalt there is soil that produces edible food.

## Annotated Bibliography

Adam, J Elizabeth, Gilberto Chavez and Laurence Grummer-Strawn. (2003). Food in insecurity is associated with increased risk of obesity in California Women. *The American Society for Nutritional Sciences*.1070-1074. Retrieved from JSTOR.

Although my research did not heavily rely on this article, it was a good supportive base, reinforcing ideas that I had found in other pieces. It spoke of food insecurity's link to disordered eating as well as incorporating the way in which women are specifically affected. Further it included a survey of health of randomly selected women and their health. Much of the data collected reflected the national statistics, as minority groups are most at risk for obesity. The article was written by members of the Department of Food Science and Human Nutrition at Colorado State University, had support from the Division of Nutrition and Physical Activity, and finally the Centers for Disease Control and Prevention.

Benedetti, Marti. (11 August 2008) "The urban prairie; Detroit farms connect people food." *Crain's Detroit Business*. Retrieved from Lexis Nexis.

This article uncovers how urban agriculture is becoming a development plan for cities like Detroit. It speaks of the trend of traditional supermarkets leaving the inner cities, which then creates food deserts. Further, the article speaks of how gardens affect communities, lowering crime rates and teach about the environment. It gives specifics on how much food is produced at different farming cites in the city. This article does not give specifics on how much hunger or crime has been affected, which proves to be its shortcoming. Yet, Benedetti article has opened the door to looking into further sources and having a city to use as a case study. Furthermore, Benedetti builds his credibility as he has wide experience in writing about urban development.

Booth, Katie M., Megan M. Pinkston, and Walter S. Carlos Poston. (May 2005). Obesity and the Environment. *Journal of American Dietetic Association*. 110-117. Retrieved from JSTOR.

This article draws conclusions between how a city lay out can affect the rates of obesity. It gave much support to my argument of the lack of grocery stores and the prevalence of fast food restaurants equate to poor nutritional levels in communities. The article spans topics from how an environment is built, land use, public transportation, as well as the available activity options for people within communities. Further this article also give suggestions in regards to slowing the problem of obesity based around ideas of city planning. The research was conducted by K.M. Booth is a postdoctoral fellow, M.M. Pinkston who is a clinical psychology-health emphasis PhD student, and W.S.C. Poston who is an associate professor with the Health Research Group- Mid America Hearth Institute and University of Missouri-Kansas City.

Brown, Kate H. and Andrew L. Jameton. (2000). "Public Health Implications of Urban Agriculture." Journal of Public Health Policy. 20-39.

Brown and Jameton write an article that is important to the understanding of the reason for urban agriculture. It gave a wide range of information in regards to the urban agriculture movement worldwide. This article also gave good historical content in regards to farming in cities in the United States, and provided many good statistical facts. Although I did not largely rely on the source, I was able to utilize its historical data.

Cassady, Diana L. and Karen M. Jetter (Jan 2006) The Availability and Cost of Healthier Food Alternatives. *American Journal of Preventive Medicine*. 38-44. Retrieved from JSTOR.

This article analyses the cost to purchase healthier foods in order to create a balanced diet. From the start, the authors address the fact that low-income consumers do not "successfully follow dietary recommendations to eat more whole grains and less fat and added sugar." Rather than saying that the low-income consumer thus is at fault for their set of health issues, what Cassady and Jetter move to prove is that price is a large factor in the choice to eat healthier. Additionally, they show that many shopping markets located in low-income communities do not carry a whole grain or low fat option. This piece has much relevance to my argument in regards to what types of food are currently available in inner-city settings. Cassady is an Assistant professor in the Department of Public Health Sciences at the University of California, Davis and Karen M. Jetter works for the Agricultural Issues Center for the University of California.

City Slickers Farm Annual Report (2008). Oakland: Alozo Printing.

This source gave life to my research. It was a comprehensive report of how a major urban farm was running in Oakland, California. Its myriad of statistics given and qualitative stories fleshed out the urban agriculture movement. This article gave support to my section on the sustainable aspects of urban farms. Currently City Slickers is one of the largest urban farming projects on the west coast.

Connelly, Phoebe and Chelsea Ross. (27 August 2007). "Farming the Concrete Jungle." In These Times.

Connelly and Ross write about the inner-city farm movement. This piece was highly interesting as it not only gave support to the mal effects of food deserts within low-income neighborhoods, but additionally presented ways in which to change the present situation. A wide range of topics were covered from how environment affects poor eating, how gardens are transforming communities, and further what sort of legislation is in place in regards to food subsidies. Phoebe is a managing editor of *In These Times* and writes on topics such as political culture, human rights, and feminism and partner Chealsea Ross is a freelance writer.

Corcoran, Mary E., Colleen M. Helflin, and Kristine Siefert. (June 2004) "Food Insufficiency and Physical and Mental Health in a Longitudinal Survey of Welfare Recipients." *Journal of Health and Social Behavior*: 171-186. Retrieved from JSTOR.

This article examined the physical and mental health of African American and white women who were receiving welfare in terms of food insufficiency. Thus this article had much to say in regards to higher food insecurity in terms of single mother households. The piece also offered a lot of basic facts in regards food insufficiency across race, gender, and socioeconomic groups as well as the types of policies in place in regards to food stamps. The work offers much in terms of data evidence as to how poor health infiltrates all aspects of life. Additionally, this article concludes how mal health leads to disease.

Kimbrall, Andrew. (2002). *Fatal Harvest: The Tragedy of Industrial Agriculture*. Sausalitio, California: Foundation for Deep Ecology.

This book is a compellation of a variety of activists, environmentalists, ecologists, and economists perspective of what has taken place within the American food system. Where my research did not rely heavily on this book, I was able to pull a powerful quote from Michael Ableman, environmental studies professor at Dartmouth, who captured the revolution that is taking place in the inner cities in order to combat the persisting food desserts.

"Food Security in the United States: Key Statistics and Graphics. 16 November 2009. *USDA Economic Research Service*.

<a href="http://www.ers.usda.gov/Briefing/FoodSecurity/stats">http://www.ers.usda.gov/Briefing/FoodSecurity/stats</a> graphs.htm>.

This site is useful as it gave all the USDA updated information regarding nutrition in the United States. It will provide the base of all my statistical data and provide accurate definitions. In browsing the site, I was able to better understand the use of food stamps in the US as well as what the term "food insecurity" actually means. It has been a springboard for my research, provided a wide range of studies and data charts.

Gergen, Christopher and Aaron K. Chatterji. (2 Nov 2009) "Doing Better at Doing Good: Urban Farms: A fertile idea" *Washington Times*. Retrieved from Lexis Nexis.

Gergen and Chatterji uncover the urban farming movement in a variety of cities in the Midwest, namely Detroit and Chicago. They cover how urban farming is a growing social entrepreneurship. They highlight model agencies that are addressing the issues within low income communities. Aaron K. Chatterji is an assistant professor at Duke University's Fuqua School of Business and a Fellow at the Center for American Progress in Washington. Christopher Gergen is the director of the Entrepreneurial Leadership Initiative within the Hart Leadership Program at Duke University's Terry Sanford School of Public Policy.

Goldstein, Nora. (Oct 2009). "Vacant Lots Sprout Urban Farms." *BioCycle*. Retrieved from Lexis Nexis.

This article speaks of the urban agriculture movement in Cleveland, Ohio, where there are 3,300 acres of vacant land within the city. There is a collaborative effort between Neighborhood Progress Inc, the City of Cleveland and Kent State's University's Urban Design department to use the land in a healthier, more environmentally and economically sound manner. The city has the reoccurring problem of food deserts, where "fast food restaurants are prevalent and grocery stores are few." This article will be beneficial in providing another site in the US where the city is looking to boost economy and jobs through urban agriculture. Further the article addresses the need to feed the growing number of hungry local citizens. *BioCycle* builds its credibility, as it is a magazine that has promoted composting, organics, recycling and renewable energy for the past fifty years.

Koc, Mustafa, Rod MacRae, Luc J.A. Mougeot, and Jennifer Welsh. (1999). For Hunger–Proof Cities: Sustainable Urban Food Systems. Toroto: International Research Center.

This book covers how "local food systems offer long-term sustainable solutions." Further the book covers how local food systems do not attempt to dismantle the global food system, but rather enhance food security. The book gives various developmental agendas as to how to create a food secure cities. There is a range of worldwide case studies included, however I will focus on the studies conducted in the US. Further, there is an analysis section on the Food and Farm Bills in the United States. The main editor of the book, Koc, comes from a background in Sociology and is the director for the Centre of Studies in Food Security. MacRae is the director of Toronto Food Policy Council, Mougeot is a Program Specialist an the International Development Research Centre in Ottawa, Canada, and Welsh is a professor and director of the School of Nutrition at Ryerson Polytechnic University. The range of experience in the editing process lends to the books credibility in being a well-balanced source.

Kumanyika, Shiriki and Sonya Grier. (2006) Targeting Interventions for Ethnic Minority and Low-Income Populations. *The Future of Children*. 187-207. Retrieved from JSTOR.

This study provided much of the hard statistical evidence needed to support claims that low-income groups are heavily marketed to by large food conglomerates. In particular, it described research conducted on television shows watched by children and magazines bought by minority groups. Shiriki Kumanyika is a PhD and MPH, serving as the Senior Advisor to the Center for Public Health Initiatives and a professor of Epidemiology. She has a unique interdisciplinary background that integrates epidemiology, nutrition, minority health, and women's health with a focus on prevention. Additionally, Sonya

Grier is a consumer psychologist with a PhD and MBA. Therefore, these women pull a well-rounded perspective on which they build their argument.

Lawson, Laura J. (2005). *City Beautiful: A Century of Community Gardening in America*. Berkeley: University of California Press.

Lawson's book gives a detailed history of the start of community gardens. Moreover, she outlines the basic themes of the garden movement as being nature, education, and self help. These themes play into my overall outlook on the inner city garden movement as I move to research the social and environmental aspects. The largest contribution this book lends to my research is the section on how community gardens play a part in food security. Further, the book provides charts and numbers of how much a garden grosses per year. This also reveals the economic and entrepreneurial aspects to gardens. Further, this book gives a fair analysis, stating that gardens are not the ultimate answer to food security. This point is something that I will need to address in my paper. Laura J Lawson is an assistant Professor of Landscape Architecture and the University of Illinois and she is also the coordinator of Berkeley Youth Alternative Community Garden Patch.

Lowe, Kenna L.. (10 July 2007). Obesity Rates Continue to Climb in the United States. *Public Health News Center*. Retrieved May 10, 2009. <a href="http://www.jhsph.edu/publichealthnews/press\_releases/2007/wang-adult\_obesity.html">http://www.jhsph.edu/publichealthnews/press\_releases/2007/wang-adult\_obesity.html</a>.

This article was a credible source to quote and gave a strong opening to my paper's section on high obesity rates. It highlighted to the correlation between low-income groups being at risk for higher rates of obesity as well as minorities being disproportionately affected. It gives rise to concerns of obesity continuing to increase if nothing is done to stop it. Thus, is gave me a question as to what the causes of obesity are within these groups which experience it at highest rates. John Hopkins is a world-renowned private research center that is highly acclaimed for its medical research.

Muhlke, Christine. (12 October 2008). "Food Fighters." *The New York Times*. Retrieved from Lexis Nexis.

Muhlke's article uncovers how different food activists are creating different urban agriculture movements. Further, the article touches on why farming is becoming an attractive idea in our culture, as people who are leaving school do not wanting to fall into "toxic consumerism". The article highlights several different individuals who are creating networks, documentaries, writing books, and are working to build charities to get people behind their cause. Further, the article provides support for the environmental aspect to my paper as it states the current food systems are contributing to climate change. Muhlke is a frequent food columnist writer for the New York Times, building credibility to the source.

Overweight and Obesity. (2009) *Center for Disease Control and Prevention*. Retrieved March 20, 2010. <a href="http://www.cdc.gov/obesity/data/trends.html">http://www.cdc.gov/obesity/data/trends.html</a>

This site was foundational in comprehending the problem of obesity in our nation. It provide maps of regions that experienced higher rates of obesity and large ranges of data. Additionally, this cite had the break down of obesity by race and economic standing. The site was highly credible as it stands as a United States federal agency under the Department of Health and Human Services.

Ozer, Emily J. (2006). "Effects of School Gardens on Students and Schools:

Conceptualization and Considerations for Maximizing Healthy Development."

Health Education Behavior Online First.

< http://heb.sagepub.com/cgi/rapidpdf/1090198106289002v1>.

This study became a keystone for my understanding of how gardens effect a school environment. It provided statistics and also noted its shortcoming, admitting to the need of further research to be conducted on the impacts gardens have on learning. It included how gardens impact health, aid in teaching the hard sciences, and build social skills. Emily Ozer is an assistant Professor of Community Health and Human Development for the University of California Berkeley.

Porter, Catherine. (5 August 2009). "Urban park sprouts a city farm; Activists make a point as they make compost and grow vegetables on land in Downs view." *Toronto Star*. Retrieved from LexisNexis.

In this article, Porter tells how urban agriculture is changing the city of Toronto. It boasts many strong points, as it reports that the movement has been started young activists using gardens for business improvement and educational centers. This is a theme throughout most cities as there is a bigger push for the green economy. Further, the article gives names to founders of the urban farming movement such as Will Allen who is "the Al Gore of the urban farming movement". This article will prove beneficial in leading to more sources as well as give support to my argument of urban agriculture being the answer to fixing a broken food system. However, this source has its limitations as the story is outside the US. Porter is a bio columnist at the Toronto Star, considers herself a feminist, environmentalist, and community builder.

Roberts, Paul. (2008) The End of Food. New York: Houghton Mifflin Company.

This book provides as a strong resource to why hunger is occurring in our world. Much of the information is too large of a scope for my research, however, there is a section about local farming. The author takes a critical look at the feasibility of feeding people off a local diet, saying it "sounds superb in theory, it is proving quite difficult in practice." Looking at the local food movement through a critical lens will strengthen my

argument that inner city hunger can be relieved through urban agriculture. Paul Roberts is an acclaimed journalist and lecturer on the interplay of economics, technology and the environment. He is the author of the-selling *The End of Oil*, giving much credibility to the work he provides.

Shiva, Vandana. (2000). Stolen Harvest. Massachusetts: South End Press.

Stolen Harvest is a powerful piece that tells the story of how the global food system is being destroyed by multinational corporations. It expands on topics such as loss of diversity, seed patents, and the mal effects of GMOs. I found her critique of the west forcing their development model of food packaging into Indian communities as very clever and worth noting. Her concluding point of the poor in the US living off over processed, packaged foods seems far from any sort of development model that any country should adopt. This book is written with a lot of heart and personal experience. It further brings attention to how deceitful corporations can be, and further she urges for a return to people having a say in what they eat and where if comes from. This message couldn't be more needed for the people living in food insecurity within the US.

"Supplemental Nutrition Assistance Program". (2010) *USDA Food and Nutrition Service*. Retrieved May 10, 2010. <a href="http://www.fns.usda.gov/snap/">http://www.fns.usda.gov/snap/</a>>.

This site aided in my understanding of the current assistance programs that are in place. It helped provide the contrast between past present programs. It is the offical United States Department of Agriculture cite, thus building its credibility. With that, there was large polls of data and statistical data. The largest piece of information I pulled was the current funding provided to individuals living in food insecurity.

"Urban Agriculture: An Abbreviated List of Reference and Resource Guide." (2000). National Agricultural Library. Retreieved March 12, 2010. <a href="http://www.nal.usda.gov/afsic/AFSIC\_pubs/urbanag.htm">http://www.nal.usda.gov/afsic/AFSIC\_pubs/urbanag.htm</a>.

This website was a springboard for my research on urban agriculture. It provided definitions and basic information on agriculture and gardening. It allowed me to understand the basic organization of urban agriculture projects. From this resource, I was able to locate further books and articles.

Winne, Mark. (2008). Closing the Food Gap: Resetting the Table in the Land of Plenty. Boston: Becon Press.

Closing the Food Gap covers the history of food insecurity in the US, giving the history of food stamp programs, the rise of hunger, and food banks. Additionally, the book over views the rise of community gardens and then places the reader in the current state of the US food dilemma with high rates of obesity and growing food deserts. This book will have some of the most pertinent information for my paper, as it addresses how the food gap in America can be closed. There is not as large of an emphasis on inner city agriculture, which lends to the books shortcomings for my research. Mark is a freelance writer and a former Executive Director of the Hartford Food System.