Cultivating the Concrete Jungle: Examining Urban Agriculture in the Motor City - Detroit, MI

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CULTIVATING THE CONCRETE JUNGLE: EXAMINING URBAN AGRICULTURE IN
THE MOTOR CITY - DETROIT, MI

by

Sultan Muhammad

A thesis submitted to the Graduate College
in partial fulfillment of the requirements
for the degree of Master of Science
Geography
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The maintenance and development of sustainable food systems is becoming an essential aspect of maintaining an efficient urban environment. Likewise, addressing food and job security within America for the entirety of the population has proven difficult in the face of increasing poverty, particularly in urban areas. Urban agriculture has become a favored system of producing local fresh quality food, increasing employment opportunities, beautifying brown spaces and improving environmental conditions through the benefits of increased vegetation. UA exists in America, but as of yet have not sufficiently addressed the prevailing conditions of food insecurity, particularly within poor communities. This study will identify the determining factors from the side of the facilitators of urban agricultural systems, as well as potential consumers of their products, to gain understanding of the benefits and hindrances related to the promotion of urban agriculture. Through case study, observation, survey and interviews, a wide range of opinions from multiple perspectives surrounding the idea of urban agriculture are identified. From the range of opinions, a relatively conclusive illustration is provided to ascertain the true place of urban agriculture in the structuring of contemporary urban environments.
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CHAPTER I

Introduction

The plight of American urban environments is one of complexity, while yet maintaining many long-standing simple truisms. Of these many are the simple facts that all citizens are in need of employment and access to quality food. Many solutions have been proposed and implemented to cure the inner cities of America of these ills. However, the effectiveness of current policies to adequately address employment and food quality issues must be called to question (De Marco 2009, Travaline & Hunold 2010). The production and cultivation of food within urban environments through urban agriculturist schemes is becoming an increasingly favored solution to this lack of quality food, and in some instances is providing viable employment opportunities as well (Winter 2009, Lovell 2010, Travaline & Hunold 2010). Is the simple and age-old practice of local agriculture within the urban environment a means to simultaneously address problems associated with “food deserts” and high unemployment? Can urban agriculture (UA) play an important role, in conjunction with other efforts to establish self-sufficient American cities (Deelstra & Girardet 2000, Schnell 2007)? Could this be an answer right under the feet of an estimated 23.5 million people in the United States living in hypothesized food “deserts” (Christian 2014, Deelstra & Girardet 2000)? This research will address these fundamental questions through a mixed-method case study of selected neighborhoods in the City of Detroit, Michigan.

As simple as it may seem, urban agriculture has been and continues to be implemented in many cities throughout America, yet overall there are few visible positive impacts on urban food
quality and employment that can be directly and clearly be attributed to urban agriculture. Why is this so? Is urban agriculture a long-term strategy for addressing these ills of the urban environment? Or is it an impossible dream (Angotti 2015, Colasanti et al. 2010, Kaufman 2000, McPherson 2011)? If given a thorough analysis, these and many other questions surrounding the burgeoning excitement associated with urban agriculture programs in America could be answered with more definite understanding of value and appropriateness. This research is designed to navigate through various angles of UA for the purpose of providing insights into this question. Simply put, I wish to discern the viability of urban agriculture as a beneficial and necessary tool for improving the realities of food insecurity and unemployment in urban environments (Lovell 2010, Kaufman 2000, Schnell 2007).

The majority of the cities of America, unlike the cities of most countries in the world, contain a wide diversity of people of every type in terms of race, ethnicity, religion, income, gender, and political view, etc. But, the living conditions facing the people in U.S. cities are equally diverse. This contributes to the diversity of viewpoints on solving the many issues within the shared environment. Developing solutions under such complex settings therefore will be equally complex and most of all, difficult. In light of this, agriculture in any form is usually an idea far from the mind of “city-dwellers” as it entails hard work, slow results and vague potential for economic development in the face of a corporate economy that does not currently include room for this slow-paced solution (Colasanti et al. 2010, Kaufman 2000, Travaline & Hunold 2010). While this “urban” attitude may exist at present, there is also a growing interest in developing vacant land for food production and similar interest in local food. These interests consider the urgency for correcting food security as a clear call for a whole-hearted acceptance of UA (Colasanti et al. 2010, Travaline & Hunold 2010, Zepadi & Li). As it stands, the question
of reconciliation of the inherently diverse opinions related to the serious implementation of UA as a part of solutions that will cure the ills of the urban environment remains a puzzle (Colasanti et al. 2010, Schnell 2007).

Discerning the magnitude of the role that UA can play to assist the cities of America could be of great value for local governments, businesses and citizens (Travaline & Hunold 2010). By refining the definitive role that UA could play in the struggle for economic and nutritional equity, progress becomes attainable in a more effective manner than that being accomplished at present. If UA is in fact an insignificant factor in producing any lasting local food options and/or urban employment, then a firm knowledge of this would allow city government’s proper prioritization for the effective allocation of investment. Further, if UA is actually not viable, then different options must be considered for vacant land. Those who would still choose to engage UA would be encouraged to do so, but with a clearer understanding of its limited importance and relevance in relation to other city endeavors. If, however UA is discovered to potentially be a feasible means of producing lasting local food sources for urban populations, while simultaneously facilitating lasting employment opportunities thus playing a partial role in improving various ills of the urban environment, this finding would have great implications (Colasanti et al. 2010, Nasr 1992, Travaline & Hunold 2010). City governments would be obligated to open possible avenues for its facilitation, promotion and improvement. Individuals and group organizations engaged in UA as well as those who wish to begin practicing UA would be able to do so with a heightened sense of purpose to the greater goal of interacting with other local government efforts to provide fresh quality produce and viable employment. Whether the significance of UA in the process of improving the urban environment
proves to be great or minimal, obtaining a more definitive view of UA will assist greatly in the search for solid solutions to these problems.

The value of such an investigation lies in the urgency for both improved food security and employment. These two interrelated issues are not problems easily addressed, nor can they be easily dismissed (Travaline & Hunold 2010, Zepadi & Li 2006). The complexity of solving such issues, beckon the development of multi-faceted solutions that can work interdependently to reverse deteriorating urban cores (Deelstra & Girardet 2000, Schnell 2007). Such problems reach beyond the scope of simply gentrifying inner cities and relocating low-income families, as usually done. Gentrification simply moves the problem rather than addressing it with viable solutions, and can be accurately labeled as superficial and ultimately inconsequential, even ultimately counterproductive as old problems in new settings illicit new challenges.

For the purpose of addressing the urban environment’s principle issues, this investigation is aimed at shedding light on the evaluation of a potential key which could help to unlock a model for a more self-sufficient city. Such a lofty goal not mere idealism, but rather a necessity as economic conditions throughout America continue to show trends that reveal a need for new employment sources, while public health statistics reveal a need for drastic changes in the nutritional intake of many American citizens (Travaline & Hunold 2010).

Throughout American cities, there has been a boom in interest in urban agriculture. Detroit, Michigan; Portland, Oregon; Austin, Texas; Boston, Massachusetts and Cleveland, Ohio are among the cities reportedly leading the way by advocating urban agriculture practices through ordinances that “provide a blueprint for a new economic future grounded in sustainable food production in urban centers” (Colasanti et al. 2010, Deelstra & Girardet 2000, Popovitch
The steps being taken are assisting the lighting of the way for potential future urban farmers by providing guidance and a sense of legitimacy. The framework provided thus far is allowing an increase in UA development while simultaneously encouraging innovative practices.

As many other cities seek to follow suit, a thorough understanding of the potential implications of expanded UA for the people in such urban places is necessary. As reported by the American Community Gardening Association in 2009, there were 114 community gardens and organizations in 35 states. In New York City alone, by 2010 through the GreenThumb community gardening program—the largest in the country—there are more than 600 garden associations that support 20,000 urban gardens (Lovell 2010, Winter 2009). Since that time there has been only increase in the quantity and scope of UA entities throughout America.

As an initiative with implications far beyond what is readily visible within the scope of UA, it consistently requires a collective thrust of various contributing elements within the urban environment (Deelstra & Girardet 2000, Schnell 2007). A key to this endeavor is the engagement of urban planning departments to facilitate UA implementation, as these agencies are “uniquely positioned to coordinate activities across fields, allowing urban agriculture to live up to its full potential as a multifunctional and sustainable land use” (Kaufman 2000, Lovell 2010). Planning departments have the ability to provide the adequate prescription and justification for UA throughout its various potential functions, as well as coordinating the necessary supportive planning strategies. These steps are essential to removing the typical roadblocks that are encountered as citizens and organizations seek to operate a local farm or garden. Such hindrances generally consist of zoning complications, land use and acquisition barriers, building regulations and other operational restrictions. Thus, the protection of UA programs through appropriate zoning is paramount, as features such as community gardens are rarely accorded the
same level of importance as other programs related to the maintenance of open green space (Lovell 2010).

Lack of prioritization for programs supporting UA are a reflection of the lack of research done to “model land use alternatives based on local food systems, assessing the impacts of these alternatives on the environment and local communities” (Lovell 2010). Simply put, there remains a considerable level of ambiguity as it relates to the actual potential and efficacy of urban agriculture as a worthwhile use of vacant urban lands. Therefore, in many cities there is hesitancy on behalf of city and state governments and certain groups of citizens to consider serious investigation into the effective facilitation and promotion of UA through effective zoning and related policies (Colasanti et al. 2010, Kaufman 2000).

The selection of an industrial metropolis, Detroit, Michigan, engages a city wherein UA holds significance throughout its history, from nineteenth century roots to present day garden networks and gardening programs. The enormity of vacant land throughout this city is well known and documented, and is often overwhelming even to urban experts. Tens of thousands of lots are not maintained, while more than 75,000 abandoned residential structures remain. In 2010, some neighborhoods had more than fifty percent vacant housing and citywide, thirty percent of residential parcels no longer have homes on them (Mogk et al. 2010). With such a glaring problem related to “surplus” land, there is a clear need for sustainable solutions, potentially including greater advocacy of UA. Detroit serves as a great area for such development to encourage generalizable data, due to its size and current status politically, economically, and socially. As many other major American cities share similar statistics of vacant land, socioeconomic demographics and city size, this is an optimal location for this research (Bowman and Pagano 2000).
In the next portion of this thesis, I will provide the necessary background information to contextualize the research. As the argument develops with respect to this evaluation of the efficacy of urban agriculture, arguments against its true potential are also understandable. Looking closer into one of America’s great historic cities – Detroit, Michigan - an image of greater clarity is hoped to appear that will allow for increased certainty of direction.

Following the next chapter on background information will be the literature review in chapter three, gathering the supportive research laying the grounds for my own. Sequential to the review of literature will be the breakdown of data collection and methods of analysis followed by the actual compilation and results from the research in chapters four and five. Continuing on from these sections, chapters five and six will summarize and synthesize the collected data and analysis as well as discussion of the findings and the apparent conclusions and their implications, including potential recommendations for future research and development.
Figure 1. Area of quantitative Survey Study in red. Qualitative interviews were conducted throughout the entire City of Detroit.
CHAPTER II

Background Information-Detroit and the UA Revolution

The idea of UA as an important component of a city-wide vitality revolution within Detroit is not a new concept, but rather has been increasingly emphasized over the last two decades. “We want to get a lot more Detroiter growing food,” says Ashley Atkinson, who is part of a UA advocacy group in Detroit known as Keep Growing Detroit. The co-director advocates that self-determination starts with food. A brief look into the history of the city of Detroit sheds light on need for re-gained “self-determinism”. At present, most of the city’s residents find themselves living within a shell of what was formerly known as the “Motor City”, considered by some even the “heart” of America itself (Ignaczak 2013). A city once representing the “Gold-Standard” of economic vitality, cultural ingenuity and industrial power now merely echoes the sting of racist policies, economic decay and political corruption (Counts 2016). The historical downward spiral of this once great American city is well documented (Austin 2010, Fields 2013, Gabriel 2016, Hester 2016, Padnani 2013), and is not the targeted purpose I wish to engage, however its relevance is tantamount to note and briefly illustrate. Detroit’s historical experiences were shared experiences of many large cities throughout America, although variances in the magnitude of outcomes is clear. Thus, in the attempted rise of Detroit from what many consider to be the “mud”, there are many people who see that this process will have to involve going back to the roots (Colasanti et al. 2010, Kaufman 2000, Papple 2016).

“When Detroit planners, both officials and revolutionaries, began working together for a new plan for Detroit, which included natural open spaces and urban farming, Next City said that Detroit could be the star of “the most significant urban turnaround story the country has ever
seen” (Papple 2016). This sentiment is not a sole cry from within Detroit, but has been a shared expression of hope in the potential role of UA as a major component of Detroit’s “comeback”. Such hope has led to a considerable level of UA activity throughout many areas of the city, varying greatly in size, scale and function. Likewise, there has been great variation in the success of these operations, in direct proportion to the widely varying projections of what is defined as success. Though differences exist, a common thread remains among them that “many Detroiter aren’t satisfied with merely heading to the grocery store for their eggs, milk, and produce”, even when these staples have, at least, become more available in certain areas once described as food deserts (Papple 2016). The growing desire for self-determination and “food sovereignty” of a population attempting to overcome the many hurdles posed by long-term city-wide economic ruin leads many on this journey even now, “They are making their own food, and some are even creating jobs while doing it” (Kaufman 2000, Papple 2016).

The activity of UA organizations and many individuals trying to “carve a living” from food production is not new in Detroit, but has taken on new meanings and energy in recent years (Bendetti 2016). As many new faces have come to the table in the Motor City with visions of “bringing it back” to its former glory, there have been a wide range of investments and business ventures by many who desire to partake in the rise. The efforts have been great. The Detroit Regional Chamber of Commerce notes that “since 2013, there has been at least $3.4 billion in investment and development announced in the city, including 125 new restaurants and retail establishments that have recently opened” (Rogers 2016). Many people are eager to take part in what appears to be a great economic opportunity for entrepreneurs and large well-established businesses alike. The easy entry into a city full of low-cost real estate makes it an attractive destination for many, although the inherit challenges of business in the city have been slow to
subside. The uphill climb of those involved in the comeback of the city has often proven to be a long slog. One entrepreneur stated that “Even with our growth and positive momentum, we have a tremendous way to go before we look like a New York, Chicago or Minneapolis” (Rogers 2016).

While the great population decline of Detroit is well documented now approximately 36% of what it once was at its peak in 1950 (Pandani 2013), it remains listed as the twenty-first largest city in America (2017). During the 1950 it was the fourth largest U.S. city and the undisputed center of worldwide automobile manufacturing. Objectively, the current status in 2017 is not one of complete desolation. Population loss has slowed down since the early 2000s, now allowing for a more stable tax base (MacDonald 2016). This may be accounted for by the large influx of new residents, many of whom are coming from places beyond the city and even out-of-state. This migration is approximately balancing the number of natives still leaving. Consequentially, while this is good in a theoretical sense, this influx is producing tension between longtime Detroiter and the newcomers, as many newcomers arrive with financial resources far greater than natives. There has developed a sense of exclusion among the native Detroiter population – many of whom are Black/African American, by those who are coming with the means to participate actively in new economic development opportunities (Gabriel 2016).

The history of Detroit’s citizen relations throughout the 20th century and recent history alike reflect repeated expression of tensions, often rooted in racial conflict. Needless to say, the current status of Detroit as one of the worst cities in terms of diversity (Counts 2016) did not evolve in a vacuum. The history of the great migration to Detroit as the promised-land of industrial opportunity during the automobile boom was soon followed by a number of divisive
race riots, and the consequential “white flight” capsulizes the deep racial context of the city. Time and circumstances have changed in many ways since the days of heated racial tension, but what seems from the outside to be a new opportunity for vast development, undoubtedly still contains inherent unresolved tensions. There is yet a call for city leaders to do a better job of diversification in this region of the state of Michigan in general, as many neighborhoods haven’t yet “felt the positive energy from the city’s comeback like downtown has” (Counts 2016).

What appears to some as unequal development in Detroit reaches from the core of downtown to the furthest extent of the city limits. This unequal development pattern has touched upon many aspects of Detroit, and most notably for the purpose of this research, food security, as well. As one organization (D4 et al. 2012) noted “The consumer options available to Detroit residents are compounded by historical and current patterns of racial and economic inequity as well as residential segregation”. Through their survey findings, they found that “Unsafe and unsanitary food retail choices disproportionately impact many of the city’s most vulnerable residents, including people of color, the poor, and children” (p.2). Locations with higher concentrations of African-Americans and Latinos, children, and poverty are found throughout the city and are subjected to lower-tier retailers “selling unsafe foods in an unsanitary environment” (D4 et al. 2012). Out of appreciation of this context, there has come a series of actions taken by citizens to counteract the undesirable reality of limited access to quality options in this most essential of human needs, food.

One of the most championed heroes of the comeback of Detroit is Quicken Loans founder and CEO Dan Gilbert, who has purchased around thirty buildings and parking garages, including two recent buildings on Woodward Avenue, historically the major downtown thoroughfare. The Detroit News estimates Gilbert’s investments at about $1.2 billion in city
property, much of which “has been slated for retail, commercial, and residential space” (Field 2013). While such large investment has made many visible improvements and helped to provide both full-time and temporary employment that helps revitalize the downtown, there have been some mixed feelings regarding the way growth is taking place. As (Fields 2013) stated “Some people believe Gilbert is single-handedly “saving” Detroit while many others are skeptical”, alluding to what is described as “the increasingly unequal development pattern across Detroit”. It is hard to argue with these facts. In 2009, the Detroit Metropolitan Area claimed the highest ranking in the country in overall unemployment, and the black population was found to be twice as likely to be unemployed as whites (Austin 2010).

These contrasting storylines offer a contextual illustration of the system proposed to solve both issues of food security and employment opportunity, urban agriculture. Where long standing barriers to development in Detroit are most significant, i.e. vacant land at approximately 30,000 acres (Whitford 2010); UA appears to be a viable turnaround solution. As stated previously, UA is being practiced in various ways throughout Detroit, but has yet to fulfill what some consider the grand vision of promise (Colasanti 2010, Kaufman 200, Nasr 1992). A closer look at what is actually occurring at pre-existing UA operations, and what is being accomplished in present time should help to make the UA picture in Detroit more understandable.

While there is much vacant land available in Detroit, as in many large cities, there is apprehension regarding what percentage of such land should be dedicated to agriculture (Bendetti 2016, Colasanti et. Al 2010). One UA organization in Detroit known as Recovery Park Farms, is utilizing a $30 million capital investment project to “turn 22 blocks, or a 105-acre footprint, into a center for urban agriculture with employment for ex-offenders, recovering addicts and others with barriers to employment”. Such large scale plans are few. However,
overall plans and projects are increasing in number as various organizations seek to stake their claim to vacant land. There are currently estimated “20,000 people working on 1,400 gardens or growing sites in the city”, and while each group enters the UA arena for varying reasons, some principal challenges to its development are common to all (Bendetti 2016).

A commonly expressed difficulty among UA proponents is land acquisition. While Detroit has lead the way for nearly all major American cities with its production of zoning ordinances comprised of facilitating measures for the expansion of urban farming, there is still much work to be done. Dan Carmody, the Eastern Market president (the largest open-air market in Detroit) recently noted the complexity of the issue: "The city land bank has the herculean task of repurposing 96,000 vacant lots," Carmody said. "Urban agriculture is part of the answer, but not the whole answer." (Bendetti 2016, Kaufman 2000). Determining definitively the percentage of the city’s vacant land that should be used, permanently or temporarily in particular areas within the city for UA represents this problem; reflective of the appraised proportion it comprises of “the answer” as a whole.

If land acquisition in Detroit represents a hurdle in the path of potential UA practitioners, the ability to properly discern UA capability to prosper is likewise unclear (Guzman 2016, Hester 2016). In the case of the majority Black population of Detroit natives, one local farmer expresses the frustration that "To become a land holder in effect is out of reach for black farmers" (Guzman 2016). As repeated earlier in this research, oft times there is competition with outside interests in taking advantage of the economic opportunities of the city, including permanent land acquisition. “The frenzy of speculators, (including) outside and foreign investors, to purchase Detroit land has shut people out of buying (property) in their own neighborhoods” (p.3). Clearly this is a recurring theme manifest of deep societal issues. Where land has been
acquired, it has been through long periods of negotiations, as in the case of D-Town Farms. The land currently used by D-Town farms was secured following more than two years of meetings and negotiations with the City Council, and the Planning and Recreational Departments. Even in this case, the land is being used only based on a rental agreement, keeping ownership off of the table for the moment (Guzman 2016). According to Malik Yakini of D-Town Farms "There is a convoluted process that does not allow farmers to purchase land from the city and no clarity on how land can be transferred to local growers” (Guzman 2016). With such opinions by those involved in UA, it is easy to understand why mixed views surround its prospects. While many onlookers are skeptical of the efficacy of UA in any realm of economics or food production, its practitioners cite a lack of opportunity and limited support by city agencies to exercise UA potential so its efficacy cannot be proven (Schnell 2007).

Is there a point of common ground amidst this tangled struggle for assuring “the comeback” of Detroit which could provide a model example of bringing many blighted portions of major American cities back to prominence? Could this common ground be found on vacant lots within the urban environment waiting to be made fertile and productive?

What remains to be seen in Detroit is the possibility of a truly significant impact of UA in an economic and nutritional way. Admittedly, to realize such potential would demand an expanded scale of operation at a larger scale than typically practiced by most current UA practitioners. An example of such an approach is currently in progress in the case of Detroit’s for-profit model market garden, differing from many non-profit-run farms which donate fresh fruits and vegetables to communities. The partners of this model are working to apply what they call “an intensive, efficient farming method (for) one-third of an acre, (so as to) grow high-value produce in all four seasons, and make $50,000 – $70,000 a year” (Green 2016).
Where poverty is rampant in Detroit and many other cities throughout America, the prospects of such a type of model justifies closer attention. If an efficient model could be developed and replicated with interconnected farmer’s markets and grocery stores to help produce and sell products for communities throughout America (Bendetti 2016), the visionaries of UA would be free to stand victorious as major players in “the comeback” (Colasanti et al. 2010, Kaufman 2000, Lovell 2010, Travaline & Hunold 2010). However, until an argument is presented with sufficient strength of evidence to convince the necessary individuals of its possible potential, the vision of UA to cure economic and food security ills may remain a dream held by a few “green thumb” revolutionaries (Colasanti et al.). This current research is predicated on an attempt to answer some of these lingering questions related to UA and its efficacy in city rebuilding through improved employment and food security by analysis of UA in Detroit.
Figure 2. Freedom Growers Farm

Source: Photograph by author (2016).
CHAPTER III

Literature Review

The search for different perspectives towards UA remains a road of diverse destinations. A study within the Detroit metropolitan area (Colasanti et al. 2010), was conducted through semi-structured interviews and focus groups with questions on UA practices and perceptions regarding its up-scaling, as well as its potential for utilizing vacant land. Interviewees consisted of employees of the Planning and Development Department, community development corporations, economic development agencies, developers, UA practitioners, and city residents. This study used the information derived from these interviews to explore ways in which UA “might be perceived in relation to the urban ecosystem and sociopolitical context”. Input received from participants at that time reveal a wide range of attitudes and varying levels of understanding of UA and its potential significance within the body of viable solutions for city development. The diversity of the city’s populations and their circumstances reflect equal diversity of perspectives on the particulars of UA. While many generally supported the idea of its implementation, views regarding implementation are different. Interestingly, there was a key dichotomy revealed during the Colasanti et al. study related to differing perspectives of the permanency and economic significance of UA. Some respondents expressed a view of UA as a driving force behind the future of the city and an important opportunity for a new primary industry. Alternatively, there were those who believed that there is a better and higher use for the land than raising chickens and sheep, but that UA can serve as an interim land use until opportunities that are more profitable develop (Colasanti et al. 2010).
In a study by Hatchett et al. (2015), focus-group guided discussions and surveys of twenty-two crew and staff members from four UA programs in Chicago also provide insights related to UA practices. With focus on African-American leadership in UA programs and the potential impact of these programs community members’ life skills, health habits and income, the Hatchett et al (2015) study represents a narrow scope of results, but with wider implications. Information derived from these inquiries revealed attitudes towards UA as an opportunity for healthy eating, empowerment and sustainability benefiting themselves, family and the larger community. UA was viewed in this study as one component of broader efforts for local-focused empowerment, food distribution, and community capacity building. Ultimately then UA farms represent efforts to improve food access and impact community development. These impacts, however, are described as still needing further investigation as they relate to low-income families and their overall perspective towards a broader local food movement. Assessing potential positive outcomes of increased implementation is also balanced and checked by the stated perception whereby African American communities may not perceive UA positively as a result of historical connections to Jim Crow, sharecropping and slavery (Hatchett et al. 2015). Again, the diversity of views illustrate the necessity of pursuit of a greater understanding of the varying citizen and government elements that affect contemporary policy and programs impacting UA in American urban centers (Bastian & Napieralski 2016, Berg 2014, Izrabal 2009, Pulido 2000).

In support of UA as part of a strategy for the reversal of negative effects on diverse populations caused by industrialized agriculture, local governments are being pressed to coordinate actions with private citizens (Envt. & Litig. 2010). Confronting the issue of food miles, with average food traveling over 1500 miles from farm to plate, is described as very unsustainable based on retail prices due to the cost of gasoline for transport (Berg 2014). The
increased sensitivity of consumers towards the origin of their food must also be considered  
(Zepada & Li 2006). Likewise, available produce is criticized as being far less nutritious today  
than it was fifty years ago (Berg 2014). Investigating various current ingredients of the urban  
environment, food policy councils are cited as meaningful organizations potentially influencing  
the progression of state and city comprehensive plans that are favorable to UA development. In  
light of the health, economic and social ills of the urban environment, UA is proposed as a  
major contributor to the solution, if given proper framework and advocacy through governing  
2007). Successful implementation of UA programs and operations will involve new frameworks  
that incorporate the vital engagement and education of all parties involved (Lovell 2010, Pulido  
2000).

From a more critical standpoint, questions have been asked in relation to the true power  
of UA to effect any lasting change within the urban environment. For cities such as New York  
known for high-density developments and population, big challenges are present in relation to  
shortages of space, the high cost of land and the lack of cultures of local food production. Thus,  
research shows that major changes will be needed in local and regional land use policies to  
improve the prospects of UA development (Angotti 2014, Cohen & Reynolds 2015). Furthermore, Cohen & Reynolds examine the potential of UA with respect to potential capacity  
to “either address or exacerbate deep divisions of race, gender and age that characterize both  
rural and urban life” (Angotti 2014). It must be noted that urban agriculture at present has no  
established safeguards from following the historic pattern that has defined agricultural practices  
in America. Undesirable side effects related to farm labor include extremely low pay, miserable  
working conditions and invisibility from the rest of the world. The question of regenerative labor
without exploitation must be examined as UA currently lacks an established economic framework by which it can consistently and clearly point to sufficient monetary gain. These, among many other challenges seldom thought of by UA aspirers are presented here with the intention of providing a more sober outlined vision in contrast to the often romanticized portrait of urban regeneration through UA that would appear to be the dominant narrative at the present time (Angotti 2014, McClintock 2009, McPherson 2011).

The wide variations and possibilities of UA provide some hope that it may reach beyond its many challenges. Implications of UA as a great promoter and catalyst for farmer’s markets in various cities through local produce programs provides a base for economic development while providing food free of synthetic chemicals, pesticides, fertilizers or Genetically Modified (GMO) products (Winter 2009). In a case study analysis of Milwaukee’s UA systems, a city currently serving as the home to several organizations with rapidly growing interest in allocation of land for increased production, Winter (2009) finds cause for hope. Current success and levels of interest throughout America reflect a potentially “fundamental change in the way urbanites purchase, produce, and consume their food, with farming becoming a recognizable part or North America’s urban landscape” (Winter 2009 p.30).

Recognition of the potential of UA by local government officials, scholars, community leaders and food activists is growing. These many agents are increasingly supportive of UA as an approach to improving community health (Angotti 2014). Defining UA has been an object of great debate among the various perspectives of people living and working in areas where UA production systems are under consideration. Because the implications of UA and its functions vary as it pertains to different groups and their needs, the facilitation of its expansion has not been as fluid and easily replicable as some would anticipate given the great enthusiasm of many
supporters. In particular, defining UA in the realm of urban planning is of paramount importance as realistically planning policies and programs serve as the avenues by which UA practices are developed and made lawful and secure. By this formulation of UA, planning policies in this area must be directed to reflect the way UA is actually practiced, which is conceptually and practically distinct from most other goals of planning. Land-use designations and zoning regulations become major components in opening the doors to UA practitioners and to those who are effected by the food insecurity and other ills which UA is proposed to address. Practical applications of UA as a focus of urban planning and municipal action require the development of creative and effective policies and ordinances for UA. Such balanced governmental changes are critical to a genuine understanding of the true potential implications of UA (Peters 2010, Heynen 2006, Feenstra 2009, Thibert 2012).

Cultural implications in regards to UA also comprise a major factor, requiring recognition among government agencies that community inclusiveness is vital. Such recognition leads to diverse ends, many of which primarily are associated with low-income communities, and often simultaneously, minority communities. The effectiveness and relevance of Community Supported Agriculture (CSA) becomes a central issue as a potential alternative to traditional retail and industrial systems that have not addressed the food insecurity suffered in low-income communities (Feenstra 2009). However, participation in CSAs within low-income minority communities has been found to be consistently “low in comparison to middle and high-income white communities”. Thus noted, the traditional CSA model “proves to be ineffective to meet the aforementioned programmatic goals and objectives in target communities” (Feenstra 2009). This therefore raises reasonable call for critique and modification of the current UA practices to better suit culturally different communities. Critiques related to food justice as a failure of local, state
and federal government are in some cases highlighted through interviews with various UA facilitators and project managers (Okoye 2014). The findings raise an important issue with far-reaching implications beyond the power of UA alone. Such dynamics as elucidated through this research point to societal ills which repeatedly challenge the sociological framework of American communities in general (Bastian, Napieralsi 2016, Rayanne et al. 2014, Whitley 2013).

Sustainable urbanization, when recognized as a part of suburban development, facilitates the idea of UA as an integral aspect of this equation. The maintenance of UA operations faced with low-capital and high labor demands as noted in many cases (Nasr 1992), suggests that UA is potentially well suited for low-income families. This however, as noted by Nasr (1992), tends to reinforce the notion of the introduction of UA as a temporary measure, as a transient land use until something better comes along. This lack of secure tenure is detrimental to any agriculture system, as the farmers are not assured of the long-term fruits of their effort. If interim use is insecure, and not guaranteed through contracted agreements for tenure of land use, there is likely to be little effort on the part of those who would otherwise utilize land for UA in terms of soil structure improvement, irrigation and the development of marketing channels. This result was consistently found to be the case on studies of community gardens with short land tenure contracts (Nasr 1992).

Interviews of individuals interacting with this multi-faceted idea of UA as well as related case studies have yielded conflicting images of “vision and reality” (Schnell 2017, Kaufman 2000). In Kaufman’s (2000) extensive study, 67 persons from 27 cities were interviewed either in-person or on the telephone, in addition to the completion of 55 other more informal interviews. Supporters expressed visions of food grown in the vast vacant lands of American
cities, promoting entrepreneurial training and business initiation. Conversely, many others do not agree with such rosy prognostications. Proclamations of skepticism and disinterest in UA are replete with concerns over problems such as lack of funding, lack of staffing, difficulty in management and marketing provide a balance to UA visions and it’s “enthusiasts” (Kaufman 2000). Local and higher level government officials were in favor in many instances of gathering support for production for market-oriented agriculture ventures for entrepreneurs, and various projects are beginning to show profits (Kaufman 2000). Many suggestions, to assist entrepreneurial UA derived from the information gained through various interviews, aim at improving the general lack of awareness, expertise and funding. It is possible that existing agencies could lead the way. Community Development Corporations (CDCs) are presented as effective vehicles through which the initiation of UA could take place. These CDCs would serve as “bridges” to other established systems connected to food production (Schnell 20017, Gee 2015).

The various dynamic implications of UA here discussed lay a foundation for the necessity of further research. If the proposed benefits of UA are needed in a particular city within the United States, then efforts should be taken to assure successful implementation. This common and justifiable conclusion will be taken under critical analysis in this research, in one of the America’s most-in-need cities, to test and verify the assumption of UA’s sufficiency as an answer to at least some of the great issues challenging Detroit.
CHAPTER IV

Data Collection and Methods of Data Analysis

For the collection of data for this research, the investigator facilitated a mixed-method research design that includes surveys, depth interviews with consenting participants, and participant observation.

Engaging human participants required Human Subjects Institutional Review Board (HSIRB) approval to assure the anonymity of the surveying process and the confidentiality of the information gathered through the survey and depth interviews. The application and all necessary information submitted to the HSIRB board of the Office of Research at WMU received approved under the directed guidelines in April 2016 (Appendix A).

The Formal Survey

Each participant involved in the survey portion of the research was identified at random within one of the neighborhoods of eastern Detroit that I selected for this research (Figure 1). After intercepting the respondent, I asked each potential participant to take a moment to complete the anonymous survey. The location for each survey was selected due to its proximity to a major urban farm within the city limits. This farm is known as the Earthworks Urban Farm. The demographic makeup of the area proved to be representative of much of the city of Detroit. Residents within an approximate five-mile radius of this farm were included in the study in order to capture the perspective of individuals who theoretically have reasonable opportunity to be involved in UA. Thirty-eight questions were presented in the survey designed to solicit common
Detroit resident knowledge, awareness and opinions as they relate to local urban agriculture, farmer’s markets and local fresh produce. A copy of the survey may be found as Appendix B.

A total of sixty individuals anonymously participated in the survey. Persons were intercepted as they walked through neighborhood streets and store parking lots, or were contacted via door-to-door visits. Each individual was invited to participate in person, as I introduced myself upon engaging him or her while walking throughout the neighborhood. All those persons completing the survey were assured that their participation was voluntary, and that their input would serve as assistance for the completion of the Master’s thesis research of the investigator.

In exchange for participation, according to their choice, each respondent received the incentive(s) available at the time (gift card, merchandise). All participants were also given a WMU pen from the Department of Geography to complete the survey before receiving the incentive. Each survey took approximately three to five minutes to complete. Again, the survey consisted of thirty-eight questions, thirty-four of which collected information regarding various aspects of UA including familiarity with UA, fresh local food accessibility and farmers’ markets. Most questions were presented in Likert scale format requiring the respondent to rank answers in an ordinal fashion on a 1 – 7 scale (1-Strongly Disagree – 7-Srongly Agree). The remaining questions collected standard demographic information in order to help classify and categorize the information to determine if responses varied by age and similar characteristics. After completion of the surveys, all data required entry through Microsoft Excel software and subsequent transfer to SPSS 23.0. Again, a total of sixty usable surveys were collected during the summer months of 2016.
Depth Interviews

Those persons selected for depth interviews were invited to participate via email, telephone call or in-person after they were identified through the research of the investigator as noteworthy facilitators of urban agriculture in Detroit. All person selected were believed to have relevant input as it pertains to the success, failures, obstacles, advantages and disadvantages of urban agriculture, farmer’s markets and local fresh food. Through on-line preliminary research and fieldwork, a total of twenty UA organizations were identified and invited to participate in interviews, either in-person or via telephone interviews within the city of Detroit. Of the twenty “experts” contacted, a total of eleven formal interviews were conducted with UA organization operators, including a city planner within Detroit. During the semi-structured interviews, a total of fourteen open-ended questions were raised with each participant by the investigator to solicit information regarding their views of urban agriculture, farmer’s markets and local fresh produce within the city of Detroit (Appendix D).

At the outset, each interviewee was informed of the conditions of their participation, and given a brief summary of the information they would be asked to provide. Furthermore, they were informed of the incentive ($15 gift card), and the intended purpose of the research as well as how the information they would provide would be utilized. Upon their consent to participate, they were issued a consent form to sign, after which I proceeded to navigate through the questions prepared in advance based on ideas derived from the literature and my own experiences.
Contents of the interviews were organized based on the main themes of UA according to the purpose of this research. The initial questions investigated opinions related to the current success level of UA and their ideas related to necessary improvements to the practice in Detroit. These questions included the inherent challenges and possible solutions in the endeavor. Among these challenges, the question of urban pollution was given its own specific indication due to its recurrent presentation in my preceding research. In the interviews, food quality and food security were highlighted in conjunction with community outreach and support, in order to identify possible connections between the farm food and the community. Lastly, all interviews closed with inquiry regarding the connection between farmers’ markets and local UA organizations. These questions targeted the present and potential ability of UA and farmers’ market connections to provide increased local food access, community engagement and employment,

A copy of the consent form may be found as Appendix C. All interviews were conducted sequentially, allowing the participant to provide a complete answer to each of the questions I designed (Appendix 4). The responses were all recorded via audio recorder while I also took notes on the most pertinent points of the discussion. After completion, the contact information of the interviewee was confirmed in order to ensure the incentive could be delivered to the proper address via mail.
Figure 3. Cleaning Station at Earthworks Urban Farm

Source: Photograph by author (2016).
CHAPTER V

Data Compilation and Results from Surveys and Interviews

Again, a variety of both quantitative and qualitative methods were used for this research. Results from the quantitative survey will be presented first in the chapter. After this, qualitative results will be reported.

Quantitative Analysis

After collection of sixty usable surveys, the data were entered into SPSS 23.0. A copy of the survey may be found as appendix 5. Standard univariate analysis (mean, median, std. deviation etc.) were used to familiarize the researcher with patterns and trends in these data. Principal components analysis (PCA) is used for variable reduction and to create orthogonal variables.

Principal components analysis (PCA) is a method for expressing information in an alternative form. This mathematical method is designed to operate independent of theoretical design or assumptions of causality, although the overall mixed-methods approach I used will include theoretical measures via interviews. It is simply a restatement of a given data set in a new way, from which connections can be made which otherwise may not be readily visible. PCA is often used for variable reduction, but is also effective in the transformation of individual variables into grouped components for the simplification of data. For each Principal Component created, each respondent will have a component score, which describes the location of that observation on the particular component. Each component represents a denser version of the
original variables from the survey. Once created, the components are effectively used to identify main components, or themes, from the survey data.

The identification of distinct types of survey correspondents was accomplished based on composite variables created through principal component analysis (PCA). The use of PCA to create components and component scores facilitates more precise distinctions among groups by the denseness of each components composition.
### Table 1. PCA Analysis

**Rotated Component Matrix**

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Involved in UA</strong></td>
<td>.159</td>
<td>.083</td>
<td>.111</td>
<td>.835</td>
<td>-.134</td>
<td>-.111</td>
</tr>
<tr>
<td><strong>Experience with Gardening/Farming</strong></td>
<td>.302</td>
<td>.351</td>
<td>.189</td>
<td>.598</td>
<td>.113</td>
<td>.121</td>
</tr>
<tr>
<td><strong>Learning Interest</strong></td>
<td>.252</td>
<td>.545</td>
<td>-.139</td>
<td>.566</td>
<td>-.251</td>
<td>.000</td>
</tr>
<tr>
<td><strong>Vacant lots should be transformed in to UA</strong></td>
<td>.697</td>
<td>.160</td>
<td>.117</td>
<td>.357</td>
<td>.109</td>
<td>.026</td>
</tr>
<tr>
<td><strong>Would like to see more UA</strong></td>
<td>.691</td>
<td>.325</td>
<td>.076</td>
<td>.368</td>
<td>-.020</td>
<td>.002</td>
</tr>
<tr>
<td><strong>Would like to work assist in UA</strong></td>
<td>.249</td>
<td>.722</td>
<td>.105</td>
<td>.198</td>
<td>-.178</td>
<td>.251</td>
</tr>
<tr>
<td><strong>Would accept UA Employment</strong></td>
<td>.095</td>
<td>.862</td>
<td>.030</td>
<td>.275</td>
<td>-.055</td>
<td>-.006</td>
</tr>
<tr>
<td><strong>Agriculture should be Rural</strong></td>
<td>.022</td>
<td>-.008</td>
<td>.021</td>
<td>-.110</td>
<td>.907</td>
<td>.087</td>
</tr>
<tr>
<td><strong>UA could benefit to this area</strong></td>
<td>.376</td>
<td>.292</td>
<td>.556</td>
<td>.087</td>
<td>-.281</td>
<td>.122</td>
</tr>
<tr>
<td><strong>Would accept some type of UA Employment</strong></td>
<td>.231</td>
<td>.794</td>
<td>.038</td>
<td>.241</td>
<td>.132</td>
<td>-.038</td>
</tr>
<tr>
<td><strong>UA systems need improvement</strong></td>
<td>.437</td>
<td>.608</td>
<td>.093</td>
<td>-.261</td>
<td>.133</td>
<td>.135</td>
</tr>
<tr>
<td><strong>Info should be more available</strong></td>
<td>.712</td>
<td>.564</td>
<td>.131</td>
<td>.012</td>
<td>-.115</td>
<td>.014</td>
</tr>
<tr>
<td><strong>Urban pollution will hinder quality of food grown</strong></td>
<td>.111</td>
<td>-.060</td>
<td>.249</td>
<td>-.083</td>
<td>.075</td>
<td>.849</td>
</tr>
<tr>
<td><strong>Farmers markes sell affordable, fresh produce</strong></td>
<td>.556</td>
<td>-.140</td>
<td>.280</td>
<td>.121</td>
<td>.184</td>
<td>.200</td>
</tr>
<tr>
<td><strong>I have access to Farmers Markets</strong></td>
<td>.156</td>
<td>.019</td>
<td>.694</td>
<td>.252</td>
<td>.101</td>
<td>.380</td>
</tr>
<tr>
<td><strong>I Have access to affordable fresh produce</strong></td>
<td>.002</td>
<td>.026</td>
<td>.863</td>
<td>.015</td>
<td>.070</td>
<td>.166</td>
</tr>
<tr>
<td><strong>Would accept employment within Farmers Market</strong></td>
<td>.147</td>
<td>.728</td>
<td>.062</td>
<td>-.049</td>
<td>.108</td>
<td>-.290</td>
</tr>
<tr>
<td><strong>Local fresh produce important to nutrition</strong></td>
<td>.821</td>
<td>.369</td>
<td>.259</td>
<td>-.015</td>
<td>-.031</td>
<td>.042</td>
</tr>
<tr>
<td><strong>Quality food is vital to health</strong></td>
<td>.838</td>
<td>.313</td>
<td>.278</td>
<td>.098</td>
<td>-.034</td>
<td>.048</td>
</tr>
<tr>
<td><strong>I have access to quality fruit, vegetables etc.</strong></td>
<td>.195</td>
<td>.046</td>
<td>.825</td>
<td>-.201</td>
<td>-.149</td>
<td>-.034</td>
</tr>
<tr>
<td><strong>Aware of dangers of &quot;Food Miles&quot;</strong></td>
<td>.393</td>
<td>.043</td>
<td>.703</td>
<td>.214</td>
<td>.058</td>
<td>.029</td>
</tr>
<tr>
<td><strong>Aware of local produce from UA</strong></td>
<td>.244</td>
<td>.220</td>
<td>.609</td>
<td>.350</td>
<td>.383</td>
<td>-.218</td>
</tr>
<tr>
<td><strong>UA could benefit access to quality food</strong></td>
<td>.635</td>
<td>.511</td>
<td>.127</td>
<td>.264</td>
<td>-.118</td>
<td>-.055</td>
</tr>
<tr>
<td><strong>Would support local food production</strong></td>
<td>.457</td>
<td>.584</td>
<td>.169</td>
<td>.138</td>
<td>-.269</td>
<td>-.247</td>
</tr>
</tbody>
</table>

*Rotation Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.*

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Source: Calculated by author.
Classification of survey responses after principal components analysis (PCA) resulted in the “best” solution with the following six components: 1-food quality UA optimists, 2-employment supporters, 3-UA advocates, 4-UA practitioners, 5-Anti-UA respondents and 6-Pollution fear. These six components accounted for 72% of the variance within the 27 Likert-scale variables that were included within the PCA analysis (Table 1).

The first component had high loadings with opinions associated with improved food quality as a vital necessity (.84), local fresh produce favorability (.82), desire for increase of information regarding UA (.71), favorability of vacant lot transformation into urban farms (.70), desire to see more urban farms (.69), opinion of UA as an avenue to quality food (.64), and opinion that farmer’s markets sell affordable fresh produce (.56). These loadings suggest that high scores on the first component are associated with individuals which could be viewed as UA optimists as a help to improve or expand quality food options. This component was therefore labeled as the “food quality UA optimist component”. This first component accounts for 19.7% of the variance within the data sample.

The second component accounts for 19.5% of the variation within the data. This component had high loadings with willingness to accept UA employment (.86), willingness to accept employment somewhere within vertical and horizontal linkages to UA operation (.79), willingness to accept employment within farmer’s market (.73), desire to work or assist an organization in UA (.72), opinions supporting improvements to effective UA (.61), and willingness to support local food production (.58). High scores on this second component are associated with individuals with positive opinions related to the potential of UA for increased employment opportunities. The second component will be defined as the “employment supporter factor”.

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The third component accounts for 14.8% of the variation within the data. This component had high loadings with personal access to affordable fresh produce (.86), access to quality produce (.83), awareness of danger involved with “food miles” (.70), access to farmer’s markets (.69), awareness of local produce from an urban farm (.61), and favorability of UA as beneficial to local area (.56). Large scores on the third component are associated with individuals strongly in favor of urban agriculture. The third component will be defined as the “UA advocate factor”.

The fourth component accounts for 9.6% of the variation within the sample. This component had high loadings with involvement in UA (.84), experience with gardening or farming (.60), and interest in learning about UA (.56). High scores on the fourth component are associated with individuals currently involved in some aspect of the growth and development of UA in Detroit. The fourth component will be defined as the “Practitioner factor”.

The fifth component only accounts for 5.9% of the variation in the data. This component had high loadings with opinion in favor of agriculture being exclusively rural (.91), but had very low relationships with all other variables. The sole large loading on the fifth component is associated with individuals in disagreement with strictly rural agriculture practice. The fifth component will be defined as the “Anti-UA component”.

The sixth component accounts for 5.2% of the variation within the sample. This component had a high loading with opinions that urban pollution will hinder quality of food grown (.85), but had very low association with all other variables. The sole variable loading with high values on the fifth component is associated with individuals reporting fear of the dangers of urban pollution and its effects on urban food production. The sixth component will be defined as the “Pollution fear component”.

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In summary, the PCA resulted in the production of six total component scores for each survey. The six component scores for each survey are transformations of the original twenty-seven variables, only now the six components are uncorrelated.

Next, a one-way ANOVA in conjunction with Fisher’s LSD post-hoc test was computed to compare the various principal components previously mentioned based on the age of respondents. Significant differences were found between groups for factor 4, the practitioner factor ($F(4,55) = 3.19, p < 0.05$; Table 1). Fisher’s LSD was used to determine the nature of the differences between age groups. Each age group was significantly different ($p < 0.5$) from age group (3) 41-50 (Table 1).
Table 2. ANOVA Results of Ages Variable Among Principal Components

<table>
<thead>
<tr>
<th>REGR factor</th>
<th>Sum of</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>score 1 for</td>
<td>Squares</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>analysis 1</td>
<td>Between</td>
<td>811</td>
<td>4</td>
<td>.203</td>
<td>.192</td>
</tr>
<tr>
<td></td>
<td>Groups</td>
<td>58.189</td>
<td>59.000</td>
<td>1.068</td>
<td>.942</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>4</td>
<td>55</td>
<td>.333</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>59.000</td>
<td>59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REGR factor</td>
<td>Between</td>
<td>4.639</td>
<td>4</td>
<td>1.160</td>
<td>.333</td>
</tr>
<tr>
<td>score 2 for</td>
<td>Groups</td>
<td>54.361</td>
<td>59.000</td>
<td>.988</td>
<td></td>
</tr>
<tr>
<td>analysis 1</td>
<td>Within Groups</td>
<td>4</td>
<td>55</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>59.000</td>
<td>59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REGR factor</td>
<td>Between</td>
<td>1.819</td>
<td>4</td>
<td>.455</td>
<td>.437</td>
</tr>
<tr>
<td>score 3 for</td>
<td>Groups</td>
<td>57.181</td>
<td>59.000</td>
<td>1.040</td>
<td>.781</td>
</tr>
<tr>
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<td>Within Groups</td>
<td>4</td>
<td>55</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>59.000</td>
<td>59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REGR factor</td>
<td>Between</td>
<td>11.099</td>
<td>4</td>
<td>2.775</td>
<td>.020</td>
</tr>
<tr>
<td>score 4 for</td>
<td>Groups</td>
<td>47.901</td>
<td>59.000</td>
<td>.871</td>
<td></td>
</tr>
<tr>
<td>analysis 1</td>
<td>Within Groups</td>
<td>4</td>
<td>55</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>59.000</td>
<td>59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REGR factor</td>
<td>Between</td>
<td>6.323</td>
<td>4</td>
<td>1.581</td>
<td>.175</td>
</tr>
<tr>
<td>score 5 for</td>
<td>Groups</td>
<td>52.677</td>
<td>59.000</td>
<td>.958</td>
<td></td>
</tr>
<tr>
<td>analysis 1</td>
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<td>4</td>
<td>55</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>59.000</td>
<td>59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REGR factor</td>
<td>Between</td>
<td>5.037</td>
<td>4</td>
<td>1.259</td>
<td>.288</td>
</tr>
<tr>
<td>score 6 for</td>
<td>Groups</td>
<td>53.963</td>
<td>59.000</td>
<td>.981</td>
<td></td>
</tr>
<tr>
<td>analysis 1</td>
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<td>55</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>59.000</td>
<td>59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Calculated by author.

No significant differences were found among any other principal component variables and age groups (Table 2).

In analysis of the differences of responses between men and women, a series of independent samples t-tests were conducted comparing overall responses among the component variables between genders. Significant differences were found between men and women for factor 2 employment supporters factor (F(11.127) = 1.85, p < .07; Table 2). The mean for the male respondents were significantly higher ($x = 0.224$, $sd = 0.778$) than the female respondents ($x = -0.256$, $sd = 1.1678$). These responses indicate that male respondents agreed more strongly than females with the general concept of supporting UA employment opportunities.
Table 3. Independent Samples t-test for Component Variables by Gender

<table>
<thead>
<tr>
<th>REGR factor score</th>
<th>Equal variances assumed</th>
<th>Equal variances not assumed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score 1 for analysis 1</td>
<td>1.821 (.182)</td>
<td>1.946 (0.063)</td>
</tr>
<tr>
<td>Score 2 for analysis 1</td>
<td>11.127 (.001)</td>
<td>4.79940</td>
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<tr>
<td>Score 3 for analysis 1</td>
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<td>2.984410</td>
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<tr>
<td>Score 4 for analysis 1</td>
<td>0.40 (0.842)</td>
<td>0.605</td>
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<tr>
<td>Score 5 for analysis 1</td>
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<tr>
<td>Score 6 for analysis 1</td>
<td>0.18 (0.865)</td>
<td>0.740</td>
</tr>
</tbody>
</table>

Source: Calculated by author.

No other significant differences were found among any other principal component variables in regards to gender (Table 3).

Overall, looking at the mean scores for the sixty completed surveys, an average score of 2.82/7.0 was found for agreement with the idea that agriculture should be strictly rural. This mean score shows an average of “moderate disagreement” with the notion of solely rural agriculture, conversely suggesting a majority of agreement with the potential benefit of some form of urban agriculture. In the case of urban pollution and its effects on the quality of food grown, an average score of 4.36/7.0 was recorded for the entire sample. This mean score...
illustrates an average of neutral opinion in this area of urban pollution concern (4 = neither agree nor disagree).

High average mean scores were found expressing agreement with ideas including that quality food is vital to healthy living (6.4/7.0), local fresh produce as being important to nutrition (6.27/7.0), UA as potentially beneficial to quality food access (6.1/7.0) and that information should be more available about UA programs (6.07/7.0). The high mean scores for all of these variables reflect an overall positive disposition towards the need for empowered quality food, local produce, UA for food access and increase of UA information. Yet, in light of the aforementioned dispositions, an average mean score of involvement in UA at the time of the survey (4.7/7.0), showed a moderate level of implementation for this variable.

**Qualitative Analysis**

Out of eleven total interviews gathered during this study, all eleven were deemed usable. Each interview lasted for approximately an hour with the various participants. The resulting data derived from these interviews will be discussed at length in the remainder of the chapter, in order to contextualize the quantitative data previously introduced. Most notably, from these interviews it was found there are common views in regards to the problem of food security, challenges to UA-including but not limited to financial complications, community involvement and UA propagation and support. Likewise, similar views were found in relation to UA pollution concerns, farmer’s market roles and employment viability.

Interviews were conducted with people working at various urban agriculture projects and organizations in the city of Detroit: D-Town Farm, Freedom Freedom Garden, Brush Park,
Greening of Detroit, Earthworks Urban Farm, Oakland Ave Urban Farm, Hantz Farm, Detroit Garden Center, Georgia Street Collective and Cadillac Urban Garden. There is also an interview conducted with a city planner in Detroit by the name of Katherine Underwood, a strong supporter of the production of the new urban agriculture-zoning ordinance implemented to assist and guide UA development. Each interview was conducted in-person as I questioned the representative of their choice along the lines of the aforementioned topics.

The various organizations were located throughout the City of Detroit, varying greatly in their general regions, yet often similar in their surrounding conditions in terms of housing and land. Upon arrival to the first interview, it was impossible not to notice the extremely poor physical condition of the houses, many of which were abandoned and vacant with homes falling apart with grass uncut and wild. Neighborhoods are dotted with such eye-sore houses, all the more obvious because of large stretches of vacant lots as large as soccer fields, with waist-high grass. Many such places are compounded in such blight by the dumping of trash in the streets and onto the fields that have been left without maintenance for extended periods of time. With very few people visibly around in many of these neighborhoods, such places present a deep sense of abandonment and loss, as there is little to no sound as one looks on to endless empty fields separated by a scant number of houses, some of which are in disrepair.
Figure 4. Cadillac Urban Garden

Source: Photograph by author (2016).
Cadillac Urban Garden

The first person interviewed worked at Cadillac Urban Garden, located in an old parking lot across from its sponsoring non-profit organization, Southwest Detroit Environmental Vision (SDEV). The manager allowed me to interview her for nearly an hour directly in the garden, which was surrounded by what appeared to be a low-income neighborhood. During the interview, she invited one of the helpers at the garden from the local community to listen and even answer some of my questions. The Garden consisted of raised beds over the concrete, and was a fairly large project, fenced in with a wide variety of produce being grown. “Issues with watering” were described as one of the major challenges for Cadillac Urban Garden, as water had to be transported from the building across the street and issues with runoff complicated water retention. Land acquisition and a lack of information on how to get started for people interested in UA are great challenges for many within the city. She expressed that this “grey area” concerning UA right now often frustrates the intentions and plans of many who lack the knowledge and resources needed to begin UA practice.

Referring to the maintenance of the gardens, she stated that “the community plays a major role”, pointing to their taking ownership of the garden, as well the organization beginning to offer classes and activity days for the residents. Finding ways to engage different people motivates a wide range of community outreach. They employ youth leaders seasonally to help maintenance of the garden and to run various courses, and think that UA has potential to become a source of legitimate employment for local residents.
Next visited was the Georgia Street Collective, a non-profit, small urban farm operation headed by Mark Covington in connection with a community center and budding restaurant. The farm was expanding at the time of my interview, but at the time products included vegetables of various kinds and even livestock such as chickens and goats. The organization, founded and run by one of the local residents in the community, sits as a bright spot amidst a very highly blighted area. Large fields of grass are visible in every direction, with scattered rows of houses in what appears to be a low-income neighborhood. The operation appeared to be well kept, although the owner expressed his discontent with the low level of community interest and support. Mr. Covington cited a number of times during our interview that many of the local residents explain their disinterest in helping him to farm because it seems like “slave-labor”. This points yet again to the racial history of Black Americans in relation to agriculture that has been a hurdle in this farmer’s attempts to engage local residents.

The founder and owner of Georgia Street Collective described what “started off as a beautification project” for this area, but grew into a means by which mentoring, education and quality fresh production was made available to local residents in need. He stated “getting people to understand that it’s (UA) is not sharecropping or slavery” is the biggest challenge facing UA development in Detroit right now. Next, money to operate and land acquisition were mentioned as the most frequent and difficult issues for most farmers. Georgia Street Collective does not sell its produce, giving it away to community residents. He stated finances come into play with subsequent expansion of gardens into larger operations with hoop houses or livestock maintenance. Land acquisition was noted again as being very difficult, as even his own operation is on land that is leased, Mr. Covington expressed desire that there should be efforts to make land
more accessible. Although there is a long history of industrial use of land that may contribute to lead in the soil, he said that the prevalence of soil pollution is not as great as people think that it would be.

The importance of communities “taking ownership” of the UA operations in their areas is vital to their success. Georgia Street Collective is not considered a Market Garden which sells its produce along with many others within Detroit, but rather gives away what it grows to local residents. He pointed out that there are some avenues of employment beginning to open for various aspects of UA. He expressed his own dissatisfaction with the difficulties faced in acquiring local land for his operation, citing seemingly unequal approval of purchases of land for other purposes. He expressed that “Some people being able to get land and others not” is often an issue, where a nearby farmer was able to purchase four surrounding lots at $100 each to the home located next to them, while “we haven’t been able to buy out lots for eight years…and we offered $300 a lot”. These inequalities are increased in light of their connected racial undertones, as he noted that the farmers who were allowed to purchase land were a white couple that recently moved in, while he as a longstanding black community organizer was denied the right to purchase similar land. Likewise, he pointed out that Hantz Farms under Mike Score, a white-owned operation which was approved to purchase thousands of lots and at the time was in the process of acquiring more, showing that land acquisition has been a selective problem with social and, in some cases, racial implications.
Figure 5. Georgia Street Collective

Source: Photograph by author (2016).
Detroit Garden Center

The Detroit Garden Center proved to be a different variety of UA. This organization gives its focus solely to the beautification of the downtown area with the planting of trees, shrubs and flowers. The owner expressed the importance of this beautification to increase the favorability of residents to return to the downtown Detroit area for relocation of housing and increased tourism. He also cited the great environmental benefit of increasing vegetation and cleaning up old underused lots to make them more agreeable to the citizens of Detroit. President of the Detroit Garden Center, Ronald J Smith said that UA has been “Very successful, because there’s certain organizations that have really helped families, individuals and groups learn how to garden, provided the plants for a small fee, and it’s really helped them out a lot”. His optimism partially stemmed from the success of a program facilitated by his organization which was put together to help “at risk” young girls within the city.

Hantz Farm

Hantz Farm, much like the Detroit Garden Center, took on an approach differing from a more typical UA. The owner emphasized their sole purpose is the beautification of lots to restore appearances with tree installations. By cutting the grass regularly and planting new trees in this eastern region of the city, the farm operator who is operating on behalf of the Hantz company, hopes to retain current residents and encourage new ones to move into the area. This for-profit model by which this farm runs, aims for the ultimate target of increasing property values in the area, and thereby opening the opportunity for other developments to expand the operation of the Hantz company. This particular organization of all those interviewed, was held in the community
as the most controversial due to its purchase of large areas of land as well as ownership by the wealthy Hantz group founded by John Hantz. I learned that this operation was perceived by many locals as a political favor, given how easily the land transaction was made, without great difficulty, as noted in chapter two.

As I interviewed Mike Score, the UA operation manager, he immediately noted the blight consuming most of the residential areas which Hantz Farm is seeking to eradicate. “We’ve been investing to make neighborhoods truly livable”, he said, which would be accomplished by improved maintenance and beautification efforts. Regarding the success of larger farms in Detroit, “one thing that hasn’t happened, and I don’t think it will happen” he said, “the farms in Detroit have not come together to form a new industry in Detroit”. He noted that the majority of the urban farmers so far have tended to prefer socialism as an economic model rather than capitalism, making a potential industry more difficult to form in his opinion. He said that at the time of the interview “we’ve bought more land than the city was willing to sell us, we paid taxes, we’ve torn down sixty-one dangerous structures, we’ve planted 23,000 trees, we mow every week”, all of which exceeded the goals set for the Hantz Farm by the city as criterion for the neighborhoods to be considered improved. He said that the majority of the neighborhood is pleased with their work and agree that it has been successful and beneficial to the area. In relation to improvement of UA operations, he expressed the idea that improvements to their own properties and those for any area throughout the city is individual to their system and often can only be improved by trial and error. Thus, according to Mr. Score, an all-encompassing improvement method was not plausible. He felt the greatest difficulty faced by his organization was internal resource management, focusing on the improvement of his managerial ability and those of the current employees.
He also stated that the hurdle of financing the efforts of Hantz Farm did not present any difficulty, stating frankly “I don’t have any loans”, reflecting the freedom of being supported by the Hantz Group which pays for the operation. Hantz Farm is self-funded, not owing compliance to a loan agency or grant program, “I don’t have those restrictions” which other organizations may have due to the money received from outside entities. He said that “grants, loans, don’t really feed innovation, they’re tools for compliance not for innovation”. In stark opposition to the sentiments shared by other farmers, he stated that in terms of local governmental support for UA operations that “they should get out of the way, the reason there is a need for urban agriculture in Detroit is that there is a stack of policies that made land management and improvement impossible”. Land accessibility, as voiced by many others though, he agreed was and still remains a major hurdle, saying in regards to the city government, “they’ve suffocated the market place”.

He said that “I don’t know if Detroit has a food problem, it depends who you ask”, and that although they won’t be hiring any additional people at Hantz Farm according to Mr. Score, the improvement of the Hantz land they own will make this area “irresistible” to developers who know that the area will not become ugly again, which will bring employment in its train.

*Oakland Urban Farm*

The next interview conducted was with the Oakland Avenue Urban Farm, located nearer to the west side of the city. This was a large operation, consisting of multiple lots with vegetables, composting areas, hoop houses, an organization house and their own market for food distribution. The organization was run by Billy and Jerry Hebron, a married couple with a long
history in the city of Detroit. The Oakland Avenue Urban farm uses a large number of community volunteers, in addition to a number of college volunteer interns performing similar research work to my own. This organization was quite versatile in its functions, serving many community needs including hosting diverse activities. Giving away food to many residents in need was one of the greatest activities of this operation noted by Mr. Hebron. This farm was not in a neighborhood with blight equaling some of those already mentioned. However, there still existed a reasonable amount of vacant land surrounding the farm which sorely lacked necessary attention.

Centralized around providing food for the community, Oakland Avenue Urban Farm co-manager Mr. Billy Hebron told me, “our goal is to provide fresh, wholesome-no chemicals! - food to the community”. One of the larger farms within the city limits, he stated that there is a lack of quality fresh food for residents, but optimistically noted “a lot of people call it a food desert, but I don’t call it a food desert, I call it an opportunity” frankly, “and we’ve taken advantage of the opportunity”. He stated that UA in Detroit has been “extremely successful”, especially his own operation which started out giving food away but now sells produce to various markets throughout the city. A partner of ‘Keep Growing Detroit’ an umbrella organization in the city, this local operation provides training and information that helps many other organizations get started.

Among the challenges facing UA in Detroit, he mentioned the acquisition of land and water for crops as among the greatest challenges, citing the high price of using the necessary amount of city water, as well as the sewage fees associated with such usage. Consequentially, he noted the entire aspect of financing his operation of the organization and UA in general as a formidable difficulty. To clear this hurdle, “we pretty much operate on grants” he stated, “if we
didn’t have the grants…. Everything that’s here, the two green houses, the house here was a shell we gutted it, (got) new electrical, paint, drywall, all of that was through grants”. He noted the importance of being able to effectively write grants in order to do what has been done with his organization thus far, including purchasing the hoop houses, tractors and other equipment through various grant programs. He stood in favor of city and state governments helping to finance UA organizations due to the benefit gained by the citizens, including providing good food in an area which is in need. He said that their [governments] attitudes are changing, where they started off resistant to the idea of intermingling the typically rural practice of agriculture into the city, they now are seeing the appreciation people in the community have for it.

Due to the history of great industrial manufacturing in the city, the concept of soil pollution has stimulated a high level of soil testing for lead content to insure safe food growth. Although the land rented by the Oakland Urban Farm had been tested and certified as healthy for cultivation, he said that there are certain areas of the city which are not as fortunate. He mentioned that the alternative solution for polluted lands such as raised beds and soil remediation, while effective, can be a deterrent for customers who may be wary of any potential problems with their produce. To counteract high priced grocery stores which are often inaccessible to local residents, he stated “what we do is provide produce, extremely fresh, and extremely cheap”. This issue of quality food access, he saw as something manageable through UA, emphasizing the ability of such smaller operations to help provide food without the chemicals typically found on crops coming from larger farms.

Community outreach and the mentoring of local youth also play major roles in his program, which he says has helped to build security for the farm as it is embraced by local residents. In conjunction with this, employment opportunities have become available for local
residents through his operation, although “we don’t have a lot of money, so we can’t hire a lot of people” he said, although they would like to. To make up for this, employees are provided for the farm through different organizations who pay youth to work on the farm at various times. More employees would require more grants, he pointed out.

Figure 6. Oakland Avenue Urban farm
Source: Photograph by author (2016).
Figure 7. Oakland Avenue Urban farm entrance

Source: Photograph by author (2016).
Earthworks Urban Farm

Of all of the farms interviewed, in my humble opinion, Earthworks Urban Farm seemed to be one of the farms operating most comprehensively for the longest period. Operating in connection with the Capuchin brothers of the St. Joseph Roman Catholic Church, this group maintains multiple hoop houses, plots of various vegetables, as well as operating its own farmers market and a highly active soup kitchen. This group runs a number of educational courses for community residents, conducted by a number of employees who assist in the operation of the farm, the soup kitchen and the weekly market. Earthworks promotes the inclusion of the community to a high degree, holding volunteer days and other community events. This farm sits in a neighborhood on the east side of the city which is plagued with a level of vacant houses and lots comparable to the rest of the city. This large-scale operation as explained to me by Ms. Nefer Ra, one of the supervisory employees at the farm and informed of its various programs, believed the complex functions of the farm and the financial costs to run them as beyond the capability of most UA organizations. She stated the advantage of Earthworks over most organizations is due to the large financial backing of the church which serves as its base. The financial freedom which this organization enjoys is much sought but unfulfilled in most cases where residents do not have access to the necessary resources to hire employees to maintain such expansive functions. She expressed support for the great importance of the UA to the community, as well as the role of the soup kitchen and the courses offered which all help to enrich the lives of many people in the area.

The improvement of the “food sovereignty” of the residents was pointed out by Ms. Ra as a highly important aspect of the work of this farm. In terms of food sovereignty, she pointed out the great work of the organization she helps to operate. She emphasized the notion by noting the
oft-repeated proverb: “if you give a man a fish he eats for a day, if you teach a man how to fish, he eats for a lifetime”, comparing it to the organization. “The soup kitchen gives them the fish, the urban ag part teaches them how to fish”. Referring to the EAT program (Earthworks Agricultural Training) she said “I look at it as an opportunity to teach people another skill, where they might not have a skill, where they might not be able to get to a factory because there are hardly any factories left in Detroit”, noting the valuable and practical application of the program “even if they don’t start a business they have the skill of growing food for themselves”.

“Our food system is broken, we don’t know where our food is from, we are eating garlic from China, as well as everything else” she said in reference to Detroit and most of American cities. And “if they have that entrepreneurial spirit in them we encourage them to start their own business, we provide workshops and resources for them”. She cited that the ordinances are one of the downfalls of UA development in the city, that many operations have been illegal for a long time before the recent 2013 development of the urban agriculture ordinance. “I would like to see it (UA) more successful for people of color, I feel that there are a lot of opportunities out there, but I don’t feel that people of color are taking full advantage of those opportunities”. “Every neighborhood should have a training program” she said in reference to UA, and that” I don’t think it’s at its full zenith yet, but we’re making strides”.

Source: Interview by author (2016).

There are visible differences she acknowledged, saying “urban ag is not as successful for Black people as it is for white people”. Noting the peculiar challenges of the Black community, “my neighbors have been in the trenches, they’ve been laid off, (so) it’s hard to encourage them to start a garden”, and that “I feel that we don’t see the benefits of it”. Alluding to the experience of slavery in America, she stated that “the greatest challenge in the black community is that people left the south, and they left the farming and everything back [there], and they don’t want to see that [again]”. Therefore, getting people to see the vision of UA and drawing interest into growing food demands creative methods of inspiration particularly to the black community. “My
problem with this program is that it’s not duplicable”. In regards to employment capabilities, she said that “two people, who went through the class are employed here”. She expressed concern about the difficulties of developing gainful employment through UA. Ms. Ra felt this was a major hurdle that can possibly be cleared but is not as of yet in most cases.

**Greening of Detroit**

A well-established agriculture power in the UA scene of Detroit is the Greening of Detroit organization, which operates a number of different UA projects. I only visited one known as the Detroit Market Garden. During my visit to the 26-year-old environmental non-profit organization’s headquarters located in downtown Detroit, I was granted an interview with one of its many employees who has been a long-standing worker and promoter of this rapidly growing and progressive entity. Full of young employees and volunteers, this building was filled with informational books, magazines and pamphlets, in addition to apparently new computers and freshly renovated offices.

Affectionately known in the organization as “T”, Ms. Tepfirah Rushdan, the director of the agricultural department, explained to me the history of the organization and its high level of involvement throughout the city. The organization began simply as a tree planting program but now is much, much, more. This organization operates three different growing sites, while assisting the initiation and sometimes maintenance of many more throughout the city. The financial backing, similar to Earthworks, proves to be one of its major empowering factors through many sources of sponsorship. Gaining such sponsorship from a large number of other organizations and individuals in significantly dependable amounts enables the multi-faceted Greening of Detroit to continue to expand its high number of programs, and to furnish itself with
the necessary employees to maintain them. Hiring approximately 200 youth a year for tree
maintenance as well as a number of adults for landscaping and other agricultural practices,
workforce development is a high priority.

“Most farmers that I know are revolutionaries in this city,” she said. “Figuring out the
finances of agriculture period are an obstacle, figuring out the finances of urban farming and
making it something that can really sustain your family, you have to find a niche crop”. She said
that when considering the future of UA “it’s a long hard road”, and “there are some issues and
imbalances in the system”. She expressed her views that there is a level of distrust among some
UA operators in receiving any financial assistance from government or other loan programs.
Also, that there is difficulty in changing the demand level of UA particularly in the black
community where the culture of food often does not call for fresh produce, she said. Noting the
history of agriculture in Detroit, she pointed out the racial aspect of this as a factor that deserves
consideration. Inequality in procuring of grant monies for UA startup, as well as gaining media
recognition which will help with fund raising as well constitute current major issues. In this
manner, the idea of UA as a tool of gentrification is a notion felt among members of the
community, feeling that “those being shown in media” are not representative of the majority
population.

She regarded soil pollution in Detroit as “something to keep in mind, but I don’t think it’s
stopped our progress”, suggesting it as a minor problem in the long history of city land use.
Acknowledging its’ existence, she informed me of the soil testing, remediation and growing
recommendation services that their organization provides for UA organizations as well. She also
noted the very high costs of soil remediation, pointing out that it is “not accessible for the smaller
scale farms, nor do I think it’s necessary”. In regards to citizen access to quality food she said
that “I see food quality as a major issue across the whole globe”. More directly, she stated that “food security is a major issue in Detroit”. She was also in agreement with the idea of UA as part of the solution to food quality and security issues. “Agriculture must play a part in urban centers” she said. Furthermore, that “when you look at the amount of petroleum inputs that go into distributing our food across the nation and globe; we need to be thinking about localizing our food system, so a lot of what we are doing is setting the foundation for the long-term”.

Convincing people that the idea of cultivating the land is a good idea and activity involves “making sure people remember that food comes from the earth”, alludes to the disconnection from land that can take place in urban life. She pointed out the trajectory in media regarding UA as predominantly portrayed as a young white entrepreneurial activity, which has had the effect of disenchantment towards the idea of UA for the majority black population. Recognizing the importance of the community’s perception of UA, she argued the necessary component of individuals being made to feel it is something they can identify with on a personal level.

Farmer’s markets and restaurants play a strong role in making the produce of urban farms available to the public she noted, although saying that “I don’t know any local growers that are selling to grocery stores”. The demand for local food is growing she said, “it’s crazy that I can go to the store and get blueberries from California and they’re cheaper than blueberries from Michigan. Why?” noting that “it’s an example of how broken our food system is”. A part of solving this paradox, she said is that “the consumers need to be more educated”. “There are a lot of different avenues for urban agriculture folks” she said, and “I do think there’s a real job force that is created around urban agriculture”; among these she listed non-profit organizations,
working at for-profit farms, food-related business etc., “I think it can be a beautiful thing, I think we have some kinks to work out though”.

In my visit to the Detroit Market Garden, owned and operated by Greening of Detroit, I was able to interview and be guided by one of the employees who kindly showed me the extent of the operation. This farm operates a number of hoop houses, its own produce cleaning station, large plots for growing vegetables and even many educational panels from which visiting residents may learn about what is being done in any area of the farm. Composting, vegetable preparation and storing was all done at the site of the farm, which was located awkwardly in the middle of the downtown area.

Figure 8. Detroit Market Garden
Source: Photograph by author (2016).
My experience at Brush Park Garden was somewhat different from the rest of the UA operations that I visited. Brush Park Urban Garden turned out to be an interview not of a thriving UA organization, but of one which had at one time been successful, only to meet a bitter end due to land ownership difficulties. Although the growing site still remained near the National Football League Lions Ford Field Stadium at the time of the interview, it was no longer being cultivated as the land was in the process of being turned over to a new development. I interviewed Ms. Twoquala Stevens, founder of Brush Park Gardens on a hot summer day outside of her residence at a picnic table, as children within the area ran around playfully. Although pained by the loss of the land on which she operated the small urban garden, she expressed the joy that the farm brought to the surrounding community including its great service to children in particular to learn about food origins. She expressed great frustration over the difficulties of land acquisition, which are compounded with the issue of establishing permanence in the face of other developments that appear to be more economically viable. She stated her hopes to begin development of another growing site in the near future based on the great benefits experienced for herself and the community in the first effort.

She regarded the soil within the city as great for growing. It was “just a place in the community to give the people a place to garden, and do their thing, not market boxes or anything like that, we garden for ourselves”. In regards to the loss of her property due to developments headed by Dan Gilbert’s Bedrock Real Estate Services, previously mentioned in chapter two, she expressed great dissatisfaction. High-rise apartments will replace the small farm’s field. Despite her loss of her garden program, she said that urban farming has been a major success in Detroit and is not going anywhere, but will “just need more people on the bandwagon”. The greatest
challenges she said includes “keeping enough dedicated and passionate people involved” as the major hurdle. Next, she stated, “keeping a steady supply of vacant lots” as a constant issue, because certain parts of the city are seemingly inaccessible for purchase. She informed me that her garden began under a program titled “Adopt-a-Lot”, under which a lot could be rented out yearly, as long as the application was renewed appropriately. Unlike others, when asked if financing UA was an issue she perceived, she said, “not at all, it all depends on what the person or people are growing”. “It all kind of pays for itself in the end, what you yield”, she noted the low cost of seeds or plants compared to selling price of the produce. “It can really do a lot for this city, it can really do a lot for the economy,” she said regarding UA’s potential.

Through the garden resource program in Detroit, she said that there is plenty of assistance for urban farmers. She stated that they provide seeds, classes and a wide range of information to equip individuals who would like to learn. Still “they [government] should be involved more”, she said in regards to the city government representatives, to help bolster the current efforts. She said that pollution has not been a significant issue, and that the required soil tests help to insure the necessary quality for growing. The soil quality is enhanced by certain plants, she said, which remove contaminants from the soil. Food quality is a problem in Detroit, she pointed out. Most people do not have access to such food year-round she believes. Educating people about the importance of eating fresh food will be a necessary part of helping this issue. While community support is a major key, she noted that a major boost will come if jobs are produced. “The farmer’s markets are giving a platform to the farmers to get their product out, and get exposure”, pointing to the great importance they have to UA organizations.

“It could do better”, she said regarding UA as an employment factor, “it could be bumped up a notch. If more people could find “green jobs” as they are called, she felt it would do a
greater service to the community. There are a few people able to earn a living wage in some connection to urban farming, she said, but she would like to see more. More education, promotion and campaigns to get people interested in the benefits of UA will be key to insuring future success. “I’d like to see more people make a living off of farming!” she exclaimed. A “few more people with passion”, she said would make a great difference in accomplishing the desired goals of UA.

*Feedom Freedom Growers*

In the far eastern region of the city of Detroit, where large mansion-like homes line the streets reminiscent of its once prosperous population, Feedom Freedom Growers are thriving with life. This humble operation sits very colorfully within the neighborhood, with plots of various types of vegetables, even small hoop-houses and its own on-site market. In my interview with one of its founders, Ms. Myrtle Curtis, she emphasized the growing community support and the resulting improvement of the relationships between the farm and the community surrounding this farm. She harped on the importance of the farm, the programs surrounding it, and the impact it is having as an inspiration to others in the area. The blight in this area differed from others, as there did not exist the great vistas of vacant lots seen in other neighborhoods. However, the large houses were frequently vacant and apparently ravaged by fires and the general erosion of time, as they lay uninhabited since abandonment by their former residents.

Started in 2009 with her husband, but based on a long history of social activism, this operation came into existence for very simple if profound reasons. “It just came natural, being conscious of what we eat”. Joining the garden resource program was a vital part of getting
started, to “grow food is a revolutionary act of love for self and others” she said, the farm initially began as a very personal endeavor but one that has expanded for the community. She noted a high level of support from the urban ag community at the beginning of their work, with a great deal of assistance coming through the garden resource program. “We created a nice space here. And this had been such a traumatic area, devastated by drugs and (the) housing crisis. So folks were just happy to see somebody doing something positive”. In 2009, they put in a proposal to be a part of a research grant program, which they were granted for five years, ending in October of 2016. Exposing community members to “cooking workshops, roundtable discussions for critical discussions, art in the garden for the children, and early garden learn and play”, she said has engaged people of all ages to a very high degree.

Focused a great deal on social justice, Feedom Freedom often emphasizes the development of a healthy community. She noted her great personal enjoyment in providing tours which they offer at Feedom Freedom to groups. The tours allow Feedom Freedom to demonstrate the ability of UA organizations to contribute to the solidarity of a community. She said that the work is “very labor intensive”, but that they have received a lot of support. “With over 1,500 gardens in Detroit, I think it has been a success” she said in reference to UA overall in the city. “For me, food should not be for profit” she said, and that unless there are subsidies offered and other arrangements made for growers, that it is very difficult to earn profit growing food. Land acquisition and other challenges related to land and capital have been brought to the forefront through UA, she pointed out. “There’s a long history of growing in the city, and the ordinances and the folks who wield the pen were just not aware” she said. Furthermore, she noted that “after all, this being a city, folks leave the south and come to the city, but in times of necessity, it has been a very vital part of keeping and sustaining folks”.

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She described the various different reasons people become engaged in UA particularly in Detroit. One of these types of growers she said, were those of “the savior mentality”, saying that they have come to feed the community. Pointing out the response sometimes seen to this mentality, she rhetorically asked ”did the community ask you to feed it?”. She pointed out how resources can be wasted when nobody desires the operation to be in a community, causing participation to be low and the farm to fail. She stated that her farm has been a great inspiration to many in the area, helping to get many other gardens started nearby. “It would be great if everybody took one of these vacant lots and grew a certain crop” she said, “then we could all share”. In this manner, according to Ms. Curtis everyone could have plenty while not having to focus on growing many things, while promoting intercommunity activity.

“I don’t like the conversation around urban agriculture as this economical savior, because I firmly don’t believe food should be for-profit, because that means somebody gets something, and somebody can’t”. She pointed out the value of saving seeds, and the great necessity of UA to be able to control what food you eat. Challenges include acquiring land, she said some have engaged in what is called “guerilla gardening” where people are illegally claiming lots rather than dealing with the difficulty of legal purchase. “People want to own land” she said, and this has been very problematic for most people, as poor records regarding ownership of lots often tie up their ability to be sold. Having necessary water resources, community participation and resources to keep the UA operation going are also challenges she pointed out. She also noted “Keeping young folks interested”, has also presented challenges. “Having folks understand that its nothing trendy, it has [a] deep history” will help, she said in response the idea that UA is frowned upon in certain circles.
Ms. Curtis felt the financial challenges depend on the scale of the operation. Starting out with “Twenty bucks” and the garden resource program, with a lot of determination was all that was needed for Feedom Freedom, she said. Funding through the aforementioned grant program has been a great help to their own program, and she noted “we were able to have salaries to do the work, and that made things very doable, I was able to walk away from a full-time job to do this full-time”. She said that government should be more supportive, as “it took a lot of pushing” to get the recently approved UA ordinance implemented, and move things along. “Detroit city [government] needs to get on the ball”. Not yet seeing the vision of what UA can do for the city has slowed down the progress that could be made if restrictions were loosened, she expressed. Overall, pollution of the soil, with lead and other substances she said is not a major issue. She said that there is a great problem with access to quality affordable food in Detroit, which “has gotten better through urban ag”. There has been a big difference made directly from the gardens and farmer’s markets which help to make the produce available. She pointed out in relation to the food quality and accessibility issue, that poverty looks like obesity in America, where only poor quality foods are available to lower income communities causing bad health.

As UA relates to employment “it has provided jobs and income for folks”, she said, but “a major contributor, I don’t know”. She said that “it has a potential to be more beneficial”, and that “I would like to see more young people get into the technology and scientific part of food and growing, the science of it, then I think things will start to change”. In her opinion, moving forward will involve collective action at the grassroots level, involving more cooperative models based on principals of integrity in growing food and cooperative economics.
D-Town farm

In the closing days of my trip, I was granted an interview with the highly motivated, activist-oriented and focused D-Town Farm headed by Malik Yakini and the Detroit Black Food Security Network. This organization, explained Mr. Yakini, is focused primarily on improving the status of the food security of the black community in Detroit through UA, citing the imperative involvement of the Black population to produce their own food from the earth. Although I did not get a chance to visit the actual growing site, I was able to see a large quantity of the pictures presented by Mr. Yakini at a volunteer rally meeting held on the west side of the city. The organization is heavily involved in community outreach, and has even created its own “D-Town Farm” currency as part of the incentive for potential volunteers to assist in the maintenance of the farm. Although a great deal of progress has been made since the acquisition of the current land on which the farm is operating, Mr. Yakini noted the potential of his own farm and those throughout the city as being here-to-fore unseen in large-part due to the lack of necessary support infrastructure. The economic capability of UA to supply employment and a sufficient quantity and quality of food for a large population, he says, would need the surrounding infrastructure to connect the farms to CSAs, markets and other necessary organizations to truly achieve its full potential. The measure of success, he noted, depends on the aim of the operation. In the case of his farm he expressed his feeling of a measure of success, but that there is much more he would like to do, and likely will be able to do if the required infrastructure were made available.

In Mr. Yakini’s opinion, while the reasons for which people enter UA vary, causing the measure of success or failure to vary, the very existence of a growing operation is success in itself. The food network through which the D-Town farm provides training, youth programs and
entrepreneurial skill development to the community. Of the challenges he faces, he pointed out internal issues to be some of the most difficult, as often times “we internalize oppression” he said, speaking of the black community. This causes the viewing of self in a diminished way, he noted, and that “the internal healing process has been the greatest challenge”. While many other operations have been inspired by the work of D-Town Farm, he pointed out that he is not sure of a unified goal of UA, and that there seems to be particular reasons which for the black community pursues it, as opposed to the reasons held by the young whites who have been involved in increasing numbers of late.

Of the many issues, Mr. Yakini noted funding and resources to be of the most prevalent, both of which are historically seen in unequal proportions in Detroit. He pointed out the wealth gap between races as a major factor in this where white populations have many more resources with which to begin and function. He said that “romanticizing is not reality” when it comes to the work involved with UA, and that the glorification of the work as it is presented at times does not display the skill, science and study that it takes to be successful. He mentioned the difficulty involved in making a living by farming, even for rural farmers, and that it is “almost impossible for urban farmers” to do so as it stands now. Proving the work of UA to be economically viable has been its greatest challenge he said. Land acquisition also has been a major issue for himself and others, which he said can be linked to the historical oppression of the black community and the struggle for economic independence. Financing also is a major problem he noted, where larger non-profits have more capacity to acquire grants and funds from other funding sources, making it “extremely difficult” for individual farmers who may want to access grants to do so. Because of the low availability of quality food and the harm of food miles to the food which is made available in the cities, he said that there should be more government support of UA.
In regards to the soil pollution, he said also that the “perception is larger than reality” and that often times the worry about the Detroit soil is overdone. He noted that it is “impossible to separate society from the atmosphere” and that the environment is not pure itself. Hoop houses provide some isolation he said, but some level of environmental pollution is unavoidable. Food quality and security in Detroit is “absolutely” an issue he said, as nearly 39% of the population lives below the poverty level so it is difficult to pay for high quality food that is often costly. Consequentially, consumers in lower income areas receive lower quality food. This causes a great amount of the city to be what is considered a food desert, he said. In light of this, he expressed UA as “one piece of the larger puzzle”, but UA won’t remove the greater social ills which provide the context of food and employment security problems. “Local food taste great, but won’t end white supremacy” he said. Operators of UA firms in the black community will have to work in conjunction with work being done in other areas for there to be significant change. For UA to be successful, he said that the community in which it exists must accept it, and that “the people themselves have to adopt it”. They have to control the food system that brings in their food, he said referring to the black community, noting the importance of bringing in food sovereignty. He said that food in this sense can be used as a lens for a larger view, to increase the idea of self-sufficiency and to serve as a catalyst for other necessary work in the community.

While farmer’s markets play a significant role in making UA produce available to consumers, he said that there also exist some other challenges, some of which have an “elitist vibe” portraying a culture of exclusivity. Along this line, he noted that most Black neighborhoods do not have farmer’s markets. Overall, he said, that UA “has the potential, but has not proven it yet”, yet with high hopes expressed “I think it can happen”. Two factors are
keys to this realization: He said, first is the struggle to get more access to land. Where the selling of land goes to the highest bidder, he said the buyer is “invariably white”. Secondly, he stated emphatically that there must be the building of the necessary infrastructure must be built to support the farmer, so that the farmer is “not out there hanging alone”.

*Kathryn Underwood – City of Detroit*

An especially insightful interview was conducted with Kathryn Underwood, a UA advocate and well-known member of the Planning Department of Detroit. Several of the previously mentioned interviewees referred her to me as a person of great significance in the UA scene of the city, having been a principal factor in the establishment of the UA ordinance adopted in 2013 to help facilitate and organize the implementation of UA and its various necessities. She was spoken of highly as a planner who is very accessible to the community and as a person willing to help urban farmers where she is able. Noting the barriers of most residents in their pursuit of initiating or maintaining a UA operation, Ms. Underwood was very candid in her answers. She highlighted one of the most reiterated statements of other interviewees, that the costs of start-up and operation oft-times demand resources out of the reach of most of the population. She did note that the obstacles that have to be hurdled oft-times by the citizens interested in UA development were lessened to a degree by the new ordinance but, however, there still exist a range of difficulties for people to even acquire the land to get started. She felt that the future of UA is potentially great, but UA will need a more comprehensively active support system surrounding it, with people and organizations invested in its function to improve food and employment security.
UA acknowledgement in the city came through Ms. Underwood’s efforts to bring it before the Detroit City council, she said, “we have nothing on the books that defines urban agriculture and it is growing in both the number of people doing it as well as the size and scope of projects, so it’s time for the city to actually make it a land use with some provisions and standards around it”. According to Ms. Underwood, she “started out as an activist”, and this led her to attaching her activism to the UA movement in Detroit. “I wrote the ordinance” she stated, out of the realization of the need for UA to be legitimized as an official land use. “What is still yet to be done” she said, in connection with much of the city land being placed in the hands of the Land Bank, is providing the ability to readily access the land for purchase. “It has been very challenging for people who want to buy, particularly if it is not a big project.”. She went on further to state that “if they want to buy five or six lots for the purpose of agriculture, it is my understanding that the land bank has not been amenable to selling land for small agriculture projects…The access to land continues to be an issue”.

“There’s still a lot of people who are guerilla farming” she said. While not in favor of citizens taking land over illegally, she urged efforts to “try to get ownership of the land, because you cannot say that you are food secure or getting anywhere near sovereignty if you don’t control the land”. “That is definitely a big hurdle that we still have to overcome” she said, “We haven’t figured out the economics of urban agriculture yet to a point where people can either, as an individual project, or [as a] a cooperative…actually make a living from urban agriculture”. A long-term necessity in Detroit in relation to the UA scene is “shifting the culture” she said, of bringing farmers from the guerilla style most commonly practiced into licensed use as a protected practice.
She said that the varying views of what is acceptable in the urban environment has also presented challenges where UA is concerned. Part of which, she noted is due to the negative experience with agriculture in the south by many members of the black community during slavery. It’s acceptance, she said is often affected by the varying views of agriculture and its value, aesthetics and appropriateness in the urban area. “There is more responsibility on the grower coming in to try to make peace with the neighbors”. Varying opinions are common she noted, saying ”there are a lot of people that are in neighborhoods that have been decimated by abandonment and people are setting up gardens and they don’t necessarily [agree], because they’re in that circumstance, that does not mean that they’re accepting of a new [land] use coming [in] and that being an agricultural use”.

“There is a lot of tension” she said, in relation to black farmers not having access to resources for the funding of their operations, “They continue to struggle more than a lot of whites who come in with money, with resources, with connections, and are able to set up shop and start going”. For true realization of what the future can hold she said “I think if we really take UA and what the possibilities of UA are seriously, that we have to be concerned about inclusion”, “Race matters. Race and economics matter”. Overall, she said “the better we’re able to make the economic argument, that’s when we’ll get the attention of government. If they can see economic development and/or jobs that are coming out of it, and we can make that case, I think then we will have a better argument for support”. She said it is important to see agriculture as a part of the food system, and this perspective is something that must slowly be formed for Detroit and other cities.

Soil pollution she said, “it is a concern” but most of the growers are aware of the risks. “I think there’s a lot of potential for UA, I think there’s been a lot of romanticizing of UA, and I
think we need to have a lot more studies done”. Access to quality food is an issue she said. She pointed to the importance of farms “organically“ coming up in neighborhoods, that the acceptance of them is more likely than those “parachuted in” by individuals from outside of the community. Due to this paradox, there is a wide range of outcomes found in the city, she noted. She expressed the desire to see a wide range of types of UA to develop within the city. “Valuing small-scale projects is important” she stated, but has to be in balance with large economic projects which compete for the available land.

Although I found many similar themes in the responses to questions I asked of all research participants, distinct variations were also found throughout which are key in defining the overall picture of UA in Detroit as it exists today. The distinctions illustrated throughout the eleven interviews represent the various perspectives through which this institution of UA is viewed, allowing for a comprehensive understanding of the many pieces that come together to complete the puzzle of UA progress.

In the next section, I will discuss the implications of the results presented here. The quantitative data will be given proper context and expression when placed next to the various responses derived from the interviews. The connections or lack thereof will help to illustrate a more conclusive picture of the current and potential future condition of UA in Detroit. From this, I hope to draw the necessary implications for a reasonably strong argument for the increase or decrease of UA promotion as a vital sustainable element of improving food and employment security in the city of Detroit and elsewhere.
Figure 9. Alternative styles of raised beds

Source: Photograph by author (2016).
CHAPTER VI

Discussion

Based on the range of data gathered, both qualitative and quantitative, there is much that can be inferred regarding the status of UA in Detroit from various perspectives. Many thoughts on the viability, acceptance level, feasibility and practicality of widespread UA may be extracted from the data presented in the previous chapters. The following is a summary of these results previously presented and their implications.

Favorability of Urban Agriculture

It is a point of great significance to initially deal with perspectives on the favorability of UA, as the institution in itself brings together two typically separate entities: citizens and practitioners. From the perspective of the citizens of Detroit as derived from the survey data, there is a reasonably consistent showing of appreciation for UA and its intended benefits for the communities in which these urban farms are located. Those who were identified in PCA analysis as food quality UA optimists, employment supporters, UA advocates & practitioners represented a majority of the sample. This illustrates, of course, considerable support for the increase and bolstering of UA practices in Detroit, and furthermore denotes the various reasons why it could prove to be beneficial for the population.

As there is a showing of those who are generally interested in UA and its ability to help produce quality food, the optimism I found indicates an understanding of the usefulness of the practice in an immediate and practical way. Citizens expressed that more information is needed
and must be made more readily available for UA. Results also reflect a desire to see more urban farms particularly as replacement or a substitution for some of the current vacant lots sorely in need of transformation. The positive opinion of UA as an avenue to improved food quality as made available and affordable through farmer’s markets also shows a considerable understanding of UA and its potential to help in the community. Such attitudes and the knowledge already present among the resident population suggests a firm foundation onto which new or expanded programs could be placed and promoted to help facilitate the desire for UA beyond where it already exists.

Favorable views of the residents towards UA is one of the major components associated with the success or failure of any garden or farming project, as noted by our interviewees. As Cadillac Urban Garden’ Sarah Clark noted, “the community plays a major role” in taking ownership of a garden project and getting involved to assist in its maintenance. For this reason, community outreach was one of their major points of focus in order to inform and involve the surrounding citizens of the wide range of activities available for them, including employment. Thus, contrarily the rejection of UA in a community can present great difficulty as described by Mark Covington of Georgia Street Collective. His biggest challenge related to me was getting people to desire to help and to get people involved, as he said “getting people to understand that it’s (UA) not sharecropping or slavery”. With this being the biggest challenge facing UA in Detroit according to one of the more successful practitioners, the relevance of community support and enthusiasm of the farm is elucidated. Taking ownership was a vital aspect to success continually presented by Mr. Covington, and for the partial purpose of achieving this desired effect, his program functions to give the produce to the local residents as opposed to selling it.
While Mike Score of Hantz Farm did not acknowledge a food problem which would solicit the need for adjustment or improvement of food security through a practice such as UA, Mr. Hebron felt differently. Billy Hebron’s Oakland Avenue Urban Farm is an example of a community-focused endeavor which has been successful in large part due to the acceptance of the surrounding residents who were almost entirely in favor of their work. Community outreach with local youth is a major part of their work that has helped to curry favor of the residents, and consequentially the security of the farm has been assisted by those in the neighborhood who desire to see the farm successful. Employment of youth through various programs has also been a great way to reach out he noted, as it helps provide youth with activities that keep them “out of trouble” while learning life skills. By providing what he described as “extremely fresh, and extremely cheap” food without chemicals to the community, he said that UA, particularly in the case of their own operation is a great way to help address food security issues.

Community inclusion is also a major part of the model in operation at Earthworks Urban Farm, with its EAT program explained in the previous section designed to provide farm-related skills in conjunction with a wide range of volunteer opportunities. The activities of the farm are in part to help get people to see the vision of UA and develop more interest in growing, although this still faces difficulties. Difficulty is heightened in this regard where gainful employment is not yet readily accessible for many through UA. Employment complications may be the greatest hurdle standing in the way of true UA preponderance in Detroit or any city across America.

Ms. Rushdan of Greening of Detroit noted the success of their organization was based on high levels of employment and a focus on workforce development to engage both youth and adults. Part of the challenge faced for UA is changing the demand for produce of many types within the black community she pointed out, due to the current food culture often not desiring
fresh produce. Although she acknowledged the food security issue in Detroit which must be addressed at least in part by UA, she also acknowledged a disenchantment towards UA by the black population for various reasons which hinders popularity. Apparently community perceptions of UA play a major role in its’ ability to thrive and for this reason, predominantly black communities have not yet seen a high level of UA success particularly in Detroit. The demand for local food is growing she said, and farmer’s markets are helping to supply the demand, while offering “a real job force that is created around urban agriculture”. She, like many others, pointed out that there is yet much progress to be made in order to make UA economically viable for those who would like to take on the practice as their means of livelihood.

Brush Park Gardens was described as “just a place in the community to give people a place to garden, and do their thing” showing its central focus to be for the benefit of community building and support. While they experienced a measure of success during the operation, Ms. Stevens noted the need for more “people on the bandwagon” and “keeping enough dedicated and passionate people involved”. The opinions of the experienced Brush Park Garden founder highlight the necessity of collective engagement of the project to fulfill its potential. The difficulties related to a lack of participation present a major hurdle, and such a lack is connected to the absence of knowledge of the importance of eating fresh food. For this reason, education of citizens regarding the benefits of UA particularly for nutrition is necessary in many areas. Likewise, as others also opined, she pointed at employment potential as being of high importance. If more green jobs could be found allowing people to make a living from urban farming, it would help to draw more people into the programs. Ultimately, the emphasis of the need for more passionate farmers was pointed out repeatedly as a key for success in this endeavor.
Ms. Myrtle Curtis of Feedom Freedom Growers credited much of the success of her farming operation to a high level of community support. The involvement of the residents in the neighborhood served as a means of improving relations within the community, while helping to inspire others to mimic the development. The approach of the operation was oriented towards helping the area to overcome its many challenges related to blight and devastation. Engaging people of all ages through various programs has been a part of dealing with social justice issues and producing a healthy community, and has helped to produce a greatly positive response with respect to community solidarity. The Feedom Freedom Growers is an operation which gives its produce away as the owner does not believe that food products should be sold for profit. Giving produce away, consequentially has helped the operation to receive a lot of support for the very labor intensive work. The effect of community rejection can come in cases where individuals come in with the “savior mentality” as described by Ms. Curtis, wherein resources and time can be wasted when programs such as UA are introduced where unwanted. Such a potential for rejection reminds of the need for consultation with community residents as well as reasonable consent prior to engaging in such activities. The paramount importance of community participation, and particularly keeping the youth population interested and serious about the endeavor must be addressed.

Admittedly, Ms. Curtis again acknowledged that the feasibility of adequate engagement in UA demands sufficient salaries, which she was able to obtain through a grant program. There was no hesitancy in her acquiescence of the serious issue of food security as being lessened by the effects of UA, particularly through the facilitation provided by locally established neighborhood farmer’s markets. The potential of UA to provide significant employment was not
considered to be currently viable by Ms. Curtis, however she did admit potential in the area. These elements show the weaknesses and strengths in the realm of the promotion of UA.

Much like Feedom Freedom Growers, the D-Town Farm headed by Mr. Malik Yakini is primarily focused on community engagement. As a part of the Detroit Black Food Security Network, the operation intently focuses on improving food security in the black community. Outreach events such as the one I attended are demonstrative of the great importance placed on getting residents involved through network activities. Mr. Yakini pointed out the need for more involvement of people of different professions to surround the farmer with the necessary infrastructure and technical expertise to support the growing effort. The hindrances of gathering the necessary support he said were due in part to the internalization of oppression that the black community suffers, stating that “the internal healing process has been the greatest challenge”. It was suggested that disappointment in pursuing UA is not improbable as it is often romanticized as a glorified work, while in actuality it demands skill, science and study according to Mr. Yakini. The reality of farming for full-time employment can be discouraging, as he mentioned the difficulty involved in making a living by farming saying that it is “almost impossible” to do under current conditions. This economic hurdle is a consistent and compelling theme which is the most difficult to clear. While food security is absolutely a problem in Detroit, Mr. Yakini said, UA can only help as a part of a much larger solution if the people adopt the operation as their own to get involved in a committed manner. The increasing favorability of UA must be assisted by the proper presentation of the idea to the community he said, as it currently holds what he called an “elitist vibe” and can be unattractive to “regular” residents. The ultimate proof of the viability of UA will involve the assembling of the necessary infrastructure surrounding
UA, where people in favor of its benefits work together so that the food security system incorporates essential local food production and community grassroots support.

As demonstrated in this chapter thus far, promoting acceptance of UA may be of equal or greater importance to the actual farming. Detroit Planner Kathryn Underwood expressed the need for a more comprehensively active support system, involving all invested entities. These measures would be necessary to help untangle the economics of UA to allow people to make a living through the development of urban farms, and would likely bring the varying views towards UA into more consistent agreement. The effort to make UA operations appealing to residents lies mostly in the hands of the grower according to Ms. Underwood. The perceptions of individuals have been shaped through a number of experiences throughout history, and these factors must be taken into account. Racial inclusion is a large reason that UA may be viewed in a positive light in Detroit just as it is in many other aspects of the society. There is much work to be done to bring the romance of UA into reality and release its potential. Success of the operation is better realized when farms come up “organically” as opposed to those “parachuted in” Ms. Underwood said, pointing to the importance of proximate residents being involved in the initiation of UA the operation if these operations are to become permanent.

A majority of those interviewed who expressed a negative perception of UA by certain portions of the black community cite farming’s historical connection to slavery and the sharecropping experiences of many of their great grandparents, grandparents and even parents. These negative experiences passed down to current generations of the black community, were in most cases the causative agent behind the dislike for the option of increased agricultural employment altogether according to those interviewed. Negative perceptions of farming as an endeavor even in rural settings lays base for their dislike for UA. While this holds true in many
cases, this historical perspective must be taken into account as a part of the ability of UA to be found as a thriving aspect of the black community in particular. This implication of the historical context affecting the current perspective of UA reflects the need for continued education and community engagement to help communicate the proper understanding of UA and its potential benefits. Furthermore, in light of identified opinions regarding the views of some in the black community, more effective discussions related to the promotion of UA can be designed for other communities of different racial majority as each group invariably has its own historical background which effects their perspective.

All in all, this principle element of UA success with its varying aspects draws a great deal of attention to the urban environment in which a particular project will potentially exist. Although the concept of UA is not new, each instance of its development has its’ own distinct characteristics and individual characteristics which deserve adequate consideration. Based upon the experiences of these UA facilitators and the diverse appreciation of it by the residents in solidarity across age and gender, it is shown so far to hold true that the potential for successful UA operations will only come with an increase of local outreach to improve perceptions of the benefits of UA.

*Land Acquisition and Equality of Opportunity*

After review of the data, the issues of land acquisition and equality of opportunities as they relate to the pursuit of UA are seemingly inseparable. As acquiring land for any project is the initial step of pursuing opportunity, the various challenges to be met even after acquisition through purchase or rent of land deserve notice. The question of equality in all levels of
opportunity has proven to be a relevant discussion, as many participants expressed a sense that there are inequalities in the overall process through which citizens or cooperatives formed of citizens might fairly and freely access land in Detroit.

Land acquisition proved to be a constant theme of concern throughout this study, acknowledged by both UA consumers and facilitators. The average consumer from the previous chapter did not agree with the idea of agriculture being strictly rural, and conversely showed a reasonable level of agreement with vacant lot transformation and saw more UA as beneficial to the neighborhoods of Detroit. These indicators provide a reasonable case for the acknowledgement of the communities understanding of the necessity of UA as an option for land use in the city. In this light, problems related to acquiring land must be addressed to reconcile the desires of the consumers with the realities of the marketplace. According to the findings, it can be safely assumed that residents would more actively pursue UA businesses and non-profits and participate more if there was greater clarity in terms of how to gain legal access to Detroit’s many vacant lots for growing crops.

The repeatedly expressed challenge of acquiring land is an important and long-standing point of difficulty. Nearly every organization representative in this study pointed to land acquisition as one of the chief difficulties facing UA in Detroit. Whereas some of these persons were operating on land that was leased, even those who owned the land on which they farmed mentioned the great challenges associated with securing the land. In the case of Ms. Twoquala Stevens with Brush Park Gardens, it was very evident that despite the success of the operation and its many positive effects on the community for decades, the farm was soon to be replaced by a different land use. The leased land on which Brush Park Gardens was operating offered the farm little protection, and that exposure led to its removal. Such a case of disappointment for the
UA facilitator who invested much time, money and sweat equity, likewise negatively affected the community which had embraced the garden and benefited from its presence. The case for land ownership as opposed to the option of renting was clearly presented. The permanence of the farms made possible by the owning of the farm land and their gardens provides the necessary security to make the intensive labor efforts and capital investments, a more reasonable investment.

Frustrations reported by UA practitioners have been longstanding in Detroit mainly over the question of land ownership. Mr. Yakini of D-Town Farm as well as Georgia Street Collective’s Mark Covington voiced such frustrations in their interviews with me in their individual projects. Both operations use land that is leased, and the owners have been unable to legally purchase the land outright despite the success they have sustained over a protracted period of time. Mr. Covington said that the Georgia Street Collective had not “been able to buy lots for eight years”. D-Town farm has been operating for nearly the same amount of time and in that time has been unable to do more than lease. Even Mr. Score of Hantz farm, although an owner of the land on which he operates, expressed the need for the city to “get out of the way” to allow the vacant land to be purchased without difficulties that even the large company he worked for faced in the acquisition phase.

The challenge of land acquisition is inextricably connected to access of other necessary resources to make the UA endeavor successful. In the case of Oakland Urban Farm as well as Feedom Freedom, the great importance of grants was evident, as both operations “ran” almost entirely on grant funding. Earthworks Urban Farm was presented as an operation altogether not replicable due to the high costs of operation and the abundance of resources necessary to run appropriately. The funds required to purchase land if it is available, in conjunction with the other
necessary resources such as seeds, gardening tools, fertilizers, soil, watering and other items make UA “a long hard road” (Ms. Rushdan of Greening of Detroit). She stated that “figuring out the finances of agriculture period are an obstacle”. This statement holds true for the people providing the majority of the interviews conducted in this study. Each operation that was not connected to a larger company or non-profit organization relied on grants, which, as Mr. Score stated “grants, loans, don’t really feed innovation, they’re tools for compliance”. Consequently, even those organizations which may be able to procure grants or loans have difficulty expanding.

Any given organization’s access to land and resources repeatedly turned out to have racial connotations repeatedly identified throughout the study, showing how the social ills of the urban environment influence potential sources of its enrichment. The instance of Mr. Covington at Georgia Street Collective exemplified this as he identified significant inequalities with respect to land access. He noted a nearby white couple who recently bought lots at $100 surrounding their home for farming, while as a black man he has offered three times that amount for eight years running without success.

Mr. Yakini further stated the land struggle is currently insurmountable. The reality is that land is going to the highest bidder who is “invariably white”. Black operators experience great difficulty in this area. He linked this dichotomy to the historical oppression of the black community, and the great wealth gap that exists as a result of that history, allowing white citizens to typically control more resources with which to begin and function. Ms. Rushdan also pointed out the inequalities experienced by black farmers in their procurement of grant monies for UA startup as opposed to often more recently arriving white farmers. In addition, there is a difference in the high level of media coverage of white farmers as compared to black farmers or operators.
of UA business. The media coverage of UA is predominantly of white farmers in Detroit which is a predominantly black populated city. This is a misrepresentation that breeds disenchantment towards the idea of UA as a tool of gentrification rather than enrichment.

From the city services level, Ms. Underwood as a City Planner acknowledged the need to “be concerned about inclusion” if there is to be any serious expansions of UA. She pointed to the tension that exists between black farmers with a lack of access to resources as opposed to white farmers coming in with the necessary resources and connections. The dialogue over race and its effect on land acquisition and resources, she said, must not be dismissed.

If UA is to have an opportunity to be adopted as a viable aspect of community revitalization leading to improvements to job and food security, it is clear that this hurdle must also be cleared. With such difficulties faced by UA facilitators to purchase land and gain access to the necessary resources to operate effectively, there can be little hope of any realization of its true potential. Furthermore, the racial implications of this struggle to expand the UA opportunities altogether produces an imbalance in its expression and skews its potential ability to benefit the city. These elements of land acquisition and equality of opportunity surrounding UA provide greater clarity on the current status of the practice, while providing insight into its possible future.
CHAPTER VII

Conclusion

UA as a part of “a bigger puzzle”

The implications of this study provide a reasonable argument for the necessity of further examination of urban agricultural practice as a part of the development of larger interconnected urban food system that could better meet the needs of the residents of Detroit. Such a system must include effective connections with farmer’s markets and grocery stores, city and state government facilitation as well as investments in educational resources for residents. This surrounding infrastructure related to UA as expressed by Mr. Yakini of D-Town Farm as well as others represent necessary support to opening up the full economic possibilities of UA. Clearly, there are many obstacles in the way of potentially making UA a truly influential contributor to the employment of Detroit residents and the future revitalization of the city. Despite these obstacles though, many individuals, UA consumers and facilitators alike reported a significant level of favorability towards its current contributions and potential future.

The findings of this study certainly justify a case for a closer look into the development of not just urban farms, but the necessary interconnected entities that would facilitate the growth, maintenance, selling and overall support of these operations. If land were more easily accessible, if the necessary information was presented to community members, if funding were more universally accessible and if farmer’s markets, grocery stores and restaurants worked in unison with suppliers, then Detroit’s UA operations would probably be more successful. Development of UA would be more successful with greater support from the municipal government that
focused on inclusion in these opportunities. In short, there are concrete steps and strategies, identified in this research, that can be taken to improve the prospects of UA in Detroit.

Certainly this is the viewpoint of many of the people I interviewed. Participants in this study acknowledged the beneficial effects of UA so far. Already it is seen as a source of assistance in addressing the widespread lack of quality food access in Detroit and it can be concluded that these benefits could be multiplied if given the requisite planning and support. The joblessness among Detroit’s resident population as mentioned earlier could alas be reduced as a result of improved support, as young students could learn how create employment for themselves while learning useful entrepreneurial skills through UA or by becoming employed with another growing organization.

While there is yet more that could be written on this dynamic subject, urban agriculture altogether is a practice that is yet to be fully investigated. The potential benefit or the lack of it is yet unknown in Detroit, and this is the case in most major American cities. What is certain is the level of success that UA has enjoyed thus far in bringing fresh local produce to communities in need, and helping to improve the economic condition of both the consumers and facilitators. This reality in itself, makes a reasonable case for the proven benefits of the practice and the collective desire for expansion by significantly diverse segments of the population.

This study has taken a small sample of residents and UA organizers in the City of Detroit to assemble an image of the current status of UA in Detroit and to learn how it might contribute to the rebuilding of this once great American city. The data gathered and analyzed has identified a current list of great challenges and difficulties surrounding UA, while also showing significant support in favor of its establishment and advancement. The future outlook for UA in Detroit is
conditional upon the energy and commitment of its advocates and the communities in which they exist, in conjunction with their respective governing bodies. Time will tell whether or not the hurdles currently facing Detroit in regards to the role of UA will be cleared or if they will subjugate this practice to simply a hobby for a few “green thumb” enthusiasts. The relationship of these hurdles to deeply-rooted historical and social concerns such as race and economic status reflects the magnitude of the barriers standing in between equality and any development in the city of Detroit, including UA.

The implications of this study can be generalized to the similar conditions found in many major American cities which also suffer from deterioration of the urban core marked by lack of access to quality food and limited job security. While the proportion of vacant land in other American cities may not equal that of Detroit, in all cities there are plenty of vacant lots and too many people lacking adequate employment and/or access to fresh produce. A further study along these lines could seek information from other cities to analyze the relative competency of UA to address each city’s challenges. A comparative study of multiple cities would allow for a more clarified picture of how UA is perceived by facilitators and consumers. Such research could also serve as a catalyst for new programs designed to initiate and support UA projects and the necessary systems connected to it. Ultimately, the necessary support for potential growth of UA will only come with the promotion of its capability to be a worthwhile investment of time and resources to insure its success.

As long as human beings live in urban settings, there will always be a need for access to quality food. For this reason, agriculture will be as necessary as it always has been. Whether or not the future of American cities will involve higher levels of of agriculture production within the urban environment is yet to be seen, however there is reason to believe that such
transformations could happen. Cities such as Detroit, that have been known to be jungles of concrete, may very well be cultivated one day to become true garden cities full of not only growing business, luxury and industry, but fruits and vegetables too.
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Rogers, Kate. "Bankruptcy Rocked Detroit...Now It's Plotting a Comeback." CNBC. CNBC, (2016)

Schnell, Steven M. "Food With A Farmer's Face: Community-Supported Agriculture In The United States." Geographical Review 97.4: 550-64. (2010)


Zepeda, Lydia, and Jinghan Li. "Who Buys Local Food?" (2006)
Appendix A

HUMAN SUBJECTS INSTITUTIONAL REVIEW BOARD APPROVAL
Date: April 13, 2016

To: Greg Veeck, Principal Investigator
    Sultan Muhammad, Student Investigator for thesis

From: Amy Naugle, Ph.D., Chair

Re: HSIRB Project Number 16-04-17

This letter will serve as confirmation that your research project titled “Cultivating the Concrete Jungle: Examining Urban Agriculture in the Motor City” has been approved under the exempt category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note: This research may only be conducted exactly in the form it was approved. You must seek specific board approval for any changes in this project (e.g., you must request a post approval change to enroll subjects beyond the number stated in your application under “Number of subjects you want to complete the study”). Failure to obtain approval for changes will result in a protocol deviation. In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

Reapproval of the project is required if it extends beyond the termination date stated below.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: April 12, 2016
Appendix B

SURVEY
Surveyor: Sultan Muhammad - Department of Geography - Western Michigan University
Email: Sultan.Muhammad@wmich.edu

Please rate yourself according to the following statements. Indicate the option which best fits you. The following survey will take approximately 5 - 10 minutes, and will be used to determine the economic and social effects of urban gardening and farmer's markets within the city of Detroit.

I am actively involved in some aspect of urban gardening.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

Information is readily available on how to become actively involved in local farming and food production.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

I am aware of urban agriculture organizations within the city of Detroit.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

I have some experience with gardening/farming.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Neither agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Somewhat disagree</td>
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</table>

I would like to learn more about gardening/farming.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

Current vacant lots within Detroit should be transformed into urban gardens.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

I would like to see more local community gardens.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

I would like to work in and assist the upkeep of a community garden or local urban farm.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

I would accept an employment offer as an urban farmer.
Agriculture should be left solely to rural area farmers.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
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</table>

Urban agriculture could be of great benefit to this area of the city.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Agree</td>
<td></td>
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</tbody>
</table>

I would accept an employment/volunteer offer in some aspect of the urban farming process.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td></td>
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<tr>
<td>Agree</td>
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</table>

Urban agriculture systems need improvements to become more efficient and community embracing.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Agree</td>
<td></td>
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</tbody>
</table>
Quality information, instruction, supplies and other assistance should be available for citizens to initiate gardens/farms.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

I feel that urban pollution will hinder the quality of any produce grown within the urban area of Detroit.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

Farmer’s markets sell fresh produce at affordable prices for local population.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

I have reasonable access to local farmer’s markets.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

I have regular access to affordable fresh produce.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>
Farmers markets are practical and useful.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

I would accept an employment offer at some level within a farmer's market.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

I would like to support and promote localized food production.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

Local fresh produce is an important aspect of quality nutrition.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

Quality food is vital to healthy living.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>
I have regular access to quality fruit, vegetables, dairy products, meat etc.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

I am aware of potential harms caused by consuming produce from distant sources, incurring high quantities of "food miles".

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

I am aware of local gardens/farms that produce fruit and/or vegetables.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

I feel that urban farming could benefit local citizen access to quality food.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

Sex:

Male
Female
Race/Ethnicity:

<table>
<thead>
<tr>
<th>Black/African Descent</th>
<th>Hispanic-Non White</th>
<th>White/European Descent</th>
<th>Asian</th>
<th>Native Hawaiian and other Pacific Islander</th>
<th>Bi-racial/Multi-racial</th>
</tr>
</thead>
</table>

Religion:

<table>
<thead>
<tr>
<th>Catholicism</th>
<th>Christianity - Protestant</th>
<th>Islam</th>
<th>Judaism</th>
<th>Other Religion</th>
</tr>
</thead>
</table>

Education Level:

<table>
<thead>
<tr>
<th>Less than High School Diploma</th>
<th>High School Diploma</th>
<th>Some College</th>
<th>Associate's Degree</th>
<th>Bachelor's Degree</th>
<th>Master's Degree</th>
<th>Doctorate</th>
</tr>
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Age:

<table>
<thead>
<tr>
<th>18-30</th>
<th>31-40</th>
<th>41-50</th>
<th>51-60</th>
<th>61-70</th>
<th>71+</th>
</tr>
</thead>
</table>

Annual Income:

- $10,000 to $14,999
- $15,000 to $24,999
- $25,000 to $34,999
$35,000 to $49,999

$50,000 to $74,999

$75,000 to $99,999

$100,000 to $149,999

$150,000 to $199,999

$200,000+

No Comment

Thank You!
Appendix C

CONSENT FORM
Consent Form
Western Michigan University—Geography

Participants may contact us by mail or e-mail. Please send any inquiries or concerns to Sultan Muhammad, 1932 Plymouth Ave, Grand Rapids, MI 49506 or sultan.muhammad@wmich.edu

This research will collect basic information on the dynamics of the Detroit urban agricultural experience. We are collecting information to determine the best practice and returns that could potentially be derived in light of community and facilitator knowledge and experience. Once completed, this information will be included in a report that will be given to Western Michigan University. I hope that you will be willing to provide us this information that will help us to understand problems faced by residents of Detroit in relation to the realm of urban agriculture. This survey/interview will take about 10 minutes. You will not be asked to provide or sign your name. The surveys/interviews will be confidential. If at any time, you do not wish to complete the survey, please tell me. We can ask another individual in your area. If you have any questions or concerns, please write or e-mail Sultan Muhammad, or if you have concerns about the survey/interview contact the Chair, Human Subjects Institutional Review Board—Western Michigan University (1-269-387-8293) if any questions or problems arise during the course of study.

This consent document has been approved by for one year by the Human Subjects Institutional Review Board (HSIRB) as indicated by the stamped date and signature of the chairman of this board in the upper right corner. Do not participate in this study if the stamped date is older than 1 year.

Investigator's copy: Surveyor

Date
Appendix D

DEPTH INTERVIEW
**Depth Interview**

1) In what ways has UA been successful or unsuccessful in fulfilling its proposed purposes?

2) How could institutions such as this one improve the process of UA initiation and development, as well as its upkeep?

3) What are the greatest current challenges to Urban Agriculture (UA) development within Detroit?

4) How has financing UA development presented difficulties?

5) Should Local, City or State government and non-profit organizations support and fund UA in Detroit? Why or why not?
6) How has the issue of urban pollution influenced the development of urban agriculture in this city?

7) Do you see food quality and/or food security as a major issue in Detroit among the majority population?

8) Do you consider UA a viable solution to enhancing quality food availability throughout the city?

9) How can communities help in the process of UA development improvements?

10) In what way could UA facilitators improve community awareness of UA opportunities, initiatives, programs etc.?
11) How do farmer’s markets contribute to local food access and availability?

12) How would you describe the current relationships between urban farms and farmer’s markets in Detroit?

13) From your perspective, how could farmer's markets better connect with their surrounding communities?

14) Could increase in farmer's markets and/or UA projects assist in producing a greater quantity of employment opportunities?