

Models of Community Renewal:
Understanding the Urban Agriculture Movement in Memphis

Samuel S. Polzin
Rhodes Institute for Regional Studies
Advisor: Dr. Amy Risley
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Abstract

To determine the role urban agriculture plays in community renewal, this research used survey and interview data to examine the ongoing relationship between Urban Farms Memphis (UFM) and Binghampton, Memphis. This project serves as a case study of a recent urban agriculture movement aimed at recycling urban resources in order to eliminate the distance food travels between producers and consumers—helping to create more equitable, healthy, and sustainable food systems. This phenomenon is particularly relevant for low-income communities and communities of color, who face discrimination from historic, hegemonic socioeconomic structures. Yet, increased food access may not be the most relevant solution to the institutionalized patterns of neglect that face these communities. Developing more resilient and empowered neighborhoods is rather a question of designing civic projects, business models, and local institutions that are specific to the human and social capital needs of individuals, families, and cultural groups.

Key Words: Urban Agriculture, Food Justice, Food Systems, Community Development

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List of Abbreviations

Binghamton Development Corporation	BDC
Community-supported agriculture	CSA
Memphis Center for Food and Faith	MCFF
Shelby County Health Department	SCHD
Supplemental Nutrition Assistance Program	SNAP
US Department of Agriculture	USDA
US Census Bureau	USCB
Urban Farms Memphis	UFM

1. Introduction

“A market blossoms in Binghampton” lauds a January 2011 headline in the Memphis-based newspaper *The Commercial Appeal* (Thompson). The Urban Farms Market marked a milestone in a national urban agriculture movement that only reached Memphis in the last ten years. Located approximately 15 minutes east of Downtown Memphis at the intersection of Broad and Tillman, the Market was designed to act as a distribution center for Urban Farms Memphis (UFM) and other local farmers and intended to introduce local fruits and vegetables to one of several so-called Memphis food deserts.¹ Both the Market and UFM—organized and subsidized by the Binghampton Development Corporation (BDC)—were inspired by a similar project in Milwaukee, Wisconsin called Growing Power. Binghampton community stakeholders hoped to replicate the Growing Power mission to improve property values, lower crime rates, and encourage community cohesion, while expanding access to fresh produce in predominantly impoverished Black neighborhoods (Broadway, 2009). The community benefits that UFM projected by combining civic engagement, economic enterprise, and environmental stewardship were not only based on the Milwaukee model but also on other successful urban redevelopment projects in cities like Buffalo, Philadelphia, and St. Louis. The established record of community gardens and farmer’s markets for positively impacting the economic wellbeing of low-income neighborhoods created a lot of optimism throughout Binghampton.

Over the next few years, the Urban Farms name continued to find its way into the headlines of *The Commercial Appeal* and other Memphis news publications. Many public leaders believed farming might soon become a noticeable and integral piece of the urban landscape in Memphis.

¹ The US Department of Agriculture (USDA) defines a “food desert” as a low-income, low-access census tract (American Nutrition Association, 2010). More specifically, the poverty rate for a specific census tract must be at least 20 percent and at least 33 percent of the tract’s population must live more than one mile from a large grocery store or supermarket. This criteria, however, only applies to the continental US and is altered for rural populations.

Unfortunately, however, the Market only lasted three summers. Unsustainable operating costs drained the monetary resources allotted by the BDC. Today, the future of the farm (UFM) also remains uncertain. Unable to purchase the nine acres on which UFM sits, the farm's leaders are at the mercy of the current landowner, who hopes to turn a profit from a private sale to interested developers. Thus, despite the fact that urban farms and gardens are increasingly important tools for alleviating insecure households that do not have access to enough nutritionally adequate food for healthy, active lives, the Memphis urban agriculture movement has encountered many obstacles to becoming a successful and sustainable food security enterprise. Nevertheless, the Urban Farms Memphis project provides a case study of one of these local farm projects and represents a debate over how these initiatives should assess the needs of a community and best address them. This paper considers the question: what are the consequences of varying models of urban agriculture for community development—particularly in the Binghampton neighborhood?²

The needs of every community are diverse and nuanced. I therefore turn to the UFM mission statement for a concise description of its intended civic function—to demonstrate how bio-dynamic farming can contribute to the growth of resilient city neighborhoods, healthy food access, and strong local food economies. UFM is evidently a collaborative project defined by promoting community empowerment, health, and food security in Binghampton. Studies of similar projects, as well as the research presented in this paper, however, reveal that limited community investment and general neighborhood beautification fail to establish lasting change in such an economically depressed area. Questions of community ownership, long-term goals, and underutilized land all contribute to a sense of uncertainty and insecurity that is underscored by the issue

² The immediate Binghampton community discussed in this paper—roughly defined by census tracts 15, 27, and 28—is bordered by Summer Avenue in the north, Holmes Street in the east, Popular Avenue in the south, and East Parkway North in the west and represents approximately two square miles, 2,926 households, and 9,000 residents, according to 2010 US census data (see *Figure 1*).

of securing land tenure. The possibility for increased access to fresh fruits and vegetables does not necessarily change the institutionalized patterns of neglected communities in need of human and social capital. And any model of urban agriculture—for-profit, non-profit, hybrid, or otherwise—that does not engage the community beyond its basic market function will fail to address systemic poverty that traps food insecure populations.

2. Food Justice

The Mid-South contains approximately 33,000 food systems jobs and 4.2 million acres of farmland (Memphis-Shelby County Office of Sustainability, 2015). Its resilient soil and water resources are ideal for competing in the large-scale commodity farming market. And vast potential for growth remains. Yet, despite the strong agricultural significance of the region, food deserts are prevalent throughout Memphis. Understood as a by-product of disinvestment in low-income communities, lack of quality public transportation, and low population density, residents in many neighborhoods are forced to frequent convenience stores and fast food restaurants as accessible alternatives to the scarce number of full-service supermarkets that offer affordable, healthy options (Institute for Sustainable Communities, 2013). Additionally, unmet demand for food assistance in the city is estimated at 46 percent, which is only projected to grow as food service programs cite increasing need and decreasing resources (City Policy Associates, 2014). The local food system has failed to provide a diversity of specialty crops to low-income consumers outside the industrial market and favors the overproduction and overconsumption of unhealthy, processed foods—resulting in malnourished, obese, and chronically ill Memphians.

2.1 Food Justice as Interracial Justice

This dysfunctional food system, however, is unfortunately not unique to Memphis. Taking into consideration the fact that numerous low-income communities and communities of color

across the country cannot partake in a healthy, equitable, and sustainable supply chain, it is obvious that the nation's nutrition and agriculture policies require a fundamental overhaul (Haynes-Maslow, Stillerman & Yates, 2016). Black Americans are more likely than Whites or Latinos to suffer from obesity, high blood pressure, diabetes, or stroke. Whites are more likely than Blacks or Latinos to have a college degree. And Blacks and Latinos are twice as likely as Whites to be classified as low-income and are more likely to be unemployed. Implicit in these statistics is the observation that communities of color are consistently denied access to the nutritional, educational, and financial resources that would allow them to live healthy, active lives (Alkon & Norgaard, 2009). In light of such stark racial differences in the prevalence of diet-related diseases and subsequent health care expenditures, the struggle for interracial justice is even more conspicuous and urgent in Memphis (total population 656,715): 62.6 percent Black/African American, 27.4 percent White, 6.5 percent Latino/Hispanic, and 3.5 percent other or two races (United Census Bureau, 2014). Consisting of a distinct non-white demographic, this Mid-South metropolitan area faces rates of high blood pressure, diabetes, and obesity that are as much as 5 percent greater than the national averages. Furthermore, 27 percent of the population also lives below the poverty line—far exceeding the national average of 15 percent. One must look no further in order to understand that food justice and interracial justice are inexplicably linked.

Principally speaking, it is of utmost importance to highlight the idea that all Memphis residents deserve equal representation in initiatives to improve local food systems. Improving US health policy, however, is complicated by the fact that organizations and institutions mediate individuals' access to food resources, which has historical significance for Black farmers and laborers who were systematically defined as less deserving than their white counterparts, especially in the South (Green, Green, & Kleiner, 2011). The mechanization and corporate

concentration of the nation's food systems also further weakened the already vulnerable position of Black landownership and built a dependence on credit within the Black community. This exploitative system of agriculture, known as sharecropping, ultimately damaged the relationship between many Black Americans and farming. Today, the ability of Memphians of color to access policy aimed at quality of life, affordable housing, and retaining the city's culture is in many instances still obstructed by this painful history.

Food justice and associated systems evidently fail to transcend contemporary White hegemony and require a greater commitment to interracial healing:

[Interracial justice] reflects a commitment to anti-subordination *among* non-white racial groups. It entails a hard acknowledgement of the ways in which racial groups have harmed and continue to harm one another, sometimes through forms of oppression, along with affirmative efforts to redress past harms with continuing effects. (Yamamoto, 1995, p. 34)

Considering that prior food and agriculture laws and policies were infamously created under the guise of colorblind or post-racial ideology (Lipsitz, 1998; Wise, 2010), there is a distinct need for activists and community leaders to support policies and to practice food justice in race-conscious ways (Curran & González, 2011). Silence regarding the relationship between race and food justice naturalizes inequalities. Without the recognition of situated racial group power and a practical response, Memphis food systems will be unable to properly address inadequate and uneven food access. As a result, there is a large question as to which organizations and institutions should be responsible for creating communities around healthy, equitable, and sustainable food systems.

2.2 Food Justice as Community Empowerment

As this issue of food justice and insecurity has gained increased attention in the United States, an ever expanding diversity of institutions, programs, initiatives, and campaigns produce

differing agendas that reflect an important systemic divide regarding the reform of outdated food systems (Holt-Giménez, 2011). The progressive trend within such a food movement represents a grassroots orientation toward empowerment. Criticizing the manner in which corporate agriculture neglects residents of color and underserved communities, groups within this movement promote local production, processing, and consumption as a means for creating healthy, equitable, and sustainable food systems. Citizen participation in community-scaled organic agriculture is the foundation for new business models and community organizations, such as farm-to-school programs, urban gardens, corner-store conversions, community-supported agriculture (CSA), and the spread of farmer's markets into low-income neighborhoods (Saldivar-Tanaka & Krasny, 2004).

Many of these alternative solutions to food insecurity, however, ignore the issue of race and diversity. Coded and pejorative discourse is instead used to describe programs and practices designed to decrease the distance between producers and consumers (Guthman, 2011). Such a phenomenon negatively portrays assistance and outreach to low-income consumers while simultaneously encouraging those who have the resources to buy locally to do so. The power of discourse to produce policy trends is certainly not new, and the residual impact of the “culture of poverty” thesis born out of the Moynihan Report of 1965 is still evident in contemporary urban development trends, including food justice (Valentine, 1968; Gans, 1995). As some argue, these trends fail to address the root causes of poverty and hunger—namely the concentration of power and resources in the hands of a small group of corporate elites—and unintentionally blame residents for so-called social pathologies (Hancock, 2004).

This is not to downplay the role of youth programs and the tremendous dynamism of community farming that are brought to local food systems by citizen empowerment. Considered healthy expressions of civic life, urban agriculture as a tool for gradual, grassroots-driven change

demonstrates a commitment to equity and sustainability. Recent arguments over the purpose of community gardens, however, have shifted towards determining the extent to which urban agriculture can seriously affect structural, socioeconomic change as it concerns hunger and food access. Lawson (2005) identifies a pattern in which urban gardens—while often intended to serve a long-term function as a permanent community fixture—are usually temporary mechanisms used to reiterate the economic, social, and personal benefits of supporting local food systems. Community gardens are often episodic in nature and fail to garner lasting interest. Even when a form of urban agriculture does manage to take root, it remains difficult for a community or non-profit run project to successfully diversify its goals while relying on outside funding to support ancillary social programs. Thus, many community stakeholders and environmentally-minded entrepreneurs have decided to turn an initiative commonly viewed as a tool for community-building into a business that could be a viable alternative to industrial food systems, rather than a supplemental community-level mechanism.

Surprisingly, the for-profit urban farm differentiates itself from the community garden in very few ways. While some worry that a profit-driven farm model perverts the participatory experience, educational opportunities, and democratic nature of a community project, the most fundamental concern for transitioning to a self-sufficient farm is scale—i.e. “the ability of urban farming projects to satisfy the demand for sustainable food that exists in a given community” (Christian, 2010). Market demand and farm production must be proportionate to one another. Making a significant impact on the issue of food justice is therefore not necessarily a matter of purpose, but rather of scope. In fact, investing in a for-profit farm is often seen as demanding greater commitment to a community because the stakes are broadened. More specifically, organizational leaders whose livelihoods depend on the success of an urban farm project would be

further incentivized to fully cultivate the land, engage local residents, and open a steady flow of capital and fresh produce into the community, rather than viewing the project as charity.

Nevertheless, the local production, processing, and consumption of community-scaled agriculture must align with the goals of neighborhood residents. While any urban agriculture project can share a range of objectives aimed at uplifting underserved neighborhoods—including greening of place, the cultivation of nutritional and accessible food, grounded opportunities for hands-on learning and research, and the generation of market-based solutions and job skills training—its scope and scale as intended by community stakeholders are the foundation for differentiating successful and failed projects. The literature demonstrates, however, that the historic role of outsiders in these initiatives, particularly within non-White communities, drastically damages this foundation and limits the practical and cogent ability of alternative solutions to food insecurity. Building healthy, equitable, and sustainable food systems must be an inclusive process that rejects conventional social pathologies, which implicitly blame low-income communities and communities of color for inhibiting structural, socioeconomic change.

3. Methodology

Rooted in the inductive reasoning of qualitative research, this project aimed to achieve an intimate familiarity with the Binghampton community via a two-step process: (1) examine the structure and community engagement of Urban Farms Memphis; and (2) understand the goals of the community as they relate to health, food justice, and future access to food. Though the research period was limited to approximately six weeks, my previous involvement in Memphis urban agriculture provided me the background and experience to better establish rapport. As a previous employee of the MCFF, I had ongoing relationships with organizational leaders who were excited to contribute to this project and willing to allow me partial access to their cross-community

network of contacts.³ Thus, I was able to expand my qualitative methods to surveys and semi-structured interviews through these connections. Because I was much more interested in gaining a rich and complex understanding of the socioeconomic norms with which disadvantage low-income communities must contend, participants were specifically provided a casual atmosphere during the survey and interview process that allowed for a greater degree of freedom and self-expression. Through a bottom-up approach that focused on the specific experiences of each individual, my research aimed to further developed certain well-defined aspects of urban agriculture, such as community engagement, level of food access, and alternative education. While the survey methods may be viewed as a more rigid data collection that forces respondents to restrict their thoughts, feelings, behaviors, and experiences to a pre-determined set of responses, every participant was also given the opportunity to provide expanded answers that she/he thought were important to the discussion. Ultimately, survey and interview data were synthesized and discussed with local organizational leaders prior to finalizing my results and conclusions.

In order to attribute meaning to survey and interview questions, however, it was necessary to define various language and terminology in order to correctly measure the impact of urban agriculture in the Memphis and Binghampton neighborhood. First and foremost, *food systems* are geographic-specific paths of agricultural inputs and outputs—e.g. growing, processing, and distributing—which contribute to the environmental, socio-economic, and nutritional health of certain populations (Hendrickson & Porth, 2012; Cohen, Reynolds, & Sanghvi, 2012). *Urban agriculture* is used to generalize a wide range of growing spaces and practices, which are loosely defined by growing fruits, vegetables, and herbs and raising animals in cities, in addition to

³ From May to August 2015, I interned for the MCFE as the Coordinator of the Advance Memphis Community Farm Development. Situated on a half-acre corner lot in the 38126 zip code, I worked alongside local volunteers, helped produce a daily crop of summer vegetables, and collaborated with organizational leaders on further expanding homegrown social capital through a model of healthy eating, self-sufficiency, and food security.

educating, organizing, and employing local residents. Though there are important and nuanced differences between agricultural efforts like school, community, and entrepreneurial growing projects, the emergence of the movement as a whole is united by the idea that urban resources are to be repurposed in order to eliminate the distance food travels between the producer and the consumer—helping to create more environmentally, socially, and economically equitable food systems. *Urban farms* refer to more specific growing projects, which explicitly utilize larger lots for the purpose of broad distribution throughout a community. Each urban farm, however, can vary significantly in its mission. *Community gardens* represent more cooperative initiatives in which residents have a collective responsibility to maintain a shared space but can only harvest the fruits and vegetables produced in an allotted plot. Yet, despite parsing the grow movement in this manner, it quickly became evident that issues like community health, equitable food systems, and food access and insecurity—which urban agriculture claims to mitigate—were much more subjective concepts specific to particular communities and individuals. And contrary to some perceptions, Binghamton is certainly not a homogeneous population. In fact, the neighborhood’s central location, distinct history, and cultural cross-section allows for a rich exchange of ideas and values, which is optimal for further studying the nuances of food justice.

3.1 Survey

A community health survey was the primary source of the data analyzed and presented in this research (see *Figure 3*). In total, 40 respondents were recruited between June 20 and July 1 to complete the survey. The subject population was expressly limited to adults, ages 18 and up, living in the Binghamton community. Door-to-door canvassing was utilized as the primary surveying method, in addition to identifying community centers—such as Caritas Village and the Lester Community Center—where residents could be engaged within a comfortable and non-threatening

environment. Informed consent was obtained through an informational document attached to each survey (see *Figure 2*). No survey participant is identified by name in this research, although each participant was given the opportunity to give his/her contact information if willing to answer follow up questions about his/her personal experiences urban agriculture, food access, and community development.

3.2 Interviews

Semi-structured interviews targeting participants' personal and observed experiences within the local food system were used to supplement and build upon survey data. In total, 11 interviews were conducted with both Binghampton residents and organizational leaders in the Memphis grow movement—e.g. the MCFE, Carpenter Art garden, and Grow Memphis. Most interviews were arranged with consenting survey respondents between July 4 and July 15 and occurred both face-to-face and over the phone. Some interviews were recorded, while others were not. Therefore, a portion of the data to be discussed is paraphrased, aside from a few specific quotations. Though each interview was not standardized and coded to allow for any detailed level of quantitative analysis comparing statistical data or calculations, the open-ended and exploratory nature of the interviews allowed each one to be tailored to the individual responses and experiences of each community member.

3.3 Limitations

The most evident limitations to this research are represented in the demographic portion of the survey data.⁴ First and foremost, women and Whites are disproportionately represented. More

⁴ According to 2010 census data, present day Binghampton has an area median income of \$26,000, 35 percent of residents live under the poverty line, and 33 percent of households earn no wage or salary income. The neighborhood also has a cultural makeup distinct to Memphis: 69 percent African American/Black (including African immigrants, e.g. Burundi, Sudanese, Somali), 20 percent White, 6 percent Latino/Hispanic, 2 percent Asian (e.g. Nepali, Laotian, Vietnamese), and 3 percent other or two races. Additionally, this racial composition includes immigrants and refugees, who now constitute 14 percent of residents. The area is 46 percent male and 54 percent female. Of the population 18 and over, 32 percent lack a high school diploma and only 8 percent have a bachelor's degree or higher.

specifically, no Black men were willing to participate. Because many of the survey questions were household specific, it is unclear how this might skew response data. Considering that race is such a significant component of food justice, however, it is concerning that the views of the community might not be accurately represented. Furthermore, despite the fact that respondents tended to be single, lacking a post-secondary degree, and impoverished, 2010 census data indicates that traditional, well-educated, and affluent families are overrepresented in the survey data. While these discrepancies do exist, the demographic data nevertheless depicts a fairly diverse cross-section of the community despite survey sampling methods that were not random. And since this project focuses on a relatively small population, the small sample size should still have relevant implications for the community as a whole.⁵ Of course, it is understood that the data and analysis of this research is not widely applicable to the actions and experiences of individuals and groups outside of Binghamton.

Another major limitation with which I grappled was the selective nature of the data collection process. Because opportunities for data collection were broad and exploratory, it is ultimately up to my discretion to choose what information is relevant enough to record. When surveying and interviewing participants, I brought to the table a broad knowledge of urban agriculture and food justice, in addition to preconceived notions of how these concepts should interact with the community. Most residents of Binghamton, however, do not think about these issues on a daily basis. It became apparent that questions about healthy food and gardening invoked entirely different connotations in my mind than they do in minds of residents. Much of this,

⁵ Scale and time were obvious limiting factors. A six-week research period and approximately 45 participants meant sacrifices were made regarding survey and interview recruiting and relationship-building within the community. While I do not believe that any participants were not forthcoming, some residents appeared skeptical of the questions I was asking. Such a phenomenon was likely the result of participants wanting to provide concise information that both answered my research questions and best represented Binghamton. Response rates were also not recorded, thus precluding its effect on the data from being measured.

however, was remedied during the follow-up interviews that allowed for a more open dialogue. And while it was impossible to eliminate all bias from my conclusions, it is necessary to reiterate that these methods were designed to establish an intimate familiarity with socioeconomic norms that define the so-called Memphis urban agriculture movement. If anything, this project has led to an incredible amount of personal development that will greatly benefit future research endeavors.

4. Findings

Defined by a model of grassroots empowerment, a decentralized campaign for improved community health has led a number of different local agriculture initiatives to invest in vacant, blighted properties across Memphis within the past ten years (Kako, 2014). From school gardens and CSAs to partnerships between local farmers and mobile food markets, residents of Memphis are fighting back against alarming rates of obesity, diabetes, and hunger.⁶ What follows is a localized assessment of these alternatives to industrial food systems in terms of their ability to generate human and social capital beyond food access. Despite the fact that a number of urban agriculture initiatives face challenges like promoting investment and securing land tenure, there are distinct features beyond the basic market function that are essential for empowering communities committed to healthy, equitable, and sustainable food systems.

In Memphis, the urban landscape and associated food enterprises are shifting with the help of private and public monies. In conjunction with these community agriculture projects are a number of government entities, like the USDA, and non-profit organizations, like the American Heart Association, which are spearheading coalition-building efforts to research, develop, and support guides to local healthy food and urban farmer's markets (AHA, 2015). But, it is largely

⁶ As of 2013, data reported for diet-related chronic illnesses in Memphis reveals: 36 percent of adults suffer from high blood pressure; 12 percent of adults suffer from diabetes; 34 percent of adults suffer from obesity; and, 18 percent of children suffer from obesity (Haynes-Maslow, Stillerman & Yates, 2016).

individual residents who are demonstrating increased support for locally grown food—although some are skeptical of being further entangled in an exploitative economic structure at the bottom of society. Food justice leaders in neighborhoods like Binghampton recognize that different models increase the power and capacity of residents in different ways. Thus, as one of a handful of agricultural-centered initiatives in the Binghampton community, UFM is very much an experimental project that has continued to operate under the assumption that a relatively functioning farm is better than nothing. In an ideal world, it would exemplify an agricultural model of society, which provides jobs, nutritional assistance, and community development programs to the surrounding neighborhoods. Farming in an urban setting, however, presents a learning curve that demands time, commitment, and funding in order to formally nurture community engagement on an effective scale. Growing food is simply the first hurdle for an urban agriculture initiative tackling food justice.

4.1 Urban Farms Memphis and Binghampton

In the spring of 2010, UFM began an initiative with promising potential for the cultivation of healthy foods, markets, and neighborhoods through urban agriculture and community engagement in Binghampton. This three-acre farm sits on a nine-acre plot of land north of Walnut Grove and east of Tillman and is now operated by the Memphis Center for Food and Faith after its start with the BDC. Strengthened by a two-year MCFF investment—over \$70,000 in programming and capacity building since July 2014—full-time farm manager Dennis O’Bryan supervises an expanding cross-section of growers, consumers, volunteers, educators, and students. But, while it is important to the MCFF and partners for UFM to generate revenue in order to cover the most basic costs of the community outreach and engagement project, the farm has struggled to reach market viability (N. Campbell, personal communication, June 14, 2016). The farm relies

heavily on volunteers, and its parent organizations cover labor and maintenance costs. Community members also pay a small price for produce harvested from the farm. These transactions, however, are more important for upholding the dignity of the community than for offsetting farm expenses. Furthermore, the farm contributes value to the community through intentional conversations that not only frame food as a matter of health, but as a tool for social cohesion (D. O'Bryan, personal communication, July 5, 2016). The process of sharing both food and interpersonal connections simultaneously—also known as table fellowship—is viewed as a crucial part of creating more resilient neighborhoods. Evidently, UFM leaders believe there is a significant amount of power to be had if local residents are controlling the conversation, not outside members of the industrial food systems. This has allowed UFM to gain an established presence in Binghamton after operating for five years and may soon allow for larger projects through the merger of multiple organizations committed to healthy, equitable, and sustainable food systems.

Since 2010, however, UFM has had its ups and downs. The handoff of the farm by the BDC to the MCFE in 2014 essentially marked a reboot of the project (N. Campbell, personal communication, June 14, 2016). While both parent organizations are faith-based non-profits that promote social justice, the BDC is intimately committed to fighting blight in Binghamton on multiple fronts and dedicated to a variety of missions specific to the community, including Christian ministry, affordable housing, food access, community art, and technical education. Under BDC ownership, the farm costs of UFM and leadership shortcomings apparently prevented the ambitious integration of a fully operational urban farm into the BDC network. Thus, the comprehensive approach that the MCFE takes toward education and outreach and the moral commitment it has to food and farming made the MCFE better suited for managing a full-scale urban farm project. Yet, the MCFE has encountered a significant hurdle related to landownership

(N. Campbell, personal communication, July 6, 2016). Because the BDC originally began the farm based on a handshake deal with a local proprietor, there has been a constant threat of losing the farm if the 9-acres were to be sold to a prospective developer. Since the MCFF cannot afford the market price to purchase the land and ensure the farm's security, its organizational leaders and associated partners have been unwilling to commit the resources required to establish broad relationships with a diversity of residents. In spite of these limitations, it is important to understand whether the UFM model of urban agriculture is operating at a scale that best promotes the needs of the community as a whole. In order to do that, it is necessary to further examine the local neighborhood in which it resides.

Binghampton began as an independent and racially integrated rural town home to farmers and other agricultural workers in the late-1800s and early-1900s (Community LIFT, 2010). At the time, two major railroads and the street car line ran through the community. It soon boasted its own train station, post office, power company, newspaper, and four lumber yards and a streetcar factory. But, the character of the community has varied dramatically over the last 100 years. As Memphis expanded eastward, more affluent neighborhoods came to surround Binghampton, before manufacturing jobs and White Memphians altogether departed in the 1970s. By the late-20th century, racial segregation, poverty, and blight—not uncharacteristic of many parts of Memphis—marked a community which lost 31 percent of its population between 1970 and 2000 (Binghampton Development Corporation, 2013).

Fortunately, however, another socioeconomic shift has moved this Memphis community in a new direction. Not only does US census data show an 8 percent increase in homeownership between 2000 and 2010, but survey data from the BDC indicates that 92 percent of the community also believes Binghampton is improving. The neighborhood now boasts of a diverse population

and thriving community organizations. Because of the preexisting cultural composition of Binghampton and a growing population of migrants from Asia, Africa, and Latin America, there are now numerous opportunities for multicultural education, interaction, and activities within the community. The UFM project, however, has been unable to devote the time and development necessary to take advantage of these diverse cultural resources. Furthermore, much of the farm's impact simply remains unexplored. Many of the organizational leaders espouse anti-hegemonic values and forward-thinking ideas that align with institutional change to local food systems, but lack of resources, uneven neighborhood interest, and uncertain project security present substantial challenges to lasting change. Nevertheless, understanding the impacts and limitations of UFM as a non-profit in relation to the needs of the Binghampton community could have broad implications for future organizations given the number of urban agriculture initiatives across Memphis. Identifying the community's goals through feedback from residents and leaders in relationship to existing case studies is imperative for any research that seeks to examine the advantages and disadvantages of alternative models of urban agriculture in Memphis.

4.2 Asking Questions

“Where is Urban Farms Memphis?” asked one survey participant. The young, single mother who posed this question happened to live directly across the street from the farm. While this interaction is not indicative of the UFM project as a whole, it represents the uphill battle that urban farms face to establish a meaningful presence when the initiative entirely fails to engage families on the same block. Most Binghampton residents, however, did not demonstrate such a lack of awareness regarding the resources available in their community, as 57 percent of respondents reported that there is a place to buy locally grown food in the community. Urban agriculture also did not appear to be a foreign concept, as 60 percent of respondents stated that

they had experience with gardening. Rather, residents commonly appeared confused regarding how community participation in a farmer's market could improve the socioeconomic condition of Binghamton. Few participants seemed prepared to speak with me about food access. Blank stares and different iterations of "uh, that's a good question" commonly accompanied lackluster responses to survey or interview questions, revealing that the most concerning issue for food justice activists may not be a topic that people living with the consequences of inequality on a daily basis have thought much about. Simultaneous to these observations, however, 100 percent of respondents claimed that healthy eating is to some degree important to their households; 65 percent of respondents identified childhood and adult obesity as a problem in the community; and 55 percent of respondents perceive there to be a lack of information and activities promoting healthy eating. Evidently, navigating the nuances and intricacies of food justice and urban agriculture in Binghamton is not a well-defined path.

4.3 Access

Most striking is the fact that 100 percent of respondents buy food at grocery stores at least sometimes and 63 percent of respondents never buy food at convenience stores. This data runs counter to the established belief that food deserts deprive residents of physical access to fresh produce, thus contributing to unhealthy dietary habits. Census data in conjunction with the survey numbers indicate most Binghamton residents live over a mile from the nearest grocery store but still make the trip out of their neighborhood to more diverse sources of food. It is unclear, however, if other hardships arise due to time and expense of travel. Clearly more research needs to be conducted to reassess how conventional solutions to food insecurity are actually impacting the lives of vulnerable populations in the US. Most recently, the federal government appropriated \$400 million to increase food access through tax breaks for supermarkets, farmer's markets, and other

food stores that open locations in food deserts and revised Supplemental Nutrition Assistance Program (SNAP) guidelines that offer improved nutrition assistance to eligible low-income individuals and families (Tennessee Farm Bureau Federation, 2014). Similarly, bipartisan programs such as First Lady Michelle Obama’s Let’s Move! Campaign for childhood obesity promote tax incentive interventions in underserved communities as a way to raise awareness of food insecurity. Nonetheless, these research data support other studies that indicate more food is not the answer to unhealthy dietary habits. Evidently, shopping at full-service grocery stores that offer competitive prices on fresh food options—although high in comparison to other processed food options—and increased taxes on unhealthy products do not necessarily have an effect on the shopping and eating habits or the overall health of a community (Corapi, 2014).⁷

Perhaps unsurprisingly, 70 percent of respondents are impacted to some extent by the cost of fresh foods. This data has obvious implications for residents’ ability to eat nutritional meals despite shopping at full-service grocery stores—although it is vague as to how much of an extra monetary burden fresh fruits and vegetables exert on a weekly food budget as opposed to processed alternatives. Nevertheless, cost is an obvious limiting factor. This burden is exacerbated by the fact that 53 percent of respondents made a household income of less than \$25,000 last year and 78 percent of respondent rent their residence.⁸ This data is demonstrative of the struggling economic condition of Binghampton. An individual or family that lives paycheck to paycheck will undoubtedly care more about buying enough food than buying quality food. Yet, even if fresh

⁷ According to the Shelby County Health Department (SCHD), the two leading causes of death in Binghampton are cancer and heart disease, each representing about 23 percent of all deaths in 2010 (Community LIFT, 2010). For that year, the SCHD also reported 11 infant deaths for every 1,000 live births and 224 cases of HIV/AIDS. Additionally, only 24% of residents live within a quarter mile of one of the four neighborhood parks. But, the Binghampton neighborhood is home to three community health centers: Christ Community Health Center on Broad Avenue, Caritas Village Harvard Avenue, and Planned Parenthood on Popular Avenue.

⁸ 15 percent of survey respondents (6) failed to disclose their household income before taxes in 2015. Consequently, this rate is calculated out 34 responses, rather than 40. It is unclear whether this response rate skews the data.

produce is in the budget of Binghamton residents, some population health professionals argue that greater access to new grocery stores simply improves the perception that the community is healthier, while in reality low-income residents do not possess the practical skills necessary for buying and cooking healthy foods (Cummins, Flint & Matthews, 2014). For example, the top five produce items that survey respondents reported buying were fruits—apples, bananas, grapes, oranges, and strawberries. While fruits provide essential vitamins and minerals and offer natural sugars that are healthier than processed sugars, there appears to be a consensus that vegetables are more difficult to regularly incorporate into one’s diet regardless of socioeconomic status.

4.4 Interest

Several discontinuities present themselves concerning participants’ interests and actions. While 75 percent of respondents were interested in attending a local farmer’s market, only 18 percent of respondents usually or always frequent farmer’s markets for food. This data raises questions about the accessibility of farmer’s markets. If 4 times as many respondents want to attend a farmer’s market than are actually shopping at local markets regularly, then there is an unmet community need that should be addressed. Moreover, 63 percent of respondents have heard of Urban Farms Memphis, while only 23 percent of respondents have physically visited Urban Farms Memphis. This data demonstrates a striking disparity. In order for UFM to claim it engages the community in any meaningful way, far more residents need to personally visit the farm and interact with the necessary processes for growing fruits and vegetables. At the same time, however, survey respondents failed to consolidate interest around any one specific urban agriculture or community development activity. While farmer’s markets and community gardens are advertised by policymakers, academics, and proponents of sustainable agriculture as appealing methods to access more fresh fruits and vegetables, Binghamton residents are not going out of their way to

find and participate in opportunities that may or may not improve their quality of life. Certainly, there is also no sense of ownership in these enterprises if they are not perceived as part of the community as a whole.

One interviewee stated that any development projects must have a central and accessible location in the community (Participant #30, personal communication, July 6, 2016). Aside from issues of transportation—which present an already massive hurdle for many residents—it is important for centers of community engagement to be visible. Project centrality and subsequent residential interactions are an essential part of showing, rather than simply telling, what food justice looks like. Participants expressed also appreciation for the spaces that initiatives like UFM create for children and families but characterized themselves as third-party beneficiaries. One woman expressed frustrations rooted in not understanding what the end-goal was for such community gardens (Participant #37, personal communication, June 28, 2016). Yet, should residents desire engagement, UFM is literally in physical isolation at the end of a dead-end street. Farm manager Mr. O’Bryan admits that the community members who visit the farm on any regular basis only come from the immediate surrounding neighborhoods. Evidently, without any kind of broad advertisement or community outreach campaign, the farm appears doomed to sit in solitude. Additionally, the Overton Park Farmer’s Market is separated from Binghampton by a heavily trafficked boulevard, East Parkway North. These physical barriers are discouraging for local residents who might otherwise have the time and interest to shop at a convenient farmer’s market that incorporates broader social, cultural, and economic prospects into its operational structure.

4.5 Community Development

Beyond poor access to fresh foods, Binghampton residents expressed concerns that the community as a whole is isolated from other important resources like education and jobs training.

Essentially, increased access to cheap produce is viewed as irrelevant if it is not tied to other civic projects or local institutions, such as economic opportunities, community art and cultural outreach, or church ministry. These concerns are very much interconnected with solving the structural causes of poverty and hunger. If residents generally lack the skills or relationships to obtain jobs or services outside the neighborhood, then the community can never expect to reach self-sufficiency. In conjunction with this island effect, which traps so many in Binghampton, community members expressed distrust towards outsiders claiming to help. With regards to the work of different service groups and non-profit organizations, one participant specified, “there are no long term connections made with community members” (Participant #17, personal communication, July 5, 2016). Consequently, many residents countered my questions with their own: Why do you care? What do you want from me? How will you help my community? According to respondents, Binghampton is used to being ignored (Participant #29, personal communication, June 21, 2016). It appears that only a handful of outside stakeholders understand the history and the vast range of issues that systematically set the community back.

Because so many different groups live in Binghampton, it is difficult to engage every subpopulation in a meaningful manner. Some members of the community expressed concerns that the limited resources Binghampton possesses be used in the most efficient manner possible in order to keep costs low and community development high (Participant #30, personal communication, July 6, 2016). This question of how to best invest monies and resources is of course ever challenging. UFM could start with better including smaller immigrant communities outside the Black-White dichotomy that dominates Memphis. One interviewee noted that refugees resettled in Binghampton often maintain personal gardens in their own yards (Participant #17, personal communication, July 5, 2016). Having lived in more agrarian and decentralized societies, these

migrants possess knowledge and skills relating to traditional and sustainable practices for growing food and have the potential to serve as teachers and trainers in an expanding urban agriculture network. Moreover, one of the easiest barriers to overcome is getting to know one's neighbors. Not only does this help create a tighter-knit community but, in a relatively small community like Binghampton, word-of-mouth is an incredibly powerful tool for disseminating information. Ultimately, it will be personal relationships, not strawberries or kale, that helps Binghampton residents flourish and grow.

5. Conclusion

An examination of Urban Farms Memphis as an extension of the local food system in Binghampton revealed a relatively pessimistic outlook regarding the current impact of the farm on development. The foundation on which UFM was built is inherently flawed. Without a secure future for the farm, its ability to build long-term relationships and promote healthy, equitable, and sustainable local food systems is obstructed. A single full-time employee will never be able to develop a self-sufficient farm while simultaneously managing the necessary community outreach efforts to engage individuals, educate residents, and further encourage young people to participate in grassroots mobilization against corporate agriculture. One cannot definitively say that UFM has effected no change, but the distinct lack of long-term goals and outside ownership of the land have inherently failed to target food access, individual awareness, or community development in a comprehensive manner. What do these challenges mean for Binghampton?

First and foremost, the sampling of Binghampton residents represented in this research shows that most have physical access to multiple sources of fresh, healthy foods. Surveys and interviews, however, did not evaluate the negative effects of inconvenience on economically disadvantaged populations, which also limit the ability of many households from freely choosing

fresh and local food options. Children who grow up within a system that underserves the entire surrounding population adopt lifestyles that fit these circumstances. A diverse community like Binghampton is encouraged to buy into the overproduction and overconsumption of cheap processed foods instead of hailing the multitude of cultural experiences embedded in the community. As an underserved community of color, residents not only face neglect from a dysfunctional food system that denies them access to nutritional, educational, and financial resources, but must also overcome a history of colorblind policy biases that trade in overt discrimination for coded discourse. There exists, however, an obvious desire to take ownership of Binghampton's future and implement initiatives congruent with residents' own values. But, projects like UFM need to take definitive steps to setting up business models and community organizations that are specific to the Binghampton experience. Simply aiming to alleviate a food desert or promote locally-sourced foods in a generic sense fails to understand the nuance of a community that many have claimed to help before.

To a certain extent, the experiences of those affected by the Memphis urban agriculture movement are not comparable to other movements in cities like Seattle and Milwaukee, because the fight against industrial food systems and associated food insecurity is relatively new to the Mid-South. Certainly, time is a crucial resource needed for developing the relationships and infrastructure necessary to combat such entrenched levels of hunger and poverty. Yet, the UFM project in Binghampton demonstrates a distinct ability to remain dedicated to serving the immediate community instead of pivoting elsewhere. Despite questions of community ownership, long-term goals, and under-utilized land, UFM leaders have not pursued other outside markets, but rather continued develop a mission and pursue investors that will eventually engage local residents in a meaningful way. The progressive trend within the food movement that emphasizes

a grassroots orientation towards citizen empowerment is dedicated to local production, processing, and consumption. And UFM has shown a commitment to this model despite the fact that it has failed to reach market viability. More concerning, however, is the lack of community engagement demonstrated in this research. Where arguments over the purpose of urban agriculture have shifted to focus on economic models, Binghampton residents are more concerned with their access to human and social capital resources.

6. Further Questions

The possibilities for further research regarding Memphis food systems remain plentiful. Yet, the principal question that goes unanswered when dealing with topics of empowerment and justice relates to the extent to which a community is improved in intangible ways. For UFM and other urban agriculture initiatives in Binghampton, social justice and community empowerment as products of idea and value sharing are essential functions of any food security project. Outreach and collaboration are used to invest in human dignity. This makes it difficult to determine which Binghampton residents capitalized on new opportunities to challenge injustice or promote diversity. Furthermore, this research purposefully gathered relatively broad data from participants, which targeted household trends and community participation. The failure to construct a comprehensive measure of personal consumption or health left this study wanting more specific data on food expenditures, knowledge of health lifestyles, and quantitative health measures. Questions were also kept culturally neutral. There exists a vast space for exploring the different cultural traditions relating to food in Binghampton, on which urban agriculture must capitalize as a democratic manifestation of the local residents. This idea is represented by the possibility of food fairs or festivals that celebrate traditional and ethnic cuisines or partnerships with similar cultural groups in nearby communities that promote new relationships and an exchange of shared food

experiences. Ultimately, however, these questions do not appear to significantly detract from my conclusions regarding the failure of food access to address institutionalized patterns and necessities of communities trapped in spaces of poverty that are attempting to build human and social capital.

Appendix

Figure 1: Binghamton Community Map



Figure 2: Consent Form

Institution: Rhodes College
Title: Models of Community Renewal: Understanding the Urban Farm Movement in Memphis
Investigator: Sam Polzin, Undergraduate Student
Sponsor: Professor Amy Risley, Department of International Studies and Latin American Studies

You are being asked to be a volunteer in a research study.

The purpose of this study is to explore how urban farms and gardens benefit the community in the Binghampton neighborhood.

If you decide to participate in this study, you will complete the following survey in one sitting. The survey should take no more than 10-15 minutes to complete. The questions will ask about your eating habits and community health, then will follow up with a few questions about your personal background. The majority of questions are multiple choice or yes/no questions. A few questions ask for a one-word response.

There are no known or anticipated risks or discomforts associated with participation in this research. There are no costs to you, other than your time. There will be no compensation for participation in this study. You are not required to give your name, email, phone number or any other specific identifiers, but you will have the opportunity to do so should you wish to further participate in the research. Any personal information will only be directly available to the research investigator or sponsor. Any general findings or results produced from this survey will be made available through the Rhodes Institute for Regional Studies (RIRS). A final copy of the research can be provided upon request.

Your participation in this study is voluntary. You do not have to be in this study if you don't want to be. You have the right to change your mind and leave the study at any time without giving any reason and without penalty. You will be given a copy of this consent form to keep.

If you have any questions about the study, you may contact:
Sam Polzin at (314) 456-7569 or polss-17@rhodes.edu

Thank you in advance for your cooperation and participation in this research study.

By completing the survey, you indicate your consent to be in the study.

Figure 3: Survey Data Frequencies

1. How many meals a week do you eat that are prepared at home by you or someone else?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	1-7	17
2	8-14	14
3	15-21	9
4	None	0

2. What meals do you often eat at home (select all that apply)?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Breakfast	32
2	Lunch	22
3	Dinner	36
4	Snack	20
5	None	0

3. Do you prefer to use pre-packaged ingredients or fresh ingredients (i.e. produce and items made from “scratch”) when cooking/eating at home?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Pre-packaged	2
2	Fresh	15
3	A mix, but I rely more heavily on pre-packaged	3
4	A mix, but I rely evenly on pre-packaged and fresh ingredients	12
5	A mix, but I rely more heavily on fresh ingredients	8
6	Neither, I do not cook/eat prepared meals at home	0

4. Please list the top 5 produce items you purchase regularly (e.g. fruits, vegetables, & herbs).

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Apples	22
2	Bananas	14
3	Grapes	13
4	Oranges	13
5	Strawberries	10
6	Carrots	10
7	Tomatoes	7
8	Onions	6
9	Kale	6
10	Lettuce	5
11	Broccoli	5
12	Spinach	5
13	Cabbage	4
14	Potatoes	4
15	Corn	4
16	Greens	4
17	Cherries	3
18	Green beans	3
19	Pinto beans	3
20	Avocados	2
21	Bell peppers	2
22	Watermelon	2
23	Squash	2
24	Cilantro	1
25	White beans	1
26	Okra	1
27	Jalapenos	1
28	Plums	1
29	Zucchini	1
30	Kiwi	1
31	Brussel sprouts	1
32	Peaches	1
33	Lemons	1
34	Asparagus	1
35	Pineapples	1

How often do you shop for food at the following locations?

5.1 Super-stores (e.g. Walmart)

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Never	16
2	Sometimes	20
3	Usually	2
4	Always	2

5.2 Grocery stores (e.g. Kroger, Cash Saver)

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Never	0
2	Sometimes	4
3	Usually	20
4	Always	16

5.3 Convenience stores (e.g. Circle K)

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Never	25
2	Sometimes	11
3	Usually	2
4	Always	2

5.4 Farmer's markets

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Never	15
2	Sometimes	18
3	Usually	6
4	Always	1

5.5 Food pantries

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Never	28
2	Sometimes	9
3	Usually	2
4	Always	1

5.6 Specialty stores that focus on organic foods (e.g. Whole Foods, The Fresh Market)

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Never	15
2	Sometimes	19
3	Usually	4
4	Always	2

6. Is healthy eating a main concern for you and those you live with?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Yes	29
2	Somewhat	11
3	No	0

7. Does the cost of fresh foods impact your ability to eat healthy meals?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Yes	15
2	Somewhat	13
3	No	12

8. Do you currently have a garden?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Yes	9
2	No	31

9. Do you have previous experience with growing a garden?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Yes	24
2	No	16

10. Is there a place to buy locally grown food in the community?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Yes	23
2	No	17

11. Do you think any of the following issues are a problem in the community (select all that apply)?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Childhood obesity	26
2	Adult obesity	26
3	Lack of activities and information that promote exercise	21
4	Lack of activities and information that promote healthy eating	22
5	Lack of communal green spaces	10

12. What kind of activities might you be interested in participating in if they were available in the community (select all that apply)?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Attending a class on nutrition and healthy eating	16
2	Attending a class on growing your own produce	18
3	Attending a class on preparing locally-grown food (e.g. cooking, canning, pickling)	14
4	Attending a farmer's market	30
5	Joining a CSA (Community Supported Agriculture), where participants pre-pay a local farmer to deliver fresh, locally-grown produce to your neighborhood each week	18
6	Growing food in a community garden	12
7	Attending a native plant sale	4

13. What activities do you think would help local business in the community (select all that apply)?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Holding local business forums to discuss strategies for growth	14
2	Encouraging local government to purchase products and services from local businesses	16
3	Encouraging local government to provide incentives for local startup businesses	20
4	Producing a local business directory for residents and other businesses	14
5	Conducting a "Buy Local" campaign	18

14. Have you heard of Urban Farms Memphis?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Yes	25
2	No	15

15. Have you visited Urban Farms Memphis?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Yes	9
2	No	31

16. What is your age?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	18-24	6
2	25-34	13
3	35-44	8
4	45-54	4
5	55-64	3
6	65-74	4
7	Over 75	1

17. With which gender do you identify?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Female	33
2	Male	7
3	Genderqueer/Androgynous	0
4	Other	0

18. With which race do you most identify?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Black or African American	19
2	Hispanic or Latino	2
3	Native American or American Indian	0
4	Asian or pacific Islander	0
5	White or Caucasian	19
6	Other	0

19. What is your marital status?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Single (never married)	22
2	Married/Partnered	14
3	Separated	1
4	Widowed	1
5	Divorced	2

20. What is the highest level of education you have completed?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Some high school, no degree	7
2	High school graduate, diploma or the equivalent	10
3	Some college credit, no degree	2
4	Trade/technical/vocational training	5
5	Associate degree	1
6	Bachelor's degree	11
7	Master's degree	3
8	Professional degree	1
9	Doctorate degree	0

21. What is your employment status?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Employed for wages	18
2	Self-employed	5
3	Not working but looking for work	7
4	Not working and not currently looking for work	1
5	Homemaker	2
6	Student	1
7	Military	0
8	Retired	3
9	Unable to work	3

22. Do you own or rent your residence?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Own	9
2	Rent	31

23. What type of dwelling do you live in?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Single-family home	23
2	Condo	0
3	Town-home	0
4	Apartment, complex	5
5	Apartment, house converted into multiple units	11
6	Other	1

24. How many people live in your home including you?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	1	6
2	2	9
3	3	13
4	4	7
5	5	3
6	6	0
7	7	1
8	8	1

25. How many people under the age of 18 live in your home?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	1	7
2	2	7
3	3	5
4	4	1
5	5	1
6	0	19

26. What was your total household income before taxes in 2015?

<u>PUNCH</u>	<u>RESPONSE</u>	<u>FREQUENCY</u>
1	Less than \$25,000	18
2	\$25,000 to \$49,999	7
3	\$50,000 to \$74,999	4
4	\$75,000 to \$99,999	2
5	\$100,000 or more	3
6	Undisclosed	6

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