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FOOD INSECURITY IN HISTORICALLY DISENFRANCHISED PARTS OF
JEFFERSON COUNTY, KY

By
Kaitlyn Smith
B.S., University of Louisville, 2018

A Graduate Thesis
Submitted to the Faculty of the
College of Arts and Sciences of the University of Louisville
in Partial Fulfillment of the Requirements
for the Degree of

Master of Science
in Applied Geography

Department of Geography and Geosciences
University of Louisville
Louisville, KY

May 2020

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COUNTY, KY

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M.S., University of Louisville, 2020

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DEDICATION

This thesis is dedicated to the entire department of Geography and Geosciences who have given me invaluable educational opportunities.

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I would like to thank my mentor Dr. Margath Walker for her guidance in this project. She invested a great deal of time in the development of my research idea, providing edits, and providing feedback. I would also like to thank the entire Geography and Geoscience Department for their help in this project.

Gratitude is also extended to local non-profits who participated in interviews, and the residents who participated in interviews for this project.

ABSTRACT

FOOD INSECURITY IN HISTORICALLY DISFRANCISED PARTS OF JEFFERSON COUNTY, KY

Kaitlyn Smith

April 22, 2020

The objective of this study is to investigate the availability of fresh and nutritious foods in Louisville's West End communities. This study operates under the assumption that residents in Jefferson County have unequal access to food. This study also addresses the question of how residents and local non-profits feel about strategies that build community through food. This study is significant because across Louisville, more than 120,000 people are living with food insecurity, meaning they don't have reliable access to healthy, affordable food (Dare to Care 2019). Multiple reports that have been commissioned by local non-profits and metro departments in the west and south ends of Jefferson County have uncovered the same facts: that residents in impoverished areas do not have access to affordable foods that they need to increase life expectancy (Center for Health Journalism 2018). These reports do not examine the availability of nutritious foods from the perspective of residents and local nonprofits.

The top three themes that were identified from the content analysis were: racism and classism, socialized isolation, and transportation. This analysis has shown that the interviews that were conducted with local non-profits and residents has provided a more in-depth narrative of the foodscape in the Western and Eastern downtown neighborhoods of Jefferson County, Kentucky.

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CHAPTER 1: INTRODUCTION

1.1 JEFFERSON COUNTY

Jefferson County, Kentucky has a population of 776,757 persons (United States Census Bureau 2020). Fifteen percent of the adult population, and sixteen percent of the population eighteen or younger experience food insecurity (Dare to Care 2020). Where you live in Jefferson County determines the types of food that is available for purchase and impacts overall health incomes. Jefferson County, Kentucky is discussed in the contexts of East or West. Those who live in the neighborhoods in the Southern and Western portions of the county experience higher rates of food insecurity and access to grocery stores, farmers markets and other outlets to purchase fresh, healthy, and nutritious foods. These neighborhoods are considered food deserts; a food desert can be defined as an impoverished area where residents lack access to healthy foods.

My study area includes the neighborhoods of Shawnee, Old Louisville, Russell, Parkland, Chickasaw, Smoketown and Shelby Park. These neighborhoods are located in the Eastern downtown and Western parts of Jefferson County, Kentucky. Figure 1 shows supermarket access in the neighborhoods listed. It can be depicted from the map that these neighborhoods experience less food access.

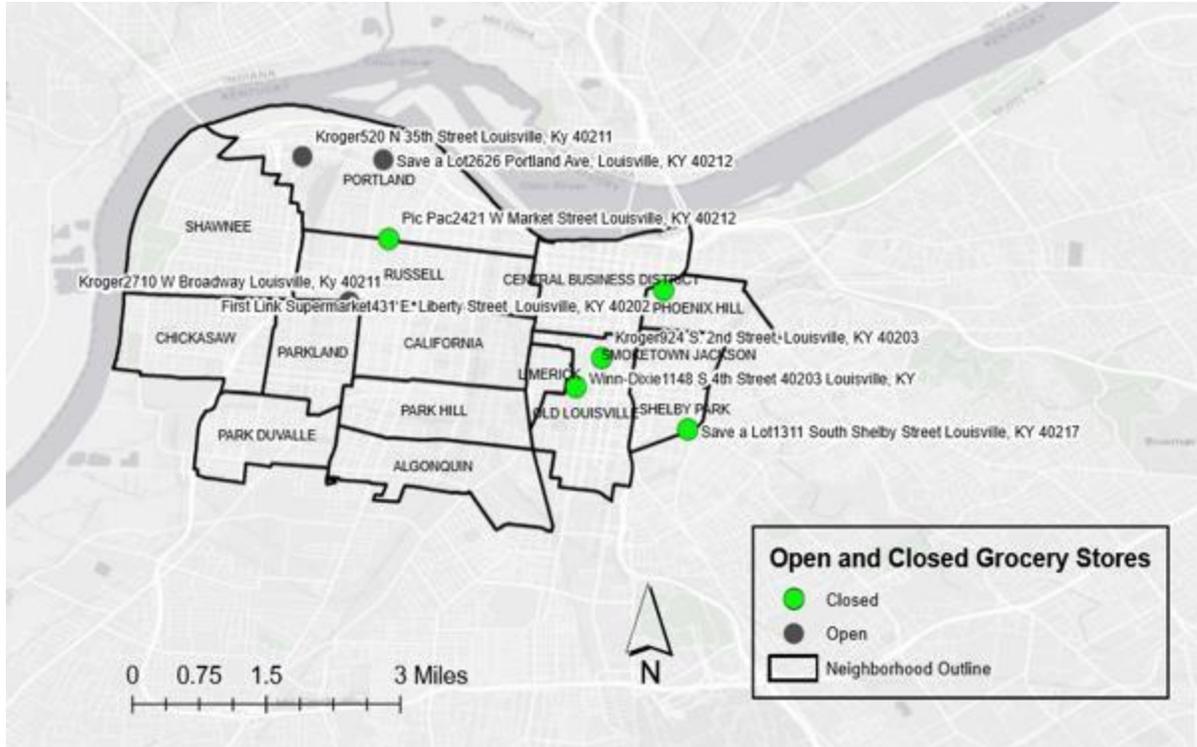


Figure 1. Supermarket access across Louisville, KY

The United States Department of Agriculture defines an area as a food desert when a census tract meets the following two criteria: census tract that has a poverty rate of twenty percent or higher and median family incomes at or below eighty percent of the statewide family income. The second criteria is as follows: the community must be of low-access, urban census tracts with more than thirty-three percent living more than one mile from a supermarket or large grocery store (University of Nevada Cooperative Extension Office 2014).

Residents in my study area have expressed frustration with local researchers, often becoming the subjects of the research themselves. Previous studies that have been conducted in these neighborhoods with Government agencies and local Universities have lacked in transparency, creating feelings of distrust and frustration from the residents to participate in

future research. To address these issues, I spent time with the residents in my study area through attending various community events, participating in the local farmer's markets, shopping at the various stores that are located in the neighborhood, and volunteering at a local Fresh stop market. It was crucial to gain trust among the residents to make sure that their opinions and concerns were captured through this project, to create a grounded narrative of the issues that contribute to food insecurity in Jefferson County.

The objective of this study is to investigate the availability of fresh and nutritious foods in Louisville's West End communities. This study operates under the assumption that residents in Jefferson County have unequal access to food. This study also addresses the question of how residents and local non-profits feel about strategies that build community through food. There are currently two mainstream grocery stores that serve the residents who live in the west end of Louisville, forcing residents to shop at convenience stores, which do not have healthy and nutritious foods available for purchase. Food insecurity is mainly quantified and focuses on "lack of food". These indicators are important but fail to explore the root causes of food insecurity from local non-profits. This study seeks to elaborate on the idea of a foodscape and speak with a number of stakeholders and "food insecure" populations to better understand the link between food and community building.

1.2 FOOD DESERT RESEARCH

Research on food deserts involves quantitative techniques that produce static and fragmented accounts of the number of food sources without conceptualizing the changing social

relational and political nature of landscapes of urban food consumption (Miewald and Mccann 2013). A foodscape refers to the different spaces and places that a person acquires food (Mackendrick 2014). The use of foodscapes emphasizes the spatiality of food systems, referring to the uses of production, retailing, and consumption. Foodscapes from global and local scales, and geographers have deployed the concept to explore the ecological sites and social relations within food and food's moral and ethical meaning (Miewald and Mccann 2013 -2). This approach necessitates a qualitative approach that elicits the interviewee's personal narratives to explain the complex, enacted, changing, and political food landscape of a particular neighborhood and its residents (Miewald and Mccann 2013 -3). The foodscape framework offers advantages in that it enables scholars to analyze how food, places, and people interact.

CHAPTER 1: LITERATURE REVIEW

This chapter explains food insecurity as defined by the United States Department of Agriculture. It then investigates how the use of food pantries contributes to the role of cultural food insecurity. It explores how cultural ties and foodways of clients of food pantries and other sources of emergency food services alter an immigrant and refugee's sense of place and community. It also explores the ability of emergency food access sites to provide culturally appropriate food that maintains culturally appropriate foods or contribute to thinned attachment as immigrants and refugees are forced to adapt to a more Americanized diet.

2.1 FOOD INSECURITY

Food insecurity is defined as a lack of consistent access to enough food for an active, healthy life (Feeding America 2019). In 2006 the United States Department of Agriculture introduced new language to describe ranges of food insecurity, these ranges are based on the number of persons in the household that are affected, and the quality and quantity of food that is available. Definitions of food insecurity are divided into two categories: low and very low. Low food insecurity is characterized by reports of reduced quality, variety, or desirability of diet. Very low food security is characterized by reports of multiple indications of disrupted eating patterns and reduced food intake (USDA 2019).

Food insecurity has been connected with a multitude of negative health outcomes such as: Type 2 diabetes, heart disease, and high blood pressure (Guccuardi et al 2014). Family members in food-insecure households are more likely to struggle with psychological and

behavioral health issues, and children who are struggling to get enough to eat are more likely to have problems in school and other social situations (Feeding America 2020).

Food insecurity impacts African American communities at a rate more than twice that of White or Hispanic households (Feeding America 2020). A study that was conducted by Suratkar et al (2010), investigated the relationship between food insecurity and knowledge about nutrition, self-efficacy to make nutritious meal decisions inside and outside the home, and knowledge about healthy food preparation. It was found that 10.9% of all households in the United States were food insecure, with food insecurity being highest at 21.8% for African Americans (Suratkar 2010).

Existing research on food insecurity in the United States has relied on parental reports of the household food environment. This approach has been accepted as valid for establishing national estimates of childhood food insecurity, but recent studies have found that children are often the best reporters of their own experiences. A study that was conducted by Fram et al (2011) investigated childhood food insecurity and hunger from the child's perspective. Interviews with the mothers, children, and other adults in the household were conducted in rural and urban areas of South Carolina. Awareness in this context meant that the child had an experience of or an encounter with the household's food security and understood that experience as being related to not having enough food to meet everyone's needs. Awareness was differentiated into three subcategories of cognitive, emotional, and physical awareness. It was found that children are aware, cognitively, physically, and emotionally of food issues inside of the home (Fram et al 2011). Children reported that occasionally, that they took responsibility for managing food insecurity by generating more resources for food themselves, such as asking for extra food from neighbors and contributing income to the household.

Food insecurity can have negative effects on the physical and mental development in children. A study conducted by Jyoti et al (2005), investigated the effects of food insecurity on children. Children ages six through twelve who experience food insecurity had issues with decreased mathematical performance, grade repetition, absenteeism, tardiness, anxiety, aggression, and difficulty getting along with their peers (Jyoti 2005).

2.2 CULTURAL FOOD INSECURITY

Immigrating to a new country can be overwhelming, and feelings of loss and discomfort, loss of cultural identity, and the loss of familiar foods, can lead to both to a physical and emotional sense of food security. A study that was conducted by Moffat et al (2017) examined the three of the four pillars of food security for immigrants and refugees.

Household food security among these communities is threatened continuously by barriers such as high food prices, difficulty shopping, and identifying and using new foods (Moffat 2017). Reluctance by these populations to ask for assistance is also complicated from issues of citizenship status, language, and transportation. Currently, there is limited literature on food insecurity among immigrant and refugee populations. Culture strongly influences food and eating; there is limited knowledge about the interaction between culture and immigrant food security. Immigrants, refugees, and asylees face unique challenges when navigating the food environment, such as unfamiliar food choices, cooking equipment, and access to emergency food services (Moffat 2017-2). Figure 0.2 below shows the spatial distribution of refugees compared to emergency food services.

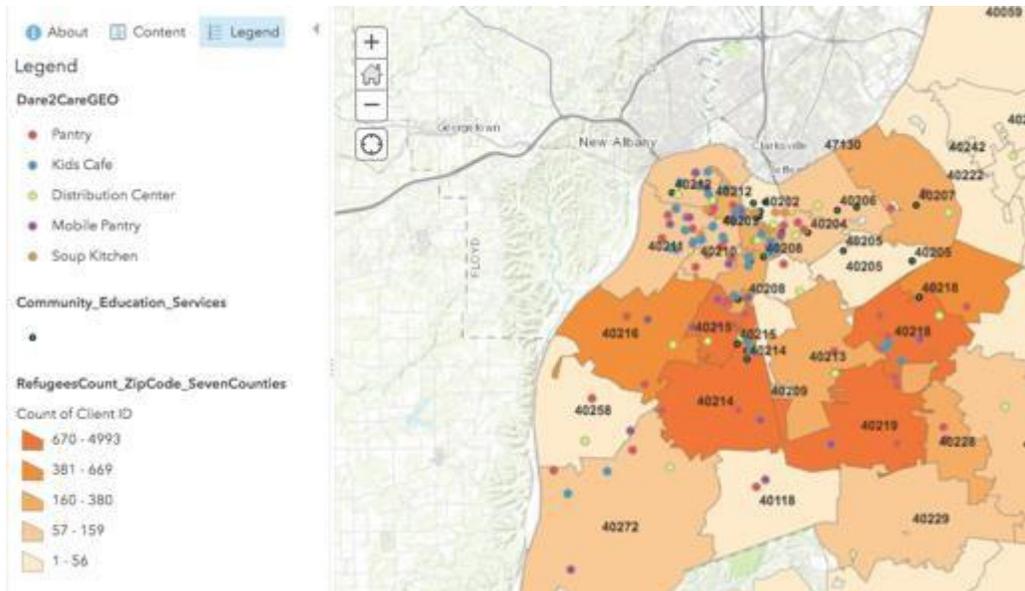


Figure 2. Spatial distribution of Refugees in Jefferson County, Kentucky (Louisville Metro Government 2017).

Cultural maintenance as defined by Vasquez is the ability to maintain parents' or grandparents' home language, identity, and other cultural aspects (Vasquez 2011).

To discuss the concept of cultural maintenance, I will focus on two specific case studies that investigate cultural maintenance through the lens of food insecurity among immigrants and refugees. Case study one discusses the cultural dimensions of food security among Immigrants and Refugees through the concept of foodways that was conducted by Moffat et al (2017), The objective of this study was to investigate three of the four pillars of food insecurity which are availability, access, and use for immigrants and refugees. The migration of immigrants, refugees, and asylees can result in the change of their foodways. Foodways are the processes that are involved in the growth, purchase, preparation, and sharing or absence of food in the community (Cannuscio 2010). The high cost or lack of culturally

appropriate foods increases household food insecurity and may disrupt cultural values and lead to mental health issues and alter one's perception of place (Moffat 2017). The inability to purchase or receive culturally appropriate foods hindered the client of the food pantry the ability to maintain cultural traditions and norms, thus reducing their ability to maintain their culture. This inability to maintain cultural ties can alter the perception about their new living environment, increasing the risk for social isolation.

Case Study two discussed Spanish-and English-speaking client perceptions of choice food pantries. Choice food pantries allow the clients to choose what foods that they would like to take home (Remley 2010). This study conducted by Remley et al (2010) focused on exploring the benefits and challenges associated with choice food pantries and provided ideas of how to effectively incorporate nutrition education in choice food pantries. This study utilized focus groups that involved English and Spanish speakers. The major findings of the paper were that giving the clients the choice of picking out their own culturally appropriate foods led to a decrease in cultural food insecurity among Spanish-speaking clients and an increased awareness among staff at the food pantry of the cultural needs of their clients and the need for increased communication among the staff and the immigrant clients. It was also found that the experience led to increased social interactions that gave persons of either ethnicity a willingness to share ideas and increased learning about various foods. These interactions gave the Spanish-speaking communities an opportunity to reinforce ties to their culture through the use of food while receiving assistance from the food pantry.

Thinned attachment is the individual act of filtering out the undesirable elements of one's culture, while preserving the elements that one deems valuable (Vasquez 2011). This can also be referred to as distilled identity. Influences of the American environments on immigrant and refugee health can have long term effects on these populations the longer that they stay in the United States. The quality of their diet worsens as the risk of health-related issues increases (Food Research and Action Center 2016-2).

The two case studies that were discussed previously, investigated the role of food pantries and how they influenced the types of food that were available, and how cultural norms through the use of food were met. Case one discusses the consequences that immigrant and refugee populations face when faced with the inability to acquire and consume culturally appropriate foods, this inability to find culturally appropriate foods can lead to a more "Americanized diet" and, over time, have the potential to cause descendants/children to disengage from cultural norms in an effort to assimilate with the new country. The second case study, when offered the ability to choose their food, there was increased social interactions with English-speaking clients, thus giving the Spanish-speaking population the ability to share recipes and knowledge about the food. Having this ability allows one to remain involved in cultural norms and practices, and remain attached to their culture, instead of being forced to assimilate fully to an unknown one.

Food use is the knowledge and skills of nutrition, food preparation and consumption of new foods, and safety. The top concerns that were noted from the focus groups with immigrant clients were: cooking with new foods and appliances, shopping and budgeting in a

new food context, learning about nutrition, and food storage and waste. Food use is affected by the alterations in foodways due to the acquisition, preparation, and eating. In their home country, many immigrants had cultural traditions that were a means of enhancing food security, such as daily shopping, sharing meals with extended family, food sharing among neighbors, friends, and other members of the community. These practices may disappear for immigrants in their new country, exacerbating household food insecurity due to cultural change and disruption of social networks.

A study completed by Remley et al (2010), investigated the perceptions of choice food pantries between English and Spanish speaking clients of an Ohio choice food pantry. Choice food pantries allow the clients to choose what foods that they would like to take home. These pantries are considered to be superior to the traditional model in the sense that it reduces waste and offers a dignified experience. This study utilized focus groups that involved English and Spanish speakers. The act of choice was expressed as a major benefit of this type of food pantry, because it allowed both sets of participants to choose the foods that they preferred and need.

This chapter has investigated the role of food pantries and other emergency food services and their roles in either strengthening or loosening cultural ties to an immigrant's home country. It was found through these articles, that giving clients the ability to choose what foods that they received, helped maintain cultural ties to their home country. These articles shed light on that food must satisfy hunger, not just physically but also emotionally. Communication

between workers and clients must be open, to address the true dietary needs of the clients that they serve.

This section is valuable to gain an understanding of the spatial distribution of immigrant and refugee populations in Louisville so that these populations are not left out of the discussion in planning and discussions of who can access these services. This section also elaborates on the use of the foodscape concept because it explains that food has to satisfy more than just a physical requirement, but has an ethical meaning depending on which culture that a person identifies with. The ability to access certain foods also has the ability to expand a person's foodscape through the ability to choose foods that are appropriate or can constrain the persons foodscape by limiting the foods that have cultural meaning, having the inability to access certain foods, or being able to voice concerns also alters an individual's sense of place, which in terms shifts their perception of the foodscape. Chapter three discusses the charitable food system and its role in providing access to emergency food services.

CHAPTER 2: CHARITABLE FOOD SYSTEMS

The Charitable food system is comprised of over 58,000 groceries, kitchens, and shelters, and they serve approximately 46.5 million Americans, or 15.5 million households (Wetherill 2018). Foods are generally distributed through one of the three types of food pantry models: traditional, semi-choice, and choice. Traditional food pantries were introduced in the 1980s as the need grew to limit the amount of food distributed to clients, due to strict budget cuts due to former President Reagan's welfare reform program that left social programs significantly underfunded. (Ohio Association of Second Harvest Food Banks 2020) (USDA-4). These They involve minimal interaction between the client and the interaction is brief between workers. As previously discussed, a choice food pantry allows the clients to choose their own products, giving the clients a sense of dignity and control, limiting waste, and allowing them to tailor the help that they are receiving (End Hunger in America 2020). The charitable food system has the ability to expand or contract a client's foodscape. This system can expand a person's foodscape by giving the client the ability to choose foods that they are familiar with, comply with dietary and cultural restrictions, and being comfortable with asking for assistance from various food pantries. The charitable food system also has the ability to contract a client's foodscape because it has the ability to place restrictions on the type of foods that a client can receive. These restrictions can make clients hesitant to ask for assistance, which has the ability to alter their perception of the community in which they live

in. This chapter will explain the different types of charitable food systems that are available, and their role in alleviating food insecurity and the development of the foodscape.

3.1 FOOD PRESCRIPTION PROGRAMS

Food prescription programs offer an avenue for facilitating access to fresh and healthy non-perishable food, while reducing food insecurity (Aiyer 2019). A pilot study conducted by Aiyer et al, in 2019, examined the feasibility, perceptions, and impacts of a collaborative food prescription program in North Pasadena, Texas. This study provided prescriptions to two hundred and forty-two participants and one hundred and seventy-two participants redeemed their prescription at a food pantry. As a result of this program, self-reported food insecurity decreased by ninety-four percent over the course of the study. Participants in this program reported the various foods and nutrition education materials provided to be highly acceptable and effective in improving their eating behaviors.

Identifying food-insecure persons in a healthcare setting can connect patients with valuable connections to benefits such as the Supplemental Nutrition Assistance Program (SNAP), which helps low-income persons increase buying power when added to the household's income (Kentucky Cabinet for Health and Family Services 2020). In order to help clients that have been identified as food insecure, prescriptive pantries are often funded through local agencies to connect those to resources who might not otherwise not have access to fresh foods and vegetables. A case study that assessed the change in household food security through the participation in a pediatric fruit and vegetable program. This study

involved 900 households in Maine, Massachusetts, New Mexico, Rhode Island, and the District of Columbia. Participants received nutrition counseling and prescriptions were distributed according to household size and the details of partnering farmers markets, where prescriptions were redeemed for produce. Change was measured through five household behaviors that were adapted from the USDA's eighteen-item food security survey. To summarize the distribution of variables, paired t-tests were performed. It was found that the percentage of households experiencing very low food insecurity was reduced among the household (Ridberg et al 2019).

3.2 MOBILE PANTRIES

A mobile pantry program directly serves clients in areas of high need in an effort to supplement other hunger-relief agencies in an area (Feeding America 2020). Dare to Care began this program in 2007, to ensure families can access food regardless of where they live. They operate over forty mobile pantries each month and provide approximately 275,000 pounds of food to people each year. There are specific criteria that is used when selecting a site to operate, the area must be in need, be within walking distance or easy public access for families in need, and be located in an area with limited access to nutritious food, such as fresh produce (Dare to Care 2020).

This chapter has discussed the various charitable food systems that are being used in the United States to alleviate hunger. These various programs bring access to emergency food

services to those who otherwise may not have the ability to access traditional programs due to a lack of transportation.

CHAPTER 3: FOOD SECURITY

Food Security is defined as access by all people at all times to enough and appropriate food to provide the energy and nutrients needed to maintain an active, healthy life (United States Department of Agriculture 2020-2). This chapter explains food security and insecurity as described by the United States Department of Agriculture (USDA). This chapter also discusses the factors that contribute to food insecurity in Louisville, and other segregated cities, and the role of the foodscape. It is important to discuss the factors that contribute to food insecurity, and the role cities play in shaping factors that contribute to food insecurity among its residents and how it shapes the foodscape.

Food security is defined as the physical, social, and economic ability to access Experimental measures of food security that are conducted by the United States Department of Agriculture attempt to address the issue of various household needs and behaviors, use a set of questions are used to estimate household food security scores, these questions attempt to document perceptions and past experiences by the households. This three-pronged survey includes eighteen questions, households are reported food secure if no food-insecure conditions are reported or if a maximum of two food-insecure questions are reported (United States Department of Agriculture 2020-3).

The USDA uses four different labels to describe the different ranges of food insecurity, these include: High, Marginal, Low and, Very Low. Food secure households are labeled as either in the High or Marginal ranges. High food security is defined as a household had no

problems, or anxiety about consistently accessing adequate food. Marginal food security is defined by the household having problems, or anxiety about consistently accessing adequate food, but the quality, variety, and quantity of their food was not substantially reduced (USDA 2020-4).

4.1 FOOD INSECURITY IN SEGREGATED URBAN CITIES

Urban, low-income and segregated communities lack access to supermarkets which limits their access to fresh fruit, vegetables, low-fat milk, and high-fiber foods (Bower 2014). A study that was completed by the Department of Community and Preventive Medicine in Brooklyn, New York, found that the availability and variety of fruits and vegetables is predicated by the availability of supermarkets, which are not accessible by all neighborhoods. This study also found that neighborhoods that are predominantly African American had zero grocery stores, and neighborhoods that were racially diverse, the proportion of stores that carried a variety of fruits and vegetables (Morland 2007).

A study that was completed by Raja et al (2008), investigated how food environments differ in neighborhoods of color differ from those in predominately white neighborhoods. Methods included Poisson regression analysis to test whether accesses to food outlets in neighborhoods of color is significantly different than in neighborhoods that are predominantly white neighborhoods. Results indicated that there is a significant racial disparity in neighborhood environments.

Food insecurity in urban cities is often a direct result of supermarket redlining, where decisions about investing in particular neighborhoods are based on the following stereotypes: gross-income, race, and the reputation of neighborhoods. Industry representatives claim that urban neighborhoods present challenges that are not found in suburban neighborhoods. These challenges include sites to accommodate large big-box stores, environmental clean-ups, and depopulation of neighborhoods, increasing regulations by city and state officials, and the presence of crime (Eisenhower 2001).

Figure Three below shows Nationwide Supermarket availability across three levels of poverty for four different in 2014.

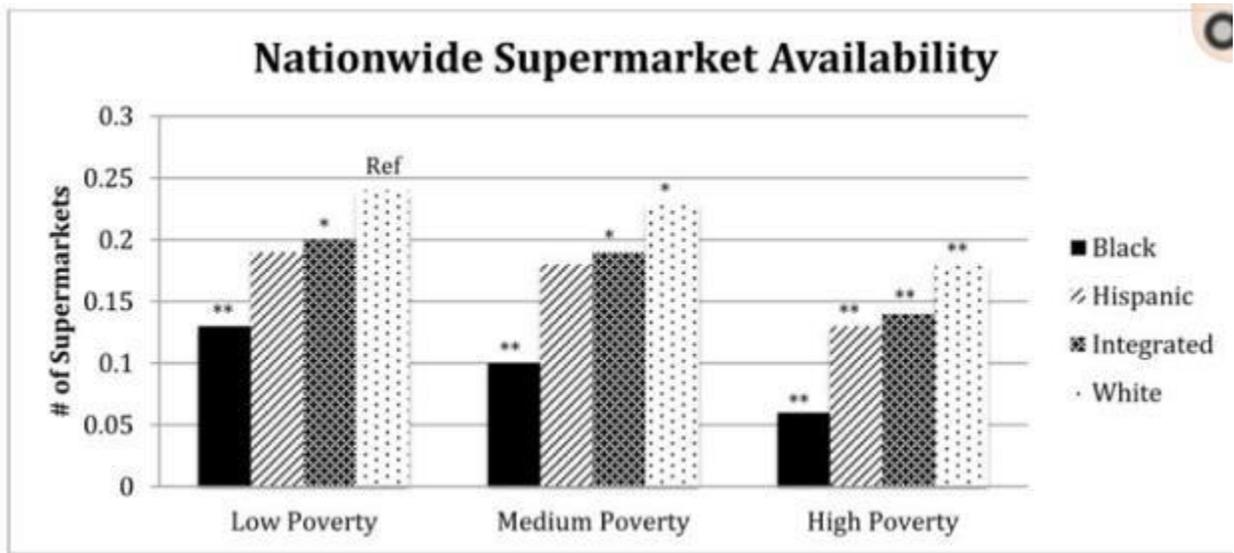


Figure 3. Nationwide Supermarket Availability (Bower 2014)

4.1 FOOD INSECURITY IN LOUISVILLE

Louisville ranks 5th among its peer cities with 16 % of residents experiencing food insecurity, ranks 2nd with children who live in a household who experience food insecurity at a rate of 17%. (Greater Louisville Project 2019). West Louisville has one full- service grocer per 25,000 residents, compared to a Jefferson County average ratio of one grocery for every 12,500 residents (Louisville Metro Public Health and Wellness 2009). A large percentage of residents in the west end and central downtown lack access to a vehicle, which makes grocery shopping nearly impossible for residents in the west end communities. Table 1 shows the percentage of no vehicle available for the neighborhoods in the western end of the county. Figure 4 shows TARC access in relation to open supermarkets, we can see from figure two that the number of routes and bus stops are clustered near the closed grocery stores.

The Urban renewal program in the 1950-1960's was designed to give cities federal grants to rebuild downtowns. The goal was to keep cities economically viable, as middle-class residents moved into the suburbs (Hoffman 2008). Nation-wide changes in the marketing and distribution practices lead to the encouragement of the creation of corporately owned supermarket chains. This shift lead to the disappearance of family-owned business, leaving West Louisville with a couple chain stores surrounded in sea of vacant lots and fast food restaurants (Community Farm Alliance 2007).

Neighborhood	Percentage of no vehicle available
Phoenix Hill, Smoketown, Shelby Park	49.4
Russell	43.3
Old Louisville/Downtown	37.2
Portland	30.7
Chickasaw-Shawnee	18.9

Table 1 Percentage of households without access to private vehicles (Louisville Metro Public Health and Wellness 2009).

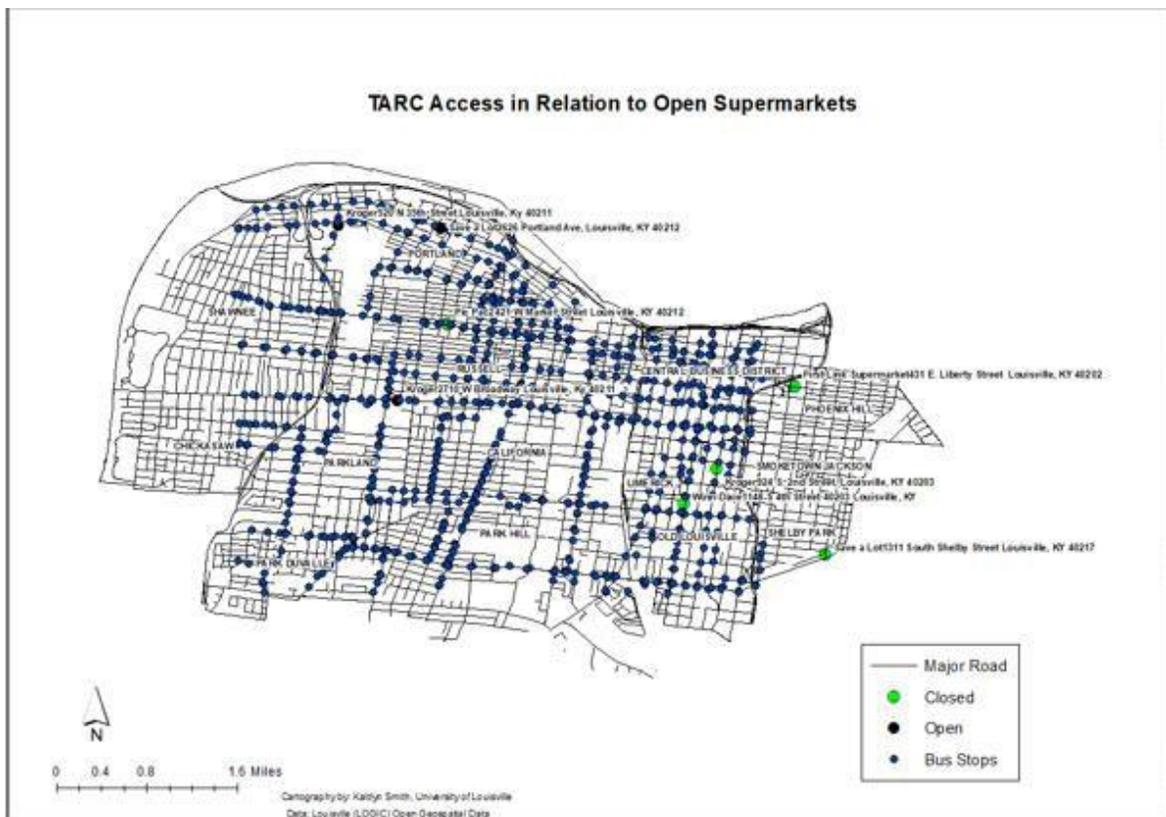


Figure 4. TARC access in Relation to Open Supermarkets (Louisville (LOJIC) Open Geospatial Data 2020).

Figure 4 above explains TARC access in relation to open supermarkets. TARC is Louisville’s public transportation system, serving over 12.5 million passengers (Transit Authority of River City). The above figure shows that most stops are clustered around the closed grocery stores, while there are fewer stops located near the open stores. As we saw

from table 1, the study area has a high percentage of residents who do not have access to private vehicles. This is important to show because dependent on where you live in relation to the stops, and which store that you shop at impacts waiting times, and at the time of project completion can be up to two hours. The limited access to bus stops also impacts the quantity and types of foods that persons are able to purchase due to the long wait and travel times.

4.2 MOBILE PANTRIES

A mobile pantry program directly serves clients in areas of high need in an effort to supplement other hunger-relief agencies in an area (Feeding America 2020). Dare to Care began this program in 2007, to ensure families can access food regardless of where they live. They operate over forty mobile pantries each month and provide approximately 275,000 pounds of food to people each year.

4.3 NINTH STREET DIVIDE

Ninth Street was constructed in the 1950-1960s as a high traffic expressway that served to expedite car travel across the city. Similar to the famous Detroit's Eight Mile Road, it exists as a physical dividing line, as well as a de-facto psychological and cultural boundary, separating Black Louisville to the West from White Louisville to the East; created through Harlan Bartholomew's 1957 plan, he proposed an elevated expressway, along seventh street. However, Louisville's real estate interests recommended moving the street further west, to Ninth Street, "to allow more space for downtown". This comprehensive plan would insulate

and protect the values in the Central Business District against deteriorated neighborhoods. The plan proposed increased density in the Russell neighborhood, and large sections of the West-End were rezoned from single family to multi-family, insuring that black residents would be confined to those areas, hindering the ability for black residents to accumulate wealth for generations (Louisville Metro Office of Redevelopment Strategies 2017). This concept was based on the Federal Housing Administration's 1938 recommendation that a high-speed traffic artery may prevent the expansion of undesirable entities into adjacent areas and serve as protection from adverse influences and inharmonious racial groups. Redlining, a form of state sponsored system of integration, which started in 1933 due to a housing shortage, was designed to increase and segregate America's housing stock (Rothstein 2018).

The spatial mismatch of the Eastern and Western parts of Jefferson County has led to a disparity in food access, transportation, and health outcomes. A major concern in Louisville is the urban heat island (UHI), a built-up area that are hotter than nearby rural areas. Heat islands can affect communities by increasing summertime peak energy demand, the cost of air conditioning cost, air pollution, greenhouse gas emissions, heat-related illnesses, mortality, and water pollution. Health effects of UHI include general discomfort, respiratory difficulties, heat cramps and exhaustion, non-fatal heat stroke, and heat-related mortality.

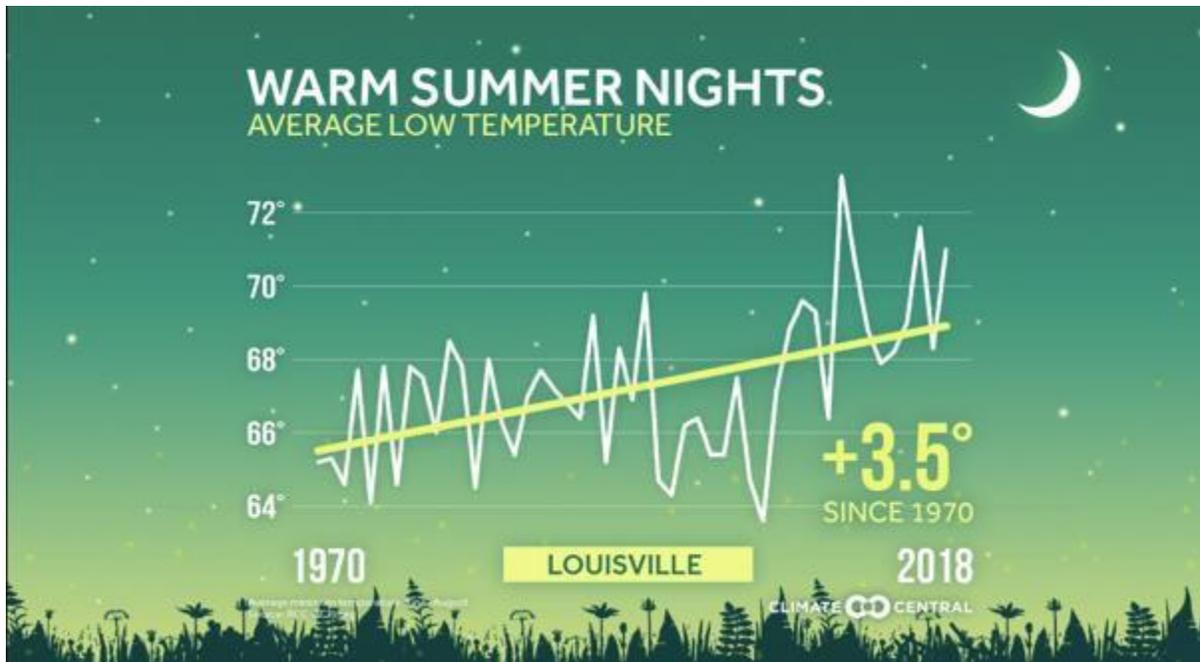


Figure 5. Overnight temperatures 1970-2018, Louisville, Kentucky (Climate Central 2019).

Figure 5 above shows the increase in overnight temperatures for Louisville from 1970 to 2018. Louisville saw an increase on 3.5 degrees, which does not allow bodies to “reset “and recover. UHI’s can also exacerbate the impact of heat waves. Sensitive populations such as children, older adults, and those with pre-existing health conditions. Trees, green roofs, and vegetation can help reduce urban heat island effects by shading building surfaces, deflecting radiation from the sun, and releasing moisture into the atmosphere (Environmental Protection Agency 2020). Figure 5 is important because of the lack of transportation, which leads to an increase in residents in the study area waiting outside for extended periods of time, making them more vulnerable to the effects of the increased temperatures. Increased exposure to higher temperatures lead to major health problems such as heat exhaustion, heat stroke, and increased heat related mortality

(Environmental Protection Agency 2020-2). Trees also provide many health benefits such as lowering blood pressure, increase concentration, lower stress, and reduce mental fatigue, they also improve air quality by filtering particulate matter and other particulates (Trees Louisville 2020). Despite the numerous benefits that trees can provide, there is an unequal tree cover between Louisville’s West and Eastern parts. Figure 0.6 below shows the unequal distribution of tree cover.

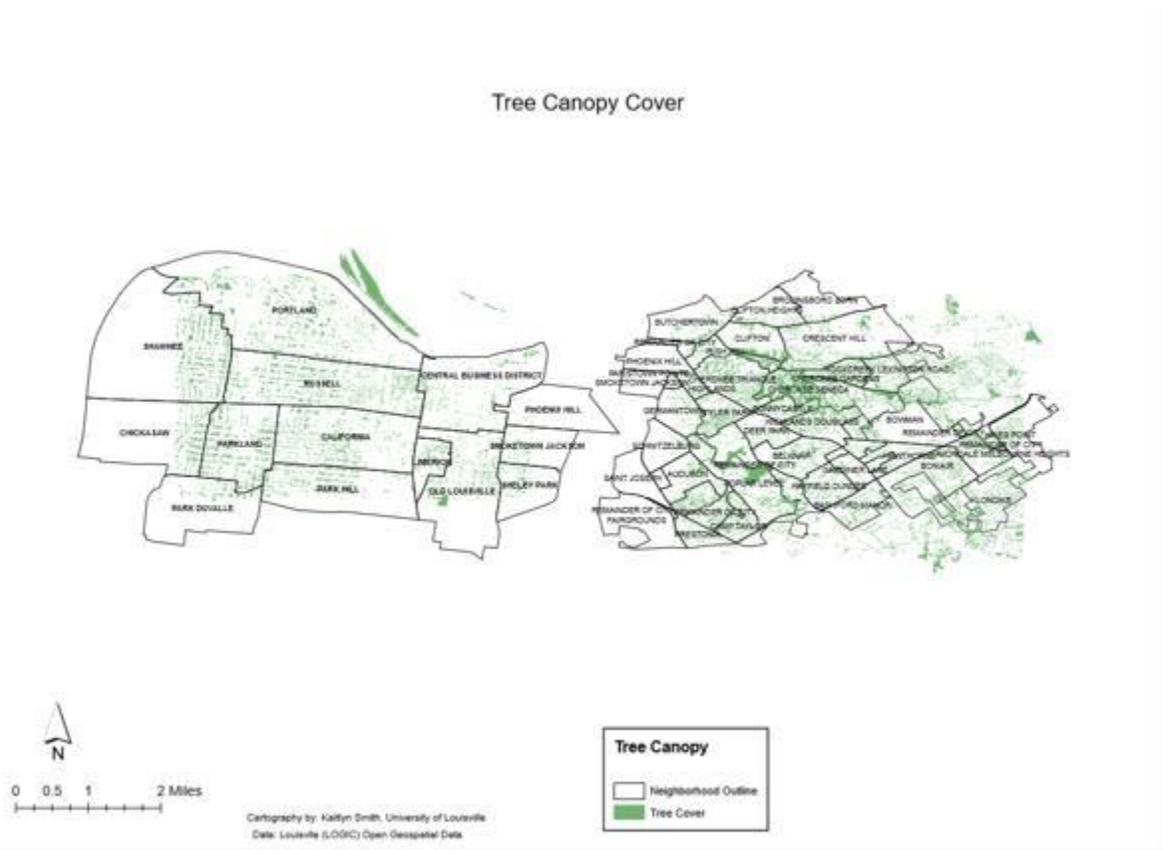


Figure 6. Tree Canopy Cover Comparison (Louisville (LOJIC) Open Geospatial Data 2020-2).

As previously discussed, tree cover is important to improving air quality in the environment that they inhabit. The figure above shows the comparison of tree cover of the

Western and Eastern neighborhoods of Jefferson County. We can see that the Western end of the county has significantly less tree cover than its Eastern counterpart. The Western part of Jefferson county is home to numerous manufacturing, chemical, and powerplants that in 2017, released 3.6 million pounds of toxic air pollutants. These pollutants increase the risk of cancer and other adverse health conditions such as asthma, headaches, nausea, and nervous and reproductive health issues (WFPL News Louisville 2019). The increased environmental hazards lead to increased health risks for the residents of the Western and Eastern Downtown neighborhoods that are littered with environmental toxins are subject to socialized isolation, which influences the number and types of business that come into the neighborhoods.

These environmental conditions further the argument that residents in the eastern downtown and western neighborhoods have higher rates of health-related problems, than residents in neighborhoods to the East. Western and Eastern Downtown neighborhoods are further socially isolated by the lack of programs to alleviate environmental stress. This socialized isolation sends the message of these residents are not important, leading to less desirable neighborhoods, which detours supermarkets and other retail options for food access. Increased daily temperatures and poor air quality limits the possibility of urban agriculture initiatives, which would require residents to spend extended periods of time outside, which leads to increased risk of heat exhaustion and other respiratory issues, which also limits the participation in community sponsored gardening programs.

4.5 FOODSCAPES

The term “food desert” is widely used to identify regions at risk for having little or no access to healthy food. While the use of this term is often used to simplify issues that regions have accessing foods, its usefulness to capture information about how people experience what food opportunities are around them (Widener 2018). A study conducted by Caspi et al, notes that the reason for these inconsistent findings could be an overreliance on GIS- based measures that fail to account for the non-spatial variables that explain the relationships between the food environment and diet (Caspi 2012).

A foodscape refers to the different spaces and places that a person acquires food (Mackendrick 2014). The use of foodscapes emphasizes the spatiality of food systems, referring to the uses of production, retailing, and consumption and ranges from global and local scales. The suffix ‘scape’ is traditionally used to denote spatially arranged objects in our surroundings, the concept of a foodscape reflects the –scape way of thinking because it underlines the relationship between food, its spatial context and the viewer-the person in which it appears (Mikkelsen 2011). Geographers have deployed the concept to explore the ecological sites and social relations within food has a moral and ethical meaning (Miewald and Mccann 2013). This approach necessitates a qualitative approach that elicits the interviewee’s personal narratives to explain the complex, enacted, changing, and political food landscape of a particular neighborhood and its residents (Miewald and Mccann 2013-2).

The foodscape framework offers advantages in that it enables scholars to analyze how food, places, and people interact.

A study conducted by Clary et al (2017), investigated the relationship between exposure, access and influences on a person's foodscape. This study uses food outlets as the basic unit of observation for assessing environmental influences on dietary behaviors. These authors argue that both individual and foodscape characteristics interrelate to create conditions of access. The environment in which a person lives, and works can facilitate or impede the accessibility, availability and affordability of healthy food; widespread recognition of the relationship between the built environment, health status and food choices has led to a growing interest in measuring aspects of the food store environment. Examining both the subjective and objective measures are essential when measuring the food store environment with weight and diet quality. This study examined the similarities and differences between perceived and objective measures of the food store environment among low-income women and the association diet and weight. Combining perceived and objective measures can provide unique data that together, can reveal important factors operating at both the individual and neighborhood level (Gustafson et al 2011). This study found that while a neighborhood may have many supermarkets, the actual quality of the food available may be low and the individual's perception of the foods available to be low quality.

4.6 FOODWAYS

Foodways are the processes that are involved in the growth, purchase, preparation, and sharing, or absence of food in the community (Cannuscio 2010). This study focused on using foodways as a lens in which food manifests, propels culture, identity, and health to understand resident's street level views of the causes of urban health disparities. The authors utilized interviews and photos in three neighborhoods in Philadelphia that ranged from affluence to poverty. Interviews that were conducted with residents raised concerns about adverse health effects of both the food environment and food ways. African American participants called attention to the potential health damaging role of racial and ethnic tensions in the foodways surrounding takeout options and convince options that were available.

CHAPTER 4: METHODS

This Chapter will discuss data collection methods that were used to collect information about food insecurity and the foodscape in Louisville. The methodologies that will be discussed include interviews and participant observation. It was imperative that interviews with non-profits be conducted first to identify areas in which additional research was needed in the communities that they serve. Identifying specific research areas, guided interview questions for residents in my study area. The identification of meaningful areas of research allowed me to condense the number of questions that would be asked, in order to avoid fatigue from interview participants.

5.1 INTERVIEWS WITH NON-PROFITS

Interviews are the face to face verbal exchanges in which the interviewer attempts to gain information and understanding from the interviewee. Interviews are used when conducting qualitative research in which the researcher is interested in collecting facts or gaining insights or understanding opinions, attitudes, experiences, processes, and behaviors. Interviews can be divided into two types: Unstructured, in which the interview is guided by a limited number of prompts or topics, and encourages the interviewee to talk about a common theme.

Structured interviews are limited to a set number of questions and will not deviate from a specific set of questions (Bryman 2001). This project utilizes both structured and unstructured interviews, with residents and local non-profits. Structured interviews were conducted with the residents, and unstructured interviews were used with the non-profits. Interviews are most effective for qualitative research because they help explore opinions,

behaviors, and experiences. The interviewer is placed in a power relationship with the research community. The researcher wants to produce publishable work, but the work has to be done by meeting the requirements of the research community. There is also an issue of who holds the power during the interview, the interviewer has the methodological expertise, and the interviewee has the role of the privileged knower (Nunkoosing 2005). For my study, I reversed the power dynamic between the researcher and the residents in my study area. I did this by first identifying areas of meaningful research through interviews with non-profits, and then tailoring residential interview questions based on themes that were derived from non-profit interviews. Residential interview questions were limited to four questions to limit fatigue during the interview. These questions were specific, yet open-ended, allowing residents to elaborate where they felt necessary.

A specific example that can be used to describe this shift in the power dynamic between myself and the residents was an experience that took place at the Chestnut Street YMCA. This YMCA is located in the Russell neighborhood. This YMCA has its own set of norms, and members and staff have built a strong relationship with one another. When I walked into the building, I was immediately identified as an outsider, and tension was placed between the staff and myself almost immediately. I as the researcher had to alleviate this tension, to gain access to conduct interviews. I explained to the staff that I was conducting a project for school, and I was only asking five questions about their most recent grocery shopping experience, and I was only there to take notes and listen to what they had to say. This

immediately alleviated the tension between everyone in the room, and a comment made by one of the participants that stood out was “Finally somebody is listening to us!”

5.2 VOLUNTEER WORK

Volunteer work was used to help foster community relationships in order to gain an understanding of what meaningful research was in the community and build relationships with local non-profits and residents. Volunteer work was coordinated with various community partners through the University of Louisville and the following community organizations: Common Earth Gardens, Ag in the City, The West Louisville Women’s Collaborative, and attending a food justice workshop with New Roots. Projects included cleaning greenhouses, planting seeds, and other projects that will benefit community members and organizations who utilize these spaces to grow nutritious foods. Participating in these projects strengthened my relationship with Ag in the City and New Roots, but also allowed me to build new community relationships and understand their role in changing the foodscape of the communities in my study area.

Immigrants and refugee often bring knowledge of agricultural practices with them to their new home country, and the lack of space, alters their foodways by forcing them to conform to new and unfair foods. Common Earth Gardens empowers the life of refugee families and Louisville communities through the use of agriculture. The main goals of this program are: refugees are able to utilize their extensive agricultural skills and experience to reduce overall food costs, continue traditions from their homelands that will ease acculturation to the

Louisville Metro area, and build entrepreneurial skills and supplement family income by selling produce to local outlets (Catholic Charities of Louisville 2020).

The mission of the West Louisville Women's Collaborative is to do the following: Utilize creative modalities to support community wellness, promote positive community identity, and beautify vacant and abandoned properties (West Louisville Women's Collaborative).

This organization is vital to the community because they place emphasis on hosting community conversations, and activities that join neighbors in promoting a positive identity for Louisville's west end. Volunteering with this organization and speaking with one of the founders of this project, about how their programs bring community members together to have conversations around issues that are faced in the community taught me how that if conversations are open, and everyone feels included, can be a catalyst for social change.

Volunteer work was also coordinated with the Fresh Stop Market in Shelby Park. Volunteering with this organization allowed me to spend time in the neighborhood and interact with the residents and assist them with picking up their market share. Volunteering with New Roots allowed me to expand my knowledge of how their fresh stops worked and build rapport with their organization.

5.5 NON-PROFIT INTERVIEWS

Non-profit interviews were conducted first to learn what topics constituted meaningful research. Interviews were unstructured, and non-profit participants were given the following open-ended question to answer: What is meaningful research that should be done in the

community regarding food insecurity? Conducting non-profit interviews first put the power in the hands of the non-profit, but guided residential interview questions. Non-profit interviews were conducted with the following organizations: Smoketown Wellness Center, New Roots, Franciscan Kitchen and Shelter House, Dare to Care, St. Vincent De Paul, Neighborhood House, Jefferson Community and Technical College,

The mission of the Smoketown Wellness Center is to build a culture of health by providing clinical care to children in a community-based environment that focuses on healthy lifestyle behaviors for the whole family. To improve health outcomes, they address the multiple factors that impact health in one building. By providing medical care, classes on exercise, parenting, financial literacy, mindfulness, and smoking cessation, and others based on the community's needs. They also provide access to various food services by partnering with New Roots, Dare to Care and other community organizations that bring food to the families in the SmokeTown community (SmokeTown Family Wellness Center 2020). This non-profit was selected for an interview due to their heavy involvement with the communities in which they serve. They have found numerous ways to connect with the communities by identifying what types of programs that the clients of their office wanted, as well as the needs of the neighborhood. By build trust and rapport with the community, they are starting to see a shift in community involvement and positive health outcomes.

The HUB at Jefferson Community and Technical College is providing students with assistance with meeting the basic needs and accessing campus and community resources. Removing the non-academic barriers to college success contributes to educational attainment

for all students. Services that are provided through the HUB is connecting to students to on-campus and community supports, addressing food insecurity through an on-site food pantry, and hosting events to promote student well-being (Jefferson Community and Technical College 2020).

This program was selected for an interview because of the social services and on-site food pantry that is provided to the students at Jefferson and Community College, whose student population who are typically non-traditional students, whose needs are different than a traditional four- year institution. Many students who attend this college are immigrants and refugees who are new to the community, and need support to navigate not only the college, but the various services that are offered to them by the state of Kentucky, such as healthcare, food assistance, and child services.

The Food Literacy Project provides farm-based experiential education and entrepreneurial youth development programs that brings the Field-to Fork experience to local youth. Their programs are available to public, private schools and, community groups. Their programs offer an opportunity for communities to engage in the sustainable food system. Their programs include farm programs, youth community agriculture program, the South Points farmers market, and a truck farm (The Food Literacy Project 2020). This organization was selected because of their community outreach programs to schools and low-income neighborhoods. Outreach to schools and neighborhoods is critical to the education and exposure to children at an early age to establish healthy eating habits that extend into adulthood. Their community outreach efforts to schools and neighborhoods offer valuable

insight to the identification of problems and inequalities that different neighborhoods in Jefferson County experience in access to healthy, nutritious foods.

The mission of New Roots is to ignite community power for fresh food access, and argue that affordable, fresh organic food is available year-round in all Kentuckiana communities, by uniting communities, they are able to spread food justice. To achieve this goal, they operate Fresh Stop Markets which are farm-fresh markets that pop up at local businesses, and community centers in fresh good insecure neighborhoods. Ten Fresh Stop markets operated in 2019, six in Metro Louisville, one in southern Indiana, Brandenburg, Kentucky (New Roots 2020). Fresh Stop sites are chosen through two criteria's which are: coordination with local churches, community centers, business or other places where people congregate. The second criteria that is required is that each site has to be located in a USDA-certified Food Desert, offer food justice workshops, or become SNAP certified (New Roots 2020).

Dare to Care's mission is to lead the community to feed the hungry and conquer the cycle of need. They partner with 300 local social service agencies that provide more than 19 million meals to the community (Dare to Care 2020). Dare to Care currently offers eight programs that target the community's vulnerable populations, these programs include: Kids Café, Backpack Buddy, School Pantries, summer meals for Kids, Cooking Matters, Prescriptive Pantry, Mobile Pantry, and Senior Outreach.

The mission of the Neighborhood House is to break the cycle of poverty for children and families in Jefferson County by providing opportunities that improve the quality of life (Neighborhood House 2020). They provide programs for ages ranging from Early Childhood

to Senior citizens. The Neighborhood House provides programs that contribute to both the social-emotional and physical sides of health, these programs provide crucial support that benefit all age groups. Neighborhood House also provides emergency food services in the form of an Emergency Food Bank, Kids Café and senior nutrition programs.

This organization was chosen due to the level of community involvement, programs that involve every age groups create a supportive, healthy community, and this organization was also chosen due to the various food programs that they offer. By offering food boxes, kid's café, and senior meals, it addresses and engages all members of the community that provides a platform for understanding the needs and voices of the community that they are serving. By addressing all needs, they are able to identify and address the inequalities that are present in the neighborhood.

The vision of Metro United Way is to create a community where people achieve their fullest potential through education, financial stability, and healthy lives (Metro United Way 2020). Programs include: Early Childhood Education, financial independence, healthy lives, and youth success. By providing access to basic needs such as food access, housing, and education, those who benefit from these services are able to leave more independent, healthy and productive lives. Metro United Way offers a free, confidential service that assists persons that are facing various challenges to local services. This referral service is available day and night, seven days a week, and is available in over one hundred languages. This service eliminates the need to navigate multiple agencies by having all resources in one location (Metro United Way 2020). This organization was interviewed because of their involvement

with the community and their various community programs that improve the quality of lives for the residents by eliminating barriers and connecting persons to resources regardless of income, age or language.

St. Vincent de Paul Louisville partners with individuals and families in crisis and helps them navigate a path to stabilize their lives and reach their full potential (St. Vincent de Paul 2020). St. Vincent de Paul provides the following services: housing, clothing assistance, utility and rent assistance, soup kitchen, and a choice food pantry. They also operate the Family Success Program that provides education and social development opportunities for at-risk children that have experienced extreme poverty and homelessness. The center serves children who live on the campus and children in the Shelby Park Community. The center offers resources for education as well as a kitchen for teaching nutritional skills and a Kids Café that is operated through Dare to Care (St. Vincent de Paul 2020-2). This non-profit was interviewed due to their numerous social programs, and nutrition programs, and their partnership with Dare to Care.

The Franciscan Kitchen and Shelter House aims to provide an environment of trust and fellowship to build mutual respect and beneficial relationships with guests and the community (Franciscan Kitchen and Shelter House 2020). They operate a soup kitchen, health care initiatives, and provide resources that address poverty. They also coordinate donations from local businesses. This organization was interviewed because of their ability to coordinate with the community and address their needs, and the coordination with business to acquire donated food.

The approval of the Institutional Review Board, number 19.1080 at the University of Louisville was based on the criteria of the questions that can be found in table 2. These questions did not reveal identifiers that could identify a person through geographical location, names and addresses were not collected during the interview process, so that all participants could remain confidential. Interviews with the residents focused on their most recent grocery shopping experience and were based on the eight themes that were derived from the interviews with local non-profits. Interview questions asks the following about their most recent grocery shopping experience.

Where did you last go to get groceries? Why?
What was positive about the experience? Why?
What was difficult or challenging about the experience? Why?
How did you get there?

Table 2 Residential Interview Questions

These interviews along with participant observation, and the eight themes that were identified will be compared with academic literature on food insecurity. In the literature, I am finding a normative typology, that issues of urban planning and income and race disparities are to blame for food insecurity in disenfranchised areas. The academic literature also fails to contextualize the problem of food insecurity into the urban south, where racism runs rapid

through a community driven approach. Existing research also fails to describe issues from the perspectives of both residents and non-profits who operate emergency food programs. This project specifically focuses on a city in the urban south, uncovering what meaningful research looks like in a segregated urban city in the south from both non-profit organizations and residents, with the goal of contributing to effective policymaking.

5.6: PARTICIPANT OBSERVATION

Participant observation is a method based on participating and observing in which, field notes, sketches, photographs or video recordings are used as a method of data collection (Lanier 2010). This method is used across the social sciences and can be used in almost any setting in which people have complex interactions with each other, with objects, or with their physical environment. Three key elements of participant observation have been identified by Guest et al (2013): 1) Getting into the location of whatever aspect of the human experience you want to study which involves going to where the action is, people's homes, communities, homes, workplaces, and recreational sites. 2) Building rapport with the participants, participating for a long enough period of time to have a sufficient range of experiences, conversations and unstructured interviews. 3) Spending enough time interacting to get the data, taking weeks to months, cultivating relationships and conducting informal interviews (Guest and Namely-2013). I used participant observation at the Shawnee Farmers Market to learn about how community is built through the use of food.

The Shawnee farmers market is operated through Ag in the City, which promotes urban agriculture in Louisville, with its primary focus in the West End. Focusing on providing

education about gardening in backyards and community gardens, so that residents in food deserts easier access to healthier food (Ag In the City 2020). The observation period ranged from September 2019 to November 2019. This organization was chosen due to the level of involvement they have with the residents of the neighborhoods in which they serve. During my time at the Shawnee Farmers Market, the customers knowledge of the different produce available was limited, and so was the lack of knowledge about how to prepare the foods. Shoppers commented that they want to purchase these foods, but they did not have them at their local Kroger or Save a lot, so this was the only chance that these residents had to buy this produce. This is a problem because other grocery stores that are located outside the study area have the foods that were available at this market, typically at a lower price. Transportation of produce and customers to the site was mostly by foot, and organizers also made arrangements with customers to deliver produce to their homes, and offered the option to reserve produce boxes.

My first few weeks with Ag in the City consisted of building trust with the vendors of the market, which consisted of me explaining my project, placing emphasis that it was from the perspectives of the residents and local non-profits, and that I was just the notetaker. It also included buying produce from the market and telling everyone I knew about the market. My observation routine consisted of sitting in a chair that was in the line of vendors, and observing the customers who came to visit the market, eventually earning me the nickname “the great observer”. Most customers came by foot, and would buy a bag of produce. The market also offers produce boxes that customers can buy and pick up, or in some cases have

delivered to them, either at their house, or the nearest TARC stop that is closest to them. Two specific moments that speaks to the food problem and foodscape of my study area is one Sunday, a customer came up, and hesitated to buy the produce that was available, because she did not know how to prepare it, one of the owners explained different ways that she could fix it, the next week, recipe cards were available for people to take home. A conversation centered on people's favorite vegetables was the topic of the day, and I stated that my favorite vegetable was an eggplant, and the customer that I was speaking to, said “We don’t have those around here”. These two experiences spoke to the foodscape of the neighborhoods, reinforcing the lack of fresh foods that are available in my study area.

I was fortunate to receive an assistantship through the Cooperative Consortium for Social Justice Research at the University of Louisville. This program is a hub for Social Justice Research. They connect faculty and students with community partners to seek out solutions for complex social justice issues (Cooperative Consortium for Transdisciplinary Research 2020). I was paired with the Louisville Association for Community Economics, who seeks to open a cooperatively owned grocery store in one of Louisville’s urban neighborhoods. My main task as the engagement RA was to administer a survey that asked residents about their shopping habits. Survey administration in my study area proved to be a difficult task, as residents were hesitant to fill out surveys. During the course of survey administration, it was found that many people had not heard about the cooperative grocery store project, and were not familiar with those who were involved with the project. This lack of familiarity among the residents added to the hesitation of filling out surveys, because it made them feel like

they were the subject of research. The outreach team for the grocery store project developed a set of customer discovery questions that they wanted to use to ask residents about their most recent shopping experience. The use of these questions engaged residents better than the survey, because it made the residents feel heard, and not the subject of the research. This project allowed me to become more familiar with my study area by understanding the needs and concerns of the residents, it also allowed me to network with various community partners and residents in my study area.

Content analysis will be used to compare interview data with academic literature. Content analysis is a research method that is a systematic and objective means of describing and quantifying problems, and a known method for analyzing documents. Successful content analysis requires the researcher to analyze and simplify the data and form categories with the data that they have collected (Elo et al 2008). To perform the content analysis, Atlas Ti coding software was used, and the specific codes that were used to code the readings and interviews can be found in table 3. These codes are the eight common themes that were identified through interviews with local non-profits.

Building a Sense of Community
Food Building a Sense of Community
Distribution of foods
Talk about the problem, but don't spend time fixing it

Transportation Issues/ Barriers
Education about nutrition and cooking
Racism and Classism
Socialized Isolation

Table 3 Themes from non-profit interviews

CHAPTER 5: RESULTS

This chapter will focus on the results from the content analysis and discuss the interviews that were conducted with local non-profits. These will be compared with the results of the content analysis. The use of interviews, observations, and volunteer work was used to investigate food insecurity in Jefferson County, Kentucky. Interviews with local non-profits identified eight areas of meaningful research that should be investigated in the community. These eight themes were used to construct residential interview questions and were used as codes in comparing themes and key phrases in and were used to perform the content analysis which compared both the residential and non-profit interviews and observations from local workshops and the Shawnee Farmers market to academic literature. A Google Earth presentation, which is available to the public, spatially represents the interviews from both the non-profits and residents. This presentation maintains confidentiality among residents, and can be found here:

[https://drive.google.com/open?id=1GLtd_L6Gv4j4s5xg-](https://drive.google.com/open?id=1GLtd_L6Gv4j4s5xg-Zbm7ESvpVg_Zwnu&usp=sharing)

[Zbm7ESvpVg_Zwnu&usp=sharing](https://drive.google.com/open?id=1GLtd_L6Gv4j4s5xg-Zbm7ESvpVg_Zwnu&usp=sharing).

I chose to interview Emily Smith, who serves as the fresh food's coordinator for the Smoketown Family Wellness Center, due to her high involvement with the clients of the wellness center, but her level of community involvement. Emily coordinates pick-ups of weekly New Roots shares to clients who utilize various services at the Smoketown Wellness Center. During the interview it was apparent that Emily had a complete understanding of

what issues her clients at the Wellness Center were, she went into detail about how the neighborhood of Smoketown and Shelby Park are undergoing rapid gentrification, which is forcing many of the low-income, working class persons of these neighborhoods out of the neighborhoods and has increased living expenses for the residents. She also explained that many of these residents have a meaningful connection to the neighborhood, many who have lived in area for generations. The increased presence of gentrification in the neighborhood has led to the opening of the Logan Street Market, who claim to provide healthy foods to the underserved neighborhood, when in reality, prices are too expensive for the residents of the neighborhood. Emily has identified the following areas of meaningful research: Issues of Redlining and Gentrification, Access to Fresh Foods, examining the ways in which people truly access their food.

Malesha Griffin, a licensed social worker, serves as the Hub Coordinator at Jefferson Community and Technical College (JCTC) is heavily involved with the students who attend the JCTC downtown campus. She identified the following areas of meaningful research: racism and classism, environmental racism, transportation, the asymmetrical access of services between the Western and Eastern neighborhoods of Jefferson County, and transportation. Melesha discussed that at Jefferson, there is a large percentage of immigrant and refugee students and students who are identify as non-traditional. The HUB has an on-site food pantry that has culturally appropriate foods that these students are able to identify with, as well as other items that are in demand from their students. She also discussed that the hub serves as a one stop shop for healthcare, food, and other social service resources.

Having these resources available to students allows them to focus more of their attention to academic success.

Seamus Allman, the Community Engagement Coordinator for the Food Literacy project was chosen for an interview due to the organization's involvement in the community and his role as the Community Engagement Coordinator. Their high community involvement has allowed them to better understand the food issues that are present in the community, thus giving me more insight into the foodscape of Jefferson County. During the interview, which took place at the Oxmoor Farm that the organization operates, Seamus was invested in the programs that the organization offers, and elaborated in detail about food issues in Jefferson County. Seamus identified the following key areas of meaningful research: Lack of information about food programs in the city, how can organizations improve outreach efforts to underserved populations, additional education about where and how to eat healthier in neighborhoods, food building a sense of community, and how to turn conversations into actions.

Jeff Alston, Director of Programs at Neighborhood House, which provides various programs targeted to families and access to various social services, identified the following key areas of meaningful research: Limited access to fresh foods and vegetables, transportation barriers, emergency food access, communication of resources among residents. During the interview, it was apparent that he knows the needs of the community, and was truly invested in ways in which the community could be improved, this interview provided

insight on how residents in the neighborhoods received information, mostly by word of mouth.

I chose to interview Karyn Moskowitz, founder and director of New Roots, an organization that partners with the community to promote food justice and access to healthy foods because she has been heavily involved in the food justice movement here In Louisville for more than ten years. She has spent years building relationships with local community organizations and businesses and residents. This has enabled her to create an organization that truly understands the needs of the community, and values input from residents. Her organization understands the challenges that her neighborhoods face. The initial interview with Karyn did not go like the others, initially I was shocked because, I didn't get to ask what I wanted to, but she made the following comments about what she felt were the main issues were regarding food issues in my study area: research fatigue, socialized isolation, transportation issues, lack of city support for food problems, and residential research fatigue. She stressed the importance of research fatigue, and how outsiders to the neighborhood come into the area, and never leave meaningful contributions to research, and have contributed to residential research fatigue.

Chuck Mattingly, Director of Operations for the Franciscan Kitchen and Shelter House, which provides various emergency food programs, discussed how restaurants and other business are reluctant to donate food due to the potential for legal issues but are protected under Kentucky law. The need for donated food has increased in the community, and the

problem is that organizations are not receiving enough donations to keep pace with the increased demand in services from residents. It was also discussed how the primary groups that are being served are African American males, Children, and White males. Chuck did not specifically identify areas of meaningful areas of research, but did make an important point that local restaurants and business have the potential to alleviate food insecurity by donating the extra food that they have, and by explaining the hesitation by these business due to in his opinion, lack of knowledge about certain laws that protect them.

Annette Ball, the chief programs officer for Dare to Care, which provides emergency food access identified these areas of meaningful research: How can Dare to Care as an organization meet the needs of the community? What resources are needed, how do clients of the food pantries want to receive their food, meaning do they prefer one location to pick up their food or do they wish to go to multiple locations? How can we as an organization preserve the client's dignity when receiving resources. She discussed also the obstacles that many clients face when accessing resources , She acknowledged the fact that most pantry sites are only open during work hours , people often do not work in the neighborhood in which they live in, and most sites only serve those who reside in the neighborhood that they (the pantry) are located in. How are we to expect clients who lack reliable transportation to make it to their designated pantry site after work, or during their lunch break?

Jan Sherrell, Senior manager of the healthy lives program at Metro United way, an organization that provides access to basic needs and social services, discussed the types of assistance that are requested through the use of the United Way hotline which connects

persons to local resources in the community such as health and social service programs (Metro United Way 2020). The second top request according to 211counts.org was food assistance at 14.7%, this was second to housing at 32.6% (Metro United Way 2020-2).

Donna Young, program coordinator for St. Vincent De Paul, who provide various social service programming, discussed that the number of persons that are being served through the food kitchen and food pantry are high, she also discussed how that the need for increased education about cooking and nutrition needs to be offered and how to buy the healthy foods that the pantry is unable to offer. She also explained that the choice food pantry reduced food waste and allowing the clients to have choices in the foods that they picked, restored dignity to the clients who rely on the food pantry to supplement the foods that they need.

These interviews have contributed to the understanding of the foodscape in Jefferson County, Kentucky by identifying key areas of meaningful research in the community. These interviews shaped the eight themes that were used to frame the residential interview questions and the codes that were used to perform the content analysis. The results of the content analysis can be found in table 4 below. The eight themes that were identified through the non-profit interviews were used as the codes that I used to analyze the academic literature, residential interviews, and nonprofits. The eight themes that were identified through non-profit interviews were as follows: Building a sense of community, food building a sense of community, distribution of foods, talk about the problem but don't spend time

fixing it, education about nutrition and cooking, racism and classism, and socialized isolation.

I had to be careful when performing the content analysis because I sampled at different levels, due to the type of interviews that were conducted at each group level, for example, non-profit interviews were unstructured, which allowed for more information to be collected, but also allowed more room for error while performing the analysis. Residential interviews were structured, which allowed the residents to be more specific in the information that they were sharing, having specific phrases or words made distinguishing between codes more reliable. The sampling levels that were used in the analysis were phrases, sentences, and words.

The top three categories that were found through the content analysis were: Racism and Classism, socialized isolation, and transportation. These results were not surprising, after spending time in the community and listening to the stories from residents and local nonprofits. either through interviews, or through community events. These were important to identify because it condenses the academic literature, interviews from both the non-profits and residents, to show the issues that contribute to food insecurity in Louisville's west-end communities. The use of content analysis was valuable to compare the academic literature with the interviews from local nonprofits and residents because it showed that the academic literature was identifying certain issues but missed issues that residents and local non-profits identified as meaningful areas of research.

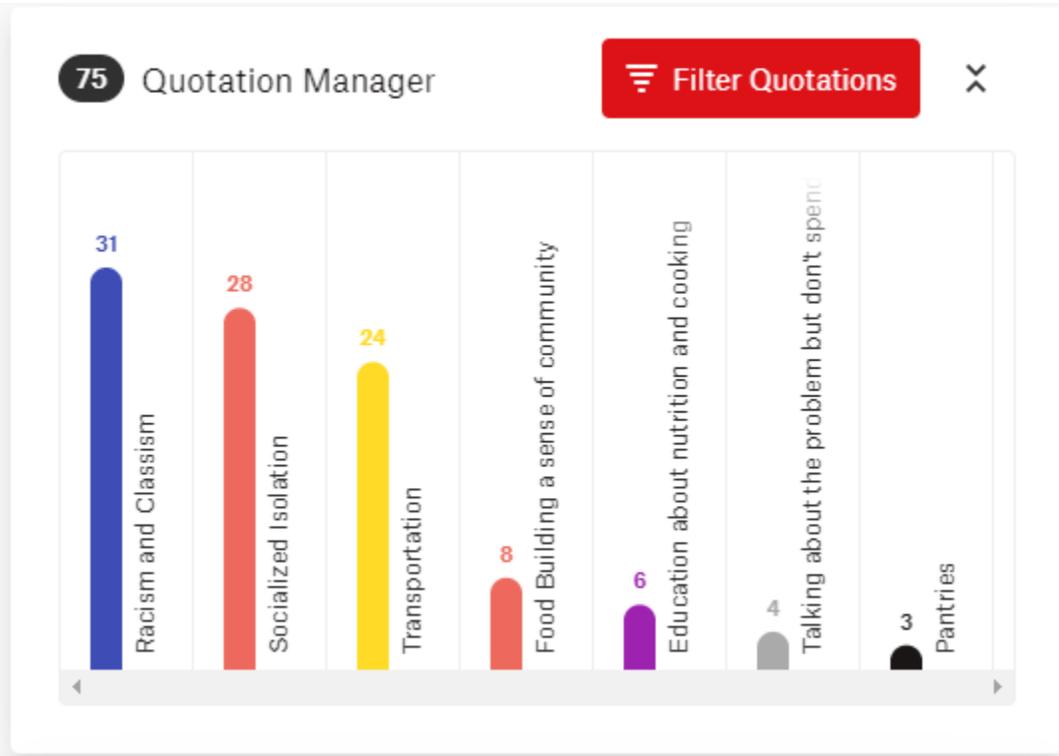


Table 4 Content Analysis

CONCLUSION

The objective of this study was to investigate the availability of fresh and nutritious foods in Louisville's West End communities. This study operates under the assumption that residents in Jefferson County have unequal access to food. This study also addresses the question of how residents and local non-profits feel about strategies that build community through food. The neighborhoods that were involved in this study were: of Shawnee, Old Louisville, Russell, Parkland, Chickasaw, Smoketown and Shelby Park.

Traditional research on food deserts does not conceptualize the changing social relational and political nature of the landscapes of urban food consumption. This study utilized the concept of the foodscape-the different spaces and places that a person acquires food. This study also discussed how the foodscape has the ability to expand or contract based on an individual's experience. This paper discussed the role of the charitable food system and its role in cultural food insecurity, by not having culturally appropriate foods, immigrant and refugee persons will experience a contraction in their foodscape. An example of the expansion of the foodscape would be through the use of the Shawnee Farmers market or the New Roots fresh stop markets because they offer fresh and nutritious foods that are not found in the stores that are located in the study area.

The use of interviews and participant observation were the main tools of data collection. Interviews with local non-profits were conducted first to identify areas of meaningful research, these interviews produced eight common themes that were used with

residential interview questions that asked about their most recent grocery shopping experience. Participant observation was used to understand how residents and local nonprofits felt about strategies that build community through the use of food. Participant observation was also used at various community events, attendance was used to build trust among the residents, but also to understand the needs of community members. It was important to build trust because residents in my study area are research fatigued, because they often become the subjects of the research themselves.

This study has created a community-driven approach to examining food insecurity in an urban segregated city. This study was conducted from the perspective of residents and local non-profits. This approach is necessary in areas where feelings of distrust are apparent between residents and local government agencies or local universities. My study has provided a manual of how to conduct research in a way that puts participants in control of the study, yielding more authentic, accurate results. Transparency with the residents in my study area, alleviated hesitations and tensions that became apparent through the course of this study. It can be concluded from the study that my study area needs more full service grocery stores, but implementation of the stores needs to have the interests and concerns of the residents be top priority. This study is also not saying that the convenience stores in the neighborhood should not be forced to closed, but offer more quality fresh and nutritious foods available to purchase, there should be incentives offered to business owners to purchase and offer these foods in these stores, lastly, there is a need for increased

communication among local farmers and owners of convenience stores, to develop feasible opportunities so that both businesses can benefit from selling locally grown produce in these stores.

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APPENDIX A.

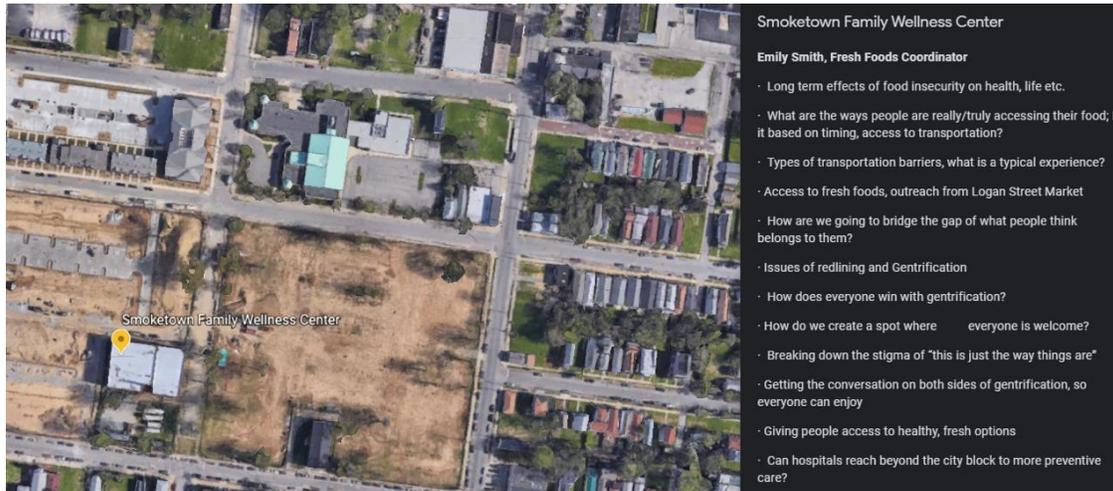


Figure 7 Google Earth Representation of Interviews

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RESEARCH INTRESTS

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EDUCATION

2020-M.S., University of Louisville-Louisville, Kentucky

M.S. in Geography and Geosciences, specializing in Environmental Analysis

Thesis: Food Insecurity in Historically Disenfranchised Parts of Jefferson County, Kentucky

2018- B.S., University of Louisville-Louisville, Kentucky

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Thesis: The Effect of Urbanization and Agriculture on the Floyds Fork Watershed, KY

2013-Bullitt East High School- Bullitt County, KY

INVITED TALKS

The Effect of Urbanization and Agriculture on Aquatic Bacteria within the Floyds Fork Watershed, KY. Jefferson Community and Technical College, 2019, Natural Science Mathematic Division Seminar Series Talks.

FELLOWSHIPS AND AWARDS

2018-Fellowship -*Cooperative Consortium for Transdisciplinary Research*: Louisville Community Grocery.

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Smith, K. 2018. The Effect of Urbanization and Agriculture on Aquatic Bacteria within the Floyds Fork Watershed, KY. University of Louisville.

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PROFFESIONAL EXPERIENCE

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Undergraduate Teaching Assistant, Geography and Geosciences, University of Louisville
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GEOS 360- Global Environmental Change

GEOG 540- Geography and Human Environmental Interactions

GEOG 641- Research Design

GEOS 570 Water Resource Management

GEOS 571 GIS and Water Resources

GEOG 660 Qualitative Methods

SOC 691Immigrants and Identity

SOC 740: Social Policy