

Macalester College

DigitalCommons@Macalester College

---

Geography Honors Projects

Geography Department

---

Spring 5-4-2020

## Canvas Totes and Plastic Bags: The Political Ecology of Food Assistance Effectiveness at Farmers' Markets in the Twin Cities

Sophia Alhadeff

Macalester College, [salhadeff@macalester.edu](mailto:salhadeff@macalester.edu)

Follow this and additional works at: [https://digitalcommons.macalester.edu/geography\\_honors](https://digitalcommons.macalester.edu/geography_honors)



Part of the [Human Geography Commons](#), and the [Nature and Society Relations Commons](#)

---

### Recommended Citation

Alhadeff, Sophia, "Canvas Totes and Plastic Bags: The Political Ecology of Food Assistance Effectiveness at Farmers' Markets in the Twin Cities" (2020). *Geography Honors Projects*. 62.

[https://digitalcommons.macalester.edu/geography\\_honors/62](https://digitalcommons.macalester.edu/geography_honors/62)

This Honors Project - Open Access is brought to you for free and open access by the Geography Department at DigitalCommons@Macalester College. It has been accepted for inclusion in Geography Honors Projects by an authorized administrator of DigitalCommons@Macalester College. For more information, please contact [scholarpub@macalester.edu](mailto:scholarpub@macalester.edu).

CANVAS TOTES AND PLASTIC BAGS

**Canvas Totes and Plastic Bags: The Political Ecology of Food Assistance  
Effectiveness at Farmers' Markets in the Twin Cities**

Sophia Alhadeff

Honors Thesis

Macalester College Department of Geography

Advisor William G. Moseley

4 May 2020

**Table of Contents**

Abstract.....	3
Acknowledgements.....	4
Chapter 1: Introduction.....	5
Chapter 2: Background.....	8
<i>History of Food Assistance in the United States.....</i>	8
<i>How to Use SNAP/EBT at a Farmers' Market.....</i>	11
<i>Minnesota Market Bucks.....</i>	11
<i>Key Definitions within Food Studies.....</i>	12
<i>Effective Food Policy .....</i>	13
<i>The Landscape of the Twin Cities.....</i>	13
<i>Food Insecurity in the Twin Cities.....</i>	17
Chapter 3: Methods.....	18
<i>Selection of Markets.....</i>	18
<i>Map of Study Area.....</i>	18
<i>Surveys.....</i>	20
<i>Sample.....</i>	20
Chapter 4: Literature Review.....	20
<i>Theoretical Frameworks.....</i>	21
<i>Defining an Effective Food Assistance Program.....</i>	21
<i>Barriers to Food Access at Farmers' Markets.....</i>	26
<i>Why Farmers' Markets?.....</i>	27
<i>Physical Barriers to Accessing Farmers' Markets.....</i>	30

<i>Social Barriers to Accessing Farmers' Markets</i> .....	32
<i>What About SNAP?</i> .....	34
<i>Gaps in the Literature</i> .....	36
Chapter 5: Discussion of Results.....	38
<i>Minneapolis Farmers' Market</i> .....	41
<i>Midtown Farmers' Market</i> .....	48
<i>St. Paul Farmers' Market</i> .....	56
Chapter 6: Findings.....	65
<i>Physical Barriers to Accessibility</i> .....	69
<i>Purchasing Patterns at the Market</i> .....	76
<i>Social Barriers and the Environment of Farmers' Markets</i> .....	79
Chapter 7: Policy Recommendations and Conclusion.....	82
<i>Key Actors</i> .....	82
<i>Effective Food Policy in Belo Horizonte, Brazil</i> <i>and Hartford, Connecticut</i> .....	83
<i>Effective Food Policy in the Twin Cities</i> .....	88
<i>Farmers' Markets: A Means of Assessing Nutritional Food</i> .....	91
<i>Conclusion</i> .....	93
Appendix A.....	95
Appendix B.....	96
References.....	98

**Abstract**

In June of 2019, the Trump Administration proposed a policy that could result in three million people losing access to food stamp benefits. The Supplemental Nutrition Assistance Program (SNAP), formerly food stamps, is a governmental food aid program designed to help low-income individuals and families combat food insecurity across the country. According to Minnesota Hunger Solutions, in 2017, 9.5% of Minnesota households were food insecure. In the Twin Cities, SNAP benefits have been accepted at a selection of farmers' markets since 2003 in order to improve accessibility of fresh, local produce. This paper utilizes a mixed method approach, including qualitative interviews with SNAP participants and key informants, to evaluate the effectiveness of SNAP in the context of three farmers' markets in the Twin Cities. While research in this field has examined various individual and community coping strategies used to combat food insecurity, little work focuses on the link between SNAP and farmers' markets as one option for providing local, healthy and affordable food. This paper implements both a broad political ecology framework to analyze the history and implementation of food assistance, and embodiment geography to examine the individual experience at farmers' markets. Preliminary findings demonstrate the need to provide more comprehensive information to low income shoppers about the restrictions of SNAP, while also ensuring adequate accessibility to farmers' markets. This research seeks to highlight the applicability of political ecology and embodiment geography to understand relationships at farmers' markets and enhance food policy.

## **Acknowledgements**

This project would not have been completed without the help of many along the way.

Endless Thanks:

To Macalester College for awarding me with the Student-Faculty Collaborative Research (CSR) Grant. Without it, I would not have been able to conduct such a robust study from which this thesis is based.

To the participants of my survey, who allowed me to engage in conversations about food access. Without their participation, I would not have completed this project.

To Bill Moseley, my thesis advisor, for his continuous support and guidance throughout the process.

To Laura Smith for her advice navigating the statistical analysis of this project.

To Amy Damon for her thoughtful comments throughout the editing process and vendor insight.

To Holly Barcus for her wise advice throughout my time in the Geography department at Macalester.

To my friend and GIS comrade, Theo Kaufman for beautifully crafting the maps for this project.

To my parents and siblings for their encouragement when I felt the most discouraged.

To Dio Cramer and Ben Trumble, my fellow geography honors students. Without these two holding me accountable and listening to my ideas along the way, this paper certainly would not have been what it turned out to be.

To my dear friends Sivan Tratt, Emma Heth, Lauren Weber, and Julia Evelyn, for keeping me sane throughout the writing process and for your support on days when I wanted to quit.

To my housemates Deirdre O’Keeffe and Sam Ryckaert for always having an open ear.

To the farmers’ market staff at Minneapolis Farmers’ Market, Midtown Farmers’ Market and St. Paul Farmers’s market for their willingness to conduct this study at their markets.

To Jenna Yaekle and Kate Sheldon, the managers at Midtown Farmers’ Market for their guidance and mentorship during my internship at their market, which inspired this project.

To Miles Davis and his album ‘Kind of Blue’ for accompanying me through the writing process and late nights at the computer.

**Chapter 1: Introduction**

At the end of June 2019, the Trump Administration proposed a policy that could result in three million people losing access to food stamp benefits (Flesser 2019). The Supplemental Nutrition Assistance Program (SNAP), formerly known as the food stamp program, is a federal food aid program designed to help low-income individuals and families combat food insecurity in the United States. In the Twin Cities, SNAP benefits are accepted at a selection of farmers' markets to expand the accessibility of fresh, local produce and handmade products.

This research seeks to determine the extent of the effectiveness of SNAP usage at farmers' markets in the Twin Cities and the ways in which it can be improved to result in better access to healthy, nutritious, culturally appropriate food choices. This study examines the effectiveness of food assistance programs in the Twin Cities to provide healthy, nutritious food to low income families through farmers' markets. While research in this field has examined various coping strategies used to combat food insecurity (Larson and Moseley, 2012), this project focuses on the role of farmers' markets as a means of providing local, healthy and affordable food. This study will employ the definition of food insecurity as defined by the United State Department of Agriculture (USDA), which is as follows: "lack of consistent access to enough food for an active, healthy life" (USDA 2019). In an environment where food justice movements are often steeped in elitism, this project aims to provide ideas to democratize farmers' markets to better serve low-income communities who are often marginalized within the food system (Slocum, 2007; Gottlieb and Joshi, 2010). In this paper, I address the following question: How effective is the usage of government food assistance programs

at farmers' markets for the purpose of combating food and nutritional insecurity in the Twin Cities? Using a feminist political ecology framework, I examine three farmers' markets across the Twin Cities to evaluate the effectiveness of SNAP in this context. By conducting semi-structured interviews from shoppers and market managers and key informants, I aim to better understand how people interact with the farmers' market setting. I argue that both physical and social accessibility influences the effectiveness of SNAP usage at farmers' markets in the Twin Cities and thus propose two policy recommendations to improve both factors.

This paper will be organized as follows. First, I will recount the history and development of food assistance policy in the United States at large, as well as in Minnesota. I then define key terms used within the food studies literature, and explain how to use SNAP at a farmers' market. With this understanding and context, I will then situate my research questions within the ongoing scholarly conversation around food assistance at farmers' markets and food justice literature with an analysis of both empirical and qualitative studies. Next, I will outline the methods of my study, and define the theoretical frameworks employed in my analysis: political ecology, feminist political ecology, and embodiment geography. Following this analysis, I identify gaps in the literature and propose areas for future research. I then discuss the results of my study at the three farmers' market sites; Minneapolis Farmers' Market, Midtown Farmers' Market, and St. Paul Farmers' Market. After the discussion of the results, I then analyze the findings as they relate to both physical and social accessibility in relation to the trends in the literature. From this analysis, I then craft policy recommendations with steps for implementation on multiple scales, drawing from case



studies in Belo Horizonte, Brazil and Hartford, Connecticut. Lastly, I conclude with suggestions for future studies.

## **Chapter 2: Background**

### *History of Food Assistance in the United States*

The Supplemental Nutrition Assistance Program is the largest federal food assistance program. As an entitlement program, it is implied that the government has committed to supplying the necessary funds required to “provide benefits for all eligible applicants” (Wilde 2013, p.202). While considered to be a nationally organized program, individual states have authority over specific aspects of the program, such as how often participants have to provide new documentation to recertify their eligibility (Wilde 2013). Moreover, as an entitlement, the caseload and program costs fluctuate in response to economic conditions.

The first Food Stamp Program (FSP) began in 1939 as a method of disposing agricultural surpluses by selling small vouchers as relief to purchase food (Wilde 2013). When there was no longer an existing surplus, the program was discontinued and replaced by the pilot Food Stamp Program in 1961 (Wilde 2013). President Kennedy’s first executive order demanded expanded food distribution and the beginning of the pilot program (Wilde 2013). The program aimed to retain the requirement that the food stamps were purchased, but eliminated the concept of special stamps for surplus food (USDA 2019). Then, in 1964, President Johnson enacted the Food Stamp Act of 1964 with five major provisions. First, every state developed its own eligibility standards. Second, recipients became required to purchase food stamps to have access to nutritionally adequate low-cost food. Third, the Food Stamp Act restricted alcoholic beverages and imported foods for purchase with food stamps. Fourth, the program prohibited discrimination on the “bases of

race, religious creed, national origin, or political beliefs” (USDA 2019). Lastly, the Food Stamp Act divided responsibilities between individual states and the Federal Government “with shared responsibility for funding costs of administration” (USDA 2019).

As the program grew throughout the 1970s, many modifications were made, such as national standards of eligibility, the cost of a nutritionally adequate diet, and the limiting of households’ purchase requirements to a maximum of 30 percent of their income (Wilde 2013). In 1976, 18.5 million Americans were enrolled in the program, and 22.4 million in 1981. In the Food Stamp Act of 1977, participants no longer had to purchase their food stamps. The Hunger Prevention Act was signed into law in 1988, and with it began a pilot program for Electronic Benefit Transfer (EBT). In the 1990s, benefits began to be distributed through EBT cards, similar to debit cards. In 2008, the Food Stamp Program was renamed the Supplemental Nutrition Assistance Program to both strengthen the identity of the program as a nutrition program, and recognize the use of EBT rather than physical food stamps (Wilde 2013). Currently, SNAP legislation is housed within the United States Department of Agriculture Farm Bill, legislature that dictates agricultural trade and production and is reviewed every five years. Thus is tied to its history of industrial agriculture and agricultural surplus in the United States.

The monthly benefit amount that a household can receive is based on the household’s net income. The maximum SNAP benefit is received when a household’s net income after deductions is zero (Wilde 2013). The Southworth Hypothesis, otherwise known as the economic theory of consumer choice, firstly distinguishes

between two types of households: (1) unconstrained or inframarginal, where households contribute to some of their cash income towards food in addition to SNAP benefits; (2) constrained or extramarginal, where households rely on SNAP alone for monthly grocery spending. Beneficiaries receive their SNAP credit on an EBT (Electronic Benefit Transfer) card on a monthly basis, but SNAP cannot be used to buy just anything. For example, restrictions include alcohol, tobacco, paper goods, and other nonfood items. Oftentimes, SNAP benefits cannot be used to purchase ready to eat food. Along with the credit given via EBT, the federal government also supports a nutritional education program. Costs for this program are split evenly between the state and the federal government. For the fiscal year of 2016, the SNAP nutrition education allocation was \$408 million, a small sum when compared to the total cost of SNAP, \$70.9 billion for the same year. SNAP is not widely accepted at a range of convenience stores, retail food outlets and farmers' markets.

One's eligibility depends on household size and monthly income before taxes. Eligibility for seniors and disabled individuals is determined after taxes and deductions such as social security, or medical costs. The income eligibility guidelines for 2020 are outlined in the table below (Second Harvest Heartland, 2020). If an individual or household meets the eligibility guidelines, they are able to apply through their local county Department of Human Services.

	General Households	Seniors (60+) and Disabled
Household Size	Monthly income before taxes	Monthly income after taxes (deductions may be applied)
1	\$1,718	\$1,041
2	\$2,326	\$1,410

3	\$2,933	\$1,778
4	\$3,541	\$2,146
5	\$4,149	\$2,515
Each additional member, add	\$608	\$369

*How to use SNAP/EBT at a Farmers' Market*

In order to use SNAP at a farmers' market, there are a few steps. Most markets use a token system. An EBT user makes their transaction at the customer service or information tent. The shopper hands over their Minnesota EBT card to a volunteer or manager, who asks if they are using food or cash benefits. When shoppers apply for SNAP, which is dependent on household size and income, some receive food benefits, and some receive cash benefits. The manager or volunteer asks how much money they would like to take out, then makes the transaction and hands the shopper the corresponding number of tokens, which are each worth a dollar. If the shoppers spend up to ten dollars in SNAP, they are eligible for a ten dollar match through Hunger Solutions MN. For example, if the shopper spends ten dollars, they are given ten market bucks cards to spend like cash, resulting in twenty dollars to spend. This small dollar amount may incentivize smaller, more frequent trips.

*Minnesota Hunger Solutions Market Bucks*

In the state of Minnesota, one in ten people are food insecure (Hunger Solutions Minnesota 2016). To combat the issue of growing rates of hunger, Minnesota Hunger Solutions, a local non-profit organization helped pass legislation

to make Minnesota's Market Bucks program the first publicly-funded farmers' market incentive program in the country (Hunger Solutions 2016). Market Bucks is a match program that doubles the amount of SNAP customers at farmers' markets up to \$10 per visit per day (Hunger Solutions 2016). While Hunger Solutions has developed an incentive program that aims to support low-income shoppers in a farmers' market environment, there are still information gaps in shopper's knowledge of how to best use the incentive to their advantage, not to mention structural and cultural barriers, in some cases.

### *Key Definitions within Food Studies*

Within the following analysis, I use the terms 'food justice', 'food sovereignty', and 'alternative food movement.' While closely related and working towards similar goals, each term has its own definition. *Food justice* "seeks to ensure that the benefits and risks of where, what, and how food is grown, produced, transported, distributed, accessed and eaten are shared fairly" (Rowe, 2016). The term *food sovereignty* was created in 1966 by members of Via Campesina in Brazil as the "right to healthy and culturally appropriate food produced through ecologically sound and sustainable methods and their right to define their own food and agriculture systems" (National Family Farm Coalition, 2019). In contrast, the *Alternative Food Movement* is a reaction to the increasing commodification of food along with the industrialization and commercialization of agriculture (Menefee, 2015). Together, I implement these three definitions in the discussion of SNAP usage at farmers' markets.

*Effective Food Policy*

Drawing from a selection of scholars that I analyze in the literature review, I define *effective* food assistance policy. For the purpose of this analysis, I will define effectiveness as the following. (1) In order for a food assistance policy to be effective, it must first prioritize access both geographically and economically. (2) Secondly, it must emphasize the dignity of individuals and communities, while appropriately addressing both the nutritional and cultural value of food. (3) Lastly, an effective food assistance policy must also balance the needs of urban and rural populations. Ideally, food assistance policy would also increase cooperative policy design between large and small actors across multiple scales, such as municipal, state, and federal governments.

*The Landscape of the Twin Cities*

In order to portray the geographic composition of the Twin Cities, the following series of maps<sup>1</sup> portray the racial and economic composition of the study area. In particular, there is heavy overlap with the map of neighborhoods of shoppers and census tracts with a high percentage of households receiving SNAP.

---

<sup>1</sup> The breaks on the three choropleth maps are quantiles. The cartographer, Theo Kaufman, decided to use quantile breaks because there are an equal amount of observations (i.e. census tracts) in each of the four classes. He felt that the quantile ranges were quite reasonable (not too large or too small) across all of the maps, thus he felt that this was the best choice for both comparison of classes and data visualization.

## Percentage of households receiving SNAP per Twin Cities census tract, 2018

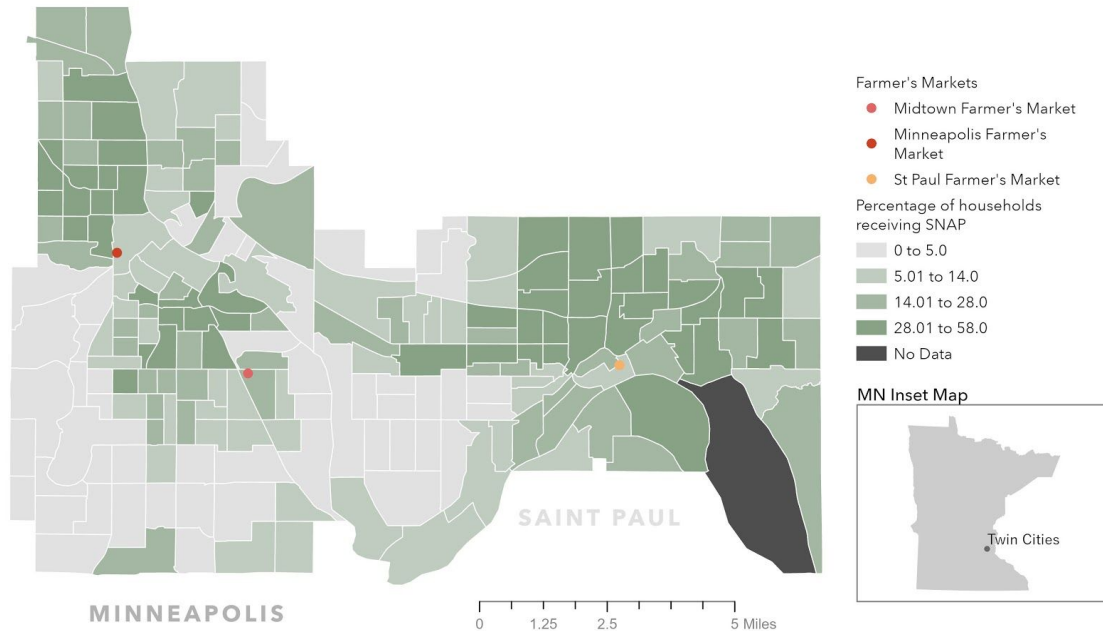


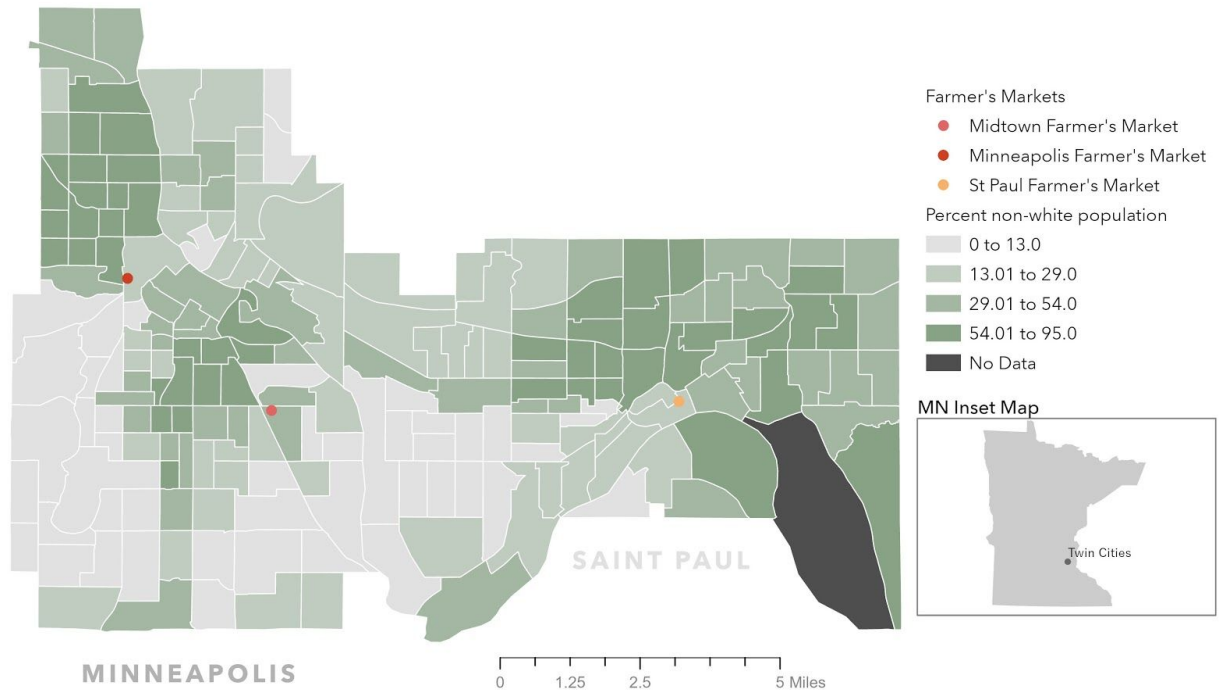
Figure 3.1

This map shows the percentage of households that receive SNAP benefits by census tract in Minneapolis and St. Paul. While this map shows SNAP enrollment, it also echoes the pattern shown on the map of median household income (fig. 3.2) and percentage of non-white population (fig. 3.3). Minneapolis Farmers' Market is located within a census tract where 5.01%-14.0% of households are enrolled in SNAP although it is located near census tract groups that have a higher percentage (14.01%-28.0% and 28.01%- 58.0%) of households enrolling in SNAP. Similarly, St. Paul Farmers' Market is also located in a census tract where 5.01%-14.0% of households are enrolled in SNAP, and is also neighboring tracts that have either 14.01%-28.0% or 28.01%- 58.0% of the households enrolled in SNAP. Midtown



Farmers' Market is located in a census tract where there is a higher percentage of households enrolled in SNAP in comparison to its neighboring tracts.

## Percent non-white population per Twin Cities census tract, 2018



Cartographer: Theo Kaufman; Projection: NAD 1983 UTM Zone 15N; Data Source: TIGER/Line Shapefiles, 2018 American Community Survey (ACS) 5-year estimates; Date: Apr. 27, 2020

Figure 3.2

This map shows the composition of the percentage non-white population by census tract. While located within a census tract that is between 13.01% and 29.0% non-white, Minneapolis Farmers' Market neighbors census tracts with bigger communities of color. The same can be said for St. Paul Farmers' Market, where 13.01% to 29.0% of the census tract population does not identify as white, while to the North, neighboring census tracts are home to larger non-white communities.

Following a similar trend to the pattern shown in fig. 3.1, Midtown Farmers' Market is located within a census tract where 29.01% to 54.0% of residents are non-white.

## Median income per Twin Cities census tract, 2018

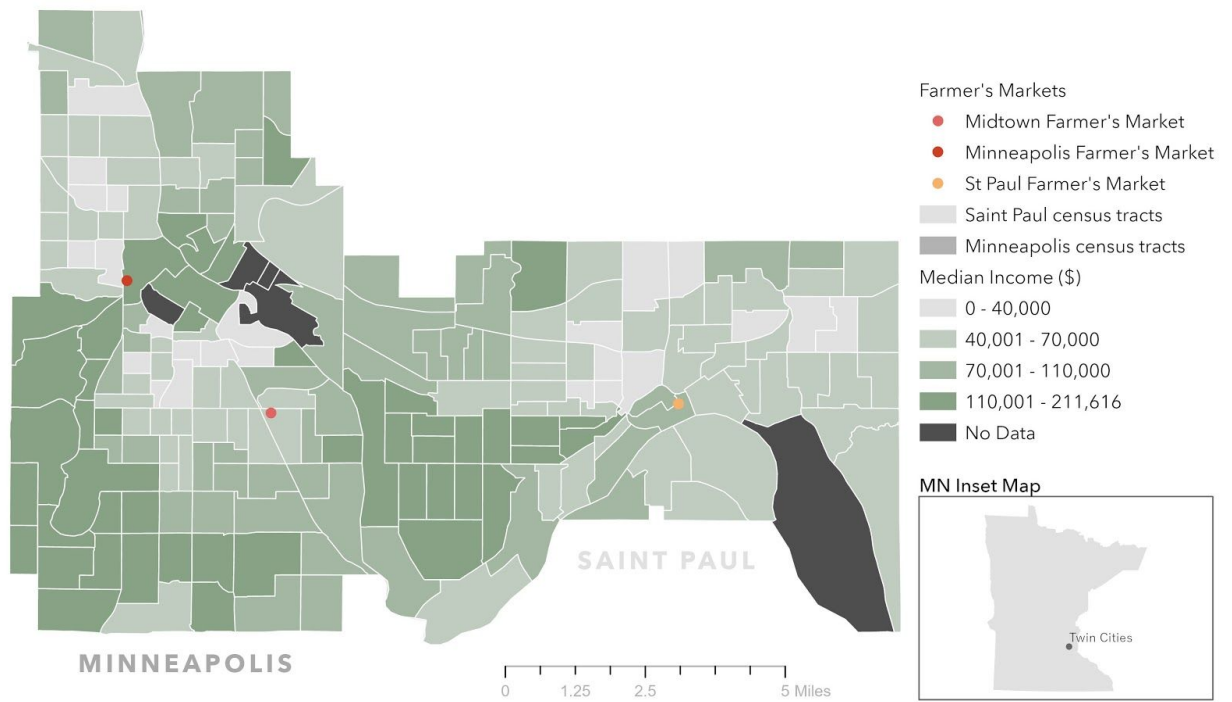


Figure 3.3

This map shows the median income per census tract in the Twin Cities. The pattern shown in this map is similar to that in fig. 7.1 (p. 14) and fig 7.2 (p.15). Both Minneapolis and St. Paul Farmers' Markets are located within higher income tracts in comparison to Midtown Farmers' Market. Minneapolis Farmers' Market is located within the highest income earning tract, followed by St. Paul Farmers' Market, and then followed by Midtown Farmers' Market.

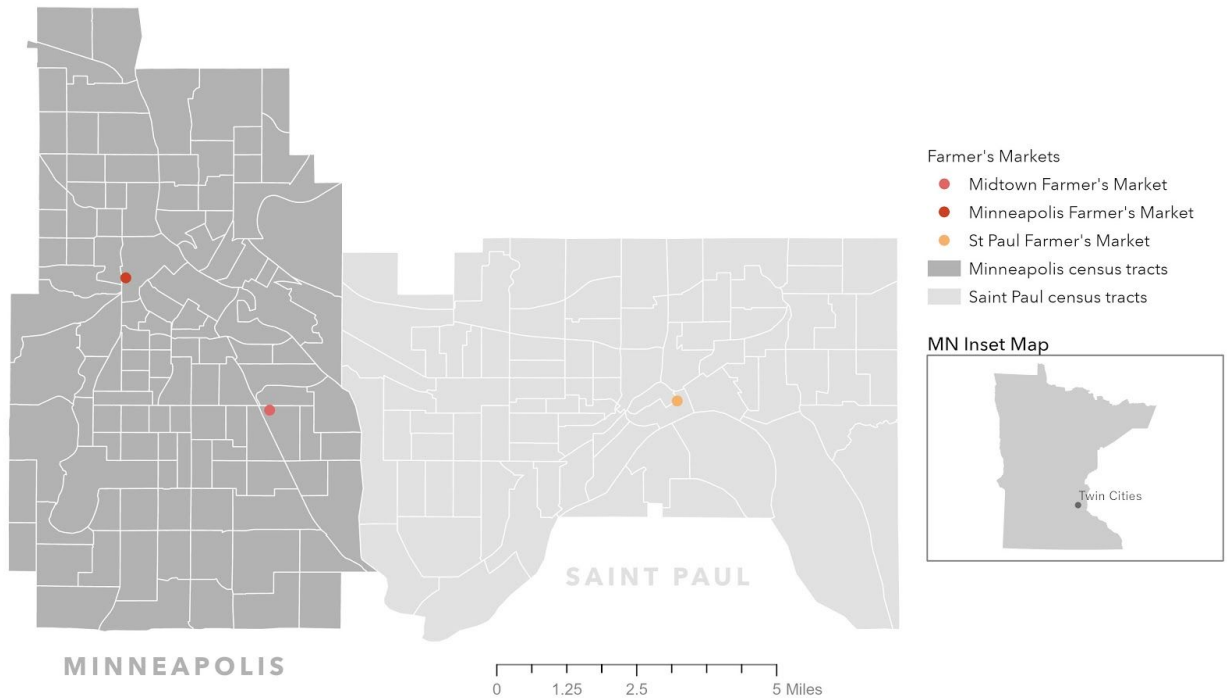
*Food Insecurity in the Twin Cities*

In order to address food insecurity in the Twin Cities, both Ramsey County and the City of Minneapolis have implemented different strategies. According to a 2019 Population Health Institute food insecurity report published by the University of Wisconsin, in Ramsey County, 12% of the population is food insecure. In Hennepin County, 11% of the population is food insecure. Moreover, according to a Ramsey county report titled 'Food Access in Saint Paul and Ramsey County Minnesota,' "about 17.5% of families were below the poverty level compared to 15.9% nationally. There are about 110,000 individuals eligible for SNAP with about 91,000 enrolled, for an 82% participation rate. There are an estimated 124,500 people with low access to grocery stores' ' (Seiber, 2014).

## Chapter 3: Methods

### *Selection of Markets*

# Twin Cities farmer's market locations, 2020



Cartographer: Theo Kaufman; Projection: NAD 1983 UTM Zone 15N; Data Source: City of Saint Paul, Open Minneapolis, TIGER/Line Shapefiles; Date: Apr. 27, 2020

Figure 3.1

For this study, I selected three farmers' markets within Minneapolis and St. Paul. Farmers markets chosen for the study needed to have a few elements; (1) an existing EBT acceptance program, (2) a busy shopping environment, and (3) managers with the willingness to allow me to conduct my survey at the market. There are seven farmers' markets in the Twin Cities that accept SNAP/EBT, of which I have chosen three (Minnesota Department of Human Services). The first market site, the

St. Paul Farmers' Market, is located in downtown St. Paul in the Lowertown neighborhood. The second market site, Midtown Farmers' Market, is located in the Longfellow neighborhood of Minneapolis. The third market site, Minneapolis Farmers' Market, is located in the North Lyndale neighborhood in Minneapolis (see map on page 17). These three markets were chosen because they each serve a distinct geographic area of the city with little overlap. Additionally, each market is well established in the metro area and in their respective neighborhoods. Both Minneapolis Farmers' Market and St. Paul Farmers' Markets operate smaller market sites throughout the week, but my study focused only on their respective primary locations.

In my initial research plan, five markets were included in the study. Before conducting my research, I asked each market manager for permission to include their market in my study. Two of the markets that I contacted were eliminated from the study due to lack of timely communication with market managers, and their general unwillingness for me to conduct my study at that particular market site. These market managers expressed discomfort with a student researcher in their market environment and feared that this study would disrupt regular shopping activity.

For five consecutive weeks, I attended each market. On Tuesday afternoons (3-7pm) or Saturday mornings (9-1pm), I visited Midtown Farmers' Market. I visited Minneapolis Farmers' Market on Friday mornings (9-12pm), and St. Paul Farmers' Markets on Sunday mornings (9-12pm).

### *Surveys*

Over the course of five weeks, I distributed surveys in English, Spanish or Hmong to shoppers using EBT. In order for a shopper to use their EBT card, a shopper has to pay for tokens that are able to be used like cash at that particular market. Tokens are exchanged in one dollar increments and never expire. With the permission of the market managers, I sat at the information tent alongside the managers. When a shopper used their EBT card, I would explain that I was a student researcher and asked if they would like to take a short survey. At each of the markets, the majority of the shoppers agreed to take it. I also conducted four interviews with key informants (see Appendix A for interview script).

### *Sample*

Approximately seventy surveys were collected at three farmers' markets. Participants were asked basic questions regarding how frequently they shop at the market, how far they travel, how long they have been using SNAP, how long they have shopped at the market, and what proportion of their income is spent on food and covered by SNAP (See Appendix B for survey). There may be bias in my sample due to language and literacy abilities despite the three translations in Spanish, Somali, and Hmong. Moreover, towards the third and fourth week of my study, I began to see the same EBT shoppers, meaning that overtime my ability to reach new shoppers shrank. Additionally, there were no explicit questions regarding demographic information such as race, gender or age.

## **Chapter 4: Literature Review**

### *Theoretical Framework - Political Ecology and Feminist Political Ecology*

In order to analyze the results of my study as well as answer my guiding research questions, I will employ two complimentary frameworks: political ecology and feminist political ecology. Political ecology grew out of cultural ecology as a method of analyzing human environment interactions within economic and political contexts (Robbins, 2012). This theoretical framework will be used to contextualize the history and formation of the current Supplemental Nutrition Assistance Program as well as how and why the modifications of the program have been made.

For the analysis of the literature in this paper, I employ a political ecology and feminist political ecology framework. Feminist political ecology is a framework that emerged from the traditional political ecology, which is used to understand complex nature-society relationships with consideration to social, political and economic factors (Robbins, 2012). In addition, political ecology places local and regional issues into broader contexts in order to “trace the contextual forces that constrain and direct immediate outcomes” (Robbins, 2012, p.88). This analysis called ‘chains of explanation,’ coined by two scholars Blaikie and Brookfield, allows for certain variables to be addressed with the appropriate amount of emphasis or weight in a study. Moreover, ‘marginalization’ is also considered alongside the chain of explanation. Marginalization is traditionally understood in regards to the inability to access land due to social and political factors, but in this case, it can be employed to uncover the ways in which people have been pushed into economically and socially marginal positions (Robbins, 2012). While political ecology examines these

relationships with consideration to both political and economic factors, feminist political ecology sheds light on social difference within a particular situation (Rocheleau, 1996). Moreover, feminist political ecology acknowledges gender power dynamics as well as the distinction between socially constructed gender roles and physical biology, while also moving away from such a binary towards a continuum (Rocheleau, 1996).

Political ecology and feminist political ecology is useful in analyzing food assistance and farmers' market literature as it recognizes structure, marginalization, and social difference, such as race, class, gender, sexuality and able-bodiedness, as key aspects to improving food assistance at farmers' markets. Delving deeper into understanding the role of social difference in the farmers' market environment, embodiment geography, stemming from Elizabeth Grosz's feminist corporeal theory arguing that the "body has explanatory power," is another useful framework for analysis (Grosz, 1994, Slocum, 2008). Embodiment geography offers "a discussion of the materiality of race [or other identities] rather than its representation or performance" (Slocum, 2008, p.849). The growing field of work explores sensual, emotional or affective geographies and lends itself to understand how individuals interact with their environment based on their identity (Clifford et al., 2009). Together feminist political ecology and embodiment geography provide a framework to best analyze the current academic conversation around food access at farmers' markets and effective food policy.

Within food assistance literature, scholars can be grouped into three categories; those tackling questions of theoretically defining an effective food



assistance program, and those unpacking the obstacles that are presented limiting the effectiveness of such programs, which can be divided into two subcategories: physical and social barriers. Together, the three conversations shed light on ways that scholars are framing food access issues. In this paper, I aim to place these scholars in conversation with each other in order to provide a better understanding of the relationship between improving access to food and improving food assistance policy. I will analyze these three categories with a feminist political ecology lens in order to identify gaps in the literature, where improvements can be made to food assistance policy.

### *Defining an Effective Food Assistance Program*

In order to better evaluate my research questions, I must first define what an *effective food assistance* program looks like, how it functions, and who it serves. To craft my definition of *effectiveness*, I draw from a selection of economic and political theorists. While there is vast scholarship within food justice literature, I have chosen to focus my analysis on a small selection of scholars in order to properly evaluate how SNAP functions at farmers' markets and how to improve it. According to the United States Department of Agriculture, the goal of the “program [SNAP] is intended to ‘alleviate hunger and malnutrition’ by ‘permit[ing] low-income households to obtain a more nutritious diet through normal channels of trade.’” (USDA 2019). Today this goal is accomplished through the issuance of monthly benefits in the form of Electronic Benefit Transfer (EBT) cards that can be used in retail food stores. The SNAP benefit is based on the Thrifty Food Plan (TFP), which is

intended to provide a minimal-cost, healthy diet based on household size” (Caswell and Yaktine. 2013, p.28). With the goals set by the USDA in mind, I ask the following: *What defines an effective food assistance program?*

Drawing from Parke Wilde’s *Food Policy in the US*, on the one hand, “hunger and food insecurity can be seen as a simple problem of insufficient food spending” (Wilde 2013, p.210). On the other hand, food insecurity is closely connected with bigger trends of poverty, which can explain the large participation in SNAP (Wilde, 2013). With consideration to the latter, central to the issue of government food assistance is Deborah Stone’s (2012) discussion of the creation of “welfare” policy in her book *Policy Paradigm* (Stone 2012, p.85). Stone highlights six paradigms; material needs vs. symbolic needs, intrinsic vs. instrumental needs, volatility vs. security, quantity vs. quality, individual vs. relational needs, absolute vs. relative welfare (Stone 2012, p.98). In the discussion of these dimensions of need, Stone (2012) implements an analysis that I would like to expand upon and connect to Amartya Sen and Martha Nussbaum’s theories and differing definitions of equity in order to define a framework to evaluate the effectiveness of SNAP. Stone draws a distinction between food as a signifier of cultural value and as a source of nutrition, and ties them to three policy questions: (1) how should the government “balance the minority group needs for particular cultures with a nation’s need for citizenry with a shared identity?” (2) What types of resources and accommodations do governments “owe minorities to help them maintain their cultures?” (3) How does the United States “reconcile conflicting political cultures?” (Stone, 2012, p.89). In relation to drafting adequate food assistance policy, it is essential to balance these questions in

order to provide proper assistance that both properly accounts for nutritional content as well as cultural diversity of food products.

In addition to considerations of culture and preference, it is also helpful to incorporate Amartya Sen and Martha Nussbaum's analyses of hunger. Broadly speaking, there is enough food circulating globally to feed everyone. Drawing from Amartya Sen's Theory of Entitlements (1977), famine is caused not by lack of availability, but lack of access. Thus, when creating effective food policy, it is important to consider six paradigms in order to create food policy that makes food accessible. In contrast to Sen, Nussbaum proposes 10 central capabilities grounded in explicit accounts (Nussbaum, 1997). In the context of development projects in India, Nussbaum accounts 10 "central human capabilities" to be applied to policy formation: "life; bodily health; bodily integrity; senses, imagination, and thought; emotions; practical reason; affiliation (a) friendship, (b) respect; other species; play; control over one's environment (a) political, (b) material" (Nussbaum, 1997, p.287).

Stone, Sen, and Nussbaum each provide key elements for constructing a method of evaluating *effectiveness* in the context of food assistance policy. From Sen, effective food policy must emphasize improving access, both geographically and economically. All ten of Nussbaum's central human capabilities are useful in evaluating effectiveness, but particular emphasis should be placed on bodily health, bodily integrity, and affiliation. Stone's emphasis on the inclusion and balance of minority cultures' needs strongly relates to the idea of affiliation by also highlighting the importance of the individual. Together, these elements comprise a method of evaluating food assistance policy effectiveness. So, policy experts can more

adequately answer the question what *do people who lack food security need?* and build on the question to then ask *how can SNAP lead to food justice?*

Building from this question, Poppendieck (1998) provides additional insight in order to define effective food policy. Poppendieck highlights seven critiques of emergency food that I believe that can be applied to the evaluation of current food assistance policy. The “seven deadly ‘ins’ of emergency food” include: “insufficiency, inappropriateness, nutritional inadequacy, instability, inaccessibility, inefficiency, and indignity” (Poppendieck, 1998, p.210). These seven critiques align well with Martha Nussbaum’s (1997) ten “central human capabilities” as well as Amartya Sen’s (1977) theory of entitlement and discussion of access. All three of these scholars identify gaps in the construction of food assistance policy. The critiques of food assistance policy falls into two groups, which the definition of *effective* food assistance policy analysis will incorporate. The first grouping consists of insufficiency, nutritional inadequacy, instability, and inefficiency. The second grouping consists of inappropriateness, indignity and inaccessibility. The first group of critiques fall within the structural context of food assistance policy design, whereas the second addresses human need as social emotional beings.

### *Barriers to Food Access at Farmers' Markets*

In addition to the discussion amongst political and economic theorists about the responsibility of the government and its citizens to create and uphold effective food assistance policy, social science scholars are engaged in a conversation around the role of farmers' markets as a means of food justice, as well as the physical and

social barriers that jeopardize the effectiveness of food assistance usage at farmers' markets.

### *Why Farmers' Markets?*

While there is some speculation as to if farmers' markets are adequate methods of food justice, the general conclusion in academic discourse is that they function as a successful method of connecting shoppers to local producers (Gottlieb and Joshi, 2010, Winne, 2008). Additionally, farmers' markets have been fully incorporated into the discussion of the food justice and local food movements. Granted, farmers' markets have often been criticized for perpetuating inequality within the food system. With the rise of popularity, farmers' markets gained a reputation for higher cost items "in part linked to their somewhat confectioned image as a niche place to shop" (Gottlieb and Joshi, 2010, p.166). Simultaneously, high prices were not the only factor and affordability related to "the broader question of what determines the cost of food" (Gottlieb and Joshi, 2010, p.166). This may be due in part to the need for "substantial investments" to build conventional food retailers that might not be possible in the short term (Freedman et al., 2016, p.1137). In a case study located in North Berkeley and West Oakland, Alison Hope Alkon, a sociology professor at the University of the Pacific, explores "how farmers' markets seek to incorporate visions and practice of justice and sustainability, the ways these approaches intersect with race and class, and the narratives through which proponents come to embrace (and justify their embrace of) economic strategies" (Alkon, 2012, p.13).

Thus, there exists a barrier to farmers' markets based on the assumption that the environment is designed for and caters to the needs and desires of upper-middle class, white shoppers who want to engage in the local food system as an activity rather than as a regular means of acquiring food. According to Julie Guthman, geographer and food scholar, "it is in inequalities that neoliberalism has exacerbated that reveals the limits of the alternative food movement" (Guthman 2011, p.164).

In a case study situated in Washington State titled "Bridging the Gap: Do Farmers' Markets Help Alleviate Impacts of Food Deserts?", Sage and colleagues highlight discrepancies in the current food desert literature and redefine food deserts in order to understand the role of farmers' markets in combating food insecurity (Sage et al., 2013). The authors focus their discussion in the context of an urban setting, in which they bring up the point that farmers' markets hold a range of variability in location, which may contribute to a lack of access (Sage et al., 2013, p.1278). That said, "in the last few years, barriers to low-income participation at farmers' markets have begun to be addressed. As an increasing number of farmers' markets allied with food advocates... to actively conduct educational and promotional activities in multiple languages to reach out to immigrant and low-income populations at the market sites and at health clinics, community centers and schools" (Gottlieb and Joshi, 2010, p.167).

Farmers' markets not only enter into the food justice conversation through a discussion of access, but also contribute to the local food movement. In a section in the book *Food Justice* discussing locality within the food justice movement, Gottlieb and Joshi state the following, "a food justice framework helps recapture the meaning

of local as part of the larger challenge to transform what we eat, where the food comes from and how it is grown and produced” (Gottlieb and Joshi 2010, p. 225). Moreover, in an article titled ‘Cultivating Better Food Access? The Role of Farmers’ Markets in the US Local Food Movement’ Justin Schupp, a sociologist at Wheaton College, examines the accessibility of farmers’ markets across the United States. Schupp highlights how neighborhood characteristics such as infrastructure, socioeconomic composition, and poverty rates impact the likelihood of the presence of a farmers’ market in that area, while connecting the goals of farmers’ markets to an understanding of grassroots social movements (Schupp, 2017).

It is also crucial to recognize the vulnerability of farmers’ markets. As farmers’ markets have increased in popularity, resources have been spread thin in most neighborhoods. In a case study in the state of Oregon, Gary Stephenson, Larry Lev and Linda Brewer identify five factors that lead to the failure of farmers’ markets in an article titled “‘I’m getting desperate’: what we know about farmers’s markets that fail.” After surveying small, medium and large farmers’ markets across the state, the factors leading to the failure of the market include the following: (1) small size of the market (2) need for products (3) administrator revenue (3) volunteer/low paid managers (5) high manager turnaround. Thus, the authors recommend that the markets include “better planning, manager and board of director training and community financial support” (Stephenson et al., 2007, p.188).

*Physical Barriers to Accessing Farmers' Markets*

Given that farmers' markets are sites in the urban food system that have the potential to be improved to promote food security, the intersection between the built environment and food access is important as it relates to farmers' markets. In a study titled "A Systematic Review of Factors Influencing Farmers' Market Use Overall among Low-Income Populations," Freedman and colleagues employ a political ecology lens to connect the growing public health interest with an increasing "awareness of structural barriers to accessing fruits and vegetables particularly in low-income communities" (Freedman et al., 2016, p.1137). Additionally, in the article "Do Farmers' Markets Help Alleviate Impacts of Food Deserts?" Sage and colleagues articulate a connection between accessing farmers' markets and physical barriers. "Access is not simply a manifestation of a certain distance travelled. The relationship between poverty rate and vehicle ownership makes the availability to traverse any given distance to travel to utilize a food assistance benefit is heightened" (Sage et al., 2013, p.1278). Moreover, past studies, such as Jerry Shannon's analysis 'What does SNAP benefit usage tell us about food access in low-income neighborhoods?' examine how the distribution of SNAP benefits in the Twin Cities intersects with the existence of food cooperatives and farmers' markets through dasymetric mapping (Shannon, 2013). Shannon suggests that future research might consider intersections between transit systems and urban food planning (Shannon, 2013). "Rather than assuming low-income populations are immobile, future research could focus on the differential forms of mobility available to this group on how these in turn influence practices of procurement and consumption" (Shannon 2013, p.96). Drawing from



this suggestion, in my survey, a question asked about time and distance traveled to the market as well as transportation methods.

In relation, Jane Battersby, in a new book titled *Tomatoes and Taxi Ranks: Running Our Cities to Fill the Food Gap* (2018), also argues that urban planners need to be more cognizant of food security issues. Additionally, Sage and their colleagues state, “the relationships [between poverty and vehicle ownership] place added value on collaboration between markets in or near high poverty areas and food assistance programs to ensure the prevention of a spatial mismatch” (Sage et al., 2013, p.1275) In addition to farmers' markets as a means of procuring fresh, local produce, in a 2012 study, Joel Larson and William G. Moseley explore alternative hunger mitigation strategies and understandings of food security in the Twin Cities. Through quantitative methods, Larson and Moseley highlight three coping mechanisms; cooperatives, food buying clubs, and personal home gardens. Moreover, the authors make a distinction between access and capital in regards to the definition of food deserts.

In a case study in Portland, Oregon that is compared to the Twin Cities, Borelli argues that food planning needs to take local resources and climate into consideration (Borelli, 2018). Moreover, the author states, “food planning itself lends itself to the implementation of intersectoral and holistic planning models” (Borelli, 2018, p.114). Borelli takes one step further to argue that urban food planning has the power to design for the “the regeneration of rural areas, the development of agriculture and sustainable strategies for cities” (Borelli 2018, p.114). Borelli’s

argument lends itself well for the application of a food planning ethos in the Twin Cities.

### *Social Barriers to Accessing Farmers' Markets*

In addition to factors in the built environment that limit access to farmers' markets, and therefore the ability of individuals to use SNAP in such an environment, there are a multitude of social factors that also impede access. By employing a feminist political ecology lense, scholars evaluate factors of social difference and identity within the landscape of farmers' markets. In order to analyze the social barriers which limit access to farmers' markets, I primarily draw from Rachel Slocum, Kristen Valentine Cadiex, and Elizabeth Grosz and Diane Rocheleau for the feminist political ecology framework.

In a Twin Cities based study, Rachel Slocum evaluates racialized food practices through the implementation of two themes of embodiment, racial division and intimacy, at the Minneapolis Farmers Market. To conduct this analysis, Slocum employs Elizabeth Grosz's corporeal feminist theory, which refers to "a dynamic capacity of human bodies to emerge in relation to each other and to things, whichin social and physical limits, and thereby to form sexual and racialized identities" (Slocum 2008, p.853). Therefore, "race becomes material through the body [and] groupings of bodies do things and are 'done to,' becoming racialized in the process" (Slocum 2008, p.854). With the acknowledgement that race is an embodied practice, Slocum investigates divisions at the markets, ways of interacting in the market space, food preferences, and other behavioral patterns that fall along racial lines (Slocum

2008). Moreover, Slocum discusses how bodies present themselves distinctly and how market tourism is an emerging trend amongst white, middle-class groups that alienates communities of color in the farmers' market space (Slocum 2008).

In a survey of factors influencing farmers' markets, Freedman and colleagues state, similar to the low income sample, in middle and high income locations, "social barriers to farmers' market use included a belief that these were exclusionary spaces, in part because of a limited diversity at the market" (Freedman et al 2016, p.1150). More broadly, in an article titled "What does it mean to *do* food justice," Cadieux and Slocum argue that it is highly important for food scholars to make a clear distinction between food justice and advocacy for an equitable food system (Cadieux and Slocum, 2015). Situated within a larger web of connections, the authors identify four nodes of food justice: trauma and inequity, exchange, land, and labor (Cadieux and Slocum, 2015). Of particular note, relevance, and distinction from other arguments is the first node, trauma and inequity. Cadieux and Slocum state that 'trauma and inequity' as a node of food justice "recognizes structural relations of power as necessary to confront race, class and gender privilege" and "acknowledges the historical, collective traumas, and remembers that the history and expression of trauma varies locally and is fueled by the power of global hierarchies of privilege" (Cadieux and Slocum 2015, p.14). Moreover, the trauma and inequity node "enacts policies that repair the past injustices and trauma that are still felt today" (Cadieux and Slocum 2015, p.14). Related to both embodiment geography and the integral aspects of the food justice movement, it is important to validate the linkages between the value of "good food, good bodies, and political activism," which also allows those

who are already privileged to achieve even higher status by virtue of their bodies and food-purchasing habits” (Guthman 2011, p.193). The results of this study indicate that incentivizing policies have the potential to improve access to fresh produce.

### *What about SNAP?*

As the Supplemental Nutrition Assistance Program also functions beyond farmers' markets, in order to most adequately evaluate the effectiveness of SNAP at farmers' markets, SNAP itself must also be analyzed. As mentioned previously, the security of the current food assistance program is under threat by the Trump Administration (Fesser, 2019). Thus, scholarship and policy faces a pivotal moment to gain a better understanding of the drawbacks of the program. In an editorial report titled ‘Support for Supplement Nutrition Assistance Program (SNAP) Policy Alternatives Among US Adults, 2018’, Rebecca Frankle and colleagues analyze current SNAP incentives and provide six hypothetical SNAP policies to promote healthier diets as well as the flaws in the timing of the distribution of benefits to beneficiaries. According to the study, “once monthly issuance of benefits may be associated with detrimental benefits at the end of the benefit cycle” (Frankle et al., 2019, p.994). Moreover, 14% of participants of the study preferred once monthly issue of benefits, whereas 31% preferred twice monthly, and 21% opted to give participants the option to choose the frequency, and another 30% had no preference (Frankle et al., 2019, p.994). While allowing participants to acquire benefits for consistently, this administrative change challenges communication, confusion about

the changes in the policy and the application on a state-by-state basis (Frankle et al., 2019).

Guthman highlights a noteworthy paradox, “the use of the Supplemental Nutrition Assistance Program (SNAP)... is on the increase because so many people meet the already raised bar to qualify... Now such assistance is under attack by some nutritionists and foodies because it allows people to buy sodas and junk food. Yet, the alternative safety net, food charity<sup>2</sup>, has proved to be a source of low-quality food, too” (Guthman, 2011, p.176). In a telephone survey study conducted by Frankle and colleagues, six hypothetical policies were proposed to encourage healthier diets through restrictive and incentivizing policies (Frankle et al., 2019). Of the 1,037 adults surveyed (387 SNAP participants and 686 non-participants), “support for the ‘restrictive policies’ (removing sugary drinks, removing candy) was significantly higher among non-participants than SNAP participants”, whereas “‘incentivizing’ policies (providing additional benefits, fruits and vegetable benefits, fruits and vegetable incentives) were viewed more favorable... and tended to be higher among SNAP participants” (Frankle et al., 2019, p.993). These results indicate the potential responsiveness of SNAP recipients to incentives for fresh produce, in part a strategy currently implemented in Minnesota through the Hunger Solutions Market Bucks program, which is a match program that doubles the amount of SNAP customers at farmers' markets up to \$10 per visit per day (Hunger Solutions 2016).

---

<sup>2</sup> “Food charity” is often associated with emergency food efforts, such as food shelves. Janet Poppendiek (1998) states, “The term ‘emergency food’ which had originally designated programs designed to respond to a ‘household food emergency’ now took on the connotation of a societal emergency, a time-limited, urgency for help” (Poppendiek, 1998, p.5).

*Gaps in the Literature*

Based on the research that I have gathered in this analysis, I have identified three primary gaps. First, the majority of my findings either analyze quantitative data sets or observations made by the scholar, or use a combination of both qualitative and quantitative methods. According to Frankle and colleagues in a report titled, 'Support for Supplemental Nutrition Assistance Program (SNAP) Policy Alternative Among US Adults, 2018,' "no previous national surveys have assessed public opinion about the frequency at which SNAP participants receive benefits" (Frankle et al., 2019, p.993). With the scope of my research in mind, I have not come across many other studies that conduct research directly with SNAP recipients at farmers' markets. Perhaps this is due to limitations of the scope of research conducted by scholars or sensitivities related to power dynamics between academics and participants in the study. Moreover, I argue that including the perspective of SNAP beneficiaries in a study about food access and food security is important in order to gain insights about the needs of participants using this program. Additionally, surveying or interviewing SNAP participants at farmers' markets provides an opportunity for academic researchers and policy makers to make informed decisions based on improvements that people directly involved in the success of this program would like to see for increased food access. The second gap that I have identified within the scope of my research is the range of scale. While most studies analyze data and draw conclusions at a single scale, scaling up may provide strategies for policy makers to craft informed policy that is informed by the needs of citizens. Granted, I understand that oftentimes scholars are reluctant to scale up as they are not an

'expert' in the topic at that scale and thus do not feel qualified to make conclusions outside of the realm of their study. The third gap is the lack of academic communication between scholars in the food justice and food studies field. This may be due to the divide between positivist and non-positivist methods of analysis in different academic disciplines. While there is some sharing of ideas, discourse amongst scholars could be improved to both further academic research and, more importantly, improve food access and food assistance policy.

## Chapter 5: Discussion of Results

Surveys were collected over the course of five weeks, each market visited on the same day of the week. I collected surveys at Minneapolis Farmers' Market on Friday mornings, Midtown Farmers' Market on Tuesday afternoons and Saturday mornings, and St. Paul Farmers' Market on Sunday mornings. To analyze the data I have collected, I will first describe the results of the survey data<sup>3</sup> from each market. Then I will compare the results that describe trends of the limits of transportation access as they impact the ability of shoppers to attend a given market. In this analysis, I analyze the survey responses for seven questions. The questions are as follows:

1. What mode of transit do you take to the market? (Car, Bus, Walk, Light Rail, Bike)
2. How long is your commute to the market? (less than 10 minutes, 15 minutes, 15-30minutes, 30 minutes - 1 hour, 1 hour +)
3. How often do you shop at the market? (1 time per week, 2 times per week, 1 time per month, 2 times per month)
4. How long have you received SNAP? (less than a year, 1 - 3 years, 3-6 years, 6-10 years, 10 year +)
5. What fraction of your monthly income do you spend on food? (more than 75%, 75%, 50%, 25%, less than 25%)

---

<sup>3</sup>The results shown in the table and represented in the charts are ratio level data. I converted the raw values to ratio data for each question as there were different numbers of participants in each location. As there were varying numbers of survey respondents at each market, the data represents the percentage of respondents of the total number at each market.



6. How much of your monthly food budget is covered by SNAP (or other food programs) in comparison to your personal income? (100%, 75%, 50%, 25%, less than 25%)
7. Do you use the Minnesota Hunger Solutions Market Bucks Program? (yes, no)

## Twin Cities Transportation Routes, 2020

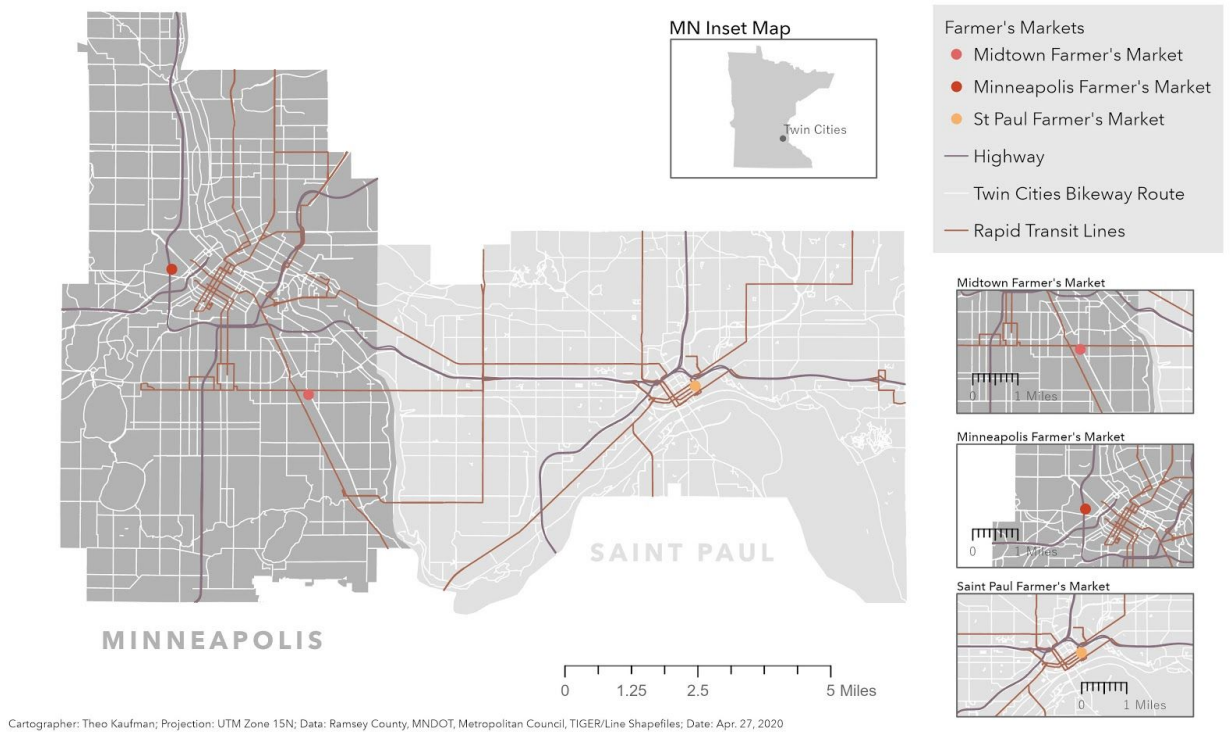


Figure 5.1

This map shows the major highways, rapid transit routes, and bike routes in the cities of Minneapolis and St. Paul. This map is helpful to understand how each farmers' market is connected to transportation infrastructure. Since the survey asked

shoppers which mode of transportation they use to get the market, this map in conjunction with the analysis of survey responses is helpful in understanding the accessibility of transportation networks. As shown in the map, Minneapolis Farmers' Market is located near a highway (Interstate 94). Midtown Farmers Market and St. Paul Farmers' Market are both located near rapid transit routes and bike paths.

### Minneapolis Farmers' Market

Located in the North Loop neighborhood, Minneapolis Farmers' Market has served its community since 1937. With two smaller locations in the Twin Cities, the market includes 170 stalls and over 200 vendors. The market has three permanent structures that function as both a covered walkway for shoppers, as well as space for vendors to sell their products. In comparison to the other two markets in this study, this market has a small kiosk where shoppers can buy chips, donuts, coffee, bottled water and soda at inexpensive prices. The market is most accessible by the Blue Line and Green Line light rail routes at the Target Center station with a thirteen minute walk. Minneapolis Farmers' Market is open May through October. Most of the days I spent at the Minneapolis Farmers' Market were quiet. Vendors tended to talk amongst themselves and based on my observations, shoppers seemed to walk around, pick out what they wanted to buy, and then leave. In comparison to the other two market sites, there were far fewer people who spent less time overall.

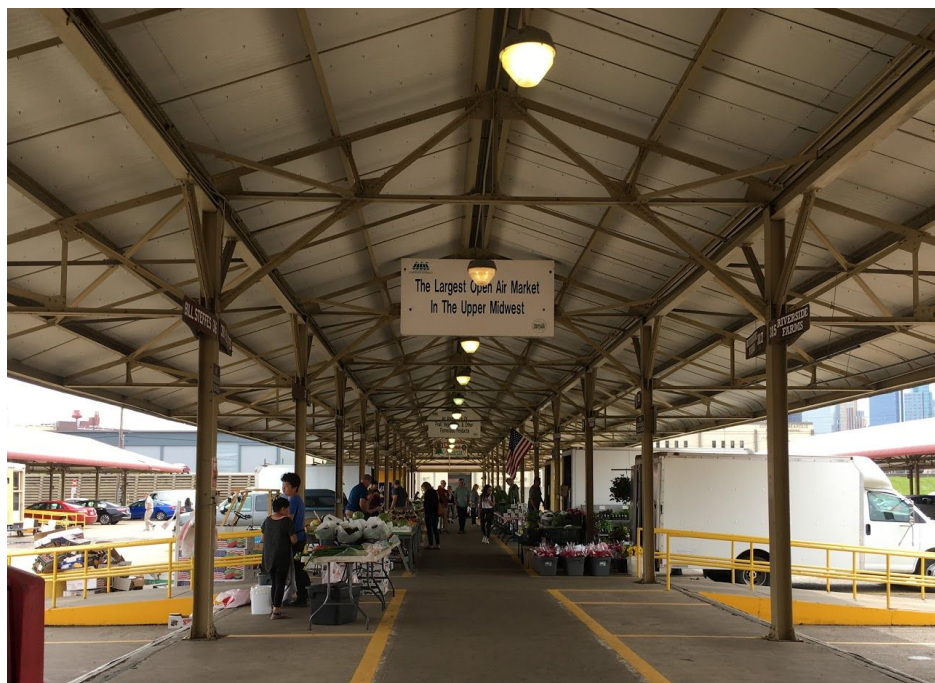


Photo by Author, 2019

## Minneapolis Farmer's Market respondents by neighborhood of residence, 2019

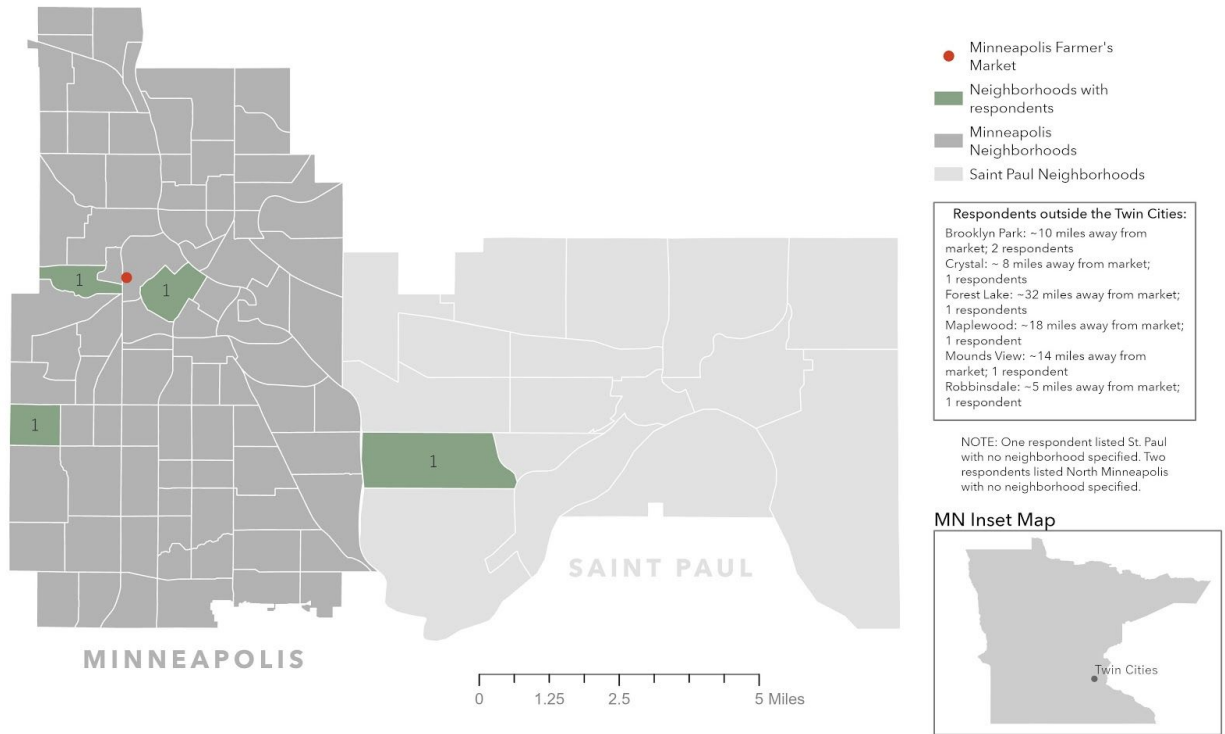


Figure 5.2

At Minneapolis Farmers' Market, there were fourteen survey respondents. Seven respondents live outside the Twin Cities, one from Washington County. Of the respondents who reported living within the Twin Cities, three reported living in Minneapolis and one in St. Paul.

### Physical Access

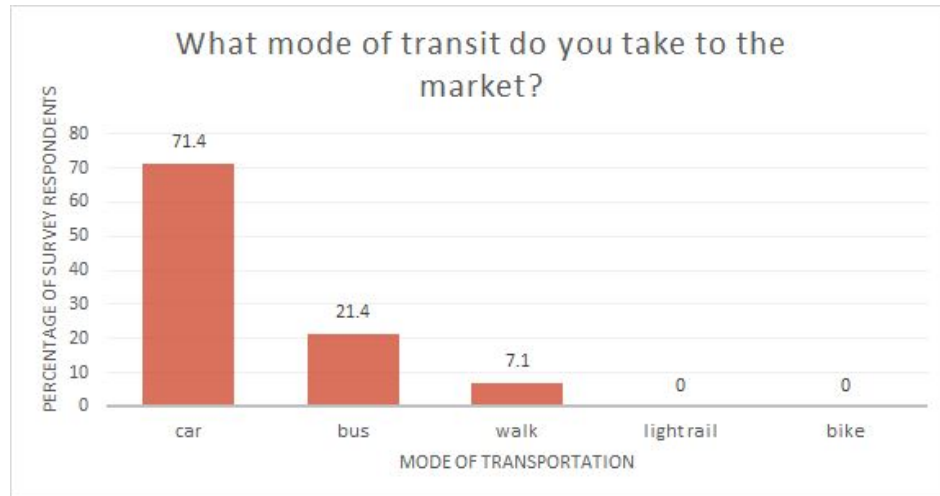


Figure 5.3

This figure shows the distribution of modes of transportation that survey respondents used to get to Minneapolis Farmers' Market. The overwhelming majority of participants (71.4%) drove to the market. This number may include those who took the Metro Mobility van to the market. Metro Mobility is a rideshare program offered by the Metropolitan Council to those who cannot access other transportation due to a disability (Metropolitan Council 2020). A small portion of residents took the bus (21.4%), while there were zero respondents that reported using light rail. An even smaller portion reported walking to the market (7.1%). There were no bikers. These low rates in public transit use, walking, and biking could be due to the lack of accessibility and transit stops near this market location. Additionally, there is ample parking near the market.



Figure 5.4

This chart shows the length of time that survey respondents took to get to Minneapolis Farmers’ Market. The largest proportion of participants (35.7%) reported taking 15 minutes, while an equal number of people (21.4%) reported commuting for less than 10 minutes, and 30 minutes to 1 hour. This distribution of results may be due to such a high number of drivers, meaning that if participants have access to a car, they are able to travel further more easily.



Figure 5.5

This chart shows the distribution of frequency that participants shop at Minneapolis Farmers' Market. Half (50%) of survey respondents report shopping once per week, and 33.3% report shopping twice per week. This high frequency may be due to increased access to vehicle transportation and the ability to shop more often if the method of transit is easy and reliable. This chart also shows that the shoppers at this market are frequent shoppers rather than occasional shoppers.

### SNAP Usage

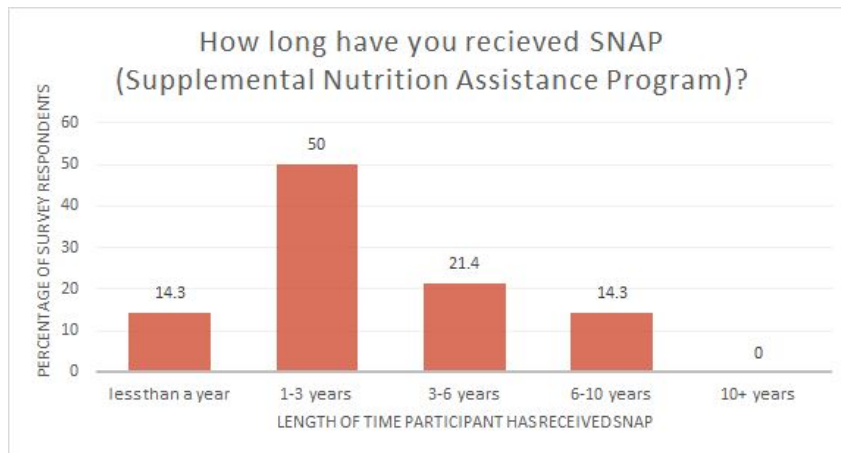


Figure 5.6

This chart shows the length of time that participants have received SNAP benefits. Half (50%) of survey respondents have received benefits for 1-3 years, and 21.4% of respondents have received benefits for 3-6 years. The same proportion (14.3%) of participants have received benefits for less than a year and for 6-10 years.

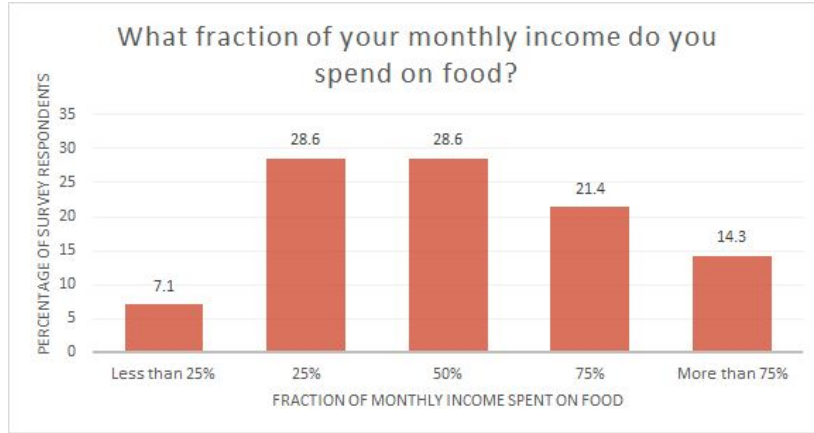


Figure 5.7

This chart shows the fraction of monthly income respondents spend on food. This income does not include SNAP benefits. Over a quarter (28.6%) of respondents spent 50% of their monthly income on food. The same proportion (28.6%) of respondents also spent 25% of their monthly income on food. Additionally, 14.3% of respondents reported spending more than 75% of their monthly income on food.

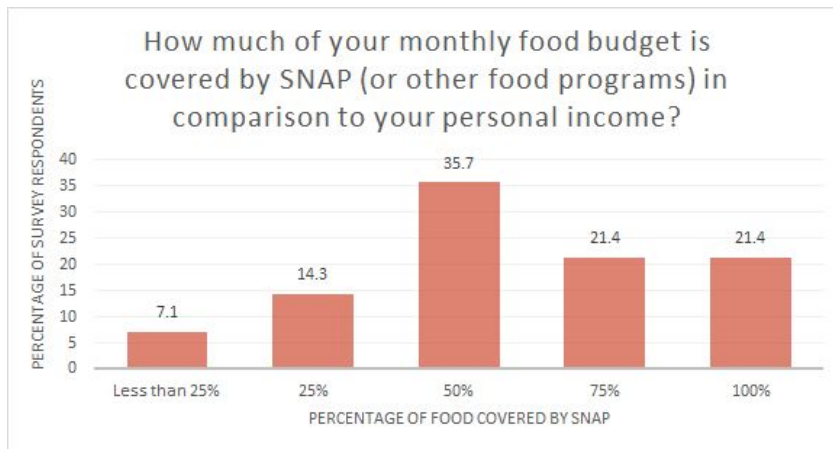


Figure 5.8

This chart shows the proportion of a participant’s food budget that is covered by SNAP. For 78.5% of respondents, SNAP covers between 50% and 100% of their



monthly food budget. 35.7% of survey respondents reported that 50% of their monthly food budget is covered by SNAP. 21.4% of survey respondents reported that 75% of their monthly food budget is covered by SNAP. The same amount of survey respondents, (21.4%) reported that 100% of their monthly food budget is covered by SNAP.

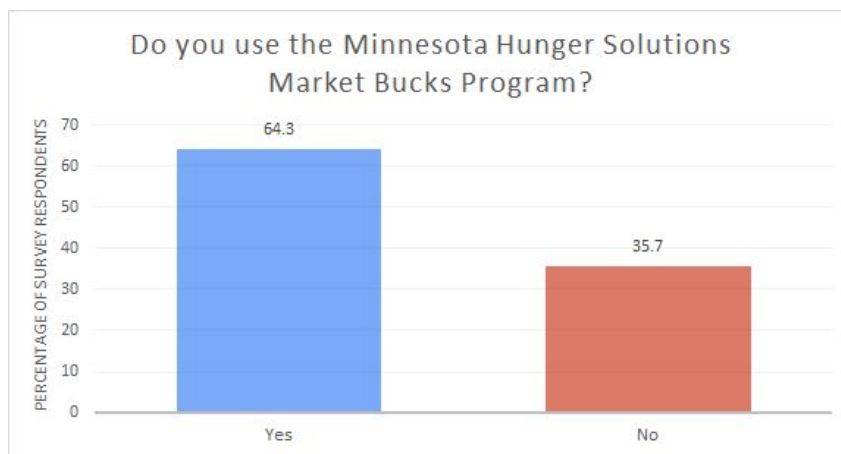


Figure 5.9

At Minneapolis Farmers' market, 64.3% of respondents report using MN Hunger Solutions Market Bucks. Based on my observation, all SNAP shoppers received market bucks during my research.

Midtown Farmers' Market

Established in 2003, Midtown Farmers' Market was founded by the Corcoran Neighborhood Organization with the goal of creating a public market at the transportation center at the Hiawatha light rail station. Since May of 2019, the market has temporarily relocated to Longfellow, while there is construction at their permanent site. Midtown Farmers' Market is accessible via the blue line, the 7, 21 and 53 bus, and MN Highway 55. During the Tuesdays and Saturdays that I conducted research the market was bustling. Live music from a local brass band or an acoustic duo filled the setting as shoppers perused, picking out fresh fruits and vegetables, cheeses, meats, and crafts. Interestingly, by my observation, there were more shoppers with physical disabilities in comparison with the other two markets. On Saturday mornings, in the tent next to the information booth, community tables were set up to share information about community arts events with shoppers. In comparison to the other two markets in the study, Midtown Farmers' Market had the most sense of community and politically liberal tone.

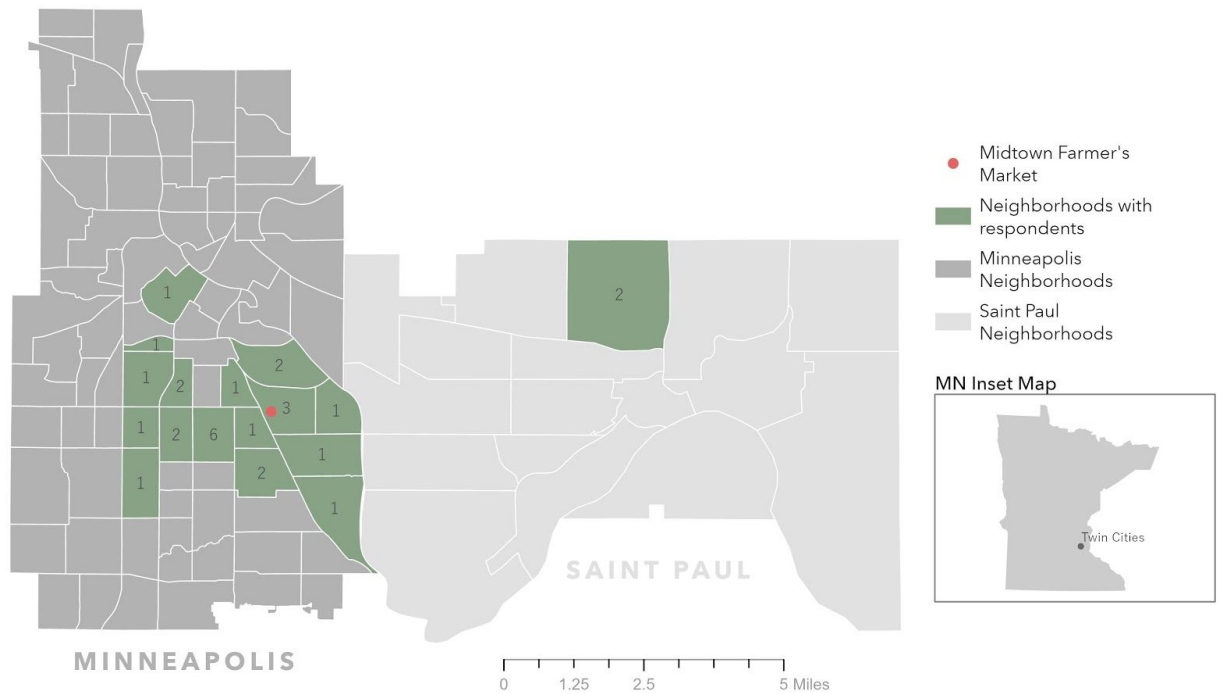


Photo by Midtown Farmers' Market Manger 2019



Photo taken by Lauren Weber, 2019

## Midtown Farmer's Market respondents by neighborhood of residence, 2019



Cartographer: Theo Kaufman; Projection: UTM Zone 15N; Data Source: City of Saint Paul, Open Minneapolis, TIGER/Line Shapefiles, Sophia Alhadef; Date: Apr. 27, 2020

Figure 5.10

At Midtown Farmers' Market, there were 32 survey respondents. This number may suggest that there are more SNAP shoppers at the Midtown Farmers' Market, but also may suggest that there are more shoppers in comparison to other markets overall. All but two reported living in Minneapolis, all primarily from South Minneapolis. Seven people report living in Powderhorn, a neighborhood centrally located to the market.

### Physical Access

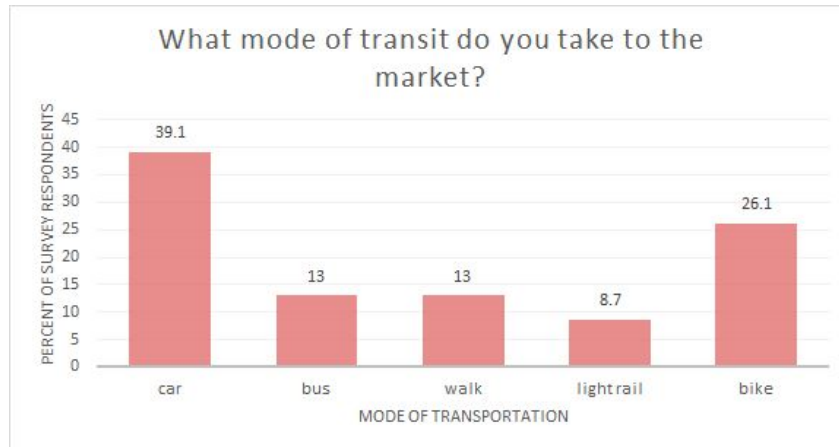


Figure 5.11

This figure shows the distribution of modes of transportation that survey respondents used to get to MidtownFarmers' Market. The largest proportion of participants (39.1%) drove to the market. A small portion of residents took the bus (13%), and walked to the market (13%). An even smaller portion reported taking the light rail to the market (8.7%). Unlike other markets, there was also a high rate of biking (26.1%). This high biking rate could be attributed to the market's location along a bike path. Additionally, there is slightly limited parking near the market in comparison to the other two locations in the study, and it is well connected via public transit.



Figure 5.12

This chart shows the distribution of the length of survey respondents' commutes to the market. Over half of respondents (56.3%) take less than 10 minutes to get to the market. 25% of respondents take 15-30 minutes. The short commute length could be due to the large proportion of shoppers having access to a car, or living within biking distance. The high number of walkers could also be attributed to this trend.

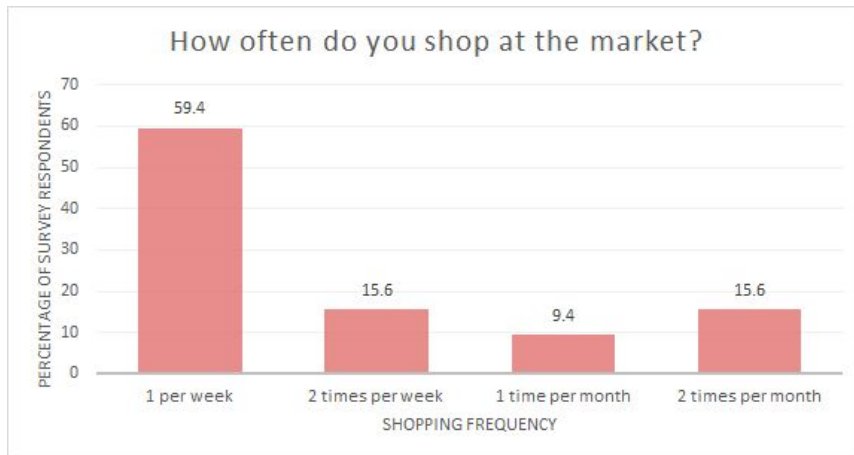


Figure 5.13

This chart shows the distribution of frequency that participants shop at Midtown Farmers' Market. 59.4% of survey respondents report shopping once per week. 15.6% of shoppers report shopping two times per week and the same proportion of respondents report shopping twice per month. This high frequency may be due to increased access to vehicle transportation, public transportation and bike infrastructure. This chart also shows that the shoppers at this market are frequent shoppers rather than occasional shoppers.

### SNAP Usage

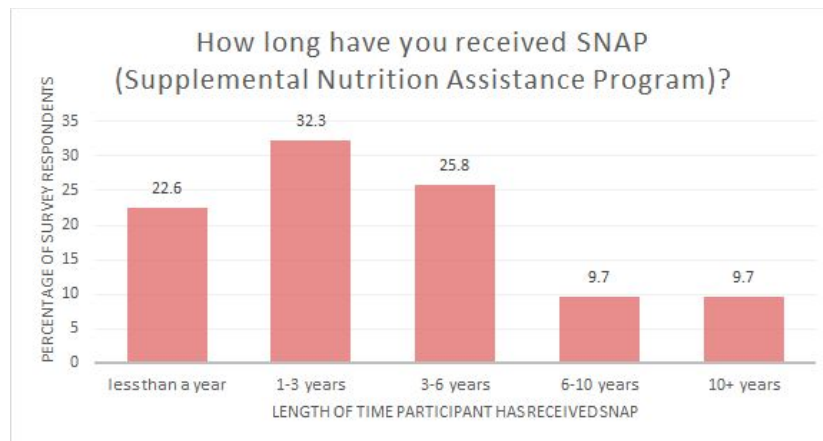


Figure 5.14

This chart shows the length of time that participants have received SNAP benefits. 32.3% of survey respondents have received benefits for 1-3 years, and 25.8% of respondents have received benefits for 3-6 years. 22.6% of participants have received benefits for less than a year.

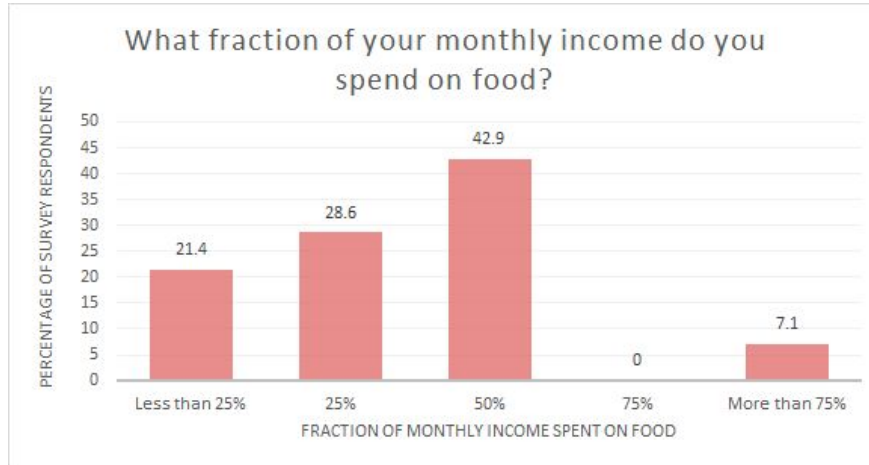


Figure 5.15

This chart shows the fraction of monthly income respondents at Midtown Farmers' Market spend on food. Almost half (42.9%) of respondents spend 50% of their monthly income on food. 28.6% of respondents spent 25% of their monthly income on food. Additionally, 21.4% of respondents reported spending less than 25% of their monthly income on food. This trend is very different from the results from the Minneapolis Farmers' Market, where a higher percentage of shoppers spend more of their income on food.

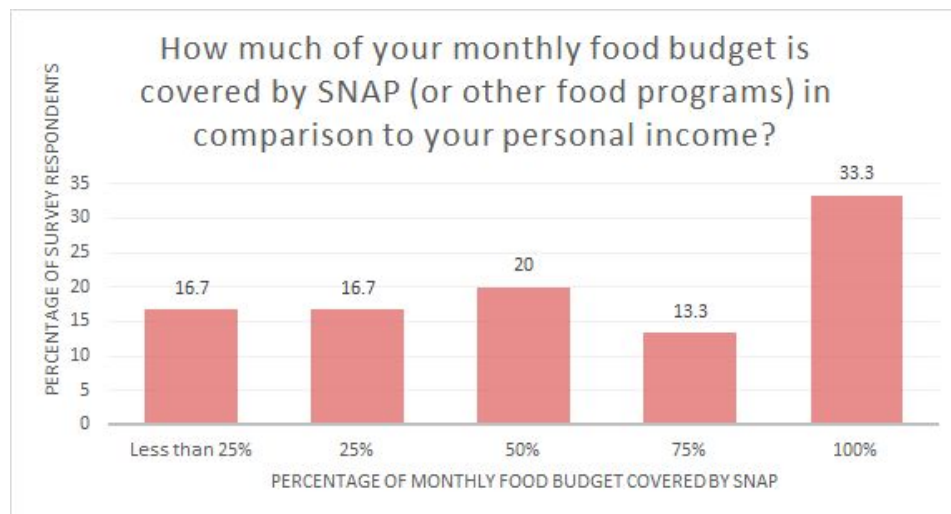




Figure 5.16

When asked, “how much of your monthly food budget is covered by SNAP (or other food programs) in comparison to your personal income?” shoppers at Midtown Farmers’ Market responded fairly evenly. One third of shoppers (33.3%) report the SNAP covers 100% of their monthly food budget. For 20% of respondents SNAP covers 50% of their monthly food budget. For 16.7% of respondents SNAP covers 75% of their monthly food budget. For another 16.7% of respondents SNAP covers less than 25% of their monthly food budget.

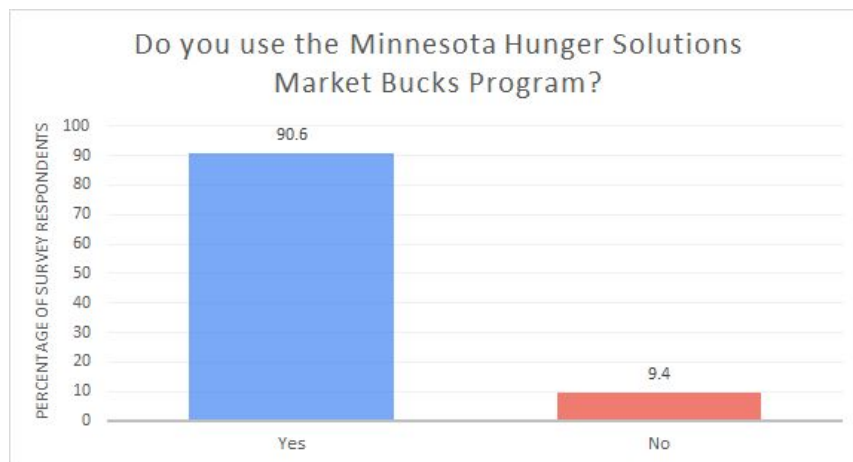


Figure 5.17

At Midtown Farmers’ market, 90.6% of respondents report using MN Hunger Solutions Market Bucks. Based on my observation, all SNAP shoppers received market bucks during my research.

### St. Paul Farmers' Market

Located in the Lowertown neighborhood on Broadway between 4th and 5th streets, St. Paul Farmers' Market is the oldest farmers' market in the Twin Cities, opening in 1852. Today the market is open all year round and has 167 open air stalls. St. Paul Farmers' Market is accessible via multiple bus routes (21, 54, 63, 70, 94, 353, 417, 480, 484, 489) as well as I-94 and MN highway 52. On the St. Paul Farmers' Market website, the market provides information about how to use EBT, including how to exchange EBT for tokens, and which items can be purchased using EBT.<sup>4</sup> During my research, the market was fairly busy with many shoppers walking around the open air environment. On Sunday mornings, there was a raffle for two sports tickets. Based on my observation there were more young, white families in comparison to the other two markets. Again, based on my observation, the market employees were less friendly and inviting towards EBT shoppers than the other two markets.

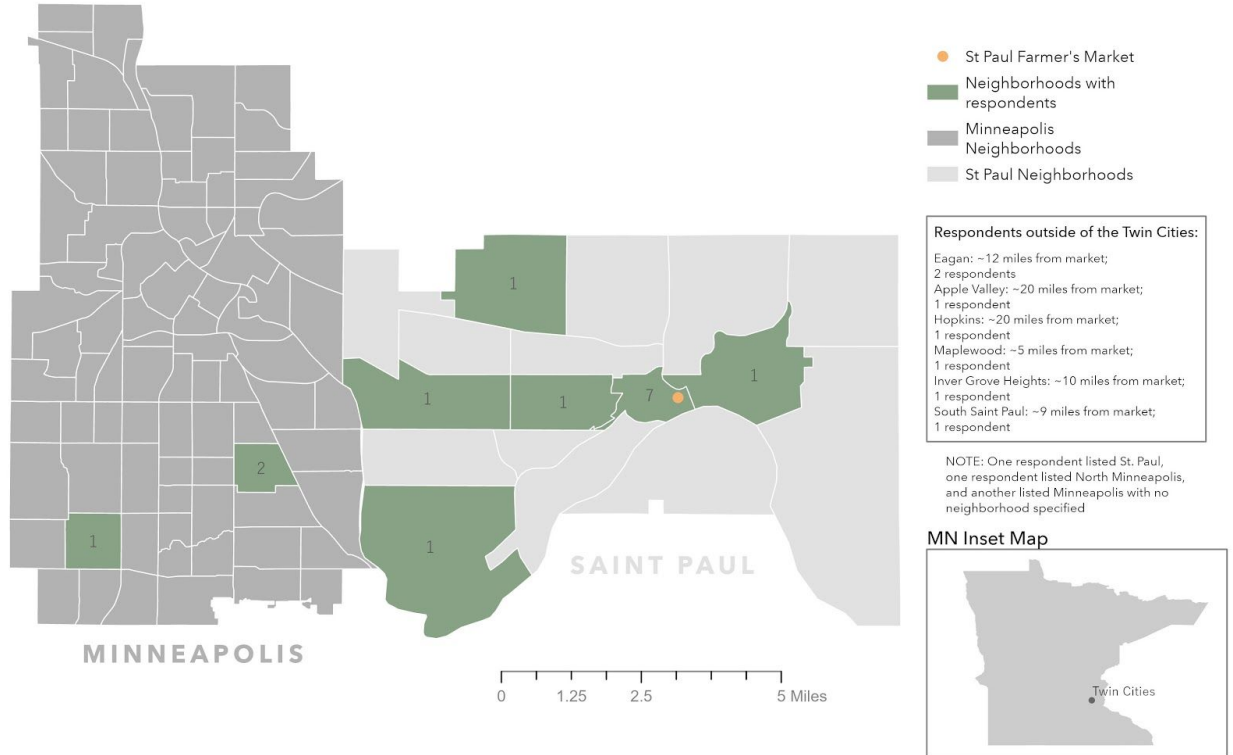
---

<sup>4</sup> Note: During my five weeks of data collecting, the EBT card reader at STPFM was down for three weeks. While I was still able to talk with and survey SNAP participants, the total number of shoppers over the course of those three weeks could be lower than normal. Even if a shopper was not able to use their EBT that particular day, most shoppers were willing to take my survey. Additionally, the market managers gave each SNAP participant five extra market bucks to use at the market due to the dysfunctional EBT reader.



Photo by Author, 2019

# St. Paul Farmer's Market respondents by neighborhood of residence, 2019



Cartographer: Theo Kaufman; Projection: UTM Zone 15N; Data Source: City of Saint Paul, Open Minneapolis, TIGER/Line Shapefiles, Sophia Alhadef; Date: Apr. 27, 2020

Figure 5.18

At St. Paul Farmers’ Market, 26 participants responded to my survey. Seven respondents report living in Downtown St. Paul, where the market is located. An additional seven respondents report living in southern suburbs, such as Apple Valley in Dakota County.

## Physical Access

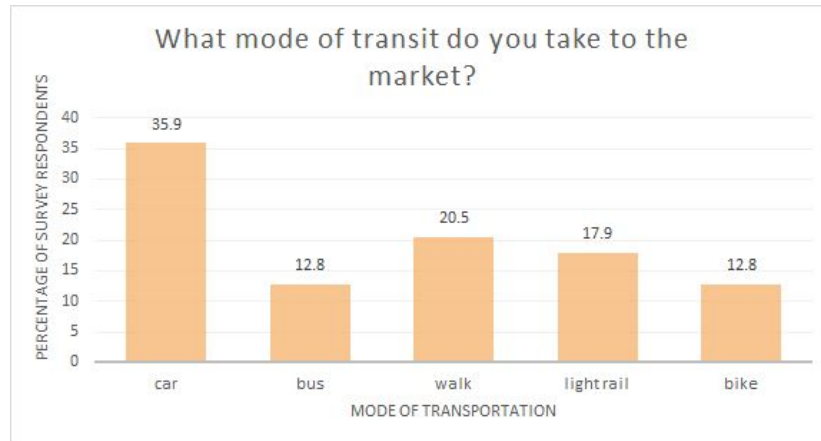


Figure 5.19

This chart describes the distribution of modes of transportation the shoppers at St. Paul Farmers's Market used to get to the market. The majority of participants use a car (35.9%), and 30.7% of shoppers use public transit (combined bus and light rail). 20.5% of participants report walking to the market, implying living close by. 12.8% of participants report biking to the market.

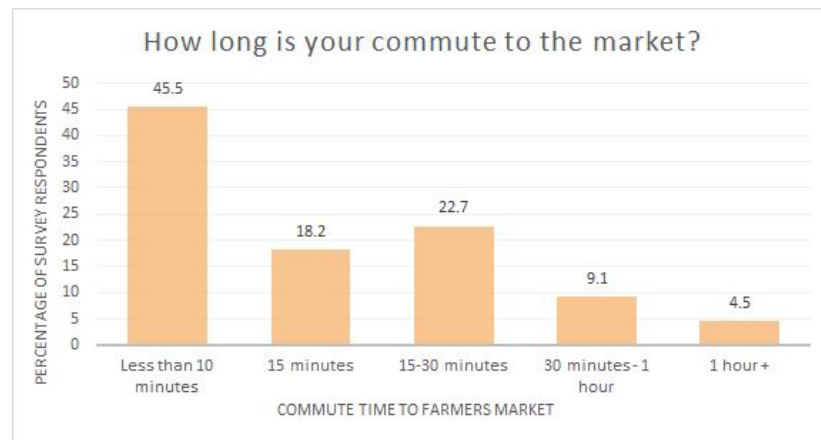


Figure 5.20

This chart shows the distribution of the length of survey respondent's commute to the market. Nearly half of respondents (45.5%) take less than 10 minutes to get to the market. 22.7% of respondents take 15-30 minutes, and 18.2% take 15 minutes to travel to the market. The short commute length could be due to the large proportion of shoppers having access to a car. The high number of walkers could also be attributed to this trend.



Figure 5.21

This chart describes the frequency that survey respondents shop at the market. 31.8% of respondents shop once per week. The same proportion (31.8%) of respondents also shop two times per week. The high frequency of shopping could be attributed to access to a car, living in close proximity, and walkability.

**SNAP Usage**

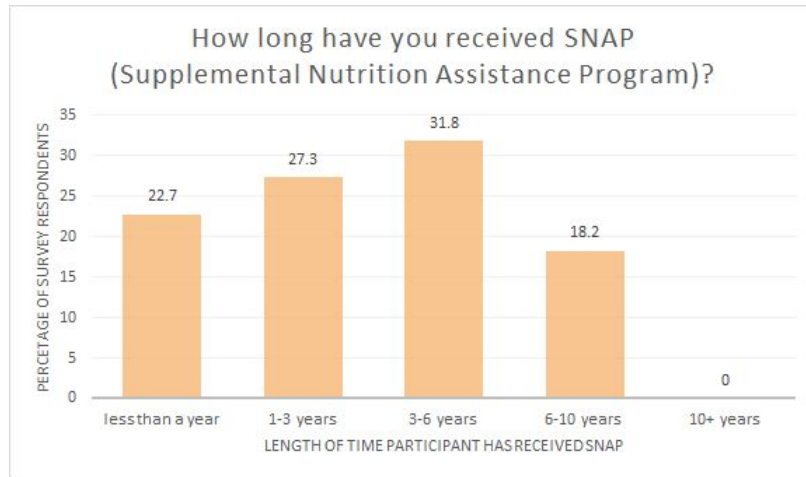


Figure 5.22

This chart depicts the length of time survey respondents have received SNAP benefits. 81.8% of respondents have received SNAP benefits for less than six years. 22.7% have received benefits for less than a year, 27.3% for 1-3 years, and 31.8% for 3-6 years.

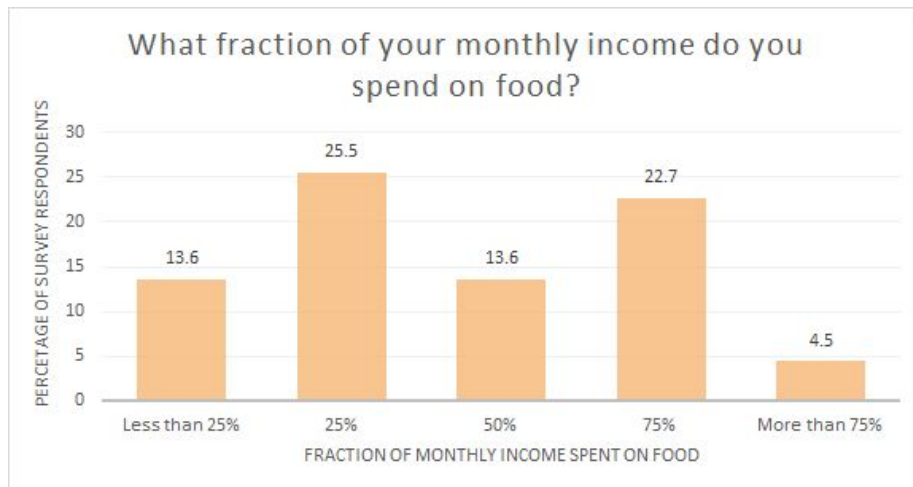


Figure 5.23

This chart describes the fraction of a person's monthly income they spend on food. 22.7% of respondents spend 75% of their monthly income on food. Moreover, 25.5% of respondents spend 25% of their income on food. Very few people (4.5%) spend more than 75% of their income on food.

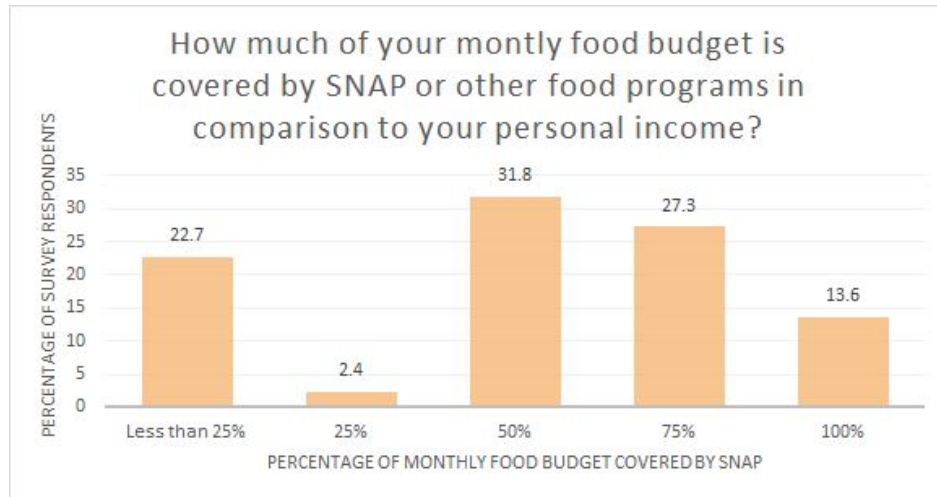


Figure 5.24

When asked, “how much of your monthly food budget is covered by SNAP (or other food programs) in comparison to your personal income?” 72.7% of respondents responded between 100% and 50%. For 31.8% of respondents SNAP covers 50% of their monthly food budget. For 37.7% of respondents SNAP covers 75% of their monthly food budget. For 13.6% of respondents SNAP covers 100% of their monthly food budget.



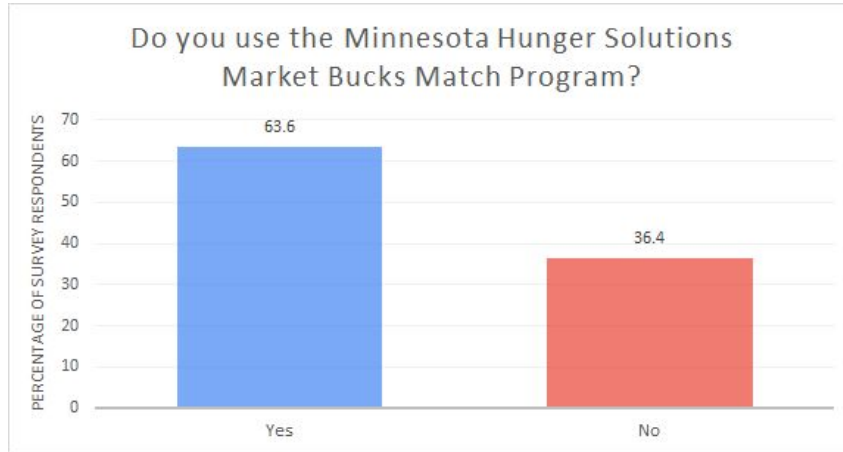


Figure 5.25

At St. Paul Farmers' market, 63.6% of respondents report using MN Hunger solutions market bucks. Based on my observation, all SNAP shoppers received market bucks during my research.

When looking at physical accessibility at St. Paul Farmers' Market, in comparison to the others, it would appear as the most accessible market, yet that is not the case. Based on my observations at the market site as well as the quantitative data above, St. Paul Farmers' Market could greatly improve its accessibility for low-income shoppers. Firstly, the EBT card reader was broken for three of the five weeks of my study. While there are reasons for this technological challenge, fixing the card reader or finding an alternative solution did not seem to be a priority for the market staff. During one Sunday, a shopper tried to use her EBT card and ended up arguing with a staff member. The shopper said that she travels to this specific market because she is able to use her EBT on fresh produce, when the staff member said she understood, the shopper became increasingly upset and said that the staff member did not in fact understand because she does not shop at farmers' markets with EBT.

In addition to this interaction, there were more shoppers buying large quantities of market coins with a credit card (a system implemented at many markets when shoppers do not have cash). Personally, I witnessed four exchanges of \$100 or more in market coins. This leads me to suspect that there are more wealthy shoppers at this market than at others in my study. The challenge here is social accessibility. Looking forward, it is essential to evaluate both physical and social barriers to accessing farmers' market spaces. To improve social accessibility, policy makers and market staff can turn to the insights of embodiment geography in order to create more inclusive market spaces.

## **Chapter 6: Findings**

The scope of this research aims to address the gaps in the current academic literature and promote financial equity at farmers' markets in the twin cities. Three gaps were addressed previously: the lack of mixed method research models, the lack of a range of scale, and the lack of communication between scholars and nonprofit organizations in the food policy and food justice fields. Thus, this study applies a mixed methods approach and makes policy recommendations to place major actors into conversations.

The results of this study, both quantitative and qualitative, will be discussed as they relate to the academic conversation in the literature and the ongoing conversations regarding physical and social barriers to farmers' market spaces. I will first discuss the results of this study as it relates to physical barriers to accessing the three farmers' markets. I then discuss shoppers' purchasing patterns at each market. I will then draw connections between the academic conversation around embodiment geography and the patterns that I found throughout my study.

### **Physical Access**

The first portion of the survey asked questions about physical access to the market. The survey questions aim to address the physical barriers discussed in the literature. Three questions were asked to assess transit use, commute time, and frequency of shopping. The three questions in the survey are as follows: What mode of transit do you take to the market? How long is your commute? How frequently do you shop at the market?

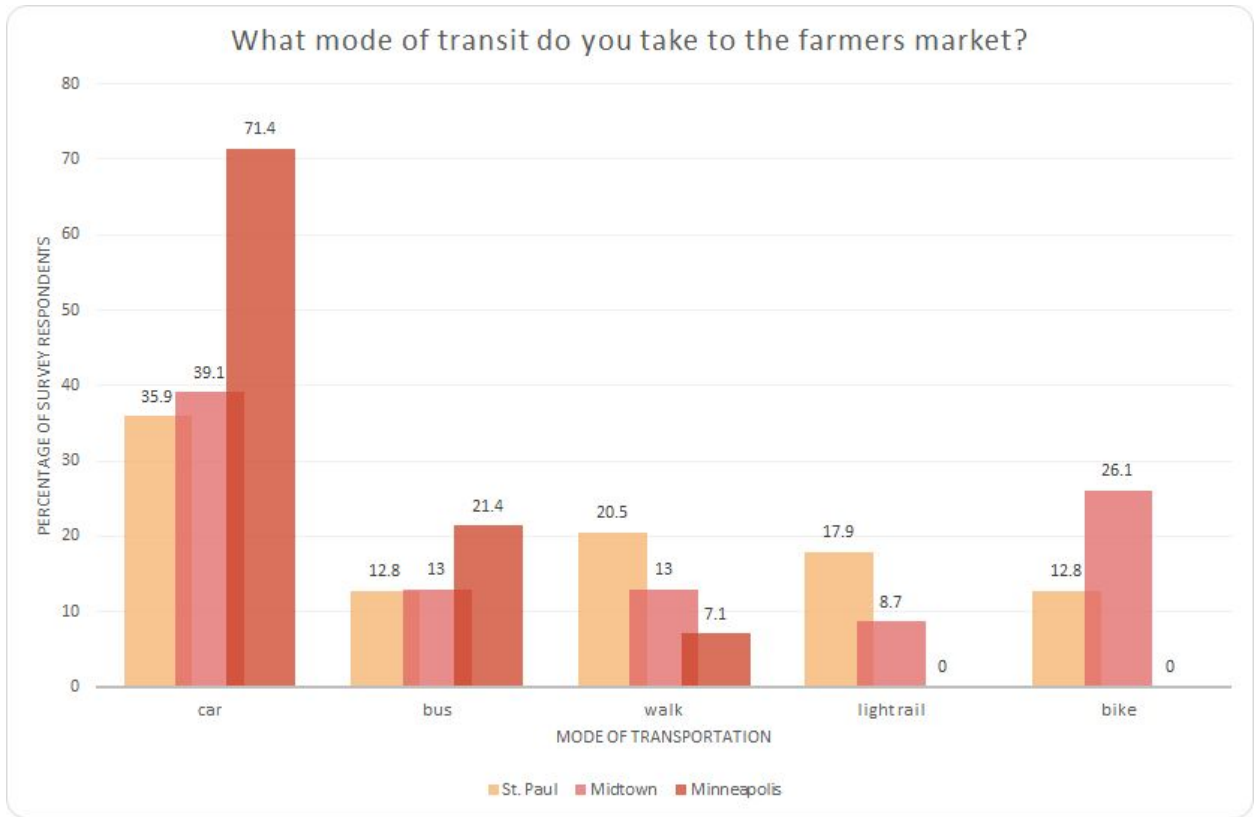


Figure 6.1

This bar chart shows the percentage of shoppers that use a particular mode of transit by farmers' markets. Based on my results, it is evident that the majority of shoppers commute via car, followed by a fairly even distribution of other methods.

Interestingly, none of the shoppers at Minneapolis Farmers' Market commute via bike and very few walk 7.1%. Moreover, 21.4% take the bus, while no shoppers reported using light rail. This may be due to the lack of transportation infrastructure near Minneapolis Farmers' Market, the closest transit stop being a 15 minute walk from the market. The distribution of transit use is in great contrast to Midtown Farmers' Market, where 26.1% of shoppers bike, 13% walk, 13% take the bus and 8.7

use the light rail (perhaps because of better bike infrastructure). St. Paul Farmers' Market has the most walkers (20.5%) and a more even distribution of other types of transit. For example, 12.8% of shoppers take the bus, 12.8% of shoppers bike, and 17.9% of shoppers use public transit.

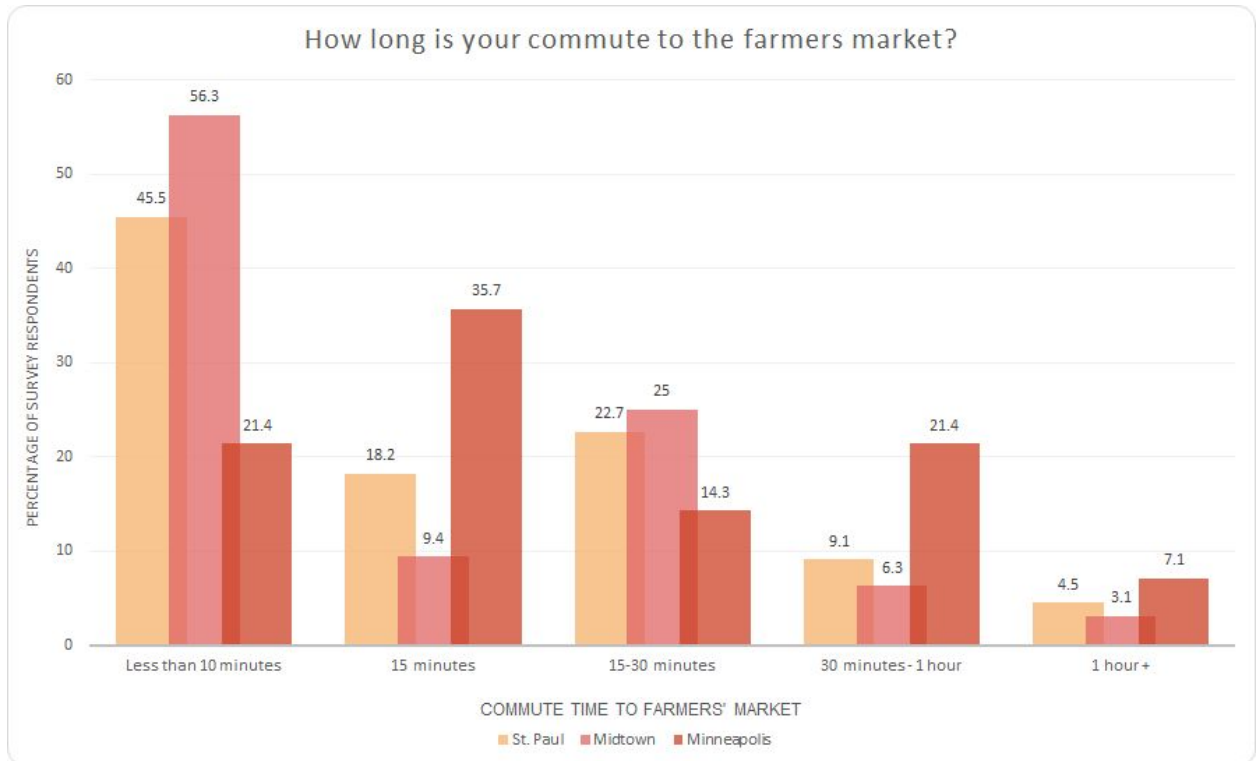


Figure 6.2

The overwhelming majority of shoppers at St. Paul Farmers' Market and Midtown Farmers market have a commute that is less than ten minutes. This trend reflects the transit method that study participants use to get to the market. This may suggest that shoppers who have better access to transit, bike lanes or walking infrastructure not only have a shorter commute, but also are more likely to shop at the farmers market. At Minneapolis Farmers' Market, where the majority of

shoppers are driving to the market, 25% of shoppers have a fifteen to thirty minute commute. It is important to note that a portion of the surveys completed at Minneapolis Farmers’ Market commuted with Metro Mobility or vans organized by senior living centers that commute with a small bus from areas fifteen to thirty minutes away, such as Brooklyn Park.

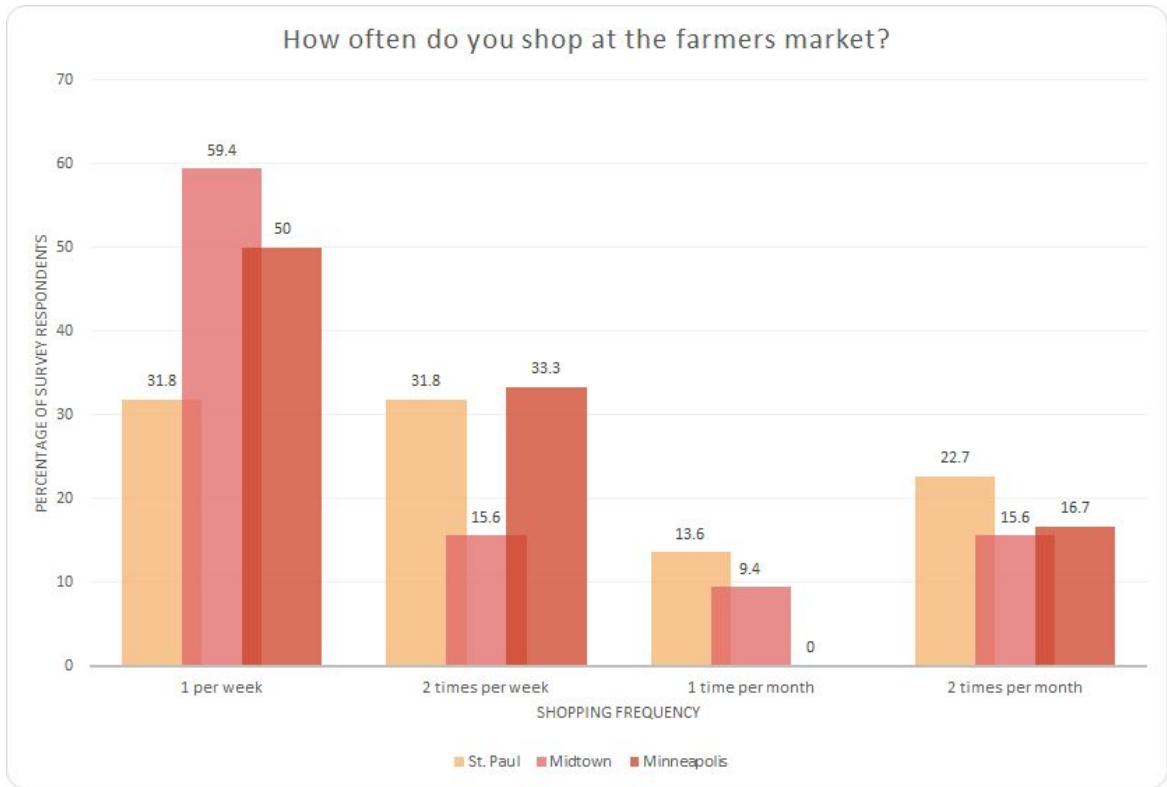


Figure 6.4

In addition to mode of transit and length of commute, I also asked shoppers about how frequently they shop at the market. In the survey, participants chose from the following responses: once per week, twice per week, once per month, or twice per month. The majority of shoppers at all three markets shop weekly. 33.3% of participants at Minneapolis Farmers’ market shop twice per week at and 31.8% of

participants at Midtown Farmers' Market shop twice per week. There is another cluster of participants that shop twice per month. The same proportion of shoppers (15.6%) at Midtown Farmers' Market shop twice a month and twice a week.

Interestingly, none of the participants at Minneapolis Farmers' Market reported shopping only once per month, indicating that shoppers at Minneapolis Farmers' Market who use EBT shop more frequently.

### *Summary of Results*

When comparing the three market sites, Minneapolis farmers' market shoppers have greater access to cars, leading to a shorter commute time, and more frequent shopping. Following a similar pattern, shoppers at St. Paul farmers' Market travel the least by car, and shop the least frequently. Yet, many shoppers have a commute time of less than ten minutes, which can be indicated by the neighborhood proximity to the market. More of the St. Paul shoppers live closer to the market than other markets.

### *Physical Barriers to Accessing Farmers' Markets in the Twin Cities*

The trend shown in the charts shows the relationship between access to the farmers' markets and transportation infrastructure, as echoed in the literature. Moreover, the distance between the transit infrastructure and the market limits the shopper's ability to access the farmers' markets. Sage and his colleagues (2013) discuss access with regards to poverty rate and vehicle ownership, arguing that if vehicle access is limited, so is access to a market, in this case. Drawing from

Shannon's suggestion of investigating the relationship between transit access and time and distance traveled as to better understand physical access, and incorporating a political ecology approach to examine structural barriers to wealth, my survey asks questions asking about these specific relationships.

The lack of transportation access or the need to use more than one mode of transit, leads to the lack of accessibility of farmers' markets due to increased transit time. Increased transit infrastructure would lead to easier access to the market. At the same time, simply the availability of transit is not the only factor. Other physical barriers also need to be addressed when considering how to deconstruct physical barriers. For example, riding on a bus or light rail is complicated if you have to take more than one mode of transport, are carrying groceries, have a child, or are elderly. These variables prompt the question, what changes can be made to current and future transit systems to make carrying groceries easier, or better yet, carrying groceries with a child or as an elderly person. My survey results showed that many shoppers shopped with a spouse, with friends, or as a family.

It is relevant to note that some of the shoppers at Minneapolis Farmers' Market were able to come to the market via a program called Metro Mobility. Metro Mobility is a rideshare program offered by Metropolitan Council that serves riders who are unable to use "regular fixed-route buses due to disability or health conditions" (Metropolitan Council, 2020). Future research about decreasing physical barriers to amenities such as farmers' markets in the Twin Cities should consider this program.



**SNAP Usage**

Along with questions regarding physical access, I also asked questions about SNAP usage. Three questions were asked in order to identify how SNAP benefits factor into food purchasing decisions. The survey questions were crafted to address the trends found in the literature. The questions on the survey were as follows: What fraction of your monthly income do you spend on food? How much of your monthly food budget is covered by SNAP (or other food programs) in comparison to your monthly income? How long have you received SNAP?

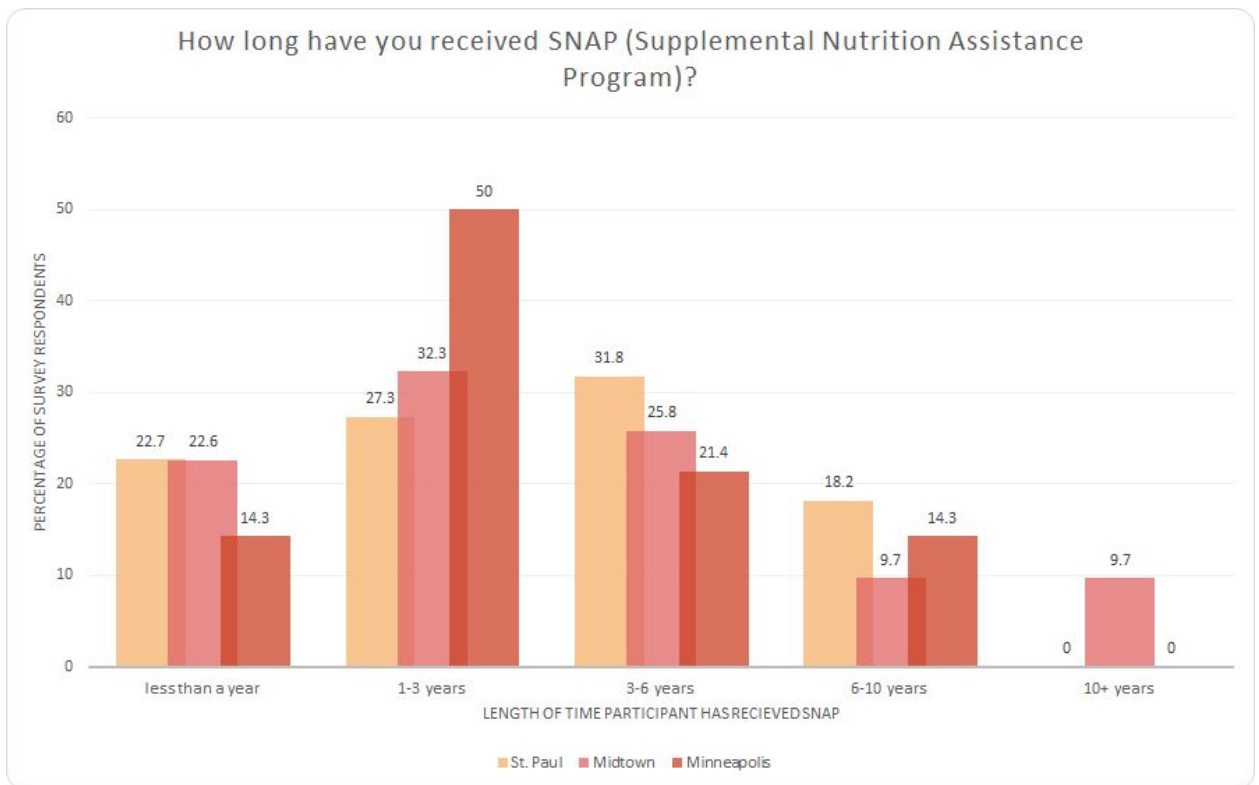


Figure 6.5

When asked “how long have you received SNAP?” the majority of participants indicated that they have used SNAP for either less than one year or 1-3 years. At

Minneapolis, 50% of shoppers have received SNAP for 1-3 years, followed by 21.4% have received benefits for 3-6 years. In contrast, at St. Paul Farmers's Market, 22.7% of participants have received SNAP for less than a year, followed by 31.8% for 3-6 years, and 27.3% for 1-3 years. At Midtown Farmers' Market, there is a slightly more even distribution. 32.3% of respondents have received benefits for 1-3 years, 25.8% for 3-6 years, and 22.6% for less than a year. Interestingly, at Midtown Farmers' Market, 9.7% of respondents have received SNAP for more than 10 years.

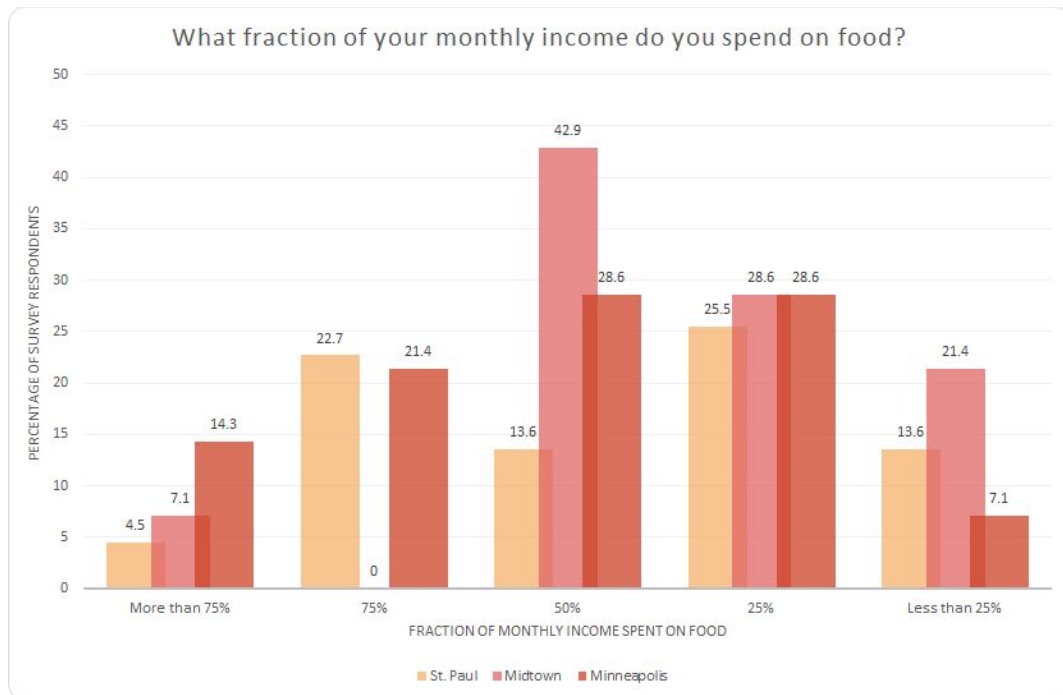


Figure 6.6

When asked “what fraction of your monthly income do you spend on food?” the majority of respondents selected less than 25%, 25%, or 50%. At Midtown Farmers's Market 42.9% of participants spend 50% of their monthly income on food. At both Midtown Farmers' Market and Minneapolis Farmers' Market, 28.6% of

respondents spend 25% of their monthly income on food, whereas 25.5% of respondents at St. Paul Farmers’ Market spend 25% of their monthly income on food. Interestingly, a higher percentage of respondents at Minneapolis Farmers’ Market spend more of their monthly income on food. 14.3% of respondents spend more than 75% of their monthly income on food, and 21.4% spend 75% of their monthly income on food. This trend differs greatly from Midtown Farmers’ Market, where only 7.1% of respondents spend more than 75% of their monthly income on food, and 0% of respondents spend 75% of their monthly income on food. The large proportion of respondents reporting spending more than 75% of their income on food could be due to those shoppers receiving other federal assistance, such as energy assistance, disability assistance, or social security.

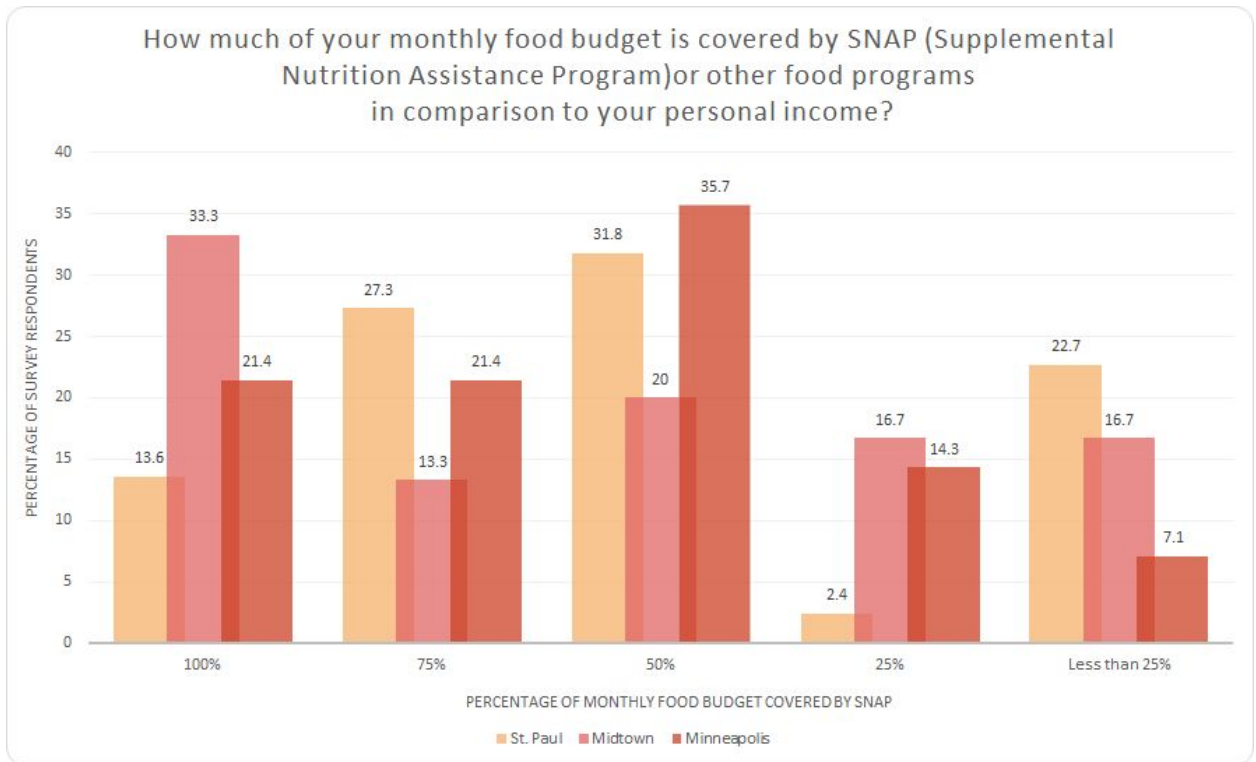


Figure 6.7

The results for the responses to this question differ widely based on market location. At St. Paul Farmers' Market, 31.8% of respondents report SNAP covering 50% of their food budget, 27.3% of respondents report SNAP covering 75% of their food budget, and 13.6% of respondents report SNAP covering 100% of the food budget, while only 2.4% of respondents report SNAP covering 25% of their food budget, and 22.7% of respondents report SNAP covering less than 25% of their food budget. Minneapolis Farmers' Market follows a similar trend. At Minneapolis Farmers' Market, 35.7% of respondents report SNAP covering 50% of their food budget, 21.4% of respondents report SNAP covering both 100% and 75% of their food budget, while only 14.3% of respondents report SNAP covering 25% of their food budget, 7.1% of respondents report SNAP covering less than 25% of their food budget. At Midtown Farmers' Market, 33.3% of respondents report SNAP covering 100% of their food budget, 20% of respondents report SNAP covering 50% of their food budget, 16.7% of respondents report SNAP covering both 25% and less than 25% of their food budget, and only 13.3% of respondents report SNAP covering 75% of their food budget.

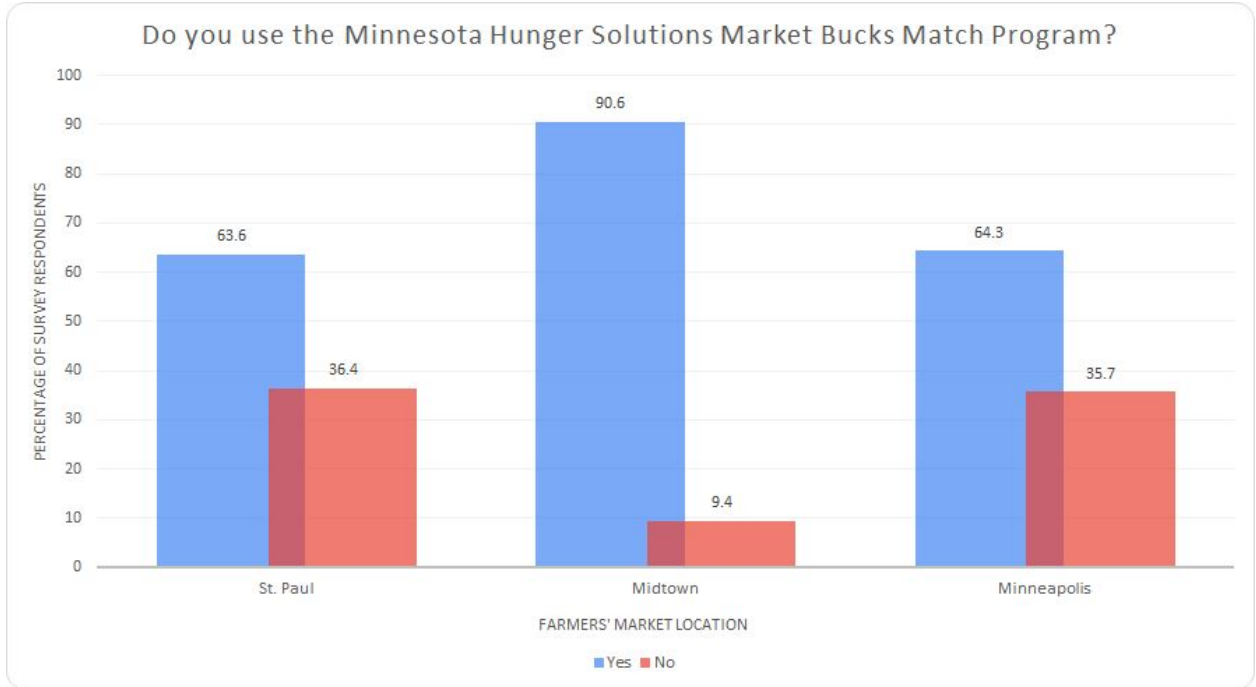


Figure 6.8

The purpose of asking the question “Do you use the Minnesota Hunger Solutions Market Bucks Match Program” is to assess the usage and understanding of the Minnesota Hunger Solutions Market Bucks Match Program. As discussed previously, the Market Bucks Match Program allows SNAP recipients to receive ten additional dollars to spend at the farmers market when ten dollars are spent with an EBT card. During all of the transactions I witnessed during my research, market managers gave out Market Bucks. At Midtown Farmers’ Market, 90.6% of survey participants responded by saying that they use this program. This indicates that the overwhelming majority of shoppers at this market, know about and understand how the program works. In contrast, 63.6% of survey participants responded saying that they use this program at St. Paul Farmers’ Market and 64.3% of survey participants responded saying that they use this program at Minneapolis Farmers’ Market,

indicating that SNAP recipients at those markets have not received the same amount of information about the program.

### *Summary of Results*

As represented in the graphs above, most shoppers at all three markets have been using SNAP for 1 to 3 years, with a comparable number of respondents who have used it for less than a year. This is indicative that new SNAP users are aware of the ability to shop with SNAP at the farmers' market, but simultaneously, the disparities between shoppers' usage of the MN hunger solutions market bucks indicates a lack of education on behalf of the market managers.

### *Purchasing Patterns at the Markets*

In order to understand the patterns of behavior of the shoppers at each market location, it is helpful to analyze the items that SNAP recipients are buying at the market. The following three charts capture the trends of which items are most commonly purchased. Each chart shows the raw number of shoppers who bought each item. The survey question asked "What items do you most frequently purchase at the market?" The response categories were the following: fruits, vegetables, baked goods, prepared foods, crafts, and other. The following categories are represented in the pie charts below.

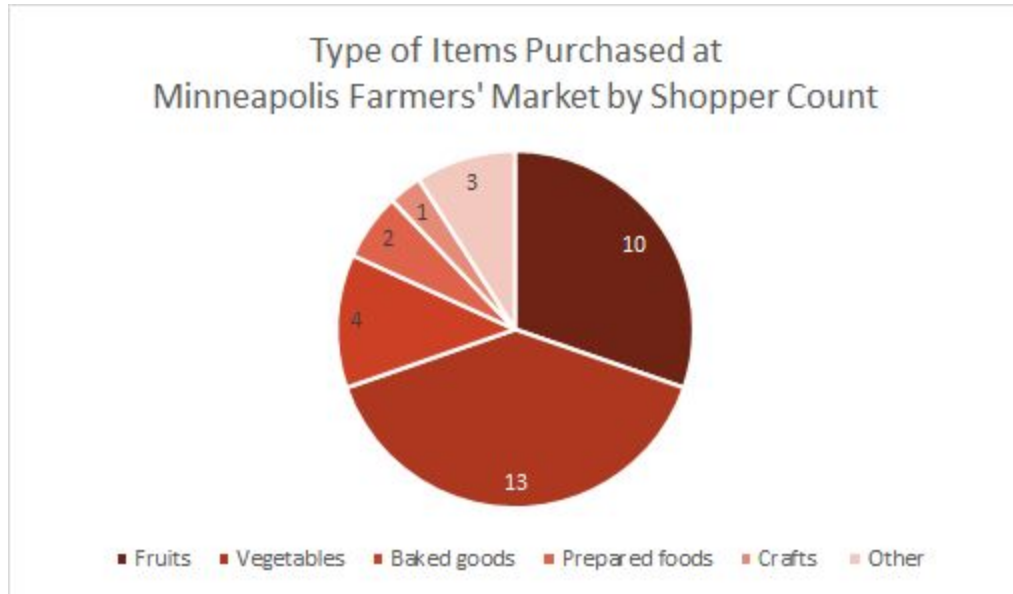


Figure 6.9



Figure 6.10



Figure 6.11

At all three markets, the majority of shoppers purchased fruits and vegetables. Shoppers at each market reported purchasing items in the ‘other’ category that were not included in the survey. At Minneapolis Farmers’ Market, one shopper reported buying honey. Another shopper shared that they bought cheese and meat. At Midtown Farmers’ market, three shoppers reported buying plants. Two shoppers reported buying meat, and one reported buying eggs and milk. Another shopper at Midtown reported buying soup kits. At St. Paul Farmers’ Market, one shopper reported buying meat and another reported buying cheese. The small number of shoppers buying meat and cheese at Farmers’ Markets could be explained by the higher prices in comparison to other retail food outlets.



*Social Barriers and the Environment of the Farmers' Market*

In addition to quantitative results, marketing and the environment that each market creates and maintains greatly impacts accessibility for shoppers. Drawing from Slocum and Cadieux's discussion of trauma and inequity (2015), and the alienation of people of color by the emergence of market tourism (2015), in interviews with shoppers, I asked questions about their lived experience as an EBT shopper at the farmers market.

In an attempt to better understand the embodied experience of the shopper, I asked shoppers to recall and share a particular experience, whether positive or negative, of using EBT at the market. More than one shopper expressed a unique challenge when attempting to buy a particular item that the shopper knew could be purchased with EBT and encountered resistance because the vendor was unsure of the regulations.<sup>5</sup> After a shopper expressed a challenge purchasing ghee (clarified butter), I expressed "I've heard a similar narrative - people don't face or experience a direct stigma from vendors or market managers so much but there is this idea that what I can purchase is up to the vendor's knowledge." The interviewee then shared "But these very slight differences are a hurdle. Especially when you add a cultural layer to it of course and when you're trying to buy it because it's totally appropriate to be buying and they don't consider it food."

In addition to the general understanding of the intricacies of SNAP, vendors may also have a more conservative approach as they are penalized if they do not obey

---

<sup>5</sup> While at Midtown Farmers' market, I had a conversation with a shopper about the inadequate information about what can be purchased with an EBT card generally, not just in the farmers' market context. I did not conduct a formal interview with this shopper, so I am not able to cite direct citations.

EBT guidelines. According to the Center for Agriculture and Food Systems' Farmers' Market Legal Toolkit, there are four ways a vendor could be penalized for violating SNAP provisions. First, the Food and Nutrition service may "disqualify the market (or vendor) from the SNAP program on a temporary or permanent basis" (Center for Agriculture and Food Systems' Farmers' Market, 2020). Second, the Food and Nutrition Service "may issue monetary penalties against the market (or vendor) if FNS determines that disqualification would cause hardship to participating SNAP customers" (Center for Agriculture and Food Systems' Farmers' Market, 2020). Third, the market's "responsible official" who is "responsible for ensuring the market will comply with the law and FNS regulations, policies, and other guidance on SNAP" could be prohibited from SNAP authorization in the future (Center for Agriculture and Food Systems' Farmers' Market, 2020). Lastly "market personnel (or the vendor) may be subject to criminal sanctions for intentional fraud or trafficking (purposefully exchanging ineligible items for SNAP funds)" (Center for Agriculture and Food Systems' Farmers' Market, 2020). Due to these four potential outcomes, vendors may be less willing to be flexible with SNAP acceptance.

To connect the quantitative discussion of results to the ongoing theoretical discussion, the disparity between shoppers' usage of the Market Bucks Match Program. This lack of usage may be due to a lack of education about the program. Thus, may also be indicative of attention and resources devoted to SNAP/EBT shoppers. While the decisions of what the shoppers are able to purchase can be restricted based on the information given to vendors, the purchasing power at large

is limited if the shopper does not know about or is not offered the market bucks match, which allows for ten additional dollars to spend at the market.

When looking forward to ways to improve the culture of farmers' markets, key actors need to ask to whom they are catering their farmers' markets. Does that audience promote financial equity and an inviting, accessible environment to shop? If not, what are the necessary steps to increase equity and inclusion in these spaces? Drawing from feminist political ecology, markets must recognize social difference, such as race, class, gender, sexuality and able-bodiedness in their market space and implement policy towards to create a shopping environment that supports the needs of low income shoppers (Grosz, 1994). Specific policies will be discussed in the next section.

## **Chapter 7: Policy Recommendations and Conclusion**

To best suggest policies that would adequately address the drawbacks of SNAP usage at farmers' markets, I will discuss the landscape of food insecurity in the Twin Cities by analyzing four maps. This is followed by an analysis of the organization and implementation of food policy in Belo Horizonte, Brazil and Hartford, Connecticut. The definition of 'effective food policy' is drawn from these. Drawing from this analysis, I will then develop what I define as an ideal food policy with a particular emphasis on farmers' markets. Finally, I will transform the needs of the Twin Cities community into next steps for a multi-scalar set of policies.

### *Key Actors*

A farmers' market is not simply composed of shoppers, vendors and volunteers. When proposing potential policy solutions to alleviate transportation and social barriers to farmers' markets, all of the key actors that facilitate and maintain a farmers' market operation must be addressed. Farmers' markets include both inward and outward facing actors. Inward facing actors include managers, volunteers, donors, along with first time and current EBT shoppers. Outward facing actors include Hunger Solutions Minnesota and the Twin Cities Metropolitan Council. When proposing policy solutions, both inward and outward facing actors will need to be addressed.

While both counties lean on the help of organizations such as Second Harvest Heartland, the largest food shelf in the state of Minnesota, Minneapolis and St. Paul operate in separate legislative bodies and therefore have different policies. Both

counties are connected to the Metro Food Access Network (MFAN) which “is a network sponsored by State Housing Initiatives Partnerships grant funding from Ramsey, Dakota, and Hennepin County Public Health Departments and staffed by the University of Minnesota Extension Service to bring together organizations working in food access areas to address common goals.” Both Hennepin and Ramsey County have fairly comparable councils working to combat food insecurity, which work on issues in both Minneapolis and St. Paul. In Minneapolis, the Minneapolis Food Action Plan was developed in 2012 and strives to develop a “roadmap toward a more equitable, climate resilient, just and sustainable local food system and local food economy” with seven guiding principles; (1) Inclusion, Leadership, and Decision-Making, (2) Social Determinants of Health, (3) Recognition, Reparations and Respect, (4) Food Access, (5) Food Production and Processing, (6) Food Skills, (7) Demonstrates Intersectionality Across Sectors (City of Minneapolis, 2019). In Ramsey County, a vaguely similar organization exists. The Ramsey County Food and Nutrition Commission is a “public forum to share information, assess local food systems, suggest policies, and develop plans to increase access to safe, affordable and nutritious food” (Ramsey County, 2019).

*Effective Food Policy in Belo Horizonte, Brazil and Hartford, Connecticut*

While Belo Horizonte, Brazil and Hartford, Connecticut are drastically different cities, both have properly addressed the hunger needs of their communities by meeting the goals of their distinct initiatives. One key aspect that leads to the success of the cities respective food policy initiatives is a multiscalar approach,

meaning the implementation of policy at multiple levels (i.e. household, community, city, region, state, etc.). Beyond the policy itself, I focus on the organization and implementation of the food policies in the two cities in order to draft a parallel policy in Minneapolis and St. Paul. It is important to note that in the discussion of the effectiveness of food policy in Belo Horizonte and Hartford, my analysis is limited and biased as I only draw from the perspective of a single author. Thus, my understanding of the success of the programs is not objective.

In the book *Beginning to End Hunger: Food and the Environment in Belo Horizonte, Brazil and Beyond*, Jahi Chappell illustrates a case study of a city that developed and implemented a successful, multiscale solution to decrease food poverty and promote food sovereignty. Chappell outlines what he defines as the 5 A's of food security: availability, accessibility, adequacy, acceptability and agency. Moreover, Chappell defines two types of synergies: (1) complementarity, which is the general principle that certain processes and services build off one another to meet an overarching goal, and (2) embeddedness, the principle that interpersonal ties connecting citizens and public officials across governmental and societal boundaries are foundationally important for the effective implementation of policy programs. In addition to the theoretical analysis of food policy and the critical analysis of the multiscale programs in Belo Horizonte, Chappell also draws connections to steps that he suggests should be taken to improve US food policy. These two "synergies", complementarity and embeddedness, lend themselves to the development of food policy that addresses the needs of its constituents and surveys the gaps in the current

systems in order to form successful policy. Moreover, I draw from both of these “synergies” in the formation of my policy recommendation.

In the book *Closing the Gap: Resetting the Table in the Land of Plenty*, Mark Winne provides strategies for solving the hunger crisis in the United States through an account of his personal work and experience in Hartford, Connecticut. Beginning with a comprehensive view of the landscape of the food movement complete with the influence of former President Ronald Reagan’s view of poverty and government assistance resulting in the rise of widespread hunger, Winne guides the reader with the subsequent reactions and the current landscape of disparities in food assistance at the time of publication in 2008. In the conclusion of the book, Winne suggests methods for “resetting America’s table” as a movement towards not only addressing food insecurity, but rather addressing poverty (Winne, 2008, p.183). Winne’s manifesto provides key insights for methods of defining effective federal food assistance policy as it lends itself to an integrated approach to policy design.

### *Organization*

A key attribute to both policies implemented in Belo Horizonte and Hartford is organization. In Belo Horizonte, the governmental body responsible for food assistance is the Municipal Under-Secretariat of Food and Nutritional Security (SMASAN), which is then divided into three sectors; (1) promotion of food consumption and nutrition, (2) food distribution, and (3) incentives for basic food production. The overarching goal of SMASAN was “food with dignity” (Chappel 2018, p.79). Moreover, Chappel (2018) states, “the programs’ attempts to support

better farmer livelihoods can also be seen as addressing acceptability and agency, in that they attempted to maintain and improve the dignity and human rights of both consumers and producers” (p.79). With the five As at the center, Municipal Law #6352 gives SMASAN five responsibilities such as, “plan and coordinate initiatives in the realm of food supply and combating hunger” and “coordinate the educational aspects of school lunches and secure nutritional assistance to the groups having the highest biological vulnerability to malnutrition: children, elderly, and expectant and nursing mothers” (Chappel 2018, p.78). SMASAN was able to translate the five As (availability, accessibility, adequacy, acceptability and agency) into tangible policy by organizing into two distinct councils, Council on School Meals and the Food and Nutrition Security Council, as well as six central offices with proper sub-offices.

In 1992, the Hartford Food Policy Council was formed to advise the city on how to properly implement policy. The primary goal of the Food Policy Council was, “as stated in the ordinance, “The purpose of the policy shall be to integrate all agencies of the city in a common effort to improve the availability of safe and nutritious food at reasonable prices for all residents, particularly those in need”” (Winne, 2008, p. 163). With this central goal in mind, the roles of the council are broken down into fourteen functions, some of which include; transportation, land use, direct services (food assistance programs - WIC and school meals), education, health inspections and business development (Winne, 2008). Council representatives are appointed by the city council. The responsibilities of the council include monitoring the performance of the city’s food system, researching food issues, working to improve the response of city government to food problems. The



success of the Hartford Food Policy Council spurred the development of the Connecticut Food Policy Council. Additionally, the state council includes “representatives from six state agencies and six nongovernmental food sectors” (Winne 2008, p. 165).

### *Implementation*

In addition to the organization of the food assistance governing bodies, the implementation and success of proposed policy is also relevant to the development of an effective food policy in the Twin Cities. In Belo Horizonte, SMASAN implemented fifteen major programs, three of which are particularly noteworthy. Firstly, SMASAN developed the Popular Restaurant. With aid from the federal government, Belo Horizonte built three main facilities to reinvigorate the “decades old Brazilian Institution” (Chappel, 2018). “Meals are prepared from fresh ingredients and coplanned by local chefs and nutritionists” (Chappel, 2018, p. 85). All patrons paid the same price, R\$0.25 for breakfast and lunch and R\$0.50 for dinners. According to Chapel, “there are several indications that SMASAN’s dedication to dignity have paid off in terms of maintaining quality and lowering stigma: the restaurants high quality, low cost meals draw a mixed clientele but mostly serve those with greater need” (Chapel, 2016, p.85). In addition to the popular restaurants, SMASAN developed a very robust school meal program. Both of these programs were sourced from local family farms in Brazil, a possibility for the Twin Cities considering its agriculturally robust region. Moreover, by maintaining the central goal of “food with dignity” at multiple scales, from government planning committees to the popular

restaurant model, SMASAN implemented an effective and successful food assistance policy.

The key component of the implementation of the food policy in Hartford and consequently Connecticut is the success of cooperative efforts between departments and community organizations. According to Winne, “perhaps the Connecticut Food Policy Council's most important role is to serve as a place where the state’s food system experts and representatives, in both public and private sectors, can sit down together, develop mutual trust, and identify where the food system needs strengthening. Some of the best policy work... occurred when people stepped out of their silos” (Winne, 2008, p.166). Considering the goal of the food policy council was to integrate city agencies to cooperatively improve food security, the creation of both a city and a state council is particularly noteworthy. By implementing an organizational structure at both scales, large and small actors now have the opportunity to collaborate and gain a better understanding of the challenges of their communities and draft policy to best address those needs.

### *Effective Food Policy in the Twin Cities and Steps for Implementation*

In order to craft effective food policy in the Twin Cities, I draw from the organization and implementation of the food policy developed in Belo Horizonte and Harford. While government organization and city structure in Minneapolis and St. Paul differ from the case study examples, a multi-scalar approach combined with an integrated food policy would greatly benefit the food insecure population. Food policy in the Twin Cities must be inclusive, integrated, and accessible.

Given the existence of the Minneapolis Food Action Plan and the Ramsey County Food and Nutrition Commission, it is evident that both Minneapolis and St. Paul are making efforts to address food insecurity. Drawing from the Hartford food policy council, one possibility to improve the integration of food policy is a partnership with the Metropolitan Council. The goal of the Metropolitan Council is “to foster efficient and economic growth for a prosperous metropolitan region” (Met Council 2019). In order to execute its mission, the Metropolitan Council tackles projects related to transportation, housing, parks, water and wastewater, and community building. Creating a network between these three organizations that would delineate roles and responsibilities like that of SMASAN would provide Minneapolis and St. Paul a structure to meet the goals of an effective food policy, as defined previously. Moreover, by establishing a central governing body, much like SMASAN, the Metropolitan Council would then have the potential to coordinate with other organizations such as Second Harvest Heartland, a large local food shelf, and farmers’ markets throughout the city. As food insecurity is not a city or county issue, the regional approach captures and defines food insecurity as a regional program. Additionally, a regional approach would function more successfully than the current county approach as pooled resources and a broader understanding of the intricacies of the wider landscape of food policy, lending itself to cooperative implementation. This policy design holds the potential to increase collaboration between large actors, such as governing bodies, and small actors such as food shelves and farmers markets.

The second key actor who should be part of the policy solution is Hunger Solutions Minnesota, a nonprofit organization that works within the state and funds

the market bucks match program. The mission of the organization is to “take action to assure food security for all Minnesotans by supporting programs and agencies that provide food to those in need, advancing sound public policy, and guiding grassroots advocacy” (Hunger Solutions, 2020). With particular attention to ‘guiding grassroots advocacy’ I encourage Hunger Solutions MN to write an integrated training manual to distribute to all of the Farmers’ Markets in the cities and the state more broadly that accept EBT. This training manual would streamline all of the information needed to train a market volunteer, vendor, or manager on the intricacies of SNAP acceptance at the market. Drawing from the previous analysis, a streamlined training manual would clarify the rules of accepting SNAP and take part of the responsibility off of the market managers to educate and train vendors and volunteers. Additionally, Hunger Solutions should create a simple, legible graphic describing how to use EBT and what you can buy at the market. This infographic should be translated into Spanish, Somali, and Hmong.

#### Effective Food Policy

	Prioritized access both geographically and economically	Emphasis on dignity of individuals and communities	Balance the needs of urban and rural populations
Belo Horizonte		X	X
Hartford	X	X	
Ideal Food Policy	X	X	X

Figure 7.1

*Farmers' Markets: A Means of Assessing Nutritional Food*

In the context of the Twin Cities, when imagining an effective food policy, farmers' markets should be included. Building from the regional planning approach through an organization such as Met Council, the council should create a section of regional policy that focuses specifically on the needs of farmers' markets both in regards to vendors as well shoppers, with particular attention to low-income communities and the acceptance of SNAP. The inclusion of small actors would allow for a necessary perspective when defining an effective food assistance policy that works towards combating food insecurity in the Twin Cities. Moreover, working with Hunger Solutions to create an integrated training manual for internal actors as well as an infographic for shoppers would allow for a more inclusive environment.

Moving beyond the scale of the metropolitan area, in order for the successful implementation of a similar state-wide program, the access to resources of suburban, and rural communities would need to be surveyed first. Rural and urban communities face different challenges as it relates to poverty and inequity, and thus the policy that would be implemented in those areas would need to reflect those differences. Currently, the city of Minneapolis has created a lengthy 1200 page document called the Minneapolis 2040 plan, and its central goal is to eliminate disparities. Two major sections regard public health and transportation with consideration of the urban center, the suburban edge, to the rural center, the rural residential area and the agricultural areas surrounding the city. Future studies may draw from this report to best assess how to promote and create equitable farmers market infrastructure and environment across population density.

Policies can also be implemented at the state and federal level to improve the effectiveness of SNAP usage at farmers' markets across the state of Minnesota and the United States. Drawing from political ecology, which outlines how local outcomes to situations are directly influenced by decisions and policies enacted at larger scales, proposing policies at multiple scales can help to enhance both physical and social accessibility to farmers' market spaces. Looking at the Belo Horizonte case study, its success was rooted in the coordination of actors at multiple scales. The first step to making farmers' markets more inclusive for EBT shoppers would be to implement a policy to provide every farmers' market regardless of funds or infrastructure the ability to accept EBT. Resources would include an EBT card reader and tokens, along with a training manual as discussed above. This manual would also include the rules and regulations for vendors as well as shoppers. The second policy recommendation, would be to create a similar market bucks match program in each state. Currently, similar programs do exist in other states, such as Michigan, but through federal policy a financial incentive could be implemented to stretch the value of the SNAP dollar. Next, I would encourage USDA and county governments across the country to promote farmers' markets as viable retail food outlets. By including farmers' markets in educational material on the federal level, more low-income shoppers would feel invited in those spaces. Lastly, if SNAP benefit eligibility were evaluated in conjunction with the cost of living in a particular location, in theory, individuals and families living in more expensive environments would receive more benefits, allowing for more potential to spend money at Farmers' Markets. Moreover, on the federal level, policies should be developed to clearly explain how to use an EBT card

and what can be purchased with SNAP in a variety of languages or an infographic both online and at grocery stores. Together, if developed further, these three policies have the potential to improve the effectiveness of SNAP usage at farmers' markets across the country.

## **Conclusion**

As the Trump Administration continues to propose legislation that jeopardizes the success of SNAP and reduces access to food assistance, it is crucial that truly effective food assistance policy is enacted. Based in a review of the academic literature and a quantitative study, it is evident that there is a need to improve the inclusivity of farmers' market spaces as well as the built environment to improve the effectiveness of food assistance usage at farmers' markets in the Twin Cities. From these analyses and drawing from comparable case studies in Hartford, CT and Belo Horizonte, Brazil, I have analyzed how an effective food policy should behave. Thus, I suggest that the next steps forward to dismantling physical and social barriers to accessing farmers' markets would be an integrated SNAP/EBT training manual for managers and volunteers, as well as a clear and translated infographic for shoppers.

While I did not investigate the full extent of the food studies and food justice scholarship, I would suggest that future research delves deeper into embodiment geography and the role of corporeal feminist theory in farmers' market spaces. In addition, future research should also include an analysis of other social service and non profit programs in the study area, such as produce distributions and food shelf

access. Moreover, if I were to conduct this study again, I would rephrase and reorder survey questions to more accurately ask respondents for the information needed for my analysis. I would also conduct the study over a longer period of time, perhaps the entire length of the farmers market season (May - October).



**Appendix A - Phone Interview Script**

1. Name, Age, Pronouns
2. How long have you been using SNAP? What was your experience registering?
3. How has your experience been using EBT at farmers' markets? Where do you usually shop? Tell me about an experience with a market or vendor that sticks out to you?
4. Is there anything you would like to change about using EBT at farmers' markets?
5. What do you like most/like least about using EBT at farmers' markets?

**Appendix B - Survey****SNAP/EBT Usage at Farmers Markets in the Twin Cities**

Survey administered by student researcher Sophia Alhadeff. Please contact [salhadeff@macalester.edu](mailto:salhadeff@macalester.edu) with any questions.

**1. What mode of transit do you take to the farmers market?**

*Check all that apply.*

- Car
- Bus
- Walk
- Light Rail
- Bike

**2. How long is your commute to the market?**

*Check all that apply.*

- Less than 10 minutes
- 15 minutes
- 15-30 minutes
- 30 minutes to 1 hour
- 1 Hour +

**3. Do you have children?**

*Check all that apply.*

- Yes
- No

**4. Do your children receive free/reduced lunch?**

*Check all that apply.*

- Yes
- No

**5. What fraction of your monthly income do you spend on food?**

*Check all that apply.*

- More than 75%
- 75%
- 50%
- 25%
- Less than 25%

**6. How much of your monthly food budget is covered by SNAP or other food programs in comparison to your personal income?**

*Check all that apply.*

- 100%
- 75%
- 50%
- 25%
- Less than 25%

**7. Do you receive SNAP or aid from other food programs?**

*Check all that apply.*

- Yes (write in)
- No

**8. How long have you received SNAP?**

*Check all that apply.*

- less than a year
- 1-3 years
- 3-6 years
- 6-10 years
- 10+ years

**9. How often do you shop at the market?**

*Check all that apply.*

- 1 per week
- 2 times per week
- 1 per month
- 2 times per month

**10. What items do you most frequently purchase at the market?**

*Check all that apply.*

- Fruits
- Vegetables
- Baked Goods
- Prepared Foods
- Crafts
- Other: \_\_\_\_\_

## References

- Alkon, A. and Guthan, J. (2017) *The New Food Activism: Opposition, Cooperation and Collective Action*. University of California Press. Oakland.
- Alkon, A. (2012). *Black, White, and Green: Farmers Markets, Race and the Green Economy*. University of Georgia Press. Athens, Georgia.
- Agyeman, J. and McEntee, J. (2014). Moving the Field of Food Justice Forward Through the Lens of Urban Political Ecology. *Geography Compass*. 8(3). 211-220.
- Anderson, F. (2018). Food Sovereignty Now! A Guide to Food Sovereignty. *European Coordination Via Campesina*. Brussels, Belgium.
- Battersby, J. and Watson, V. (2018). *Tomatoes & Taxi Ranks: Running our Cities to Fill the Food Gap*. African Center for Cities. Cape Town.
- Borrelli, N. (2018). Connecting food systems and urban planning: The experience of Portland, Oregon. *UCL Press*: London.
- Burga, H., and Stoeckel, C. (2009). Built Environment. 43(3). 376-389.
- Cadieux, K. and Slocum, R. (2015). What does it mean to do Food Justice? *University of Minnesota*.
- Carolan, M. (2013). *Reclaiming Food Security*. Routledge. New York.
- Caswell, J. and Yaktine, A. (2013) *Supplemental Nutrition Assistance Program: Examining the Evidence to Define Benefit Adequacy*. Washington, DC: National Academies Press. 28.
- Center for Agriculture and Food Systems (2020). Enforcement and Penalties. *Vermont Law School*. Accessed from: [Link](#) on April 29, 2020
- Clifford, N., Holloway, S., and Rice, S. (2010). *Key Concepts in Geography*. Sage Press. Newbury Park, CA.
- Dimitri, C. (2015). Enhancing food security of low income consumers: An investigation of financial incentives for use at farmers' markets. *Food Policy*. 52. 64-70.
- Durward, C., Savoiep-Roskos, M., Atoloye, A., Isabella, P., Jewkews, M., Ralls, B., Rigs, K., LeBlanks, H. (2019). Double Up Food Bucks Participation is Associated with Increased Fruit and Vegetable Consumption and Food Security Among Low-Income Adults. *Journal of Nutrition Education and Behavior*. 51(3). 342-347.
- Fisher, A. (2017). *Big Hunger: The Unholy Alliance between Corporate America and Anti-Hunger Groups*. Massachusetts Institute of Technology. Cambridge.
- Galt, R. (2013). Placing Food Systems in First World Political Ecology: A Review and Research Agenda. *Geography Compass*. 7(9). 637-658.
- Galt, R. (2016) Political ecology for agriculture and food systems. 23(1). 126-133.
- Gottlieb, R. and Joshi, A. (2010). *Food Justice*. MIT Press. Boston.
- Grosz, E. (1994). *Volatile Bodies*. Indiana University Press.

- Guthman, J. (2011). *Weighing In: Obesity, Justice and the Limits of Capitalism*. University of California Press. Los Angeles.
- Hesterman, O. (2011). *Fair Food*. PublicAffairs. Philadelphia.
- Fesser, P. (2019, July 23). 3 Million could lose food stamp benefits under Trump Administration Proposal. Retrieved from: [link](#)
- Frankle et al (2019). Support for Supplemental Nutrition Assistance Program (SNAP) Policy Alternative Among US Adults, 2018. *American Journal of Public Health*. 109(7). 993-995.
- Freedman, D., Vaudrin, N., Schneider, C., Trapl, E., Ohri-Vachaspati, P., Taggart, M., Cascio, M., Walsh, C., Flocke, S. (2016). Systematic Review of Factors Influencing Farmers' Market Use Overall and among Low-Income populations. *Journal of the Academy of Nutrition and Dietetics*. 116(7). 1136-1155.
- Kerr, L. (2007). Resisting Agricultural Assimilation: The Political Ecology of Hmong Growers in the Twin Cities Metropolitan Region. *Macalester Honors Projects*. [Link](#)
- Larson, J and Moseley, W. (2012). Reaching the limits: a geographic approach for understanding food security and household hunger mitigation strategies in Minneapolis-St. Paul, USA. *GeoJournal*. 77(1). 1-12.
- Menefee, H. (2015). *The Alternative Food Movement in Humboldt County, CA: Social Bonds and Divisions*. Humboldt State University. Humboldt, California. Retrieved from: [Link](#)
- Nestle, M. (2013). *Food Politics*. University of California Press. Los Angeles.
- Raja, S., Whittaker, J., Hall, E., Hodgson, K. and Lecesce, J. (2018). Growing food connections through planning: Lessons from the United States. *UCL Press*: London.
- Rocheleau, D., Thomas-Slayter, B., Wangari, E. (1996) *Feminist Political Ecology: Global issues and local experiences*.
- Sage, J., McCracken, V., and Sage, R. (2013). Bridging the Gap: Do Farmers' Markets Help Alleviate Impacts of Food Deserts? 95(5). 1273-1279.
- Sbicca, J. (2018). *Food Justice Now! Deepening the Roots of Social Struggle*. University of Minnesota Press. Minneapolis.
- Schlosser, E. (2001). *Fast Food Nation*. Houghton Mifflin Company. New York.
- Schupp, J. (2017). Cultivating Better Food Access? The role of farmers' markets in the U.S. Local Food Movement. *Rural Sociology*. 82(2). 318-348.
- Sen, A. (1977). Starvation and exchange entitlements: a general approach and its application to the great Bengal famine. *Cambridge Journal of Economics*, 1, 33-59.
- Shannon, J. (2014). What does SNAP benefit usage tell us about food access in low-income neighborhoods. *Social Science in Medicine* 107, 89-99.

- Shannon, J. (2016) Beyond the Supermarket Solution: Linking Food Deserts, Neighborhood Context and Everyday Mobility. *Annals of the American Association of Geographers*. 106(1). 186-202.
- Shi, R. and Hodges, A. (2015). Shopping at Farmers' Markets: Does ease of access really matter? *Renewable Agriculture and Food Systems*. 31(5). 441-451.
- Slocum, R. (2007). Whiteness, space and alternative food practice. *Geoforum*. 38(3). 520-533.
- Slocum, R. (2008). Thinking race through corporeal feminist theory: divisions and intimacies at the Minneapolis Farmers' Market. *Social & Cultural Geography*. 9(8). 849-869.
- Stephson, G., Lev, L., Brewer, L. (2008). 'I'm Getting Desperate': what we know about farmers' markets that fail. *Renewable Agriculture and Food Systems*. 23(3). 188-199.
- Stone, D. (2012) *Policy Paradox: The Art of Political Decision Making*. New York, NY: W.W. Norton & Company.
- US Department of Agriculture, (2019). Definitions of Food Security. Retrieved from [link](#)
- Ward, C., Maruyama, G., Jessen, I., Song, W. (2018). *Analyses of Social Issues and Public Policy*. 18(1). 400-424.
- Wilde, P. (2013). *Food Policy in the United States: An Introduction*. Routledge.
- Winne, M. (2008). *Closing the Food Gap: Resetting the Table in the Land of Plenty*. Beacon Press. Boston.