AN ABSTRACT OF THE THESIS OF

Kathleen B. Finneran for the degree of Master of Arts in Applied Anthropology presented on November 21, 2014

Title: Farmers’ Markets and Food Access: Supplemental Nutrition Assistance Program (SNAP) Use at the Corvallis and Albany, Oregon Farmers’ Markets

Abstract approved:

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This thesis explores the use of Supplemental Nutrition Assistance Program (SNAP) benefits at the Corvallis and Albany, Oregon Farmers’ Markets and its role in food access for SNAP participants. Utilizing a mixed-methods approach combining a farmers’ market survey and household interviews, the study investigated who uses SNAP at the farmers’ market, how and why they do so, how the farmers’ market fits in with their other food-provisioning strategies, and what barriers they face to attendance. Results show that the farmers’ market acts as an important source of fresh fruits and vegetables for SNAP shoppers, increasing their access to healthy food. Several important motivations, including the quality of the food, a desire to support local food, and the social environment of the farmers’ market, act to overcome the greater barriers that SNAP shoppers face compared to non-SNAP shoppers. This research is important considering increasing concern over the nutritional adequacy of the diets of SNAP participants and suggests that efforts to encourage SNAP redemption at farmers’ markets must include an element of social integration as well as a financial incentive.
Farmers’ Markets and Food Access: Supplemental Nutrition Assistance Program (SNAP) Use at the Corvallis and Albany, Oregon Farmers’ Markets

by
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I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.

Kathleen B. Finneran, Author
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Farmers’ Markets and Food Access: Supplemental Nutrition Assistance Program (SNAP) Use at the Corvallis and Albany, Oregon Farmers’ Markets

Chapter 1: Introduction

Purpose of this Study

The purpose of this study is to explore how and why people use Supplemental Nutrition Assistance Program (SNAP) benefits at the Corvallis and Albany, Oregon Farmers’ Markets and how it fits in with their other food-provisioning strategies. In light of recent efforts to increase low-income access to fresh and healthy food, promotion of the use of SNAP (formerly the Food Stamp Program) at farmers’ markets has been championed by many organizations, including the United States Department of Agriculture (USDA) (Briggs et al. 2010, Fisher 1999, PolicyLink 2010, Project for Public Spaces and Columbia University N.d., USDA Food and Nutrition Service 2013b). This study is aimed at understanding how people are currently using SNAP at farmers’ markets and why they are motivated to do so, in order to understand how farmers’ markets could benefit SNAP participants.

Statement of the Problem

In 2013, 14.3% of households in the U.S. were food insecure (Coleman-Jensen et al. 2014), meaning that they did not have “physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life” (World Food Summit 1996). At the same time, however, the average number of calories available in the U.S. per capita per day has been above 2,500 since 2000 (USDA ERS 2014), sufficient for each person to consume enough calories per day. In fact, since 2000, the prevalence of food insecurity in the U.S. has been slowly increasing despite the steady availability of adequate calories, suggesting that the problem of food insecurity in the U.S. is not driven by a
lack of food availability, but by an uneven distribution of food access. The Supplemental Nutrition Assistance Program (SNAP), run by the USDA’s Food and Nutrition Service (FNS) is designed to combat the problem of food insecurity in the U.S. by providing “nutrition assistance to low-income households to reduce hunger and improve health and well-being” (Edin et al. 2013). The population of SNAP participants therefore represents a low-income population that is vulnerable to food insecurity.

While food insecurity has stayed steady between 2000 and 2013, the number of farmers’ markets in the U.S. has risen 185% to 8,144 farmers’ markets officially registered with the USDA in 2013 (USDA AMS 2013). Because food insecurity has been associated with poor nutrition and health outcomes due to a reliance on cheap, energy-dense foods (Dietz 1995, Drewnowski and Specter 2004, Hadley and Crooks 2012), the USDA and nonprofit organizations such as Wholesome Wave, the Fair Food Network, and Roots of Change have identified farmers’ markets as a venue to increase access to fresh and affordable food within low-income communities in order to improve food security, nutrition, and health outcomes (Briggs et al. 2010, Fisher 1999, PolicyLink 2010, Project for Public Spaces and Columbia University N.d., USDA Food and Nutrition Service 2013b). The USDA has shown its support by pledging $4 million in funding in May 2013 to expand the availability of wireless technology to facilitate increased participation of farmers’ markets in SNAP (USDA FNS 2013b) and $100 million in the next five years for the new Food Insecurity Nutrition Incentive (FINI) grant program, which can help fund SNAP incentive programs at farmers’ markets (USDA NIFA 2014). As a result, it is important to understand how and why farmers’ markets are being utilized by SNAP participants in order to determine whether they have the potential to be effective in increasing
access to fresh food among SNAP participants, thereby improving their nutrition and food security.

**SNAP in Oregon**

The problem of food insecurity is especially relevant in Oregon, where hunger continues to be a large issue. About 15.2% of households in Oregon were food insecure between 2009 and 2011, which is higher than the national average of 14.3% (Coleman-Jensen et al. 2014). According to a 2012 report by Partners for a Hunger-Free Oregon, nearly one in five people (or about 21%) in Oregon use SNAP benefits, and the state has one of the highest participation rates of those eligible for SNAP. Oregon comes in at number four among states with the highest SNAP populations (Grosum 2013). In 2013, 451,500 households received an average of $230 per month, totaling $104 million per month across the state of Oregon (USDA FNS 2014b). Because of the state’s high SNAP participation rate, Oregon has been hit particularly hard by recent cuts in SNAP funding (Grosum 2013).

**SNAP at Farmers’ Markets**

The increasing number of farmers’ markets across the country has been accompanied by growing concern in making farmers’ markets available to all. However, acceptance of SNAP at farmers’ markets has lagged behind the growth of the number of farmers’ markets because of the logistical challenges that it represents. All states have been required since 2004 to deposit SNAP benefits electronically to EBT (Electronic Benefit Transfer) cards, which are known in Oregon as Oregon Trail cards (USDA FNS 2013a). These cards act like debit cards, which require an EBT machine with wireless technology to transfer benefits. As a result, in order to accept SNAP benefits, farmers’ markets must invest in EBT machines. The initial and ongoing costs of operating an EBT machine can be a challenge for farmers’ markets, which often operate with
small budgets. These costs are the main barrier that farmers’ markets must overcome to begin accepting SNAP benefits (Dixit-Joshi et al. 2013). Because of this challenge, only 34% of markets across the country accepted SNAP in 2011 (Dixit-Joshi et al. 2013). Oregon, however, has been at the forefront of the effort to accept SNAP benefits at farmers’ markets for several years. As of August 2014, there were 104 farmers’ markets in Oregon authorized by the USDA to accept SNAP (USDA FNS 2014a), among the highest of any state. However, in 2009, the most recent year for which a number could be found, only $261,229 in SNAP benefits was spent at farmers’ markets in Oregon, which still represents a tiny percentage of the total SNAP dollars in the state (Briggs et al. 2010). Therefore, though participation is increasing, there is the potential for greater expansion of SNAP acceptance at farmers’ markets in Oregon and nationwide.

**Significance of Research**

In light of the rate of food insecurity and growth of farmers’ markets in the U.S. and Oregon, more and more people are making a link between the two and positioning farmers’ markets as a location where access to fresh food can be increased for low-income people, including SNAP participants. The prevalence of food insecurity in the U.S. has implications for the health and well-being of the most vulnerable members of society. Farmers’ markets have the potential to provide access to fresh, healthy food for SNAP shoppers as well as other low-income people, alleviating the health impacts of poverty and food insecurity. This exploratory study can help to provide clues as to how local, fresh food could be more inclusive and equitable. It is clear that the potential is great.

The use of an applied anthropology approach to this issue is crucial. Applied anthropology approaches issues of social justice from a unique vantage point: researchers insert
themselves directly to the level of the lived experience of those who are affected by the issue. In this case, the experiences and voices of SNAP participants are heard, illuminating the issues that are important to them. Rather than a top-down approach based on assumptions about SNAP participants, the applied anthropology approach uses on-the-ground data to inform policy and practice related to improving access to fresh food among SNAP participants. The application of this study design to other communities would build a greater base of evidence for whether farmers’ markets are effective vehicles for increasing access to fresh food and how they could be better designed and tailored to the needs of their local communities.

**Structure of the Thesis**

This manuscript will serve as a partial fulfillment of the requirements of a Master of Arts in Applied Anthropology at Oregon State University. It is divided into six chapters. This introduction is followed by two chapters that provide background and context for the research. Chapter 2 provides a description of the study sites—the Corvallis and Albany farmers’ Markets—and their history of SNAP acceptance and use. Chapter 3 presents a review of academic literature related to food provisioning strategies of SNAP participants in contrast with literature on why people buy local food at farmers’ markets, concluding with an examination of previous research on SNAP at farmers’ markets. It also presents the three research questions that the study will address.

The last three chapters describe the methods, results and conclusions of the research I conducted at the Corvallis and Albany farmers’ markets during the summer of 2013. Chapter 4 describes the research methods utilized in the study and the subsequent data analysis. Chapter 5 presents the results of the data analysis and discusses of the relationship between my results and the literature reviewed in Chapter 3.
The final chapter provides an overview of the research study and summarizes the results. It also describes the contributions of this research to the scholarly literature and the applications of the findings on a local and national scale for farmers’ markets and organizations interested in promoting access to fresh food among SNAP participants and other low-income people.
Chapter 2: Local food in the Willamette Valley

Study Site

This study focuses on the Corvallis and Albany, farmers’ markets, located in the Willamette Valley of Oregon. Corvallis has been my home for the past two years and the site of my graduate education. As a result, my journey to this research began, when I first arrived in Corvallis in the late summer of 2012. The first thing that struck me was the lushness and bounty of the Willamette Valley. Coming from Ohio, where the most common sight is a field of corn or soybeans, I was amazed at the agricultural variety that exists just in the vicinity of Corvallis and Albany. The 10-mile route between the two cities passes numerous family farms growing a wide variety of fruits and vegetables, from blueberries and strawberries to squash and peppers. The area is extremely fertile due to sediment deposits from the last ice age, making it the center for agricultural production in Oregon, including both large- and small-scale farming.

Community Characteristics

Corvallis and Albany are located about ten miles apart in the Willamette Valley. The two communities are very similar in size and population: Albany occupies 17.75 square miles and has a population of 51,322, while Corvallis occupies 14.13 square miles and has a population of 54,998 people. Corvallis is the location of Oregon State University and, as a result, has a higher education level than Albany. In Corvallis, 53.9% of people 25 and older have a bachelor’s degree or higher, while in Albany the rate is only 21.3 percent. The two communities also differ in income, with Corvallis residents tending to have higher incomes than Albany residents. The median family income in Albany was $46,638 from 2008-2012, while during the same time period in Corvallis it was $72,194. Though Corvallis appears to have more people living in poverty (28.9%) than Albany (18.4%) this percentage is skewed in Corvallis by the large number
of students. The poverty rate of families in Corvallis is 11.6%, while in Albany it is 14.3%. Similarly, Albany has more residents who are SNAP participants than Corvallis does. In 2013, about 3,662 households—19% of households—received SNAP benefits in Albany, while 2,962 households—13.8%—received SNAP benefits in Corvallis (U.S. Census Bureau 2013a, b).

**Food Access**

In terms of food access, the two communities are fairly similar. Both contain areas that are considered ‘food deserts’ by the USDA. Food deserts are a concern because they indicate that the low-income residents of a certain census tract have limited access to healthy and affordable food. Two census tracts in Albany qualify as food deserts, which are defined by the USDA Economic Research Service (2013) as low-income census tracts where a significant number or share of residents (at least 500 people or 33% of the population) is more than 1 mile (urban) or 10 miles (rural) from the nearest supermarket (See Figure 1). An additional three Albany census tracts qualify as food deserts at the half mile level, meaning low-income census tracts where a significant number or share of residents is more than ½ mile (urban) or 10 miles (rural) from the nearest supermarket. Two of these food desert tracts also have low vehicle access, meaning they are tracts in which more than 100 households have no access to a vehicle and are more than ½ mile from the nearest supermarket (USDA ERS 2013). Similarly, two census tracts located in Corvallis qualify as food deserts at the one-mile level, with an additional three that qualify at the half-mile level. However, the food desert census tracts in Albany cover more area in the community than those in Corvallis do (USDA ERS 2013).
Local Food in Corvallis and Albany

There is great support for the farmers’ markets in the two communities, as well as a variety of other efforts related to local food. Several community groups headquartered in Corvallis are aimed at promoting local food and educating community members about how they can provide support and get involved. Ten Rivers Food Web is an organization serving Benton, Linn, and Lincoln counties that works to strengthen the Ten Rivers food shed, with the goal of making 30% of the food consumed in these counties locally grown, processed, and distributed. Slow Food Corvallis and the Corvallis Environmental Center are two other organizations that promote buying and growing local food in the Corvallis community. In addition, many
businesses and restaurants in both communities locally source ingredients, and there are also farm-to-table experiences available, such as Frankie’s Restaurant in Albany and Gathering Together Farm’s restaurant just outside of Corvallis. In these communities in general, there seems to be pride in the abundance that local farmers produce and a sense of value in supporting and maintaining it for the benefit of both oneself and the community. Local food efforts seem to be robust and ingrained in the community ethic. Because of the effort and enthusiasm surrounding local food, these two cities seemed particularly compelling places in which to investigate how local food can benefit everyone in a community.

Support for local agriculture in the two communities has been studied by Dr. Garry Stephenson and Dr. Larry Lev, both professors at Oregon State University. Their study, published in 2004, showed that residents of both communities purchased local agricultural products for a variety of reasons: a desire to keep farmers in the area, to support the local economy, enjoyment of the experience of shopping for local farm products, the belief that local products are better, and greater confidence in the quality and safety of local products (Stephenson and Lev 2004). They also found that the perceived barriers to buying local food were that local agricultural products were not available where or when people shopped and were perceived as being more expensive. Despite the clear demographic differences between the two communities, the study found that residents in both did not differ in their reasons for preferring local products, attitudes toward the environment and organic food, perceived barriers to buying local products, or perception of the relative quality of local products (Stephenson and Lev 2004).

**The Corvallis and Albany Farmers’ Markets**

The Corvallis Saturday Farmers’ Market in full swing: music fills the air, dogs and people greet each other, children run through the crowd with their hands sticky from fresh
berries. A walk through the entire market takes at least fifteen minutes to take in the variety and abundance of fruits, vegetables, plants, baked goods, and meats being sold. All kinds of people are in attendance, with many vendors, local organizations, and political protestors vying for attention. There is always music. People stop to watch and children dance to the beat. Customers engage in conversations with the farmers: Is this corn sweet? Where is your farm located? Do you spray? Many people use the event as a chance to socialize with other members of the community.

The differences between the Albany and Corvallis Farmers’ Markets mirror some of the differences between the communities. The Albany Farmers’ Market also operates on Saturday but is much smaller and less busy. It only requires a few minutes to take in all of the sights and wares available. Some vendors say they prefer to sell at the Albany Farmers’ Market because it is less chaotic and there is less competition. Vendors have more time to talk with shoppers, tell them about the products, and form connections and friendships. Prices also tend to be lower when compared with Corvallis. But just like in Corvallis, there are always music, events, and groups of people greeting one another and catching up. The Master Gardeners are often on hand, working through gardening problems with shoppers. Different community groups come to tell shoppers about services available in the community. The range of produce—though perhaps not as diverse as that in Corvallis because of the number of vendors—is high quality. The Corvallis Wednesday Farmers’ Market is very similar to Albany’s. There is a pared-down group of vendors, several of whom also sell in Albany on Saturdays.

History of the Corvallis and Albany Farmers’ Markets

The history of farmers’ markets in the area began in 1978 with the opening of the Albany Farmers’ Market. This market is the oldest continuously running outdoor farmers’ market in the
state. Several years later, in 1981, the Wednesday market was started in Corvallis. The Corvallis Saturday market, although the largest, is the youngest market; it began in 1991. The three markets came together to be operated under the same organization in 1998. There have been many site changes over the years for the three markets. The Albany Farmers’ Market began on the riverfront and moved to its current location next to City Hall in 2007. The Corvallis Wednesday Market has occupied space at the downtown fire station and Benton County Fairgrounds in the past, before becoming co-located with the Corvallis Saturday Market downtown.

Organization of the Corvallis and Albany Farmers’ Markets

The Corvallis and Albany Farmers’ Markets are operated by the same umbrella organization, the Corvallis-Albany Farmers’ Markets (CAFM). A ten-member board directs the markets and is mostly made up of current vendors, with up to three non-vendor community members. This type of board is unique for a farmers’ market, as most of the board is often made up of community members. In addition to the board, there is one manager for the two markets, who is present on market day at the Corvallis Farmers’ Market. Two additional managers are present at the Albany Farmers’ Market on alternating weekends. The Corvallis-Albany Farmers’ Markets aim, according to their website, is “to provide highly visible, centralized locations in Corvallis and Albany for mid-Willamette Valley and Coast Range farmers and gardeners to market high-quality produce directly to consumers” (Corvallis-Albany Farmers Markets 2013). Products sold at the farmers’ markets must be grown or raised in Benton, Linn, Lincoln, Lane, Polk, or Marion counties. CAFM does not require any specific growing practices but prohibits vendors from selling products grown from genetically modified (GM) seeds.
Mission of CAFM

Beyond providing a market for local farmers, CAFM also identifies four functions that the farmers’ markets aim to serve: “1) Educate consumers about how their food is grown and processed, 2) Support small family farmers, whose continued existence depends on direct marketing opportunities, and related small-scale economic activity, 3) Protect air quality and the environment by shortening the distance food travels from farm to consumer and by encouraging sustainable agriculture practices, 4) Create a community activity that helps revitalize downtowns, riverfronts and other community resources” (Corvallis-Albany Farmers Markets 2013). The Corvallis-Albany Farmers’ Markets’ efforts aim not just to bring producers and consumers together but also to have beneficial impacts on the knowledge of consumers, incomes of producers, quality of the environment, and community. In addition, the market manager is committed to serving those with low incomes. Her work, along with the efforts of the local organization Ten Rivers Food Web, has demonstrated CAFM’s commitment to SNAP since the beginning of its acceptance at the farmers’ market in 2007.

Differences between the Corvallis and Albany Farmers’ Markets

Though the farmers’ markets in the two communities are operated by the same organization, there are several differences between the two markets. The most obvious is their respective size. The Corvallis Farmers’ Market is much larger than its counterpart in Albany and operates on both Wednesday and Saturday, whereas the Albany Farmers’ Market only operates on Saturday. The Albany Farmers’ Market has 36 spaces for vendors, and during the research period the number of vendors ranged from fifteen to thirty. In contrast, space is at a premium in Corvallis, especially at the Saturday market where there are seventy vendor spots. Some vendors take up more than one spot, so the total never comes to seventy, but the space is usually filled.
The Corvallis Wednesday market is sparser, with less than half as many vendors as the Saturday Corvallis market, as well as many fewer shoppers. Both farmers’ markets operate from mid-April to mid-November.

**SNAP at the Corvallis and Albany Farmers’ Markets**

*History of SNAP Acceptance at the Corvallis and Albany Farmers’ Markets*

SNAP benefits have been accepted at the Corvallis and Albany Farmers’ Markets since 2007. With the switch to electronic benefits in 2004, many farmers’ markets were unsure of how the system would work for their situations. CAFM was able to initially purchase two EBT machines with grant money. SNAP sales at the markets were low at first, but with outreach the customer base began to grow. Luckily, the EBT system was in place in time to meet demand generated by the economic recession in 2008, which greatly increased the number of SNAP shoppers at the farmers’ markets. Since then, the markets have seen steady growth in SNAP sales until 2013, when they started to slow. The markets began a SNAP Incentive Program between 2010 and 2011 in partnership with the Benton County Health Department. Consistent funding for the incentive has been difficult, with numerous efforts made by the market management and Ten Rivers Food Web to experiment with different types of fundraising. CAFM hopes to partner with other organizations to apply for a Food Insecurity Nutrition Incentive grant, which was included in the 2014 Agricultural Act (Farm Bill).

*Challenges and Benefits of Accepting SNAP*

There are both challenges and benefits associated with accepting SNAP, with farmers’ market management tending to face the challenges while benefits accrue to both shoppers and vendors. The major ongoing challenge is related to market capacity in terms of staffing and funding. The work required to accept SNAP must be done by the farmers’ markets for free.
without any additional source of income, except for the knowledge that more money will be coming in to the farmers’ market as a result. The application process to apply for the ability to accept SNAP is also a barrier because it is burdensome and not well suited to farmers’ markets. However, according to the manager of the Corvallis and Albany Farmers’ Markets, there are several important benefits of accepting SNAP at the markets. First, it extends the reach of the markets to all members of the community and prevents them from becoming exclusionary, fashionable food “boutiques,” which doesn’t lead to widespread support. Accepting SNAP brings more customers to the markets and provides a more welcoming environment for everyone, while also contributing to community health. Even though SNAP requires investments of time and money on the part of the farmers’ markets, it is worth it to retain those customers and be able to bring the whole community together around food. The community-building aspect of the market, which includes outreach from local organizations, music, dancing, and health-related offerings, is essential to serving the broader interests of the community. The farmers’ markets also hope to reach SNAP customers who may be isolated through outreach and events that aim to bring all members of the community together.

**SNAP Use at the Corvallis and Albany Farmers’ Markets**

SNAP use at the farmers’ markets show the difference in size between the two locations. In Corvallis, at both the Wednesday and Saturday markets, there were 1,867 SNAP transactions, amounting to $38,135 over the entire market season from mid-April to mid-November. In Albany, there were 595 transactions, amounting to $8,724 over the entire market season from mid-April to mid-November of 2013. During the research period, from July to September, there were 237 SNAP transactions in Corvallis, amounting to $4,505, and 160 SNAP transactions in Albany, amounting to $2,705 in the 2013 season. While the number of unique SNAP shoppers
who shopped at the farmers’ markets during the research period is not known, it is likely to be significantly fewer than the number of transactions, due to repeat customers over market days and repeat transactions during market days.

Conclusion

The Corvallis and Albany Farmers’ Markets are two interesting places to investigate SNAP use because SNAP acceptance has been well-established in both of these locations since 2007. The two farmers’ markets are run by the same organization—with the same rules, regulations, and management. As a result, differences between the two markets can be attributed to community dynamics rather than managerial or philosophical differences. The two communities are indeed different in some interesting ways. Corvallis is bigger, wealthier, and benefits greatly from being the site of Oregon State University. Albany is smaller and people tend to have fewer resources. These differences are reflected in the size and scope of their respective farmers’ markets. However, the results of Stephenson and Lev’s study (2004) suggest that both communities are interested in buying local food, so it is a relevant question to investigate whether these attitudes play out in the same ways at each community’s farmers’ market.
Chapter 3: Literature Review

Introduction

This literature review first examines the history of SNAP and food security in the United States and explores the arguments in favor of encouraging SNAP participants to shop at farmers’ markets. It goes on to review three bodies of literature. First, it will review the literature on how low-income and SNAP participants make decisions about food purchases, as well as their motivations in food provisioning and the barriers to healthy eating that they experience. This scholarship will then be compared with work on farmers’ markets and why people are motivated to buy local food. Finally, it will review studies and reports that bridge these two topics by looking at the impact of SNAP redemption at farmers’ markets on SNAP participants and the motivations and barriers to attendance that SNAP shoppers experience at farmers’ markets.

To begin, I will provide a definition of food security and discuss its relation to the history and purpose of SNAP as well as the relation of SNAP to health.

Food Security

The USDA defines food security as “access by all people at all times to enough food for an active, healthy life” (Bickel et al. 2000). Food security is commonly discussed in terms of three components: availability, access, and utilization (Hoddinott et al. 2002, USAID 1992, WHO 2013). The International Food Policy Research Institute (IFPRI) define availability as “a measure of food that is, and will be, physically available in the relevant vicinity of a population during a given period”; access as “a measure of the population’s ability to acquire available food during a given period”; and utilization as “a measure of whether a population will be able to derive sufficient nutrition during a given period” (Hoddinott et al. 2002:3).
The study of food security in non-crisis situations mainly focuses on the problem of access (FAO 2006). This holds true in the United States, where the problem of food security is not related to the availability of food but to the ability of people to access sufficient and nutritious food. While there is enough food for each person in the U.S. to consume more than 2,500 calories each day (USDA ERS 2014), food insecurity continues to persist at around 14.3% (Coleman-Jensen et al. 2014). The simultaneous existence of abundance and hunger suggests that the problem of food insecurity in the U.S. is not driven by a lack of food availability but by an uneven and inequitable distribution of food access.

The Supplemental Nutrition Assistance Program (SNAP)

The Supplemental Nutrition Assistance Program (SNAP) is the main form of social security in the U.S. that helps to increase economic access to food, thereby combatting food insecurity. The program is run by the USDA’s Food and Nutrition Service (FNS) and is designed to combat the problem of hunger in the U.S. by providing “nutrition assistance to low-income households to reduce hunger and improve health and well-being” (Edin et al. 2013:1). Hunger is a potential consequence of food insecurity (USDA ERS 2012a), so SNAP is a program that can help alleviate the problem in households that are most vulnerable to food insecurity. Studies have found that SNAP plays a crucial part in the food provisioning strategies of SNAP households (Edin et al. 2013).

History of SNAP

Food assistance in the U.S. was originally concerned with the removal of surplus commodities generated by the government rather than the reduction of hunger or improvement of health. Food assistance began in the Great Depression of the 1930s as a result of public outrage over the amassing of large agricultural surpluses by the government at the same time that hunger
was increasing among the poor and unemployed (Andrews and Clancy 1985). As a result of this outrage, surplus commodities such as wheat began to be distributed through food assistance programs operated by the Federal Surplus Commodities Corporation and the USDA, primarily to support farm prices (MacDonald 1977).

The first experimental food stamp program began in 1939, but the disappearance of food surpluses during World War II caused the program to end (Andrews and Clancy 1985). Hunger and food surpluses again coincided in the 1960s, and with the support of the Kennedy administration the Food Stamp Act was enacted in 1964 in order to achieve: “(1) the utilization of the nation’s food; and (2) the promotion of the nutritional well-being of low-income persons” (MacDonald 1977:647). Under the Food Stamp Act, state agencies were given a choice between operating a food stamp or a food (commodity) distribution program (MacDonald 1977). The Food Stamp Program was initially unpopular, in part because when counties switched over from a food distribution program to a food stamp program, fewer people received food assistance. Social unrest and hunger activism in the ‘60s and ‘70s led to reforms that gradually expanded food stamp benefits, including free stamps for the poorest families (Andrews and Clancy 1985). During this period, a gradual shift occurred in food assistance from surplus commodity distribution to an income-maintenance (welfare) program (Andrews and Clancy 1985). By 1974, all states were required to switch from food distribution to food stamps (MacDonald 1977).

Since the 1970s, the Food Stamp Program has undergone a change in form. The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 mandated that states switch over to an EBT (Electronic Benefit Transfer) system to disburse government benefits—including food stamps—by 2002, and all states fully implemented EBT programs by 2004. EBT cards act as debit cards with a PIN number, with each month’s benefits deposited electronically. In 2008,
the Food Stamp Program’s name was changed to the Supplemental Nutrition Assistance Program (SNAP) (USDA FNS 2013a).

Currently, SNAP eligibility is based on the definition of low-income in the U.S., which is determined by federal poverty guidelines. In 2013, the poverty line was set at an income of $11,490 per year for a household consisting of one person and $23,550 per year for a household of four. Measures of low-income may use a percentage multiple of these guidelines, such as 150 percent or 200 percent of the poverty guideline, in order to set thresholds for different programs (U.S. Department of Health and Human Services 2013). Households are eligible for SNAP with a household income equal to or less than 130 percent of the poverty line. For instance, for a household of one, gross monthly income must be less than $1,245, while for a household of four it must be less than $2,552 (USDA FNS 2013c).

The amount of money that each SNAP household receives is calculated based on income and the USDA’s Thrifty Food Plan estimates of how much it costs to provide a nutritious diet. This estimate is based on the USDA’s Dietary Guidelines for Americans consisting of foods prepared at home. According to the Thrifty Food Plan, in 2013 a single female could expect to spend about $162 per month on food, whereas a single male could expect to spend about $182 per month. A family of four with children under 5 could expect to spend $552 per month on food, while a family of four with children between 6 and 18 could expect to spend $632 per month according to the Thrifty Food Plan (USDA Center for Nutrition Policy and Promotion 2013).

Health Implications of SNAP

The mission of SNAP today is to provide “nutrition assistance benefits and nutrition education services to low-income individuals and families in an effort to reduce hunger and
improve the health and well-being of low-income people nationwide” (Edin et al. 2013:1).

Considering health is important because a substantial number of studies have shown the link between poverty, food insecurity, and the consumption of cheap, energy-dense foods that leads to obesity, especially among women (Dietz 1995, Drewnowski and Spencer 2004, Townsend et al. 2001). Despite the stated goals of SNAP, there are several studies that have specifically linked participation in SNAP to obesity, again especially among women (Cole and Fox 2008, Dinour et al. 2007, Larson and Story 2011, Leung and Villamor 2011). A study by the USDA’s Economic Research Service found that the Healthy Eating Index (HEI) scores of SNAP participants were slightly lower than low-income nonparticipants (Gregory et al. 2013). Though none of these studies have found overwhelming evidence that participation in SNAP leads to obesity, there is nevertheless increasing concern about the nutritional adequacy of the diets of SNAP participants and the impact of food insecurity and poverty on health.

**Food Provisioning Strategies of SNAP Participants**

This section reviews the literature on the variety of ways that SNAP participants get their food, focusing on the constraints that people face and how they cope with sometimes or often not having enough money for food. This section also reviews what is known about major motivating factors for SNAP participants in terms of making food shopping decisions.

**Coping Strategies**

Food insecurity is often considered in terms of the coping strategies used by individuals and households in order to deal with or mitigate the effects of food insecurity. These measures capture the concept of food security more fully than a simple measure of food consumption by a household, which is subject to many biases and difficulties in data collection (Maxwell 1996). These coping strategies vary in severity. Maxwell (1996) identifies six main coping strategies
that are ranked from least severe to most severe: eating foods that are less preferred, limiting portion size, borrowing food or money to buy food, maternal buffering (mother limiting her intake), skipping meals, and skipping eating for whole days. The USDA also uses the prevalence of coping strategies to measure food security, utilizing a questionnaire that includes questions about not eating balanced meals, limiting the size of meals, skipping meals, and skipping eating for whole days in addition to questions about running out of food or money to buy food (USDA ERS 2012b).

A USDA report on SNAP and food security of households with children (Edin et al. 2013) shows that SNAP participants are often forced to employ coping strategies to deal with financial shortfalls that include decreases in income or increases in expenses. These coping strategies are necessary because for many households, “financial strain […] is eased but not alleviated in full by participation in the SNAP program” (xi). The degree of severity of coping strategies varies with the degree of food insecurity that a household experiences. The SNAP households included in the USDA study used a variety of coping strategies, including: “reducing food intake; reducing food quality or variety (stretching); accessing family networks for food and cash support; and pro-active preventative strategies like aggressive sales shopping, couponing, or meal planning” (Edin et al. 2013:16). SNAP households also often rely on family and friends for meals, groceries, and cash, though those with very low food security are less likely to have networks on which to draw. The less food secure are also less able to engage in pro-active preventative strategies such as sales shopping or meal planning (Edin et al. 2013).

Shopping Habits

The USDA report on SNAP and food security (Edin et al. 2013) also collected data on the shopping habits of SNAP participants. More than half of the respondents rely on a single
chain supermarket for their groceries, though not necessarily one in their neighborhood. Almost all of the respondents visit discount stores to purchase certain items. Other studies have also shown that SNAP participants rely more heavily on convenience stores, discount grocers, and ethnic markets, and often leave their communities to buy food (Shannon 2014). In terms of food choices, respondents in the USDA study reported that they do not buy fresh vegetables because of the fear of spoilage, usually buying canned or frozen vegetables instead (Edin et al. 2013).

Edin et al. (2013) found that price and quantity take precedence for SNAP participants in deciding what to buy, whereas nutrition is a distant second, “only when they feel they can afford to” (45). Many feel that healthy foods, especially vegetables, are too expensive (Edin et al. 2013). Indeed, many studies have shown that energy-dense foods such as grains, sugars, and fats, are cheaper, while less energy-dense foods, such as fruits and vegetables, are more expensive (Drewnowski and Specter 2004, Aggarwal et al. 2012). As a result, because SNAP households experience significant restriction in their food budgets, their ability to eat food that they prefer and that can provide them with adequate nutrition is diminished.

SNAP participants’ limited budgets are sometimes further compounded by a relative lack of access to fresh fruits and vegetables in lower-income communities as compared to higher-income communities. Studies have shown that low-income neighborhoods often have less healthy foods, lower quality, and higher prices (Ball et al. 2009, Block and Kouba 2005, Chung and Myers 1999, Hendrickson et al. 2006, Topolski et al. 2003, Walker 2010).

However, some research has challenged these points of view and has shown that the motivations behind choices made by low-income and SNAP shoppers may be more nuanced than has been assumed. A study by Blistein et al. (2012) in Chicago, IL, found that among a low-income, primarily minority sample, people’s positive perceptions of the convenience of food
stores as well as positive perceptions of the quality and selection of fresh fruits and vegetables at those convenience stores was associated with an increase in consumption of fresh fruits and vegetables. Therefore, though price and convenience seem to be the main considerations of people with limited food budgets, it is crucial to consider that other motivations might have an impact on the food choices of low-income and SNAP consumers as well.

**Farmers’ Markets**

The literature and theory surrounding why people shop at farmers’ markets and buy local food is almost diametrically opposed to how restricted food budgets are assumed to impact people’s food-provisioning choices. Farmers’ markets are often assumed to be more expensive than other sources of food, and farmers’ market shoppers are assumed to be high-income. Farmers’ market shoppers are therefore viewed as being motivated to shop at farmers’ markets and buy local food for non-economic reasons. This section reviews the literature on what motivates people to shop at farmers’ markets and buy local food as well as the ability of farmers’ markets to address social justice issues such as access to food. Before exploring the literature on farmers’ markets, it is helpful to define what constitutes a farmers’ market.

*Definition of Farmers’ Market*

How a farmers’ market is defined is important for understanding its role in food access. Farmers’ markets are one type of farm-direct marketing channel. However, what counts as a farmers’ market depends on how they are defined by various entities. The USDA defines a farmers’ market as “a common area where several farmers gather on a recurring basis to sell a variety of fresh fruits, vegetables, and other farm products direct to consumers” (Martinez et al. 2010:5). Similarly, the Oregon Farmers’ Markets Association, which promotes, supports, and represents farmers’ markets in Oregon, requires that two criteria must be met in order for a
market to qualify as a farmers’ market: “1) The market meets on a regular, recurring basis in a public location, and 2) Market vendors are engaged in direct sales to consumers of agricultural products they grew, raised or produced themselves” (Oregon Farmers’ Market Association N.d.).

The Farmers Market Coalition, a nonprofit organization that works to strengthen farmers’ markets across the U.S., provides a more specific definition:

A farmers market is a public and recurring assembly of farmers or their representatives, selling directly to consumers food which they have produced themselves. More specifically, a farmers market operates multiple times per year and is organized for the purpose of facilitating personal connections that create mutual benefits for local farmers, shoppers, and communities. To fulfill that objective a farmers market defines the term local, regularly communicates that definition to the public, and implements rules/guidelines of operation that ensure that the farmers market consists principally of farms selling directly to the public products that the farms have produced. [Farmers Market Coalition 2013]

What is meant by a ‘farmers’ market’ is therefore up to a certain amount of interpretation, which is reflected in the varying ways that farmers’ markets operate and the different goals for operation. The explication of a farmers’ market’s goals is important because there is a similar tension here between producers and consumers as there was in the development of nutrition assistance in the U.S. Farmers’ markets have to strike a balance between supporting their farmers’ livelihoods and making their food affordable to consumers, a balance that may be especially difficult to maintain in low-income areas and for people who participate in SNAP.

*Farmers’ Markets and Social Justice*

Farmers’ markets differ in their ability to make local food more inclusive depending on their mission and regulations. The impact of a farmers’ market can differ greatly depending on where and by whom it is run. For example, Alkon (2008) writes about the difference between two farmers’ markets in the San Francisco Bay Area. They each have been constructed using different paradigms of the environment. The West Oakland Farmers’ Market, on one hand,
imagines the “environment as the places they live, work and play, [and the] local food system as a strategy through which to address racism and poverty” (Alkon 2008:283). The physical location of the West Oakland Farmers’ Market and the social construction of the environment that market vendors and shoppers participate in “[frames] farmers’ market attendance as support for the empowerment of racially and economically oppressed people” (Alkon 2008:282). Through attracting and supporting African-American farmers and shoppers and offering lower prices than other farmers’ markets, the West Oakland Farmers’ Market strikes a compromise between producers and consumers in order to support both. The North Berkeley Farmers’ Market, on the other hand, is located in an affluent area and imagines “local organic food as a conduit through which urban eaters can become connected to a wilderness ideal” (Alkon 2008:273). The North Berkeley Farmers’ Market emphasizes sustainable agriculture, reinforcing class and racial privilege by making it a non-issue (Alkon 2008). Therefore, though farmers’ markets have the propensity to be involved in social justice and making local food inclusive, like the West Oakland case, they also have the ability to subtly reinforce existing social hierarchies, like the North Berkeley case.

Motivations to Shop at Farmers’ Markets

The ability of farmers’ markets to address issues of social justice and inclusivity has a lot to do with the variety of reasons that people are motivated to shop at farmers’ markets. If shoppers are not motivated by price, then they must be deriving value from the farmers’ market in some other way. The idea of social embeddedness has been championed as the benefit of local food systems and a sign of how they can oppose the conventional, industrial, impersonal food system and move toward a more just and equitable food system. Hinrichs (2000) defines embeddedness as the concept that “economic behavior is embedded in and mediated by a
complex, often extensive web of social relations […] This sense of social connection, reciprocity and trust, is often seen as the hallmark (and comparative advantage) of direct agricultural markets” (296). Feagan and Morris (2009) define embeddedness in the farmers’ market context as “the attributes for which a price signal is not sufficient to describe farmers’ market patronage motivations” (237). They identify three types of embeddedness present at an Ontario farmers’ market: social, spatial, and natural. These three types of embeddedness represent sets of values associated with shopping at farmers’ markets. Social embeddedness has to do with “connection, belonging, knowledge, community, tradition, place and loyalty” (Feagan and Morris 2009:236). Natural embeddedness is associated with organic production and sustainable farming methods and concern with the ill effects of the industrialized food system on the environment and health. Finally, spatial embeddedness is associated with the desire to buy local food, supporting local farms and the community and the value of freshness of food (Feagan and Morris 2009).

Hinrichs (2000), however, argues that the related dimensions of marketness (supremacy of price) and instrumentalism (supremacy of self-interest) exist in any exchange along with embeddedness. Local food and farmers’ markets are not one-dimensional entities that mean the same thing to each person. Similarly, a study by Winter (2003) reveals that local food is about more than just local social embeddedness and “the turn to local food may cover many different forms of agriculture, encompassing a variety of consumer motivations and giving rise to a wide range of politics” (30). Therefore, there is certainly not just one set of values that motivates people to shop at a farmers’ market and buy local food. However, the farmers’ market is set apart as a place where many patrons are motivated in some way by the farmers’ market being more socially embedded than other food outlets, whether for social, environmental, or community-related reasons.
SNAP Redemption at Farmers’ Markets

If embeddedness is about the supremacy of other motivations over price, then low-income consumers, especially those who may rely on SNAP for a large portion of their food budget, are at a disadvantage in terms of their ability to choose to shop at a farmers’ market over other food retail venues that may prioritize price and convenience over quality and social connection. Farmers’ markets have to balance the needs of farmers to make a living with the ability of low-income shoppers to buy produce, with the latter being something that not all farmers’ markets attempt or are able to address (Winne 2008). Indeed, a study by Colasanti et al. (2010) in Michigan found that while people from a variety of groups—including marginalized groups such as low-income and minorities—hold similar values regarding local food, “nonparticipation in farmers’ markets relates not to a lack of interest in high-quality farm-direct produce but to an array of barriers, disincentives, and competing priorities, some of which seem to fall along socioeconomic and demographic lines” (334). The next section reviews the literature on barriers that exist to shopping at a farmers’ market for SNAP and other low-income shoppers; the incentive programs in place around the country that attempt to address the price barrier; and what motivates SNAP participants to actively shop at farmers’ markets.

Barriers for Low-Income Shoppers

Given that only a small percentage of SNAP benefits—about 0.008% of total SNAP transactions nationwide (Briggs et al. 2010)—are spent at farmers’ markets, it is evident that low-income consumers face a number of barriers to accessing farmers’ markets. A 2005 study of SNAP participants in Portland, Oregon found that price and perceptions of price, limited hours and locations, selection of foods, usability, and lack of discounts or sales were the biggest barriers, in that order, to SNAP participants shopping at farmers’ markets (Grace et al. 2005).
Another study found that the top barriers to shopping at farmers’ markets for consumers in low-income neighborhoods were unawareness of market hours and location and inability to complete all shopping at the farmers’ market (Project for Public Spaces and Columbia University N.d.). A study by Colasanti et al. (2010) found that limited promotion and hours, location, difficulty of bringing young children, and discrimination may disadvantage marginalized groups.

Price, however, is often assumed to be the biggest barrier for low-income shoppers. Conversely, a study by the Project for Public Spaces and Columbia University (N.d.) of farmers’ markets in low-income areas found that price is not a barrier for consumers in low-income neighborhoods, with 60% of farmers’ market shoppers saying that they believed the farmers’ market had a better price than the grocery store and only 17% of people who do not shop at farmers’ markets citing price as a barrier. In the Portland study, while price was a barrier, it was also a motivation for continuing to attend the market, suggesting that once people begin to attend the farmers’ market they no longer see price as a barrier. The study done by the Project for Public Spaces and Columbia University (N.d.) focused on farmers’ markets serving low-income urban areas, where it is conceivable that grocery and convenience stores could have higher prices than the farmers’ market. The study also found that low-income shoppers tend to use farmers’ markets more intensively than medium- to high-income shoppers (buying more than half of their produce at the farmers’ market), again suggesting that lower prices at the farmers’ market are a reality for these consumers (Project for Public Spaces and Columbia University N.d.). Therefore, it is important to consider what else might be available in the food system of a community when considering how important a farmers’ market might be to people’s food-provisioning strategies.

There may be more implicit barriers keeping marginalized people out of farmers’ markets as well. Guthman (2011) writes about how alternative food has suffered from colorblindness and
universalism by erasing differences and assuming that all people hold similar values to (often environmentally conscious) whites, emphasizing “personal characteristics and motives rather than problems with access and affordability” (Guthman 2011:270). Guthman (2011) believes that “whites continue to define the rhetoric, spaces, and broader projects of agrifood transformation” (266). Different perspectives, such as low-income people working with a limited food budget or members of different ethnic groups, are not considered in the discourse of local food and end up being further marginalized. They are blamed for not valuing local food enough to overcome the price or cultural differences that might exist. This can create a space where marginalized people do not feel comfortable or are even interested in entering (Guthman 2011).

**Incentive Programs**

Winne (2008) writes that in the “struggle for farmers’ markets to help close the food gap” (43), farmers’ markets often need some sort of subsidy in order to be successful in making produce affordable for low-income people. Farmers’ markets are saddled with “inflated expectations” as “powerful symbols of progress” and aren’t always able to meet the needs of all people that are invested in local food (Winne 2008:47). In the struggle to support both farmers and low-income consumers, low-income consumers are the ones who lose out. If the farmers cannot make enough money off of selling at a farmers’ market for it to be economically worthwhile, then the farmers’ market will cease to exist. The future of farmers’ markets as a strategy to increase access to fresh food among low-income populations may therefore be necessarily dependent on outside funding from the USDA, local organizations, local governments, or other sources.

Most of the existing studies on SNAP at farmers’ markets have focused on evaluating programs meant to increase the ability of SNAP participants to shop at farmers’ markets by
providing monetary incentives that increase purchasing power. Many studies have been done on
the effect of the Special Supplemental Nutrition Program for Women, Infants, and Children
(WIC) and Seniors Farmers Market Nutrition Programs (FMNP), as well as other privately-
funded initiatives that promote redemption of food assistance at farmers’ markets. A review of
incentive studies reveals that incentives at farmers’ markets have been shown to increase
awareness of farmers’ markets and cause dietary change. Wholesome Wave, an organization
based in Connecticut that works to improve access to fresh, locally grown food around the
country, commissioned a study along with other food and nutrition organizations that confirmed
that incentive programs do increase fruit and vegetable consumption (Wholesome Wave N.d.). A
study by Kropf et al. (2007) found that the FMNP increased vegetable intake and perceived diet
quality (but not food security status). Another study by Evans et al. (2012) measured the impact
of farm stands in low-income communities on fruit and vegetable intake, finding that there were
significant increases in consumption of fruit, fruit juice, tomatoes, green salad, and other
vegetables. A study of the ‘Senior Farmers’ Market Nutrition Program’ (SFMNP) in South
Carolina by Kunkel et al. (2003) found that 89% of participants reported that they intended to eat
more fruits and vegetables because of the program. A study by Herman et al. (2008) showed that
women who received a farmers’ market incentive for six months increased their fruit and
vegetable consumption by 1.4 servings per 1000 calories consumed, versus an increase of 0.8
servings of fruits and vegetables for those who received a supermarket incentive. Therefore, it is
clear that these incentive programs and farmers’ markets in general have the potential to increase
fruit and vegetable consumption among SNAP participants and potentially improve their health.
Motivations for Low-Income People to Shop at Farmers’ Markets

The case for monetary incentives is further reinforced by studies that have shown that the willingness of low-income consumers to shop at a farmers’ market is influenced by price and convenience (McGuirt et al. 2014). A study in Portland, Oregon (Grace et al. 2005) found that motivations for SNAP participants initially visiting a farmers’ market included location and the USDA Farmers’ Market Nutrition Program (an incentive program), indicating that price and convenience are paramount. However, the study also found that motivations to continue attending the farmers’ market included the quality produce, supporting local businesses, price, and social benefits (Grace et al. 2005). Therefore, though price and convenience may be important to drawing SNAP participants into farmers’ markets, other benefits may become apparent after attending, even including price.

Conclusion

Previous research has shown that low-income and SNAP shoppers are primarily motivated in their food shopping choices by price and convenience, whereas people who shop at farmers’ markets and buy local food have been found to be motivated more strongly by social and environmental factors. As a result, there seems to be a contradiction between the two bodies of literature that back up the popular assumption that low-income and SNAP shoppers do not or cannot shop at farmers’ markets. Because most of the policy surrounding SNAP at farmers’ markets has focused on monetary incentives, the majority of the existing studies on SNAP at farmers’ markets are aimed at evaluating these incentive programs, and it is unclear whether SNAP participants are also motivated by social factors. What happens when incentives aren’t available and low-income shoppers aren’t able to overcome the price barrier as easily has not been explored.
These studies of SNAP redemption at farmers’ markets also tend to view farmers’ markets in isolation from the rest of a SNAP participant’s food landscape. It is unclear how farmers’ markets fit in with the other food-provisioning strategies of SNAP participants and how important shopping at a farmers’ market is relative to other food sources.

Finally, most of the existing studies do not provide any comparison between SNAP shoppers and other shoppers, who are not using SNAP, at the farmers’ market. These studies have not examined how lower-income and higher-income people shop differently at a farmers’ market or are motivated differently to shop there, if indeed they are.

My study fills these gaps in knowledge by answering four research questions:

1) Who is using SNAP at farmers’ markets, and how are they shopping?

2) What is the farmers’ market’s relative importance compared to other sources of food among SNAP shoppers?

3) Why are SNAP shoppers motivated to attend the farmers’ market, and what barriers do they face?

4) How do SNAP and non-SNAP shoppers—and Corvallis and Albany SNAP shoppers—differ in terms of the answers to these questions?
Chapter 4: Methods

This section describes the methods used to investigate the use of SNAP at the Corvallis and Albany farmers’ markets. First, I discuss and explain the use of a mixed-methods approach including both a farmers’ market survey and household interviews with SNAP shoppers, which allowed me to gain both a wide view of SNAP shoppers in general and the individual experiences of a few SNAP households. Second, I explain the quantitative and qualitative analyses that I conducted using SPSS and NVIVO software.

Study Design

Because relatively little is known about SNAP shoppers at farmers’ markets, I decided to use both inductive and deductive approaches to answer my research questions. Exploratory research, which is primarily inductive and aimed at finding patterns in observations (Bernard 2009), is appropriate in this case because there is a limited amount of research on SNAP use at farmers’ markets that 1) is not about monetary incentives, 2) evaluates the farmers’ market as part of more broad food-provisioning strategies, and 3) compares SNAP and non-SNAP shoppers. The contradiction in the literature between what is known about SNAP shoppers and what is known about those who buy local food also calls for an exploratory approach to figure out how people are negotiating that contradiction. As a result, I wanted to gather an abundance of information that would allow me to shed light on the topic and reveal themes that seem to be common to the lived experience of SNAP shoppers at the Corvallis and Albany farmers’ markets.

I used a sequential mixed-methods approach, which refers to using one type of method to expand on data collected using another type of method (Creswell 2009). Johnson, Onwuegbuzie, and Turner (2007) define mixed-methods research as “the type of research in which a researcher
combines elements of qualitative and quantitative research approaches for the broad purpose of breadth and depth of understanding and corroboration” (123). Mixed methods is used in food studies to find out, for instance, not only what people eat, but also how and why they eat what they do (Hubert 2004). The use of mixed methods is ideal to explore complex problems (Creswell 2009) such as food security, because it utilizes the strengths of both quantitative and qualitative methods.

My research design included a quantitative survey that could be administered to a large number of participants, followed by in-depth interviews to expand on a few case studies of SNAP households. A mixed-methods approach allowed me to collect a large quantity of information on this population as well as provide context and ethnographic detail through qualitative case studies of individuals.

Farmers’ Market Survey

I conducted field research at the Corvallis and Albany farmers’ markets from July to September 2013. Questionnaires were administered to participants who were recruited at the booth where both SNAP and debit cards are accepted using an electronic benefit transfer (EBT) machine. Referred to as the ‘market booth,’ this location was my easiest access point to SNAP shoppers at the farmers’ market. Vendors do not accept SNAP benefits directly; shoppers instead run their SNAP cards at this central booth and receive tokens in exchange, which may be used to purchase food items from any of the vendors. The vendors are later reimbursed for the tokens by the farmers’ market organization.

Farmers’ market shoppers who do not have cash can also use the EBT machine to get tokens using a debit card. As a result, one of the largest obstacles to my research was the concern of not stigmatizing SNAP shoppers. The farmers’ market utilizes a policy of avoiding identifying
SNAP shoppers verbally, because some may not want their SNAP status to be revealed to others in the vicinity. The farmers’ market wants to avoid any action that may stigmatize shoppers who are using SNAP. Therefore, I decided not to attempt to identify SNAP shoppers and instead to simply administer questionnaires to everyone that entered the market booth. This strategy resulted in a convenience sample of those shoppers who entered the booth and agreed to complete the questionnaire. Both those who use SNAP to purchase food at the farmers’ market and those who do not were surveyed. Far from being an obstacle, the non-SNAP group provided a convenient comparison group to determine whether there are differences between SNAP and non-SNAP shoppers.

**Questionnaire Design**

In total, the questionnaire contained 30 questions, including multiple choice, fill-in-the-blank, and open-ended questions, resulting in a combination of quantitative and qualitative data. The questions can be broken down into five groups, which correspond with the research questions: demographics, market use habits, motivations, barriers, and the importance of sources of food utilized by respondents. Thirteen questions covered demographics, eight pertained to market use habits, four to motivations, two to barriers, and three to other sources of food (See Appendix A).

The thirteen demographic questions included age, sex, number of household members, living situation, number of children under five in the household, number of children between five and 18 in the household, number of elderly people in the household, number of chronically ill people in the household, total income of the household, percentage of food budget made up of SNAP, food security, whether the respondent is the main food shopper, and whether the family typically eats together. Age, sex, and income are typical demographic variables, whereas
household composition is useful to determine a household’s vulnerability in terms of its number of dependents. Asking whether the respondent is the main food shopper for the household and whether the household eats together gave me an idea of whether the survey results were typical of or could represent the whole household. The percentage of the respondent’s food budget that is made up of SNAP gave me an idea of how dependent the respondent is on SNAP to get food, without asking for the specific amount of SNAP benefits that the respondent receives, which can be considered an invasive question.

I measured food security using the USDA Food Sufficiency Question from the U.S. Household Food Security Survey Module (USDA ERS 2012b). This question is used on the USDA survey in conjunction with income to identify high-income households that are not food insecure. It is also the least invasive question concerning food security, which was a concern in terms of protecting low-income people and not making the survey an uncomfortable experience. The answer to this question indicates whether a household is definitely not food insecure or whether they may fall on the food insecurity scale.

The eight questions related to market-use habits included frequency of shopping at the farmers’ market, method used to travel to the farmers’ market, how many minutes it took to travel, what forms of payment they use, how much they typically spend, how much they plan to spend today, how much of what they plan to spend today is made up of SNAP and what they regularly buy out of the categories of vegetables, fruits, eggs, cheese, meat, baked goods, plant starts, and prepared foods. These questions were used to get a sense of how respondents are using the market and how much of an impact it might make on their diet.

The four questions related to motivations included a check-all question asking what the respondent’s reasons are for shopping at the farmers’ market and the reason that is most
important to them. The respondents could choose from a list of 10 reasons or could fill in their own reason. The choices included the quality of food, freshness of food, selection of foods, prices of food, location, way you are treated, that it accepts SNAP/WIC, supporting local food, supporting farmers, and socializing/fun. These reasons were chosen based on the literature surrounding motivations for attending farmers’ markets and buying local food among the general public and SNAP shoppers specifically (Colasanti et al. 2010, Grace et al. 2005, Hinrichs 2000, McGuirt et al. 2014, Winter 2003). The questions related to motivations also included whether they feel that the farmers’ market provides them access to food that they would not be able to get elsewhere, and if yes, what they feel the farmers’ market provides that is unique. These four questions allowed me to get a sense of the things that respondents value most at the farmers’ market and what might motivate them to shop more often.

The two questions related to barriers included whether the respondent is always able to shop at the farmers’ market and why. These questions were aimed at revealing possible barriers that respondents might face to attending the market, and the fill-in question allowed those barriers to be elicited by the respondent rather than giving them options to choose.

Finally, the three questions related to sources of food included a question asking respondents to rate nine sources of food on a scale from one to five in terms of their importance in buying or getting food for the household. The scale ranged from one (not important) to five (very important). The nine sources of food included a supermarket or grocery store, a discount grocery store, a convenience store or gas station, a farmers’ market, a home or community garden, a restaurant or fast food place, a food bank or food pantry, a church or community service organization, and a friend or family member’s house. These sources of food were based on research by the USDA on how SNAP recipients get their food (Edin et al. 2013). Respondents
could also fill in additional sources of food. In addition, I asked the respondent to indicate which source of food is the most important for their household and why. These questions were aimed at determining where the farmers’ market ranks in terms of all of the sources of food for a household and why.

In developing the survey questionnaire, I consulted with Ten Rivers Food Web, a local organization focused on strengthening the local food system in Linn, Benton, and Lincoln counties in Oregon. This local organization was involved at the time of my research in securing funding for the SNAP Incentive Program, which is called the ‘That’s My Farmer’ SNAP Incentive Program. The director of Ten Rivers Food Web and other employees were kind enough to provide their guidance and review my survey.

In total, 215 farmers’ market shoppers completed questionnaires. Out of these 215 respondents, 158 were SNAP recipients ($n=62$ at Albany, $n=96$ at Corvallis), and 57 were not SNAP recipients ($n=14$ at Albany, $n=43$ at Corvallis) (See Table 1). The difference in sample size between the two markets is due to the fact that Corvallis is a larger, busier farmers’ market that operates on both Wednesdays and Saturdays, whereas the Albany farmers’ market is smaller and only occurs on Saturdays.

<table>
<thead>
<tr>
<th></th>
<th>Albany</th>
<th>Corvallis</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non- SNAP</td>
<td>14</td>
<td>43</td>
<td>57</td>
</tr>
<tr>
<td>SNAP</td>
<td>62</td>
<td>96</td>
<td>158</td>
</tr>
<tr>
<td></td>
<td>76</td>
<td>139</td>
<td>215</td>
</tr>
</tbody>
</table>
Household Interviews

I also conducted semi-structured household interviews (N=3) with two survey respondents from the Corvallis Farmers’ Market and one from the Albany Farmers’ Market. The interviews were designed to supplement the information collected in the surveys and provide a few case studies of the experiences of people who use SNAP at the two farmers’ markets. Potential interview participants were recruited during the market survey phase of the research. I collected the contact information of eight market survey respondents who expressed interest in participating in an interview. After the market survey research period, I contacted these potential interview participants through email and phone and was able to conduct interviews with three.

The household interviews were conducted in local coffee shops and lasted approximately one to two hours each. These interviews covered topics including household composition, shopping habits, the importance of the farmers’ market as a source of food, reasons why the participant shops at the farmers’ market, whether it provides access to food that the participant would not otherwise be able to get, its impact on their diet, and whether they perceive any barriers to shopping at the farmers’ market.

The interview households were chosen to be representative of some of the subgroups of respondents that came out of the survey portion of the study. One of the interview participants was experiencing temporary poverty due to an injury, while the other two interview participants were experiencing more chronic poverty, and one was homeless at the time of the interview. All three have at least one child between five and 18 for whom they provide food. All interview participants identified themselves as the main food shopper for their household.
**Participant Observation**

Spending time in the market booth allowed me to observe and become familiar with the process of purchasing tokens with SNAP and allowed me to engage in discussion with SNAP shoppers and observe interactions and discussions between them. Sometimes, while filling out a survey, a respondent would have comments about the topic. I also had discussions with the EBT machine worker about the policies and their experiences with SNAP shoppers, as well as conversations with vendors about SNAP customers. I was also able to get a general sense of the number of regular SNAP shoppers and people’s shopping habits. I recorded these interactions and discussions in my field notes.

**Data Analysis**

**Quantitative Data**

I analyzed the market survey data in order to identify significant patterns among SNAP shoppers at the Albany and Corvallis Farmers’ Markets, as well as any significant differences between SNAP shoppers at the two farmers’ markets and between SNAP and non-SNAP shoppers. I analyzed the quantitative data collected in the survey using IBM SPSS 22. The 30 survey questions were coded into 61 variables in SPSS. Dichotomous variables such as sex were coded zero for male and one for female. Multiple-choice questions were coded according to the number of provided responses. For instance, the question about age, which provided seven categories as possible answers, was coded from one to seven. Check-all questions were split into separate dichotomous (yes/no) variables. Some questions also included open-ended fill-in-the-blank responses. I coded the responses to these questions into groups based on similar answers so that I could conduct statistical analysis on these variables.
I used standard descriptive statistics such as counts, percentages, and means in order to answer the basic research questions. Non-parametric and parametric statistical tests were used to compare survey responses between SNAP and non-SNAP and Corvallis and Albany respondents. Non-parametric statistics were used in some cases because of the sample size and non-normal distribution of the survey variables. All tests used a statistical significance level of .05.

Qualitative Data

I conducted the household interviews in order to explore the personal experiences of SNAP shoppers in-depth and further investigate some of the findings from the survey. I transcribed and coded the three interviews in order to identify main themes, consistencies, and differences (Bernard 2006). I used NVIVO 10 to code the transcripts and organize the findings. I used this qualitative data as well as my field notes and experience of being at the farmers’ market observing interactions and talking to those involved to inform my analysis of the survey data. This mixed-methods approach utilizes the strengths of both quantitative and qualitative methods in order to provide a more holistic view of my research topic than either method could provide on its own, which is the goal of anthropological research.

Limitations and Future Research

The main limitation of the study is its scope. Because the study does not include SNAP participants who do not shop at farmers’ markets, it is impossible to generalize the findings to the general population of SNAP participants. For the participants in this study, the strength of their motivations to shop at the farmers’ market has to be enough to overcome the barriers that they may face. However, it may be that the SNAP recipients who are motivated to shop at a farmers’ market are unique from other SNAP customers and that motivations that work to bring them into the farmers’ market do not apply to the rest of the SNAP population. The small
number of interviews conducted makes it difficult to generalize the results to the larger population of SNAP shoppers at the farmers’ markets. Similarly, while the debit customers provide a convenient group of non-SNAP farmers’ market shoppers, they may not be representative of the general population of farmers’ market attendees.

Future research should expand on this work in several ways. First, it is crucial to investigate why some (indeed most) SNAP recipients do not shop at farmers’ markets, and whether they are motivated by similar concerns as those who already do. Second, this research should also be expanded to other locations including rural and lower-income communities and other states to see if the results are the same. Third, in order to test the validity of some of the conclusions of this research, it would be beneficial to conduct similar research at these farmers’ markets when the incentive program is in place or at other farmers’ markets where an incentive program is well established to determine whether it reduces barriers to participation in the farmers’ market for SNAP customers and helps them take advantage of its benefits. Fourth, my study does not look at the impact of farmers’ markets on the food security of SNAP households. A future study that includes more rigorous assessment of the food security of SNAP households and a quantification of the impact of shopping at the farmers’ market on their food security would be able to dive deeper into how farmers’ markets can increase access to fresh and nutritious food and improve health outcomes for SNAP households.
Chapter 5: Results and Discussion

The results of the market survey and household interviews are organized as follows. First, I answer each research question by reviewing the patterns in the variables related to each question, using descriptive statistics such as frequencies and means. Second, I compare the results of the SNAP and non-SNAP shoppers—and the Albany and Corvallis SNAP shoppers—using various statistical tests. Third, I summarize the results of the farmers’ market survey and discuss them in relation to the results of the qualitative interviews as well as literature on the topic. Throughout this chapter, when I refer to respondents or the sample I am referring to surveys collected from the 158 SNAP shoppers from both Corvallis and Albany. I will specify if I am mentioning a statistic from another set of data, such as the sample of non-SNAP shoppers.

Constructing a Demographic and Market-Use Profile of SNAP Shoppers

My first research question is concerned with determining who is using SNAP at the Corvallis and Albany farmers’ markets, and how they are using the farmers’ markets. The answer to this question helps to determine what SNAP use looked like at these two farmers’ markets during the summer of 2013. A comparison between SNAP and non-SNAP shoppers helps to put the findings in context, as a way to determine in what ways SNAP shoppers may or may not be different from the rest of the population of farmers’ market shoppers. A comparison between Corvallis and Albany SNAP shoppers will help to also determine how the two farmers’ markets differ in terms of the characteristics of the SNAP shoppers and their use of the two farmers’ markets.

Demographics

In order to answer the first part of the research question—which asks who is using SNAP at the Corvallis and Albany farmers’ markets—I constructed a demographic profile of SNAP
shoppers using eleven variables: age, sex, number of household members, living situation, number of children under five in the household, number of children between five and 18 in the household, number of elderly people in the household, number of chronically ill people in the household, total income of the household, percentage of food budget made up of SNAP, and food security status.

Descriptive statistics were used to develop a ‘typical’ demographic profile of a SNAP shopper at the two farmers’ markets. The demographic profile was constructed using the mode, or most common answer, for each survey variable. This ‘typical’ SNAP shopper is between 24 and 34 years old, female, lives with one other family member, gets 76-100% of their food budget from SNAP, has an annual income less than $10,000, and is food secure, meaning that they have enough of the kinds of food they want to eat.

This ‘typical’ SNAP shopper is representative of a large portion of the data. However, there are also other patterns present in the demographics of SNAP shoppers. For instance, while 81 SNAP shoppers—which accounts for more than 50% of the sample—are under the age of 34, there is also a significant group of elderly people present in the sample (See Figure 2). Twenty-seven SNAP shoppers, about 19%, are over the age of 55. The overwhelming majority of these shoppers are female. The sample is almost 75% female, with 118 female and only 38 male SNAP shoppers. This pattern seems to be consistent with the makeup of farmers’ market shoppers in general, which I observed at the two markets during participant observation.
Forty-five SNAP shoppers (29%) report that they are the only member of their household. However, only 40 (26%) report that they live alone. In the survey, a household was defined as “an individual or group living together who usually purchase and prepare food together.” Therefore, some respondents may not have considered children to be a part of their household because they do not contribute to purchasing and preparing food. An additional forty respondents (26%) live with just one other person. There are smaller percentages of SNAP shoppers who live with two other people (28 people or 18% of the sample) and three other people (25 people or 16% of the sample). Of those who live with others, 77 (50%) live with family and 38 (25%) live with roommates.

In terms of household composition, many report that they have some kind of dependent living in their household (See Figure 3). Forty seven (30%) have at least one child under five and 58 (37%) have at least one child between five and 18. A full half of the sample (79 respondents)
has at least one child under 18 years of age. In addition, 21 (12%) have an elderly member of the household, and 25 (16%) have a chronically ill member of the household. About 20% of the sample (33 respondents) have an elderly or chronically ill person in their household. In total, 65% of the sample (103 respondents) have some kind of dependent in their household, compared to only 50% (27 respondents) of the non-SNAP shopper sample.

Figure 3. Percentage of SNAP and non-SNAP shoppers with dependents in their households

![Bar chart showing the percentage of SNAP and non-SNAP shoppers with children under 5, children 5-18, chronically ill adults, elderly, and total.]

The typical income is low, with 75 people or almost 50% of the sample having a total annual household income of less than $10,000 per year. A further 48 (30%) have a total annual household income between $10,000 and $19,999 and 18 (11%) have an income between $20,000 and $29,999.

The majority of the sample depends heavily on SNAP for their food. Ninety four or 60% of respondents get 76-100% of their food budget from SNAP. Thirty nine (25%) get 51-75% of their food budget from SNAP, and only 23 (15%) get less than half of their food budget from
SNAP. About half of the sample (76 respondents) are completely food secure, reporting that they always have enough of the kinds of food they want to eat (See Figure 4). However, 36% (55 people) report that they have enough food—but not always the kinds of food that they want to eat—suggesting mild food insecurity. Twenty SNAP shoppers (13%) report that they sometimes do not have enough to eat, suggesting that they may be food insecure. The rate of food insecurity in the sample is very close to the national food insecurity rate of 14.5 percent (Coleman-Jensen et al. 2014). In total, almost 50% of the sample of SNAP shoppers experience some kind of restriction in the types or amount of food that they eat, which puts them on the scale of food insecurity according to the USDA Economic Research Service’s (2012b) U.S. Adult Food Security Survey Module.

Figure 4. Distribution of food security of SNAP and non-SNAP shoppers

Comparison of Demographics between Groups

I compared survey respondents according to two criteria: SNAP status and farmers’ market location. I first compared SNAP and non-SNAP shoppers at both farmers’ markets.
Second, I compared SNAP shoppers from the two farmers’ market locations: Corvallis and Albany.

First, I investigated whether there are significant differences between SNAP and non-SNAP shoppers in terms of their demographics. All of the demographic variables were compared except for the percentage of the food budget made up of SNAP—which does not apply to non-SNAP shoppers. The distributions of the answers of SNAP and non-SNAP shoppers were compared using a chi-square ($\chi^2$) test. There are no significant differences between SNAP and non-SNAP shoppers in age, sex, number of household members, living situation, number of children under 5, number of elderly people in the household and number of chronically ill people in the household. There is a statistically significant difference between the two groups in the number of children between five and 18, $p=.041$ (See Table 2). This result indicates that SNAP shopper households tend to have more children between five and 18 than non-SNAP households.

There is also a significant difference between SNAP and non-SNAP household incomes, $p<.001$. This result indicates that SNAP shopper households tend to have lower incomes than non-SNAP shopper households, which is expected based on the qualifications for SNAP. Finally, there is a significant difference between SNAP and non-SNAP shoppers in terms of food security, $p<.001$. This result indicates that non-SNAP shoppers tend to have higher food security than SNAP shoppers, which was also an expected result. In fact, all of the non-SNAP shoppers indicated that they always have enough and the kinds of food they want to eat.

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1 The Pearson Chi-square ($\chi^2$) test is used to test differences between two dichotomous or categorical variables. It tests the hypothesis that two variables are independent of one another or whether the relationship between the two variables can be attributed to chance by comparing the proportions of two or more groups. As the differences between the proportions rise, the $\chi^2$ value gets bigger (Vaske 2008). I used this test frequently because most of my survey data was collected in a categorical way (providing answers that respondents could check off).
Second, I investigated differences between Corvallis and Albany SNAP shoppers. Chi-square tests were performed for Albany versus Corvallis SNAP shoppers. There was a significant difference between SNAP shoppers at the two markets in terms of the percentage of the food budget that is made up of SNAP. Corvallis SNAP shoppers report that a higher percentage of their food budget is made up of SNAP than Albany SNAP shoppers, \( p = .034 \) (See Table 3).

Table 2. Significant results of chi-square analysis of differences in demographic variables between SNAP and non-SNAP shoppers

<table>
<thead>
<tr>
<th>SNAP status</th>
<th>Non-SNAP</th>
<th>SNAP</th>
<th>( \chi^2 )</th>
<th>( p )-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of children 5-18 in household</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>45 (83%)</td>
<td>100 (63%)</td>
<td>8.24</td>
<td>.041</td>
</tr>
<tr>
<td>1</td>
<td>5 (9)</td>
<td>34 (22)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2 (4)</td>
<td>14 (9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3+</td>
<td>2 (4)</td>
<td>10 (6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total annual household income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $10,000</td>
<td>7 (15)</td>
<td>75 (49)</td>
<td>68.16</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>$10,000-19,999</td>
<td>5 (10)</td>
<td>48 (32)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$20,000-29,999</td>
<td>6 (13)</td>
<td>18 (12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$30,000-39,999</td>
<td>5 (10)</td>
<td>5 (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$40,000+</td>
<td>25 (52)</td>
<td>6 (4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food Security</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enough of the kinds of food we want to eat</td>
<td>42 (81)</td>
<td>76 (50)</td>
<td>21.56</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Enough but not always the kinds of food we want</td>
<td>10 (19)</td>
<td>55 (36)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sometimes not enough to eat</td>
<td>0</td>
<td>20 (13)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Cell entries are counts with percentage in parentheses
Table 3. Significant results of chi-square analysis of differences in demographic variables between Albany and Corvallis SNAP shoppers

<table>
<thead>
<tr>
<th>Market</th>
<th>Albany</th>
<th>Corvallis</th>
<th>$\chi^2$</th>
<th>$p$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of food budget made up of SNAP</td>
<td></td>
<td></td>
<td>8.64</td>
<td>.034</td>
</tr>
<tr>
<td>0-25%</td>
<td>10 (17%)</td>
<td>4 (4%)</td>
<td>8.64</td>
<td>.034</td>
</tr>
<tr>
<td>26-50%</td>
<td>5 (8)</td>
<td>4 (4)</td>
<td>8.64</td>
<td>.034</td>
</tr>
<tr>
<td>51-75%</td>
<td>14 (23%)</td>
<td>25 (26%)</td>
<td>8.64</td>
<td>.034</td>
</tr>
<tr>
<td>76-100%</td>
<td>31 (52%)</td>
<td>63 (66%)</td>
<td>8.64</td>
<td>.034</td>
</tr>
</tbody>
</table>

\* Cell entries are counts with percentage in parentheses

**Market-Use**

In order to answer the second part of the research question—which asks how SNAP shoppers use the farmers’ market—descriptive statistics were used to develop a market-use profile of SNAP shoppers at the two farmers’ markets. Market-use is represented by seven variables: frequency of shopping at the farmers’ market, method used to travel to the farmers’ market, how many minutes it took to travel to the farmers’ market, whether the respondent also pays with cash at the farmers’ market, how much they typically spend, how much they planned to spend on the day of the survey, and what they regularly buy out of the categories of vegetables, fruits, eggs, cheese, meat, baked goods, plant starts, and prepared foods. A profile of the ‘typical’ SNAP shopper in terms of market-use was developed using the mode for each survey variable. The ‘typical’ SNAP shopper attends the farmers’ market every week, takes six to fifteen minutes to drive to the farmers’ market, pays with cash as well as SNAP, typically spends $16-20 per market, spent $20 in total and $10 in SNAP on the day of the survey and buys vegetables and fruits.
A large number of SNAP shoppers attend the farmers’ market regularly, with 54 respondents (36%) reporting that they attend the farmers’ market every week (See Figure 5). Thirty-six respondents (24%) shop twice a month. Smaller numbers report shopping three times a month (24 or 16%) or once a month (16 or 11%). Only nine respondents (6%) reported that they attend less than once a month. There is also a group of nine respondents (6%) who attend both the Corvallis Wednesday and Saturday markets every week.

Figure 5. Distribution of frequency of farmers' market attendance among SNAP shoppers

A large majority of respondents, including 101 SNAP shoppers (67%), drive to the farmers’ market. A further 24 (16%) walk. Only 16 (11%) report that they ride their bike, and only nine (6%) take the bus. Over half of respondents, including 82 SNAP shoppers (52%), take six to fifteen minutes to get to the farmers’ market. Thirty-nine (25%) take less than five minutes. Thirty (19%) take 16-30 minutes, and only six (4%) travel more than 30 minutes to get to the farmers’ market.
About half of respondents, including 77 SNAP shoppers, typically spend between $11 and $20 (See Figure 6). When asked to report how much they planned to spend on the day of the survey, 35 respondents (23%) said they planned to spend $20, while 27 (18%) planned to spend $10. When asked to report how much of what they planned to spend on the day of the survey was made up of SNAP dollars, almost 80% (118 respondents) indicated that all of what they planned to spend that day was coming from SNAP. However, about half of the sample (84 people or 53%) report that they also use cash at the farmers’ market to purchase items.

Most SNAP shoppers report that they buy vegetables (152 respondents or 96%) and fruit (148 respondents or 94%) (See Figure 7). Some report that they buy plant starts (48 respondents or 30%), eggs (37 respondents or 23%), cheese and dairy (38 respondents or 24%), meat (30 respondents or 19%) or baked goods (39 respondents or 25%).

Figure 6. Distribution of amount typically spent per farmers’ market visit among SNAP shoppers
Figure 7. Percentage of SNAP shoppers who purchase each type of product at the farmers’ market

![Bar chart showing percentage of SNAP shoppers who purchase each type of product.]

**Comparison of Market-Use between Groups**

Mann-Whitney U\(^2\) and chi-square tests were used to compare SNAP and non-SNAP shoppers (Morgan et al. 2011). Chi-square tests were conducted to investigate differences between SNAP and non-SNAP shoppers for the following variables: frequency of shopping at the farmers’ market, method used to travel to the farmers’ market, how many minutes it took to travel, whether they pay with cash, and what they regularly buy out of the categories of vegetables, fruits, eggs, cheese, meat, baked goods, plant starts, and prepared foods. Mann-Whitney U tests were used to determine whether there are differences between the groups in how much they typically spend and how much they planned to spend on the day of the survey. There are not significant differences between SNAP and non-SNAP shoppers in terms of frequency of shopping at the farmers’ market, how many minutes it took to travel, how much they typically

\(^2\) The Mann-Whitney U test is a common non-parametric test that is an alternative to a t-test and is useful when dealing with small sample sizes. It tests differences in mean ranks (while a t-test tests differences in means).
spend, and how much they planned to spend on the day of the survey. There are significant differences between SNAP and non-SNAP shoppers in terms of the method they used to travel to the farmers’ market and whether they also use cash to purchase food at the farmers’ market.

SNAP and non-SNAP shoppers are significantly different in the method they use to travel to the farmers’ market, $p=.013$ (See Table 4). SNAP shoppers are more likely to walk to the farmers’ market, with 16% (24 respondents) reporting that they walk, whereas only 6% of non-SNAP shoppers (three respondents) walk. SNAP shoppers are also more likely to take the bus, with 6% (nine respondents) reporting that they take the bus to the farmers’ market, whereas no non-SNAP shoppers take the bus. Non-SNAP shoppers are more likely to drive, with 83% (45 respondents) reporting that they drive, whereas only 67% (101 respondents) of SNAP shoppers do.

<table>
<thead>
<tr>
<th>SNAP status$^1$</th>
<th>$\chi^2$</th>
<th>$p$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Method of travel</td>
<td></td>
</tr>
<tr>
<td>Non-SNAP</td>
<td>SNAP</td>
<td>$\chi^2$</td>
</tr>
<tr>
<td>Walk</td>
<td>3 (6)</td>
<td>24 (16)</td>
</tr>
<tr>
<td>Bus</td>
<td>0</td>
<td>9 (6)</td>
</tr>
<tr>
<td>Bike</td>
<td>6 (11)</td>
<td>16 (11)</td>
</tr>
<tr>
<td>Drive</td>
<td>45 (83)</td>
<td>101 (67)</td>
</tr>
<tr>
<td>Pay with cash</td>
<td>19.86</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Yes</td>
<td>50 (88)</td>
<td>84 (53)</td>
</tr>
<tr>
<td>No</td>
<td>7 (12)</td>
<td>74 (60)</td>
</tr>
</tbody>
</table>

$^1$ Cell entries are counts with percentage in parentheses
SNAP and non-SNAP shoppers also differ on whether they pay with cash, $p<.001$ (See Table 4). Those who pay with SNAP at the farmers’ market are less likely to also pay with cash than those who use debit.

Mann-Whitney U and chi-square tests were conducted to determine whether significant differences exist between Corvallis and Albany SNAP shoppers. There were two significant differences (See Table 5). First, Corvallis SNAP shoppers tend to visit the farmers’ market more frequently, $p=.005$. Second, Corvallis SNAP shoppers are more likely to take longer to get to the farmers’ market, $p=.006$.

Table 5. Significant results of chi-square analysis of differences in market use variables between Albany and Corvallis SNAP shoppers

<table>
<thead>
<tr>
<th>Market$^1$</th>
<th>Frequency of Attendance</th>
<th>$\chi^2$</th>
<th>$p$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Albany</td>
<td>Corvallis</td>
<td></td>
</tr>
<tr>
<td>Less than once a month</td>
<td>3 (5)</td>
<td>6 (7)</td>
<td>16.93</td>
</tr>
<tr>
<td>Once a month</td>
<td>5 (9)</td>
<td>11 (12)</td>
<td></td>
</tr>
<tr>
<td>Twice a month</td>
<td>21 (38)</td>
<td>15 (16)</td>
<td></td>
</tr>
<tr>
<td>Three times a month</td>
<td>6 (11)</td>
<td>18 (20)</td>
<td></td>
</tr>
<tr>
<td>Every week</td>
<td>21 (38)</td>
<td>33 (36)</td>
<td></td>
</tr>
<tr>
<td>Twice a week</td>
<td>0</td>
<td>9 (10)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How many minutes it takes to travel to farmers’ market</td>
<td>12.49</td>
<td>.006</td>
<td></td>
</tr>
<tr>
<td>1-5 minutes</td>
<td>24 (39)</td>
<td>15 (16)</td>
<td></td>
</tr>
<tr>
<td>6-15 minutes</td>
<td>28 (45)</td>
<td>54 (57)</td>
<td></td>
</tr>
<tr>
<td>16-30 minutes</td>
<td>7 (11)</td>
<td>23 (24)</td>
<td></td>
</tr>
<tr>
<td>More than 30 minutes</td>
<td>3 (5)</td>
<td>3 (3)</td>
<td></td>
</tr>
</tbody>
</table>

$^1$ Cell entries are counts with percentage in parentheses
Discussion

Demographics

The first part of the research question asks who is using SNAP at the Corvallis and Albany farmers’ markets. The results show that SNAP shoppers tend to be young, female, have families with children, have low incomes, and depend on SNAP for a large percentage of their food budget. About half of the sample of SNAP shoppers report that they are not always able to eat the types of food they want or are not always able to get enough food. Eating foods that are less preferred and reducing food intake are two coping strategies that households use to deal with food insecurity (Maxwell 1996). The farmers’ market, therefore, is reaching a substantial group of food-insecure SNAP participants.

SNAP shoppers in the sample also tend to have families and be supporting children, which is borne out by observations at the two farmers’ markets as well as the household interviews. About half of the sample of survey respondents and all three interview participants have at least one child under 18 in their household. The proportion of SNAP households with children in the survey is very similar to the national rate, which is about 45% (Gray and Eslami 2014). This result suggests that SNAP shoppers at farmers’ markets tend to have children—and so in many cases the food bought at the farmers’ market with SNAP is being used to feed those children—which has important implications for child nutrition. From participant observation at the farmers’ market, it appeared to be an enjoyable experience for many families to be able to walk around, listen and dance to the music, and buy some food—especially berries, which were very popular with the children. Therefore, it seems that the farmers’ market is potentially having a beneficial impact on the nutritional well-being of children as well as adults.
The comparison between SNAP and non-SNAP shoppers shows that the two groups are similar demographically—except for the number of children between five and 18 in the household, household income, and food security status. The difference in income is expected because of the qualifications for receiving SNAP and the fact that food insecurity is higher among SNAP shoppers confirms the assumption that SNAP households are at a higher risk of being food insecure. The fact that SNAP shoppers tend to have more children over five but not under five suggests that more of the families with children under five are using WIC benefits at the farmers’ market. WIC benefits are redeemed directly with the vendors so they were not captured in this study.

**Market-Use**

The second part of the research question asks how SNAP shoppers are using the farmers’ market. The survey results show that SNAP shoppers tend to attend the farmers’ market every week, take six to fifteen minutes to drive to the farmers’ market, pay with cash as well as SNAP, and spend between $16 and $20 per market. On the day of the survey, SNAP shoppers spent $20 on average—$10 of which came from SNAP. The survey results show that almost all SNAP shoppers buy fruits and vegetables but tend not to buy the higher-priced items such as meats and cheeses. These results were echoed in the household interviews. All three interviewees talked specifically about buying fruits and vegetables. One also mentioned buying plant starts to grow his own food, making his money stretch further than if he just purchased produce.

The survey results show that SNAP and non-SNAP shoppers are similar in the way that they use the farmers’ market in many respects, including how much they spend at the farmers’ market. This result is significant because, although SNAP shoppers are assumed to have more limited food budgets, SNAP shoppers are still spending just as much as non-SNAP shoppers—
between $10 and $20. Over a month, spending $10-20 per week amounts to about 20-30% of the typical $230 per month that SNAP households receive in Oregon (USDA FNS 2014b).

SNAP and non-SNAP shoppers do differ in the way they get to the market and whether they also pay with cash. SNAP shoppers are more likely to walk or take the bus than non-SNAP shoppers, though 64% of SNAP shoppers still report that they drive. This result indicates that SNAP shoppers are more likely to lack transportation. SNAP shoppers are also less likely to use cash at the farmers’ market as compared to debit customers, which is to be expected. Because cash is the main form of currency used at the farmers’ market, shoppers do not tend to use debit consistently. About half of SNAP shoppers report that they also use cash, but 80% reported that all of the money that they planned to spend on the day of the survey came from SNAP—suggesting that many depend primarily on SNAP to buy items at the farmers’ market.

**Differences between Corvallis and Albany SNAP Shoppers**

The survey results show that Albany and Corvallis SNAP shoppers are mostly similar in their demographics and use of the farmers’ markets. However, there were three significant differences between Albany and Corvallis SNAP shoppers. First, Corvallis SNAP shoppers report that a greater percentage of their food budget comes from SNAP, potentially reflecting the higher cost of living in Corvallis as compared to Albany. The higher cost of living in Corvallis, combined with the higher prices at the Corvallis Farmers’ Market, may put Corvallis residents at a disadvantage relative to Albany residents in terms of their buying power at the farmers’ market. Second, Corvallis SNAP shoppers tend to shop more often at the farmers’ market, reflecting the fact that the Corvallis Farmers’ Market operates two days a week, whereas the Albany Farmers’ Market only operates on one. Third, Corvallis shoppers travel farther to get to the farmers’
market, which may indicate that the Corvallis Farmers’ Market has a larger regional draw than the Albany Farmers’ Market does.

Because the Corvallis Farmers’ Market is much more of an ‘event’ than the Albany Farmers’ Market it may be drawing people from Albany and surrounding areas. However, I recorded several instances in my field notes when SNAP shoppers talked about how they—or people they know—would only shop at the Albany Farmers’ Market with SNAP because it is cheaper than the Corvallis Farmers’ Market. One SNAP shopper told me that the only way that SNAP shoppers would shop at the Corvallis Farmers’ Market is if the SNAP incentive is available. The ‘That’s My Farmer’ SNAP Incentive Program, which is organized by Ten Rivers Food Web, gives SNAP shoppers an extra $6 for spending at least $6 at the farmers’ market. The incentive program was not operating during my study.

The Importance of the Farmers’ Market as a Source of Food

My second research question is concerned with determining how important the farmers’ market is and what role it plays as a source of food for SNAP shoppers. This question helps to understand the impact of the farmers’ market on the diets of SNAP shoppers and determine whether or not it plays a significant part in their food provisioning strategies. A comparison between SNAP and non-SNAP shoppers—and Corvallis and Albany SNAP shoppers—helps to put the results in context and determine whether the farmers’ market’s importance is different for each group.

In order to investigate how the farmers’ market fits in with other sources of food, respondents were asked to rate nine sources of food on a scale of importance for their household from 1 ‘not important’ to 5 ‘very important’. These sources included the farmers’ market, supermarket, household or community garden, discount grocery store, friend or family member,
food bank, restaurant or fast food, church or community service organization, and convenience store. In order to determine the relative importance of the different sources of food, I compared the means of the respondents’ ratings of the sources of food (See Figure 8). SNAP shoppers rated the farmers’ market as the most important source of food ($M=4.38$), followed by discount grocery stores ($M=3.41$), and household or community gardens ($M=3.39$). Sources of food with means below three (neutral)—indicating that they are not important for most respondents—included friends and family member ($M=2.08$), food banks ($M=2.05$), community services organizations or churches ($M=1.80$), restaurants or fast food ($M=1.64$), and convenience stores ($M=1.39$). In total, 131 respondents (86%) indicated that the farmers’ market is important or very important as a source of food for their household.

Figure 8. Mean rating of four sources of food in terms of importance to food provisioning of SNAP shoppers
In addition to asking respondents to rate the nine sources of food, the questionnaire also asked what the most important source of food is for the respondent’s household. In response to this question, 21 respondents (15% of SNAP shoppers) indicated that the farmers’ market is their most important source of food. The same percentage of non-SNAP shoppers (seven respondents) did so as well. The majority of SNAP shoppers (82 respondents or 60%) report that a supermarket or discount grocery store is their most important source of food. Almost 9% of SNAP shoppers (12 respondents) report that they get most of their food from a combination of a discount grocery store and the farmers’ market.

Comparison of Rating of Farmers’ Market as a Source of Food between Groups

Respondents were divided into two groups based on SNAP status in order to determine whether there are statistically significant differences between SNAP and non-SNAP shoppers’ ratings of the farmers’ market as a source of food. I used a $t$-test to examine differences between SNAP and non-SNAP shoppers in their mean rating of the farmers’ market\(^3\). The $t$-test showed that there are statistically significant differences between the two groups in their rating of the farmers’ market, $p=0.007$ (See Table 6).

SNAP shoppers rate the farmers’ market higher as a source of food than non-SNAP shoppers do, with a mean rating of 4.38 for SNAP respondents (which falls between important and very important on the scale) and 3.26 for non-SNAP respondents (which falls between moderately important and important on the scale). Another $t$-test showed that there is almost no difference between Albany and Corvallis SNAP shoppers in terms of their rating of the importance of the farmers’ market, $p=0.982$.

\(^3\) An independent-samples $t$-test is used when the independent variable is dichotomous (SNAP status or farmers’ market location) and the dependent variable is continuous (rating of the farmers’ market). It tests whether the means of the variable have a statistical relationship (whether they are equal or not). A $t$-test is appropriate here because the rating scale data can be treated as a continuous variable (Vaske 2008).
Table 6. Differences in rating of importance of farmers' market as a source of food between SNAP and non-SNAP customers and results of t-test of differences between groups

<table>
<thead>
<tr>
<th>SNAP status</th>
<th>Non-SNAP</th>
<th>SNAP</th>
<th>Total</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmers’ Market</td>
<td>3.91</td>
<td>4.38</td>
<td>4.26</td>
<td>-2.77</td>
<td>.007*</td>
</tr>
<tr>
<td>Supermarket</td>
<td>3.65</td>
<td>3.29</td>
<td>3.38</td>
<td>1.75</td>
<td>.082</td>
</tr>
<tr>
<td>Garden</td>
<td>3.18</td>
<td>3.39</td>
<td>3.34</td>
<td>-.84</td>
<td>.404</td>
</tr>
<tr>
<td>Discount Grocery Store</td>
<td>2.78</td>
<td>3.41</td>
<td>3.25</td>
<td>-2.66</td>
<td>.008*</td>
</tr>
<tr>
<td>Friend/Family Member</td>
<td>1.70</td>
<td>2.08</td>
<td>1.98</td>
<td>-1.73</td>
<td>.085</td>
</tr>
<tr>
<td>Food Bank</td>
<td>1.47</td>
<td>2.05</td>
<td>1.92</td>
<td>-3.16</td>
<td>.008*</td>
</tr>
<tr>
<td>Restaurant/Fast Food</td>
<td>2.08</td>
<td>1.64</td>
<td>1.75</td>
<td>2.83</td>
<td>.005*</td>
</tr>
<tr>
<td>Church/Community Service Organization</td>
<td>1.40</td>
<td>1.80</td>
<td>1.70</td>
<td>-2.13</td>
<td>.036*</td>
</tr>
<tr>
<td>Convenience Store</td>
<td>1.27</td>
<td>1.39</td>
<td>1.36</td>
<td>-.82</td>
<td>.415</td>
</tr>
</tbody>
</table>

* Cell entries are means on a 5-point scale from 1 “not important” to 5 “very important”
* Indicates significant result

Discussion

The second research question asks how important the farmers’ market is as a source of food for SNAP shoppers. Analysis shows that SNAP shoppers rate the farmers’ market as more important as a source of food than non-SNAP shoppers—suggesting that SNAP shoppers are getting more of their food from the farmers’ market than non-SNAP shoppers are. However, the same percentage of shoppers from each group named the farmers’ market as their most important source of food (15%) in a separate question and most reported that their most important source of food is a supermarket or discount grocery store. Therefore, it is difficult to gauge whether SNAP shoppers are truly using the farmers’ market more than non-SNAP shoppers or whether it is
important to SNAP shoppers for reasons beyond the contribution that it makes to their food provisioning.

Results from the previous research question show that both SNAP and non-SNAP shoppers spend between $10 and $20 a week at the farmers’ market. For a SNAP shopper, this is only about 20-30% of the average monthly household SNAP benefit of $230 (USDA FNS 2014b). The interview participants similarly indicated that the farmers’ market serves a supplementary role in their food provisioning. One—who grows most of her food—said: “In the summer I definitely subsidize what I grow, you know, every week. I buy what I can’t grow.” The contribution of the farmers’ market to the food in her household is only about 10% according to her estimation. Another interview participant said that she gets about 55% of the food she eats at the farmers’ market. However, at the time of the interview she indicated that she had not had time to regularly attend the farmers’ market in recent weeks, so it is doubtful that half of her diet was coming from the farmers’ market at that time. The third interview participant said that he was able to find similar food in Corvallis at other locations—such as the co-op—so the farmers’ market did not make a huge impact on his diet.

For many of the survey respondents, however, the farmers’ market represents an important source of fresh, local, and organic food. When asked whether they feel that the farmers’ market provides them access to food that they would not be able to get elsewhere, 134 SNAP shoppers or 88% responded ‘yes.’ The most common reasons for answering yes were that it provides fresh food, local food, or organic food. One survey respondent wrote: “People like me (no job, no full time place to stay) don't get health food that has less by-products or no chemicals. Having a place like the farmer's market can help me get the foods I want.” The
farmers’ market, therefore, seems to be an important site of access to fresh, local, and organic food for SNAP shoppers.

Previous research has shown that SNAP participants tend to rely on chain supermarkets, discount grocery stores, and convenience stores and tend not to buy fresh vegetables (Edin et al. 2013, Shannon 2014). Though SNAP shoppers in the sample do tend to rely mostly on supermarkets and discount grocery stores, the importance of the farmers’ market to the survey respondents shows that SNAP participants are interested in buying fresh fruits and vegetables with their SNAP benefits. These SNAP shoppers identify the farmers’ market as an important site of access to fresh fruits and vegetables. Though the amount of food purchased may not be large for most people, having the farmers’ market available as a place where SNAP participants can spend their benefits is an important part of making fresh, healthy food available for these members of the community.

Motivations and Barriers for SNAP Shoppers

My third research question is concerned with determining the reasons why SNAP participants choose to use their benefits to buy food at the farmers’ market and what barriers they may face to doing so. The answer to this question helps to determine what might help draw more SNAP shoppers into the farmers’ market and how farmers’ markets, government agencies, or local organizations can help to reduce barriers that SNAP shoppers face. A comparison between SNAP and non-SNAP shoppers puts these motivations and barriers into context to determine whether SNAP shoppers are motivated differently from other farmers’ market shoppers and whether they face unique barriers. A comparison between Corvallis and Albany SNAP shoppers helps to determine whether SNAP shoppers at the two farmers’ markets are motivated by different things or face different barriers.
Motivations to Attend the Farmers’ Market among SNAP Shoppers

The first part of the research question asks what motivates SNAP participants to shop at the farmers’ markets. In order to answer this question, respondents were asked to check off as many of the following motivations as they felt applied to them as reasons for attending the farmers’ market: quality of food, freshness of food, supporting local food, supporting local farmers, the fact that SNAP and WIC are accepted, the selection of foods, the location of the farmers’ market, the way the respondent is treated at the farmers’ market, the prices of the food, and fun or socializing.

Figure 9 shows the proportion of SNAP shoppers who agree that each motivation is one of the reasons that they attend the farmers’ market. The most cited motivation is quality of food, with 141 respondents (89%) agreeing that it is a reason they attend the farmers’ market. Quality is followed closely by the 138 respondents (87%) who chose freshness, the 132 respondents (84%) who chose supporting local food, and the 132 respondents (84%) who chose the fact that SNAP and WIC are accepted at the farmers’ market. Also fairly popular among SNAP shoppers are supporting local farmers with 114 respondents (72%), selection of foods with 93 respondents (59%), and socializing or fun with 78 respondents (50%). Less than half of respondents are motivated by the way they are treated at the farmers’ market (74 respondents or 47%), the location of the farmers’ market with (66 respondents or 42%), and the prices of food (47 respondents or 30%). Some additional answers to this question offered by respondents included the music and art, people-watching, petting the dogs, and the fact that it is children-friendly. Others show that they are aware of the impact they make by shopping at the farmers’ market; one respondent wrote “it puts my assistance from the state right back into the state/local economy. I would be appalled to spend my SNAP at Safeway, for example!”
Figure 9. Percentage of SNAP shoppers who view each motivation as a reason to attend the farmers’ market

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality</td>
<td>89</td>
</tr>
<tr>
<td>Freshness</td>
<td>87</td>
</tr>
<tr>
<td>Supporting Local</td>
<td>84</td>
</tr>
<tr>
<td>SNAP Accepted</td>
<td>84</td>
</tr>
<tr>
<td>Supporting Farmers</td>
<td>72</td>
</tr>
<tr>
<td>Selection</td>
<td>59</td>
</tr>
<tr>
<td>Socializing/Fun</td>
<td>50</td>
</tr>
<tr>
<td>Way You’re Treated</td>
<td>47</td>
</tr>
<tr>
<td>Location</td>
<td>42</td>
</tr>
<tr>
<td>Prices</td>
<td>30</td>
</tr>
</tbody>
</table>

After checking off all of the motivations that are important to them, 92 respondents also indicated which motivation they feel is most important. Thirty-one respondents (34%) indicated that the quality of the food is most important, whereas 24 respondents (26%) indicated that supporting local food is most important to them. A smaller group of 13 respondents (14%) chose the freshness of food as most important. Seven respondents (8%) indicated that the fact that SNAP is accepted is most important to them and two respondents (2%) chose socializing and fun as most important.

Respondents were also asked to indicate what they feel the farmers’ market provides that they can’t get elsewhere (if anything), which also reveals what motivates them to shop at the farmers’ market. These fill-in responses were grouped into categories of similar responses. The most common responses for those that filled in an answer was fresh, local food with 21 respondents (19%); followed by the selection or variety of food with 19 respondents (17%); and
fresh food with 18 respondents (16%). Other responses included organic, local food with 15 respondents (13%); local food with 13 respondents (12%); organic food with 11 respondents (10%); fresh, organic food with 6 respondents (5%); good quality with 5 respondents (4%); and lower prices with 3 respondents (3%).

The questionnaire also asked respondents to report why a certain source of food is their most important source of food. The 21 SNAP shoppers that indicated that their most important source of food is the farmers’ market reported a variety of reasons for saying so: the quality of the food, the fact that it is fresh, local, and in some cases organic. Some mentioned that it is convenient and that they like knowing where their food is coming from and who grew it. One respondent reported that they “trust the food because [they] know the growers.”

The reasons that SNAP shoppers buy food at other locations elucidates what other factors motivate SNAP shoppers in making food provisioning choices. The 43 respondents (31%) who said they shop most often at a supermarket or grocery store mentioned convenience most frequently as the reason that it is their most important source of food. For these respondents, convenience included the hours that it is open, the variety and selection of products available in one place, and its location. Almost all of the 39 respondents (29%) who said they shop most often at a discount grocery store said that they shop there because the prices are lower. One wrote that “SNAP benefits go farther” there. As another respondent wrote: “It’s all related to finances!”

**Comparison of Motivations between Groups**

Farmers’ market attendees were separated into four groups based on SNAP status and farmers’ market location in order to determine whether there are significant differences in responses based on SNAP status and farmers’ market location. A chi-square ($\chi^2$) analysis was
conducted to determine whether there are any statistically significant differences between the 
groups in the proportion of respondents that agreed that each motivation is one of the reasons 
that they attend the farmers’ market (See Table 7).

Table 7. Proportion of respondents who viewed each motivation as important to them in four 
groups consisting of Albany SNAP and non-SNAP and Corvallis SNAP and non-SNAP and 
results of χ² test for differences

<table>
<thead>
<tr>
<th>Group</th>
<th>Albany Non-SNAP</th>
<th>Albany SNAP</th>
<th>Corvallis Non-SNAP</th>
<th>Corvallis SNAP</th>
<th>Total</th>
<th>χ²-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of food</td>
<td>100</td>
<td>86</td>
<td>91</td>
<td>92</td>
<td>90</td>
<td>4.31</td>
<td>.230</td>
</tr>
<tr>
<td>Freshness of food</td>
<td>77</td>
<td>82</td>
<td>83</td>
<td>91</td>
<td>86</td>
<td>3.57</td>
<td>.311</td>
</tr>
<tr>
<td>Supporting Local Food</td>
<td>77</td>
<td>79</td>
<td>83</td>
<td>87</td>
<td>83</td>
<td>1.83</td>
<td>.608</td>
</tr>
<tr>
<td>Supporting Local Farmers</td>
<td>62</td>
<td>73</td>
<td>67</td>
<td>72</td>
<td>70</td>
<td>.99</td>
<td>.805</td>
</tr>
<tr>
<td>SNAP/WIC are accepted</td>
<td>23</td>
<td>76</td>
<td>7</td>
<td>86</td>
<td>65</td>
<td>103.75</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>Selection of foods</td>
<td>46</td>
<td>50</td>
<td>60</td>
<td>65</td>
<td>58</td>
<td>4.12</td>
<td>.249</td>
</tr>
<tr>
<td>Fun/ Socializing Way you are treated</td>
<td>39</td>
<td>41</td>
<td>52</td>
<td>55</td>
<td>50</td>
<td>3.81</td>
<td>.282</td>
</tr>
<tr>
<td>Location of farmers’ market</td>
<td>46</td>
<td>52</td>
<td>29</td>
<td>44</td>
<td>43</td>
<td>5.66</td>
<td>.130</td>
</tr>
<tr>
<td>Prices of food</td>
<td>31</td>
<td>39</td>
<td>24</td>
<td>24</td>
<td>29</td>
<td>4.49</td>
<td>.213</td>
</tr>
</tbody>
</table>

¹Cell entries are percentages (%) of respondents who indicated that each variable was a motivation for them to attend the farmers’ market.
* Indicates significant result.
Across the four groups, quality of food is the most important motivation, with 90% of the total sample of respondents citing it as a reason they attend the farmers’ market. Similar to SNAP shoppers as a whole, quality of food is followed closely by freshness of food (86%) and supporting local food (83%). The least commonly cited reason for attending the farmers’ market is price, with only 29% of the total respondents finding it to be a motivation.

Chi-square analysis showed that there are not statistically significant differences between the four groups in the proportion of respondents that selected each motivation—except for the fact that SNAP and WIC are accepted at the farmers’ market, which was much higher for SNAP shoppers (81%) than for non-SNAP shoppers (15%), $p<.001$ (See Table 7). It makes sense that non-SNAP shoppers would not be motivated by SNAP being accepted because it does not apply to them. Otherwise, the percentage of respondents that agreed that each item was a reason they attend the farmers’ market was not statistically different across the four groups ($p>.05$ in all cases).

**Barriers**

The second part of the research question asks what barriers exist for SNAP shoppers in terms of shopping at the farmers’ market. When asked whether they are always able to shop at the farmers’ market when they want to, 87 respondents or 57% indicated that they are not. When asked why they are not always able to shop at the farmers’ market, seventy-nine respondents provided fill-in answers, which were grouped into categories of similar responses (See Figure 10). The most popular responses among those who answered the question were a lack of time or being busy with work or other obligations (25 respondents or 27%), the limited days, hours, and times of year that the farmers’ market operates (17 respondents or 18%), the cost of food at the farmers’ market or a lack of money (17 respondents or 18%), the location (nine respondents or
9%, not enough time and money (six respondents or 6%), and a lack of transportation (five respondents or 5%).

Figure 10. Pie chart of reasons SNAP shoppers can't always attend the farmers' market

Comparison of Barriers between Groups

A chi-square test shows that there is a statistically significant difference between SNAP and non-SNAP shoppers in terms of whether they are always able to attend the market when they want to, $p=.021$ (See Table 8). While 87 (57%) SNAP respondents indicated that they are not

Table 8. Chi-square test of differences between SNAP and non-SNAP, and Corvallis and Albany SNAP, in ability to attend the farmers' market

<table>
<thead>
<tr>
<th></th>
<th>SNAP</th>
<th>Non-SNAP</th>
<th>$\chi^2$</th>
<th>p-value</th>
<th>Corvallis SNAP</th>
<th>Albany SNAP</th>
<th>$\chi^2$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not always</td>
<td>57</td>
<td>29</td>
<td>5.29</td>
<td>.021</td>
<td>63</td>
<td>48</td>
<td>3.77</td>
<td>.052</td>
</tr>
<tr>
<td>able to shop at</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>farmers' market$^1$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$^1$Numbers represent the percent of individuals who indicated that they are not always able to shop at the farmers’ market when they want to
always able to shop at the farmers’ market when they want to, only 22 (29%) non-SNAP shoppers did. Therefore, it is clear that SNAP shoppers face more barriers to attending the farmers’ market than non-SNAP shoppers. There is a marginally significant difference between Corvallis and Albany SNAP shoppers, $p = .052$ (See Table 8). Corvallis SNAP shoppers (59 respondents or 63%) tend to not be able to go to the farmers’ market more than Albany SNAP shoppers (28 respondents or 48%), suggesting that Corvallis SNAP shoppers face more barriers than Albany SNAP shoppers.

Because there are few answers to the follow-up question of why respondents are not always able to attend the farmers’ market, it is difficult to assess statistically whether there are differences between SNAP and non-SNAP shoppers—and Albany and Corvallis SNAP shoppers—in terms of the specific barriers that they face. However, only 24 out of 57 non-SNAP respondents (42%) reported a reason that they are not always able to shop at the farmers’ market, whereas 82 out of 158 SNAP shoppers (52%) reported a reason.

**Discussion**

**Motivations**

The third research question asks why SNAP shoppers are motivated to shop at the farmers’ market. Analysis shows that SNAP shoppers are motivated the most by the quality of food, freshness of food, and supporting local food—and that the motivations between SNAP and non-SNAP shoppers do not differ significantly. This result refutes the literature showing that price and quantity take precedence in the food shopping decisions of SNAP participants, leading to lower consumption of fresh fruits and vegetables because of their higher price (Edin et al. 2013, Drewnowski and Spector 2004, Aggarwal et al. 2012). It reveals that—for these shoppers—motivations such as quality and supporting local food are able to outweigh concerns
about price and convenience, contrary to the assumptions that are made about how low-income people make decisions. The results suggest that concerns beyond price and convenience are important to SNAP shoppers, supporting the existing literature that shows that low-income and high-income consumers hold similar values in relation to local food (Colasanti et al. 2010, Giskes et al. 2007), as well as research showing that positive perceptions of quality and selection of fresh fruits and vegetables are associated with an increase in consumption of fresh fruits and vegetables among low-income people (Blistein et al. 2012). The results point to the idea that food provisioning decisions are more complex than previous research has shown.

The motivations that were important for survey respondents (quality, freshness, supporting local food) were also mentioned by the interview participants. The household interview participants first discussed motivations related to quality and supporting local food. One interview participant said: “I try and keep it local. To me I think that’s a really important thing to do, is keeping everything local so the community, the town, it survives. It used to be that way!” Another said: “That way I know where my food is coming from. […] If you can trust the farmer who is growing their food then you know that that’s taken care of.” One interviewee also emphasized supporting not just local food but local farmers: “Farmers work hard. And it’s just really nice to buy something and give them some money.”

Buying local food from farmers is therefore something that is important to these SNAP shoppers—and the survey results show that it is important to SNAP shoppers on the whole. These motivations align with Feagan and Morris’ (2009) idea of spatial embeddedness, which is associated with the desire to buy local food, to support local farmers and the community, and the value of freshness of food. These SNAP shoppers are showing that they want to be spatially embedded in the community by buying food at the farmers’ market.
The interview participants—although they mentioned motivations associated with spatial embeddedness first—all mentioned the social aspect of the farmers’ market as another motivation. The interview respondents emphasized the unique shopping environment of the farmers’ market as a factor that sets it apart from other shopping experiences and makes it an important part of their week. One said that although similar food can be found elsewhere in Corvallis, “to have it all in one place in a really wonderful environment, that’s kind of the real advantage.” Another interview participant said that they get around 10% of their food at the farmers’ market but “it’s a really important 10%, you know? It’s that… I don’t know about you but to me it’s synonymous with who’s growing it and the whole scene of the farmers’ market. You know, supporting community agriculture and seeing friends and visiting.” The interview participants from Corvallis both brought up the music and the “fun-fair” atmosphere that draws so many people to the farmers’ market. The Albany interview participant put it this way: “Just not go there and have your list like you go to the grocery store. You could do that anytime. And ok, we need to get so many berries and we need to get squash and zucchini and just walk there and not even say anything to people. You could go to the grocery store for that. But you’re supposed to enjoy yourself. It’s summertime, get out, meet people, talk.”

This atmosphere creates a community gathering place that brings people together over food. As one interview participant said: “I think that farmers’ market for me fills more of a social niche. Yes I buy some berries or beans or something. But it’s more of the meet and greet and getting to know your town and your community.” While about fifty percent of the SNAP survey participants chose socializing or fun as a reason that they shop at the farmers’ market, several also wrote in reasons related to social aspects of attending the farmers’ market, such as the music and family-friendly environment.
The combination of the survey and interview results suggests that while the value of the quality and freshness of the local food at the farmers’ market is often the first or more ‘official’ reason that people attend and buy the food, the environment is what keeps them coming back and sharing in the community of the farmers’ market. The farmers’ market, therefore, may be important to SNAP shoppers for reasons beyond the amount of food that they purchase there—corresponding with the social category of embeddedness described by Feagan and Morris (2009). These results suggest that the ‘embeddedness’ of the farmers’ market in the social life of the community is just as important to SNAP shoppers as it is to other farmers’ market shoppers.

Hinrichs (2000) writes that “this sense of social connection, reciprocity and trust, is often seen as the hallmark (and comparative advantage) of direct agricultural markets” (296). For the SNAP shoppers included in this study, even though they may have limited food budgets, they include the farmers’ market in their food provisioning strategies because they wish to support and to be a part of the local community. As one interview participant mentioned, that social and community aspect is important for all members of the community: “It is a really good social network. And people need that. I don’t care if they’re coming there to buy food. I don’t care if you’re the bum on the side of the road. Everybody needs that social aspect of it.” The social aspect of the farmers’ market may in fact be even more important for SNAP shoppers, who may feel marginalized in the community because of their low-income or SNAP status.

These results seem to be in opposition to Bourdieu’s (1984) theory of habitus, in which “social subjects, classified by their classifications, distinguish themselves by the distinctions they make” (6). Class distinctions are revealed especially through consumer preferences (Allen and Anderson 1994). Bourdieu (1984) refers specifically to food in referencing the class opposition “between the taste of necessity, which favors the most ‘filling’ and most economical foods, and
the taste of liberty or luxury” (6). In this study, SNAP shoppers—who we presume to be of lower income and thus lower class—are showing preferences normally associated with upper class tastes of liberty and luxury, rather than necessity. Concerns with quality, freshness, and supporting local food are not normally associated with the low class distinction that is assigned to SNAP participants.

This may point to the fact that using SNAP participation as a proxy for class is problematic. Indeed, there can be vast differences between people who engage in long-term SNAP participation—to mitigate chronic poverty—and those who participate in SNAP temporarily as a result of job loss, divorce, illness, or injury. Though the incomes of SNAP participants must be below the federal poverty guidelines while they receive benefits, this does not necessarily predicate any particular class distinction. As a result, it is necessary to consider that some of the SNAP participants in the study may in fact be acting according to their habitus—despite a constrained food budget. Those SNAP shoppers who choose to shop at the farmers’ market may be demographically different from other SNAP participants in terms of other class markers such as education. Habitus may still be, therefore, a significant barrier to shopping at the farmers’ market for those SNAP participants who do fall within a lower-class distinction.

**Barriers**

It is clear that SNAP shoppers do face significant barriers to participation in the farmers’ market. The most prevalent barriers cited by survey respondents are a lack of time, the limited days and times of the market, and a lack of money or the cost—which are similar to barriers found in other studies of SNAP shoppers (Grace et al. 2005). While a lack of time and the limited times and days of the farmers’ market are barriers that all farmers’ market shoppers must
consider, SNAP participants may have a harder time overcoming these barriers. For instance, one of the interview participants said: “I don’t get to the farmers market too much because they have me working on the weekends. I might make it this weekend.” Many SNAP participants may have jobs that require them to work on the weekend or have varying schedules that may not allow them to make the farmers’ market a part of their weekly routine.

The price of food still seems to be a large barrier for SNAP shoppers. One interview participant reflected: “If I have $1 and all I have is $1 on me, I know I can go get a big mac for $1 and be filled up for the next 2-3 hours. The same dollar at the farmers’ market, I might be getting a carrot. I’m hungry 20 minutes later. So that’s why a lot of people don’t shop there.” However, the same participant also recognized the tension that farmers’ markets face between serving low-income customers and supporting farmers: “I would say that a lot of the impoverished people don’t go to the farmers’ market because of the price. It is expensive. But I realize that the farmers have also got to make their mortgage payments.” The ability of farmers’ markets to serve low-income customers can be constrained by the necessity of making a profit.

However, reflecting on how important the farmers’ market can be to a sense of community, another interview participant mentioned that a family she knows “just had their fifth baby and they can hardly afford to buy anything there anymore. […] But they still go because they love it. And they buy what they can.” Those values and enjoyment associated with the farmers’ market stick with people even when they are unable to purchase very much food. Indeed, attending the farmers’ market is free and much of the fun and community-building that is involved is open for all to participate. Therefore—although social embeddedness seems to be important to many SNAP shoppers—as Hinrichs (2000) reminds us, in any exchange there are also aspects of marketness (the supremacy of price) and instrumentalism (the supremacy of self-
interest). SNAP shoppers must balance these competing motivations while dealing with significantly more barriers to participating in the farmers’ market than other farmers’ market shoppers—which has also been shown by Colasanti et al. (2010) in relation to low-income and minority farmers’ market shoppers.

A full 30% of SNAP shoppers, however, chose price as a reason that they attend the farmers’ market and only 18% cited price as a reason that they can’t always attend the farmers’ market. In addition, the interview participants all talked about price in the abstract, as a problem that others face. For the interview and survey participants price is a barrier that they have necessarily overcome, because they are already shopping at the farmers’ market. However, they recognize that it is a problem for others. These results reinforce the necessity of monetary incentives to bring more SNAP shoppers into the farmers’ market—by helping them overcome the price barrier, a point that has been argued in many studies (Evans et al. 2012, Herman et al. 2008, Kropf et al. 2007, Kunkel et al. 203, Wholesome Wave N.d.).

The household interviews brought up another potential barrier that was not captured in the survey data, which may prevent SNAP shoppers and other low-income people from attending the farmers’ markets—and becoming a part of the important community-building aspect of the experience. Echoing the work of Guthman (2011), interview participants talked about how the environment of the farmers’ market could be difficult for a SNAP participant to navigate. The interview participant from Albany talked about how the farmers’ market can be an intimidating environment for SNAP shoppers because of other customers: “When I first got the SNAP program, I wasn’t really embarrassed until I got up there to use it and all these people behind me, you could see them looking in your cart. And to me it was intimidating.” The farmers’ markets, for their part, take every precaution to respect SNAP customers and prevent stigmatizing them.
My participant observation showed that the vast majority of interactions were positive. From discussions with farmers, most are supportive of the SNAP program and of accommodating SNAP customers from both a business and personal perspective. One interview participant from Corvallis talked about how the farmers make an effort to make the environment welcoming: “I was surprised at how helpful people were, individuals, you know the sellers at rounding to the nearest dollar for me or saying oh just forget about it. So it’s pretty accessible.”

However, negative experiences on the part of SNAP shoppers reflect a perception of the farmers’ market as exclusive, validating Guthman’s (2011) writing on the exclusive discourse of local food—which is primarily set up and directed by white middle- and upper-class people. This may pose a barrier to shopping at the farmers’ market for many potential SNAP shoppers and prevent them from experiencing and benefitting from the social, community-building aspects of the farmers’ market that might make them more likely to attend regularly.
Chapter 6: Conclusion

Overview of Research

The purpose of this study was to explore how and why people use SNAP benefits at the Corvallis and Albany farmers’ markets and how it fits in with their food provisioning strategies. Several organizations, including the USDA, have begun to champion the use of farmers’ markets as a way to increase access to fresh and affordable food for low-income people. Because numerous studies have shown a connection between poverty, food insecurity, and obesity (Cole and Fox 2008, Dietz 1995, Dinour et al 2007, Drewnowski and Spencer 2004, Larson and Story 2011, Leung and Villamor 2011, Townsend et al 2001), the issue of access to affordable, fresh, nutritious food among SNAP participants is particularly relevant.

In order to investigate this topic, I utilized a mixed methods approach and conducted market surveys at the Corvallis and Albany farmers’ markets, as well as household interviews with three SNAP shoppers. The final survey sample included 158 surveys filled out by SNAP shoppers (62 from Albany and 96 from Corvallis) and 57 filled out by non-SNAP shoppers (14 from Albany and 43 from Corvallis). The household interview participants were drawn from both Corvallis and Albany survey participants in order to get a more in-depth view of the experience of SNAP shoppers at the two farmers’ markets. I also conducted participant observation while collecting surveys at the farmers’ market. I analyzed the quantitative data with SPSS 22 and the qualitative data using NVIVO 10.

I used the survey and interview data to answer four research questions:

1. Who is using SNAP at farmers’ markets and how are they shopping?
2. What is the farmers’ market’s relative importance compared to other sources of food among SNAP shoppers?
3. Why are SNAP shoppers motivated to attend the farmers’ market and what barriers do they face?

4. How do SNAP and non-SNAP shoppers—and Corvallis and Albany SNAP shoppers—differ in terms of the answers to these questions?

The comparison between SNAP and non-SNAP shoppers acted to contextualize the results from the SNAP shoppers in terms of a more general population of farmers’ market shoppers. The comparison between Albany and Corvallis SNAP shoppers helped to determine whether there are significant differences in the characteristics and experience of SNAP shoppers at the two markets.

The first research question investigated who is using SNAP and how they are shopping at the two farmers’ markets. The results show that SNAP shoppers are mainly young, female, and have low incomes. A full 65% of the surveyed SNAP shoppers have at least one child, or elderly or ill member of their household. SNAP shoppers at the two farmers’ markets are very similar to non-SNAP shoppers in terms of their demographics and use of the farmers’ market, with a few exceptions. SNAP shoppers tend to have more children between five and 18 than non-SNAP shoppers, as well as lower incomes, and more food insecurity. In terms of market use, the results show that SNAP shoppers usually spend between $10 and $20 per week, which is the same for non-SNAP shoppers. Though about half the sample of SNAP shoppers report that they also use cash to pay for purchases at the farmers’ market, on the day of the survey most only used SNAP to shop at the farmers’ market. This suggests that the majority depend on SNAP in order to be able to shop at the farmers’ market.

The second research question investigated the farmers’ market’s relative importance compared to other sources of food. The results show that SNAP shoppers rate the farmers’
market the highest on average out of nine different sources of food. SNAP shoppers also tend to rate the farmers’ market higher than non-SNAP shoppers. However, despite these high ratings, only 15% of SNAP shoppers indicated that the farmers’ market is their most important source of food. Instead, the convenience and low prices of supermarkets and discount grocery stores resulted in these being the most important source of food for the majority of SNAP shoppers. For many, however, it represents a source of fresh, local food to which they would not otherwise have access.

The third research question investigated why SNAP shoppers are motivated to attend the farmers’ market and what barriers they face to doing so. The results show that many SNAP shoppers are motivated to shop at the farmers’ market by the quality and freshness of the food and a desire to support local food. The only difference between SNAP and non-SNAP shoppers in terms of motivations is that SNAP shoppers are motivated by the fact that that farmers’ market accepts SNAP, while the non-SNAP shoppers—understandably—are not. There is no difference between Corvallis and Albany SNAP shoppers in terms of motivations. A motivation that was captured in the household interviews is the social and community aspect of attending the farmers’ market. This aspect of the farmers’ market experience goes beyond food concerns to ideas of social and spatial embeddedness and feeling a part of the community.

Though SNAP shoppers are motivated by similar concerns as non-SNAP shoppers, they face significantly more barriers in terms of acting on those motivations. The major barriers reported by SNAP shoppers include a lack of time to attend the farmers’ market, the limited days and hours of the farmers’ market, and the cost of shopping at the farmers’ market. SNAP shoppers tended to report more barriers than non-SNAP shoppers and are more likely to not always be able to attend the farmers’ market. Interview participants also reported that the
farmers’ market may be an intimidating environment for SNAP shoppers, which may prevent them from participating in the community-building aspects of the farmers’ market from which they could benefit.

One result that did not come out of the survey data was any meaningful differences between Albany and Corvallis SNAP shoppers. While there were a few minor differences between the two—which reflected the relatively higher cost of living in Corvallis, greater reliance on SNAP, and higher cost of food at the Corvallis Farmers’ Market—the two populations seem to be similar. Because the two communities are so close to each other, it is possible that there is overlap between the two farmers’ markets in terms of Corvallis residents shopping in Albany and vice versa. Because the study was conducted mostly over the summer, the impact of the university in Corvallis was probably limited.

**Implications of Research**

This study has implications for the scientific community’s knowledge of the shopping habits and motivations of SNAP participants as well as applied implications on the local and national level for policy planning, farmers’ market programs, and other efforts directed at encouraging SNAP use at farmers’ markets.

*Scholarly Implications*

The results of this research have implications for the scientific community’s knowledge of SNAP participants and their shopping habits and motivations. The impetus behind the study was to fill three gaps in the literature. First, the study aimed to examine the contradiction between the bodies of literature on how SNAP participants make food provisioning decisions, and why people decide to buy local food at farmers’ markets. Previous research on SNAP and other low-income shoppers has emphasized the importance of price and convenience for making
food decisions (Edin et al 2013), but has failed to capture the other motivations which SNAP shoppers may hold in relation to food. My research found that SNAP shoppers are motivated by the quality and freshness of food and by supporting local food through their purchases—motivations which are able to outweigh price and convenience concerns. These results refute both previous research and common assumptions made in the rhetoric surrounding SNAP participants and other low-income people. Rather than being interested only in fast, cheap food, the SNAP shoppers in this study instead are interested in buying fresh, local food with their SNAP benefits. The experience of these SNAP participants helps the scholarly community to understand the multitude of ways in which SNAP is and can be used. In addition, the motivations that are important to SNAP shoppers matched with the motivations of non-SNAP shoppers, confirming previous research showing that low-income people hold similar values regarding local food—though they differ in their ability to act on those values (Colasanti et al 2011). The confirmation of this idea helps to recognize that SNAP participants are more than just the barriers that they face, but are people with the desire to provide fresh, healthy food for their families.

My research also affirms that the experience of ‘embeddedness’ operates at farmers’ markets not just among higher-income shoppers. SNAP shoppers at these two farmers’ markets are looking for both social and spatial embeddedness, defined by Feagan and Morris (2009) as “connection, belonging, knowledge, community, tradition, place, and loyalty” (236) and the desire to buy fresh local food and support local farms and the community. Past literature has not examined how low-income or SNAP participants experience and value embeddedness. My research suggests that SNAP shoppers are drawn to the farmers’ market for an experience of
embeddedness that includes both supporting local food and participating in social interaction and community-building.

My study also aimed to fill the gap in the literature concerning how shopping at a farmers’ market fits into SNAP shoppers’ food provisioning strategies as a whole. My study has shown that the farmers’ market often plays a supplementary but important role in food provisioning, with SNAP shoppers rating the farmers’ market’s importance on average as higher than all other sources of food. Despite the fact that most of the SNAP shoppers in the study report that they actually get most of their food elsewhere, 88% report that the farmers’ market provides them access to food that they would not be able to get through these other food sources. Because previous studies show that low-income neighborhoods often have less healthy foods available at lower quality and higher prices (Ball et al 2009, Block and Kouba 2005, Chung and Myers 1999, Hendrickson et al 2006, Topolski et al 2003, Walker 2010), the issue of access to fresh healthy food is a crucial part of ensuring food security for low-income people. Therefore, the farmers’ market as a source of fresh produce is in this case providing a crucial supplement to what SNAP shoppers may be able to get through other food provisioning strategies.

Finally, the study aimed to add a comparison of SNAP and non-SNAP shoppers to the literature. The non-SNAP sample provided context for the experience of SNAP shoppers and exposed the important differences and similarities between the two groups. On the whole, SNAP and non-SNAP shoppers are very similar in terms of their shopping habits and motivations. This result acts to demystify the behavior of low-income shoppers and reveal that they want to be able to take advantage of the same opportunities as other members of the community. However, the experience of SNAP shoppers is different in terms of the barriers they face to shopping at the
farmers’ market—suggesting that it is more difficult for SNAP shoppers to be able to act on their motivations and participate in the food- and community-related aspects of the farmers’ market.

Policy Implications

At the local and national level, this study has implications for farmers’ markets like CAFM and organizations involved in supporting them—such as Ten Rivers Food Web, which has coordinated with the farmers’ markets in the past to work to increase SNAP use by organizing and funding the ‘That’s My Farmer’ SNAP Incentive Program. On a national scale, the study has implications for the USDA and its funding of SNAP incentive programs.

Important Findings Related to Policy

The broad question that this study poses is whether farmers’ markets have the potential to be effective in increasing access to fresh food among SNAP participants, and thereby improving their nutrition and food security. My research reveals several lines of evidence supporting the potential of farmers’ markets to address these issues. First, the results show that the Corvallis and Albany farmers’ markets are reaching food insecure people. About half of the SNAP survey sample are experiencing some kind of food insecurity. The results also show that 88% of the SNAP survey sample believe that the farmers’ market is increasing their access to fresh, local, and organic food. Therefore, in this case, the Albany and Corvallis Farmers’ Markets can and are improving food access for food insecure people. The fact that shopping at the farmers’ market as a food provisioning strategy acts as a supplementary source of food for SNAP shoppers—most of whom spend between $10 and $20 per week—shows that SNAP shoppers are negotiating their ability to act on their values and motivations to buy quality local food. Limiting the amount that they purchase at the farmers’ market represents a coping strategy to deal with food insecurity and a limited food budget. This result suggests that it is not that SNAP participants in general are not
interested in buying food at the farmers’ market, but that they are constrained by more barriers than other farmers’ market shoppers. Most importantly, the results of the study show that SNAP participants want to be involved in the farmers’ market and want to have the ability to purchase high-quality, fresh, local produce.

In this case, the farmers’ markets are also reaching a large group of parents who are using SNAP to buy food for both themselves and their children. It shows that parents are motivated not just to buy food for themselves, but also to provide fresh, healthy food for the next generation. The implications of children having access to fresh fruits and vegetables because of the farmers’ market are far-reaching in terms of food security, nutrition, and health outcomes throughout their lifetimes.

The results also show that farmers’ markets are not just useful to SNAP shoppers as a source of food but also as a site of community engagement. The social embeddedness of the farmers’ market is a strong force for engaging SNAP shoppers in the farmers’ market and incentivizing them to return. SNAP households often rely on social networks as a coping strategy to deal with food insecurity, but those with low food security are less likely to have social networks to draw on (Edin et al 2013). Therefore, strengthening social networks is important for SNAP participants, who may be marginalized in the community. The farmers’ market can increase low-income people’s access to social networks to help deal with food insecurity, decreasing social isolation and increasing knowledge of resources that could help them increase their food security.

**Recommendations**

Farmers’ markets and other organizations involved in efforts to bring more SNAP shoppers to farmers’ markets can draw from the results of this study in order to determine who
and how to target as potential customers. My study shows that young SNAP participants, especially women with families, are interested in shopping at farmers’ markets. They are motivated by the quality and freshness of the food and a desire to support local food. Outreach to potential SNAP shoppers through schools and other places where parents are brought together could be effective, and outreach that focuses on the positive benefits of quality local food could bring more SNAP shoppers to farmers’ markets.

Potential outreach could also occur at the time when individuals sign up for SNAP benefits. As one interview participant suggested: “It should be up to each case worker to let them know this is what we have [the farmers’ market]. It would be less intimidating.” This kind of outreach could break down the idea that farmers’ markets are for higher-income people and appeal to SNAP shoppers by emphasizing the reasons that they are motivated to shop there, including the aspect of community engagement.

Because SNAP shoppers face more barriers to shopping at the farmers’ market, interventions aimed at improving SNAP participants’ ability to shop at the farmers’ market and benefit from increased access to fresh food and social networks must act to reduce those barriers. Though SNAP shoppers may be motivated by similar reasons as non-SNAP shoppers, price concerns still impact SNAP shoppers disproportionately. Therefore, incentive programs need to be in place in order to increase SNAP participants’ financial ability to take advantage of the farmers’ market and include it in their food provisioning strategies.

As Hinrichs (2000) writes, the “sense of social connection, reciprocity and trust, is often seen as the hallmark (and comparative advantage) of direct agricultural markets” (296). It is clear that SNAP shoppers want to be engaged in the social connections created at the farmers’ market and take advantage of the opportunities that it affords. Therefore, for incentives to be most
effective they must be accompanied by opportunities for engagement with the farmers’ market community. Indeed, SNAP shoppers and other low-income people should be involved in shaping and creating the farmers’ market community. Involving people in the process will result in SNAP shoppers that are more invested and that benefit more from shopping at the farmers’ market. However, as CAFM and Ten Rivers have experienced, funding incentive programs consistently can be too daunting a task for farmers’ market organizations. Therefore, the USDA and local governments should step up to provide funds for these programs that benefit the social good in terms of both health outcomes and social well-being.
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World Food Summit
Appendix A: Farmers’ Market Survey

Farmers’ Market Survey

1. What is your age? (CHECK ONE)
   a. [ ] 18-24     b. [ ] 25-34     c. [ ] 35-44     d. [ ] 45-54     e. [ ] 55-64
   f. [ ] 65-74     g. [ ] 75+

2. What is your sex? (CHECK ONE)
   a. [ ] Female     b. [ ] Male

3. How often do you shop at the farmers’ market when it is running? (CHECK ONE)
   a. [ ] Less than once a month     b. [ ] Once a month
   c. [ ] Twice a month     d. [ ] Three times a month
   e. [ ] Every week     f. [ ] Other __________

4. How did you travel to the farmers’ market today? (CHECK ONE)
   a. [ ] walk     b. [ ] bus     c. [ ] bike     d. [ ] drive
   e. [ ] other (DESCRIBE) ______________________________

5. How many minutes did it take you to get here? (CHECK ONE)
   a. [ ] 1-5 minutes     b. [ ] 6-15 minutes
   c. [ ] 16-30 minutes     d. [ ] more than 30 minutes

6. What ways do you pay at the farmers’ market? (CHECK ALL THAT APPLY)
   a. [ ] Cash     b. [ ] Debit     c. [ ] SNAP     d. [ ] WIC FDNP
   d. [ ] That’s My Farmer SNAP Incentive Program (extra $6)

7. How much do you typically spend at the farmers’ market in a single day? (CHECK ONE)
   a. [ ] $1-$5     b. [ ] $6-$10     c. [ ] $11-$15     d. [ ] $16-$20     e. [ ] $21-$25
   f. [ ] $26-$30     g. [ ] $31-$35     h. [ ] $36-$40     i. [ ] $41-$45     j. [ ] $46-$50
   k. [ ] $51+

8. How much do you plan to spend at the farmers’ market today? $_____

9. How much of what you plan to spend today are SNAP dollars? $ ______

9a. If you use SNAP, how much of your food budget typically comes from SNAP? (CHECK ONE)
   a. [ ] 0-25%     b. [ ] 26-50%     c. [ ] 51-75%     d. [ ] 76-100%

10. How many people make up your household (meaning an individual or group living together who usually purchase and prepare food together), including you? (CHECK ONE)
    a. [ ] 1     b. [ ] 2     c. [ ] 3     d. [ ] 4     e. [ ] 5     f. [ ] 6+
10a. What is your living situation?
   a. [ ] With family   b. [ ] With roommates sharing food
   c. [ ] With roommates not sharing food   d. [ ] By yourself

10b. How many members of the household are children under 5 years of age? _____

10c. How many of them are children between the ages of 5 and 18? _____

10d. How many of them are elderly? _____

10e. How many of them are chronically ill adults? _____

11. What is the total income of your household? (CHECK ONE)
   a. [ ] Less than $10,000 b. [ ] $10,000-$19,999 c. [ ] $20,000-$29,999
   d. [ ] $30,000-$39,999 e. [ ] $40,000-$49,999 f. [ ] $50,000-$59,999
   g. [ ] $60,000-$69,999 h. [ ] $70,000-$79,999 i. [ ] $80,000-$89,999
   j. [ ] $90,000-$99,999 k. [ ] $100,000+

12. Are you the main food shopper for your household?
   a. [ ] Yes   b. [ ] No

13. Does your household typically eat dinner together?
   a. [ ] Yes   b. [ ] No

14. Which of these statements best describes the food eaten in your household in the last 12 months? (CHECK ONE)
   a. [ ] Enough of the kinds of food we want to eat
   b. [ ] Enough but not always the kinds of food we want
   c. [ ] Sometimes not enough to eat
   d. [ ] Often not enough to eat
   e. [ ] Don’t know or don’t want to answer

15. What do you normally buy at the market? (CHECK ALL THAT APPLY)
   a. [ ] Veggies   b. [ ] Prepared Foods
   c. [ ] Fruits   d. [ ] Plant Starts
   e. [ ] Eggs   f. [ ] Cheeses, Dairy
   g. [ ] Meat   h. [ ] Baked goods

16. Do you feel that the market provides you access to food that you would not be able to get elsewhere?
   a. [ ] Yes   b. [ ] No

→ If yes, what? ________________________________
17. What are your reasons for shopping at the farmers’ market? (CHECK ALL THAT APPLY)
   a. [ ] Quality of food   b. [ ] Freshness of food   c. [ ] Selection of foods
   d. [ ] Prices of food   e. [ ] Location   f. [ ] Way you are treated
   g. [ ] It accepts SNAP/WIC   h. [ ] That’s My Farmer SNAP Incentive Program
   i. [ ] Supporting local food   j. [ ] Supporting farmers   k. [ ] Socializing/fun
   l. [ ] Other (Please Explain)____________________________________

→ 17a. PLEASE CIRCLE THE REASON THAT IS MOST IMPORTANT TO YOU.

18. Are you always able to shop at the farmers’ market when you want to?
   a. [ ] Yes   b. [ ] No

18a. Why or why not? ________________________________

19. Rank the importance of these places in buying food for your household, from least important (1) to most important (5) (CHECK ONLY ONE BOX PER PLACE):

<table>
<thead>
<tr>
<th>Place</th>
<th>Not Important</th>
<th>Somewhat Important</th>
<th>Moderately Important</th>
<th>Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supermarket/Grocery store (Safeway, Fred Meyer)</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Discount grocery store (Grocery Outlet, Mega Foods, WinCo)</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Convenience store/gas station</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Farmers’ market</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Garden (home or community)</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Restaurant or Fast Food Place</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Food bank/food pantry</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Church/ community service organization</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Friend or family member’s house</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Other _____________________________</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

19a. Out of these, which one is the most important source of food for your household?
                                                                

19b. Why?_________________________________________________________