

ACCESS TO FRESH FOODS: SOCIO-ECONOMIC CHARACTERISTICS OF ILLINOIS
FARMERS' MARKETS PARTICIPATING IN GOVERNMENT FUNDED FOOD
ASSISTANCE PROGRAMS

by

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A Thesis

Submitted in Partial Fulfillment of the Requirements for the
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AN ABSTRACT OF THE THESIS OF

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TITLE: ACCESS TO FRESH FOODS: SOCIO-ECONOMIC CHARACTERISTICS OF ILLINOIS FARMERS' MARKETS PARTICIPATING IN GOVERNMENT FUNDED FOOD ASSISTANCE PROGRAMS

MAJOR PROFESSOR: Dr. Leslie Duram

The USDA's Supplemental Nutrition Assistance Program's (SNAP) strives to connect SNAP recipients to local and healthful food sold at farmers' markets. These efforts are an attempt to provide families, struggling to make ends meet, access to healthy foods and food purchasing power via the Federal Food Stamp program. However, of the 288 listed farmers' markets in Illinois only 25 are listed as SNAP/EBT accepting markets (2010 National Farmers Market Directory). The first part of this study uses the 61st Street Farmers Market as a case study, investigating the practical market operations and interpreting their method of EBT implementation to provide an established model of an existing and thriving farmers' market. Next, I will investigate the socio-economic characteristics (population, race, employment, income, poverty, education, age, and SNAP recipients) of Illinois farmers' markets accepting EBT. I will compare this data to other Illinois farmers' markets that do not accept EBT and assess which non-accepting market locations would be most suitable for implementing EBT usage in the future. Finally, based on my case study and statistical analysis, I will discuss recommendations for farmers' markets to accept EBT into their markets.

Findings indicate that there is no significant difference between the mean ranks of the socio-economic characteristics for the EBT and non-EBT accepting farmers' markets. Of the 8 socio-economic characteristics tested, the populations of SNAP recipients were analogous for each group: EBT and Non-EBT accepting farmers' markets.

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LIST OF ACRONYMS

AMS	Agriculture Marketing Service
BRD	Benefits Record Division
CSA	Community Supported Agriculture
EBT	Electronic Benefits Program
ERS	Economic Research Service
FMNP	Farmers Market Nutrition Program
FNS	Food and Nutrition Service
FSP	Food Stamp Program
POS	Point of Sales
SNAP	Supplemental Nutrition Assistance Program
USDA	United States Department of Agriculture
WIC	Women Infant and Children

CHAPTER 1

INTRODUCTION

Introduction and Purpose of Study

Administered by the United States Department of Agriculture (USDA), the Supplemental Nutrition Assistance Program (SNAP), previously known as the Food Stamp Program (FSP), provides families of no or low income with food purchasing power via federal funds (USDA-FNS/SNAP 2010). In fact, since the first implementation of the food stamp program in 1939, there has been a continual urge from the Department of Agriculture to bridge the gap between food surpluses and undernourished societies, despite its many revisions and even during its brief period of suspension.

The SNAP program provides families of no or low income with food purchasing power via federal funds. The funds are available in the form of a debit card used for all foods except alcohol, pet food and prepared/ hot foods. According to the USDA – FNS program, about 1,730,000 people in Illinois received SNAP benefits in November of 2010. Increasing public awareness to the benefits of healthier food choices along with providing greater access to these foods, via farmers’ markets, as well as supplying some assistance to purchase these foods, may provide an economic advantage for the communities and the local growers. It is imperative that the United States governments’ resources, along with farmers, amalgamate and use their influences and capabilities to provide the most nutritious foods to all Americans regardless of their demographic and/or socio-economic status. Allowing SNAP benefits, via EBT, to be used by farmers’ markets would optimize farmers profit; effectively utilize federal funding while providing fresh produce to underprivileged communities.

Using the 61st Street Farmers Market as a case study, this paper investigates its operation and noted success within the community, as a result of EBT implementation. Additionally, the socio-economic characteristics of 4 selected farmers' markets which accept EBT transactions and 4 markets that do not will be compared; seeking to find that there is no significant difference between the socio-economic characteristics of the 2 groups, finding that areas of farmers' markets not utilizing EBT could potentially benefit from EBT usage.

Background

Beginning in May 16, 1939 the FSP was implemented in response to the Great Depression, where economic woes fell upon the country, due to widespread unemployment, as well as a surplus of unmarketable food (USDA- FNS/SNAP 2010). In 1939 the Secretary of Agriculture, instituted the Food Stamp Program (Congressional Digest 1981). People were allowed to purchase orange food stamps equal to the funds they normally spend to purchase food, but for every \$1 orange stamp purchased 50 cents worth of blue stamps were received; whereas, the orange stamps could buy any food item, the blue stamps could only be used to buy food determined by the Department of Agriculture to be surplus (USDA-FNS/SNAP 2010).

Only after four years from the FSP's installation, it ended. On February 2, 1961, President Kennedy's first executive order was to expand food distribution and re-instate the FSP (USDA-FNS/SNAP 2010). In 1964, President Johnson requested Congress to pass legislation to make food stamps permanent (Congressional Digest 2010). In 1977, the modern FSP was created through major statutory liberizations, the most significant of which was eliminating the purchase requirement (O'Neil 2004). In other words, the Food Stamp Act of 1977, among other provisions, eliminates the purchase requirement for food stamps, establishes income eligibility guidelines at the poverty level and categories of excluded income, and restricts eligibility for students and aliens (Congressional Digest 2010).

The last three decades consummated great strides for the USDA funded FSP which includes: income adjustments, simplified procedures, establishment of penalties for violators and authorizations of nutrition education grants. Food stamps were issued as paper coupons until the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 which required all States to issue food stamp benefits via Electronic Benefits Transfer card (EBT). This switch from coupons to EBT was a step forward in increasing program integrity, reducing fraud, and eliminating the stigma for using food stamps (Wasserman et al. 2010).

Electronic Benefit Transfer (EBT) is an electronic system that allows a recipient to authorize transfer of their government benefits from a Federal account to a retailers' account to pay for products received; as of July 2004, all 50 States operated state-wide, city-wide, and territory-wide EBT systems to issue food stamp benefits (USDA-FNS/BDR 2011). Unfortunately, many smaller businesses, such as farmers' markets or roadside farmer stands are unable to utilize SNAP funds via EBT. Free EBT equipment, provided by the USDA, is wired and requires electrical hook-ups which may be unavailable to certain merchants, such as farmers' markets. Operating such equipment effectively at a farmers' market can not only become quite costly, but there may also be an associated learning curve as the technology can be difficult to manage and promote at farmers' markets.

There is no doubt that EBT implementation at farmers' markets would be a benefit to farmers as well as consumers. Farmers' markets located in areas designated as "food deserts", areas that lack access to affordable fruits, vegetables, whole grains, low-fat milk, and other foods that make up the full range of a healthy diet (CDC 2010), could possibly increase their sales by providing healthy nutritious food to people in underserved areas. According to the USDA 2010 National Farmers' Market Directory (Nov. 2010), there are 288 farmers' markets in Illinois, in

which Illinois ranks #3 in the top ten U.S states with the most farmers' markets (Table 2). Of these, only 25 currently accept SNAP via EBT cards (IDHS). One such market is the 61st Street Farmers Market located on 61st and Blackstone, Chicago Illinois. This market is one small enterprise of The Experimental Station, a not-for-profit (501-c-3) incubator of innovative cultural, educational, and environmental projects and small-scale enterprises (Spren, 2006). The 61st Street Farmers markets ability to provide healthy, local, nutritious food in an underserved community as well as provide tremendous outreach and educational resources, such as cooking classes and farm field trips for neighborhood kids makes this market well deserving of the 2010 USDA Farmers' Markets Promotion Program Grant (\$61,000).

Justification

Current literature provides compelling evidence of how some USDA FNS programs supports, encourages and offers significant benefits to customers as well as farmers. One such program is the Women, Infant and Children. WIC's mission: "To safeguard the health of low-income women, infants, and children up to age 5 who are at nutrition risk by providing nutritious foods to supplement diets, information on healthy eating, and referrals to health care" (USDA-FNS/WIC 2010). This program also includes a farmers' market component- Women, Infant and Children Farmers' Market Nutrition Program (WIC FMNP) where a variety of fresh, nutritious, unprepared, locally grown fruits, vegetables and herbs may be purchased with FMNP coupons.

WIC transactions are fairly simple: Eligible WIC participants are issued FMNP coupons in addition to their regular WIC benefits. Coupons can be used to buy eligible foods from farmers, farmers' markets or roadside stands that have been approved by the State agency to accept FMNP coupons (USDA-FNS/WIC 2010). The farmers, farmers' markets or roadside

stands must then submit the coupons to the bank or State agency for reimbursement. A seemingly simple process was evident in that 2.15 million WIC participants received benefits during fiscal year 2010 (USDA-WIC/FMNP 2011). During the same year, 18,245 farmers, 3,647 farmers' markets and 2,772 road-side stands were authorized to accept FMNP coupons and the coupons redeemed through the FMNP resulted in over \$15.7million in revenue to farmers for fiscal year 2010 (USDA-WIC/FMNP 2011).

Has the Supplemental Nutrition Assistance Program (SNAP) gained as much acknowledgment from vendors and patrons of farmers' markets as WIC coupons have? Probably not, and one of the main culprits may be, as Dennis Ryan of the 61st Street Farmers Market puts it: "if you're a link user and you were never able to use your LINK card at a farmers' markets before, it's not going to pop in your head that 'hey, I'll go use my card at the market' " (Dennis Ryan, interviewed by Deidra Davis, April 2011). Some people are still unaware that many farmers' markets even process EBT transactions. However, accepting SNAP at farmers' markets is a little more involved than accepting cash and WIC coupons.

Farmers' markets SNAP acceptability means that market managers, as well as farmers must be trained with its application. This can pose a threat of increased stress especially when dealing with other day to day transactions at the market. Along with creating a busier atmosphere when processing EBT transactions, the cost for a machine and its accompanying fees can become quite costly. The USDA will provide free EBT equipment, however, these machines are wired, meaning that an electrical outlet must be available and the USDA has requirements as to what markets are eligible for free EBT machines (USDA-FNS/SNAP 2010); although markets can accept SNAP manually, the associated paperwork with this process could become too cumbersome. Therefore, wireless machines are desirable, but the cost of the machine as well as

connectivity charges can be cost productive. Unlike cash, or even WIC coupons, EBT transactions require specific instructions and even electrical hook-ups for use. Although markets can accept SNAP manually, the process associated paperwork with this process become too cumbersome.

At the end of Federal Fiscal Year (FY) 2010, according to the USDA/AMS (Agricultural Marketing Service), a total of 6,132 farmers' markets were operating around the United States (Figure 1). Of this total, 1,611 farmers' markets and individual farmers were authorized by FNS; and redeemed a total of \$7,547,028 in SNAP benefits in Fiscal Year 2010. Attempting to continue to increase these numbers, the Supplemental Nutrition Assistance Program's Benefit Redemption Division (BRD) is making information about requirements associated with SNAP participation more readily available by utilizing the SNAP retailers website. On this website, is listed information about how to become an authorized retailer and includes stories of best practices used from around the country which accessible to the public.

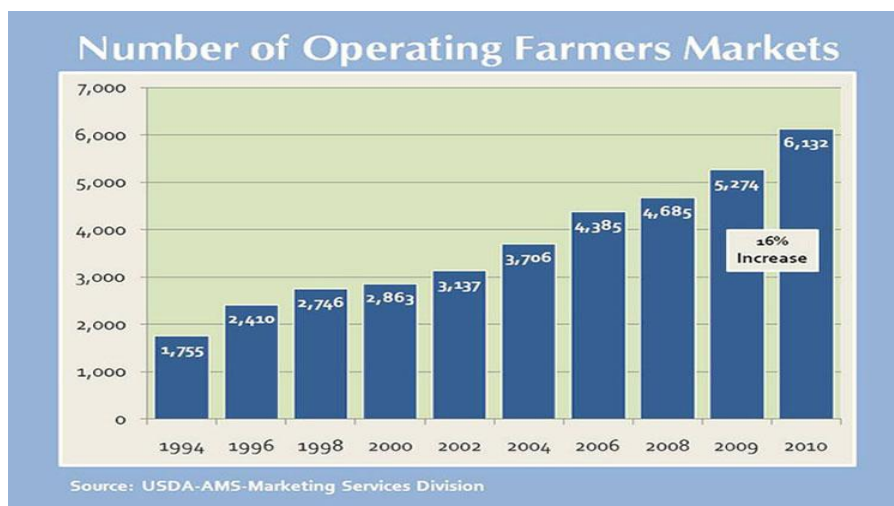


Figure 1. Farmers' Markets Growth: 1994-2010. (USDA/AMS 2011)

One story of best practices comes from the 61st Street Farmers Market. This small, but powerful enterprise is just one of a few at the Experimental Station, not-for-profit organization founded by Dan Peterman and Connie Spreen. Not only has this 3 year old market thrived consistently throughout the years, increasing its sales/profits and tremendous community outreach endeavors, but it has also gained much recognition from media and government organizations alike.

The Illinois Farmers' Markets Association is currently seeking government support to implement and provide ease for EBT transaction in all farmers' markets in Illinois. Increasing the ease of the transition along with added government support, in the form of funding, more Illinois farmers and farmers' market managers may be willing and able to accept SNAP at their location.

Study Objective

This thesis investigated the socio-economic characteristics of farmers' market that accept EBT and compared them with other non-EBT accepting farmers' markets and evaluated which non-accepting market locations would be most suitable for implementing EBT usage.

This analysis was conducted in two parts: first, an interview with Dennis Ryan, market manager of the 61st Street Farmers' Market, to investigate the principals practiced by the 61st Street Farmers Market. This provided insight as to what led to its success thus far, as well as its vision of a promising future. Then, using ArcGIS 10, maps were created which identified currently operating farmers' markets within Illinois. Lastly, an analysis of the socio-economic characteristics of Illinois farmers' markets that accept EBT were compared to other Illinois farmers' markets that do not accept EBT and assessed to find which non-EBT accepting farmers' market would be most suitable for implementing EBT which in turn would make them

candidates for possible EBT operating success. Three research questions were used to guide this research:

Research Questions

- 1) Using the 61st Street Farmers Market as a case study, how has the implementation of EBT encouraged market success?
- 2) What is the spatial distribution of all Illinois farmers' markets?
 - A) Using the USDAs' Food Desert Locator, what is the spatial relationship of farmers' markets and food deserts?
- 3) How do the socio-economic demographics characteristics compare among farmers' markets that accept EBT and those that do not accept EBT?

CHAPTER 2

LITERATURE REVIEW

Farmers' Markets and Consumers

For the bulk of the working class across America, weekdays are spent performing activities which productively generate their income. Therefore, the weekends, for some, are coveted for time of relaxation or enjoying some carefree excursions. But for the health conscious, educated and curious population, some Saturday mornings are spent frequenting neighborhood farmers' markets. Over the past three decades, farmers' markets have blossomed across the United States (Markowitz 2010); these markets are expanding and reaching crowds who generally are unaware about such operations. The number of farmers' markets operating in the United States has been published in the National Directory of Farmers Markets since 1994; in 2010 there were a total of 6,132 (USDA-AMS 2010) (Figure 1). The USDA presumes that farmers' markets allow consumers to have access to locally produced, farm-fresh foods and the opportunities to personally interact with producers and learn about their products; and for the community, markets are integral in creating robust local economies, thriving neighborhoods and vibrant civic design plans. Farmers' markets also provide easier access to fresh, healthful food in communities where access to fresh, nutritious food may be otherwise limited.

Over the past decade many studies have examined why consumers frequent farmers' markets or not. For example, Zepeda (2009) examined if there were differences between shoppers who shopped at farmers' markets and those who did not; Baker et al. (2009) conducted consumer surveys to learn about consumer preferences and solicited feedback for vendors; and Wolf et al. (2005) studied the characteristics of produce sold in farmers' markets and compared them to those sold at supermarkets to determine why consumers shopped at farmers' markets. The similarities of these studies were that shoppers favored having fresh and local foods as well

as the nutritious benefits added from foods purchased at farmers' markets. Although, the researchers varied in whether they supported the idea that income, education, gender, or need to support local foods, concurrently, caused consumers to shop at farmers' markets, they couldn't dismiss that the dissimilarities in shoppers' demographics must reveal more attention were be placed to local foods (Vecchio 2010).

Examining an even broader array of farmers' markets and consumer characteristics was a study conducted by Zepeda (2009), which focused on the characteristics, as well as motivations and behaviors of those who shop at farmers' markets and those who do not. This study tested the means of a simple random sample of U.S farmers' market shoppers to examine if there were differences amongst the shoppers and found shoppers that frequented farmers' markets were people who enjoyed and cooked frequently, were female and had another adult in the household; demographic characteristics, such as age, education, race, religion and income were not found significant. They found only minor differences in the characteristics of farmers' market and non-farmers' market shoppers. Therefore, limited appeal of farmers' markets were found in those who were single persons, single parent households and convenience-oriented shoppers (significance: the more difficult it was to access a farmers' market, the less likely a person was willing to travel to it).

Similarly, Wolf et al. (2005) compared the profile of farmers' market and non- farmers' market shoppers in San Luis Obispo County, California (California ranks #1 according to the USDA of the Top Ten U.S FM growth for 2010) (Table 1). Although their findings revealed the demographic profiles were more likely to be female and married (similar to Zepeda 2009), they also found it more likely that shoppers had completed some post graduate work; however, they found no significant difference in income.

Table 1. Top 10 states with the most Farmers' markets (USDA-AMS 2010).

U.S. States	# of Farmers' markets
California	580
New York	461
Illinois	288
Michigan	271
Iowa	229
Massachusetts	227
Ohio	213
Wisconsin	204
Pennsylvania	203
North Carolina	182

Effectively Operating Farmers' Market

Funding

There are numerous resources provided by government entities, as well as literature, which guide individuals and businesses on how to properly establish and manage a farmers' market in the United States. Funding opportunities for such projects are available and provided through the USDA, local governments or non-profit organizations as well as federal funding prospects.

One such funding opportunity is available through a federal grant from the Farmers Market Promotion Program (FMPP) under the USDA- Agriculture Marketing Service (AMS). The Farmers Market Promotion Program is a competitive grant program for eligible entities that

provide funds to assist with establishing, expanding, and promoting domestic farmers' markets, roadside stands, community-supported agriculture programs, and other direct producer-to-consumer market opportunities (USDA- AMS 2011). In fiscal year 2011, the Agriculture Marketing Service notified the public of competitive grant opportunities totaling \$10 million through the FMPP. Up to 180 awards were offered with a minimum award per grant of \$5,000 and a maximum award per grant of \$100,000. The purposes of the awards are to increase domestic consumption of agricultural commodities by expanding direct producer-to-consumer market opportunities. Supplying low-income communities' access to healthier foods, as well as supporting local farmers, supports the requirement of the FMPP grant that at least 10% of the funded projects are used for EBT implementation in the market. This is a great initiative since, for instance, farmers' markets frequently lack telephone lines and electricity, therefore, accepting electronic benefits cards has posed many technical challenges that regularly frustrate, if not infuriate, market organizers (Markowitz 2010). Allowing a portion of the funded projects to support EBT transactions are important to the success of the market, especially if the markets are situated in low-income communities where a large percent of the population are at risk and have low/no transportation and are in close proximity to areas designated as food deserts.

Management

Of great importance to the successful governing of a farmers' market daily operations is the employment of a dedicated market manager(s) and staff (mostly voluntary). Managers have the responsibility to maintain necessary vendor participation, keep records and proper licensure, if necessary. Summed up, market managers are responsible for the day to day operation of the farmers market. Although possibly varying from farmers' market to farmers' market, Hamilton (2002) identifies 10 typical market manager responsibilities as follows:

1. Selecting and registering both seasonal and daily vendors;
2. Assigning spaces at the market so vendors know where to set up and consumers know where to find their favorite farmers;
3. Collecting the seasonal and weekly fees for market spaces;
4. Handling day-to-day administrative issues which arise, such as “someone is illegally parked in my space!”
5. Enforcing market regulations and administering penalties, which may mean imposing fines on vendors;
6. Answering inquiries and responding to complaints from customers and vendors;
7. Working with local media and promoting the market by advertising what it has to offer;
8. Making sure the market complies with applicable local, state and federal regulations;
9. Administering the financial and business affairs of the market; and
10. Dealing with local officials, other businesses, and the organizers of the market.

Keeping these 10 objectives in mind, along with other duties that may arise, market managers possess a great deal of responsibility that are undoubtedly a driving force behind the daily operation of farmers’ markets.

Importance of Market Accessibility (or Willingness to Travel)

Food deserts, a coined term used to illustrate grocery-sparse barrens ruled by fast food and convenience stores – a place where it's easier to buy beer than milk and hard to find an un-fried potato chips and soda. No problem- fresh greens, broccoli or grapefruit? Dream on... as written in an article in the Houston Chronicle (2011). Many studies have examined food access, lack of fresh foods in communities, and consumers’ willingness to travel (Algert et. Al 2006; Apparicio et al. 2007; Baker et al. 2009; Berg and Murdoch 2008; Block et al. 2004; Detre et al. 2010; Ploeg 2010). A tool used in the fore mentioned studies was the distance when evaluating access to foods. Whether a supermarket, medium/small scale grocery store, convenience store or farmers’ markets, literature indicates consumers’ willingness to travel up 1 mile (Apparicio et al. 2007). According to the Healthy Food Financing Initiative (HFFI) of the Food Desert Locator <http://www.ers.usda.gov/data/fooddesert/about.html>, 1 mile is the maximum distance to a supermarket or large grocery store; anything above that is considered a “low-access community”.

Similarly, Berg and Murdoch (2004) also examined neighborhoods according to food access within 1 mile.

Willingness-to-travel (WTT), vehicle access, price and quality were some factors reviewed when determining whether, or not, consumers were willing to travel to a farmers' market or grocery retail stores. Agreeing with this view is the Baker et al. (2009) study which concluded that perhaps more important than the location of customers' residence was how far they were willing to travel to get to the farmers' market. Researchers also study consumers' willingness to travel distances to supermarkets. Somewhat different from farmers' markets in that *most* grocery stores may not provide fresh, local and a variety of produce that farmers' market provide.

While Apparicio et al.'s (2007) description of food deserts is similar to that of other literature; they also provide examples of certain barriers they believe contributes to the lack of access. These barriers are often linked to spaces of poverty, in part because some people in these areas have little mobility, whether this be short-term (no access to a car) or long-term mobility (lack of choice of residence due to lack of means), as well as some non-geographic barriers to accessing food, such as: social and cultural norms, physical disability, economic assets or attitude toward and knowledge about food and cooking (Apparicio et al. 2007).

Detre et al. (2010) recognizes that universities and/or colleges provide a captive group of consumers, students, many of whom are transportation constrained and must rely on retail food outlets that are in close proximity to their university/college's campus. A farmers' markets ability of being located in an area where a portion of the population has knowledge of the nutritional value of quality produce of a farmers' market and consumers who may frequent the market, as well as a population that is very new to the farmers' markets, will enable the farmers

to have the knowledgeable clientele needed, while also expanding their goods to a newer, less knowledgeable population.

Healthy, More Nutritious Foods from Farmers' Markets

Understanding the concept of a food deserts means to fully absorb the fact that these deserts are commonly found spanning across miles of impoverished, low-income areas. Ethnicity can be said to not to be a dominant factor in the 21st century as it pertains to low income and affluent communities, instead communities seem to be built on those who can afford to live there. Less income sometimes means lower living standard, which could also have an effect on the availability of fresh, nutritious, healthy foods. Eating healthy is especially difficult for low-income consumers because healthy food is significantly more expensive than unhealthy food that offers extra calories per dollar of food expenditure (Berg and Murdoch 2008).

The 21st century opened up with increasing technologies, greater secondary academic achievements, and an emerging awareness of healthier lifestyles. In an effort to improve health, individuals realize that they need to change from diets that consist of mostly fast foods to those rich in fruits and vegetables (Detre et al. 2010).

Jarosz (2000) suggested that the increasing demand for locally grown organic produce among middle class consumers reveals how concerns for local, small scale organic agriculture, farmland preservation and open space, and food safety may shape eating preferences. Is it only the middle class with these concerns? Could there remain evidence that provides reason to believe that some educated populations have more knowledge about the benefits of healthier lifestyles and, therefore, such places such as farmers' markets are frequented by the educated more than the less? Zepeda (2009) found that their model confirmed that women food shoppers are significantly more likely to patronize farmers' markets than male food shoppers, but it rejected the hypotheses that education, age or income affects the probability of patronizing

farmers' markets. However, while the study revealed that economic variables such as income and food expenditures had no significant impact on the probability of shopping at farmers' markets, attitudes about the importance of food cost did.

Therefore, if the cost associated with purchasing foods/ produce drives consumers' willingness to pay for local, organic, healthier foods, it would seem that providing food purchasing assistance (i.e. SNAP/EBT), education about local, organic, healthy foods at neighboring farmers' markets and neighborhood markets that accept EBT would be advantageous for all Illinois farmers' markets. In other words, providing education as to *WHY* eating local, organic, healthier foods is beneficial to the consumer, as well as, adopting EBT point of sales (POS) terminals, markets could increase the likelihood of an unknowledgeable community to patronize neighborhood farmers' market.

CHAPTER 3

RESEARCH METHODOLOGY

Mixed Method Approach

A mixed methods approach was taken for this project which contains 2 parts: qualitative and quantitative. The qualitative portion consists of a tape-recorded interview with Dennis Ryan, market manager of the 61st Street Farmers Market. The interview was allotted a 2-hour window to conduct. The questions, asked verbatim, are listed in Appendix A (Sylvia Smith PhD., pers.comm.). Part 2 of the project is the quantitative portion which focuses primarily on the GIS map production and statistical analysis using Independent-Samples Mann-Whitney U Test via SPSS 18.

The objective of this project was to provide information on how to bring healthy food into the community, support local agriculture, support the diversity of a community, and provide equal access of nutritious foods, as well as to provide learning opportunities in which several research questions were introduced in its attempt.

Research Question 1- Study Design

- 1) Using the 61st Street Farmers Market as a case study how has the implementation of EBT encouraged market success?**

Study Area

Standing at an angle off of 61st and Blackstone, Chicago Illinois, a 2-3 story building whose story blazes with history, stands firmly in the present while establishing itself for the future – The Experimental Station. The Experimental station is a not-for-profit organization founded in 2002 by Connie Spreen and Dan Peterman. The Experimental Station as an

incubator of innovative cultural, educational, environmental projects and small-scale enterprises; that draws upon the ecological principle of diversity, recognizing the dynamic treasure of resources that a diverse and complex environment brings (The Experimental Station 2011). Some projects of the Experimental Station include: independent publishing, contemporary art, experimental music, visiting writers, organic gardening, bulk food purchasing, ecological initiatives, a bicycle shop/youth education program and lastly, the focal point of this study, the 61st Street Farmers Market.



Figure 2. The 61st Street Farmers Market in operation.

The 61st Street Farmers Market has been established in the Woodlawn community. Since its inception in 2008 the market not only provides farmers with a viable income and an array of customers, it also provides farm field trips for children in the community, adult/kids cooking classes and educational outreach sessions at neighboring schools. There are about 20 vendors actively participating in the markets every Saturday from May through October (outdoors). The market accepts EBT/SNAP, senior coupons (some vendors) and double value coupon.

In October of 2010, the U.S. Department of Agriculture handed out dozens of Farmers Market Promotion Program grants to groups across the country, but only two in Illinois.

The 61st Street Farmers Market, on the border of Hyde Park and Woodlawn, received a \$61,000 USDA grant (Eng 2010). In a letter to the Chicago Tribune, Connie Spreen stated: "We are really delighted! This grant will help the Experimental Station continue to develop innovative approaches to transforming the local food culture through the 61st Street Farmers Market, and it will enable us to become a resource for other markets around the state seeking ways to create access to fresh and healthy foods for all of Illinois' residents" (Eng 2010).

Data Collection

Dennis Ryan, market manager of the 61st Street Farmers Market in Chicago, Illinois, agreed to my interview to explain the evolution and hopeful future of the 61st Street Farmers Market. He has been the market manager since its inception in 2008; assigned to this position by founder of the experimental station, Connie Spreen.

The interview questions were prepared to include two response sections: market operations and personal inspirations (Appendix A). The purpose of the interview was to highlight the success of the 61st Street Farmers Market as the case study using the interview questions to provide the reader with the practical aspect of running a farmers' market separate from the physical success of the 61st Street Farmers Market EBT acceptance.

The interview was conducted on site at The Experimental Station building on April 21, 2011. After a brief tour of the facility by Ryan, I was led to a corner angled room in the upstairs portion of the experimental station, where the interview began. The tape recorded interview began around 1:00pm and lasted about an hour. As mentioned in the human subject compliance consent forms, required by the SIUC Office of Research Development and Administration, when the interview was completed the tape recorded interview was transcribed within 5 days and the recording discarded.

Research Question 2- Study Design

2) What is the spatial distribution of all Illinois Farmers' Markets?

Study Area

The overall study area of this project is the state of Illinois, which is positioned in the Midwest portion of the United States of America. Illinois consists of 102 counties. In 2010 Chicago was considered the largest city in Illinois with a population of 2,695,598 and Cook County was the largest county with a population of 5,194,675 (DNR- Illinois facts 2010). The poverty rate as well as the number of people in poverty in Illinois has risen significantly since 1999 (table 2). It can be agreed that federal funding programs such as SNAP, TANF and the child income credit can help to mitigate some of the anxiety to Illinois residents falling on these difficult economic times.

Table 2. Illinois poverty rates 1999, 2007, 2008, 2009 (*data not included)

Year	Poverty Rate	# People In Poverty
2009	13.2	1,677,093
2008	12.2	1,532,238
2007	12	*
1999	10.7	1,291,958

Data collection

Maps were produced using ArcGIS 10.0 to visually display the distribution of farmers' markets across Illinois. GIS, Geographic Information Systems, in simplest terms is described as a computer system for capturing, managing, manipulating, analyzing, and displaying data which is spatially referenced on earth (Tietenberg 2009). Tietenberg (2009) describes how GIS technology has become applicable in studies relating to distributional inequalities with respect to either pollution, hazardous waste and in the scope of this research it can also be applied to show

the distribution of farmers' markets. This study used the applications of GIS to display the distributions of farmers' markets in Illinois.

The most recent, November 2010, raw data from the USDA National Farmers Market Directory was obtained from the USDA web-site. The information within the USDA dataset contained more than 4,700 United States farmers' market locations which included addressees as well as their corresponding geographic coordinates. The information contained within the list was submitted voluntarily; therefore, this may not be a complete listing of the total amount of U.S farmers' markets. Some listed markets did not contain full addresses or latitude and longitude coordinates. The coordinates are a more useful way to display the most accurate point locations on a map, it is important that each market provided accurate addresses or latitude and longitude coordinates.

The Illinois farmers' markets were selected from the USDA excel file and added to a new excel sheet. There were 288 Illinois farmers' markets listed in the USDA National Farmers Market Directory (Appendix B). Of these 288 farmers' markets, there were 74 markets with missing latitude and longitude coordinates. The missing coordinates were located using GPS Visualizer.com by inserting the markets addresses into the input location the output resulted in latitude and longitude coordinates for each of the 74 markets. The addresses were geo-coded to produce latitude and longitude coordinates. The process of geo-coding, transforming a description of locations, such as: a pair of coordinates, an address, or a name of a place (ESRI 2010) - allows the data to be spatially displayed which then allows for recognizable patterns within the information to become visually manageable via map (Figure 10).

The next step was to locate the Illinois farmers' markets that accept SNAP/EBT transactions. The Illinois Department of Human Services list farmers' markets that accept SNAP

benefits on their website <http://www.dhs.state.il.us/page.aspx?item=44172>, accessed November 2010. The DHS list contains 25 farmers' markets. A crosscheck was performed between the National Farmers' Market Directory and the Illinois DHS farmers' market list of EBT accepting farmers' markets. Only 22 of the 25 farmers' markets on the DHS list were located on the National Farmers' Market Directory with confidence (Appendix C).

A. Using the USDA's Food Desert Locator what is the spatial relationship of Farmers' Markets and Food Deserts?

Food Desert Locator

Prior to discussing research question 3, the following section explains why the sample farmers' markets were chosen to answer research question 3. Using the USDA's Food Desert Locator, which shows where each farmer's market is located in respect to a USDA declared food desert, farmers' markets addresses were entered into the Food Desert Locator, consecutively as they appeared on the list, and selected for this study according to their location within or proximity to food deserts. Being the case study of this project, the 61st Street Farmers Market was automatically chosen as an EBT accepting site for the analysis. Next, the remaining EBT and non-EBT accepting farmers' markets were located on the Food Desert Locator and those farmers' markets of each group found directly in or closest to a USDA declared food desert were chosen for the analysis.

According to the USDA's Food Desert Locator, a food desert is defined as a: "low-access community, at least 500 people and/or at least 33 percent of the census tract's population must reside more than one mile from a supermarket or large grocery store (for rural census tracts, the distance is more than 10 miles)". Using the USDA's food desert locator, <http://www.ers.usda.gov/data/fooddesert/fooddesert.html>, each farmers' markets address was

entered, adjusted to 1:36 magnifications and visually inspected to see precisely where within or near a food desert each market was located (Figures 3-10). Farmers' markets to analyze were chosen solely on their location.

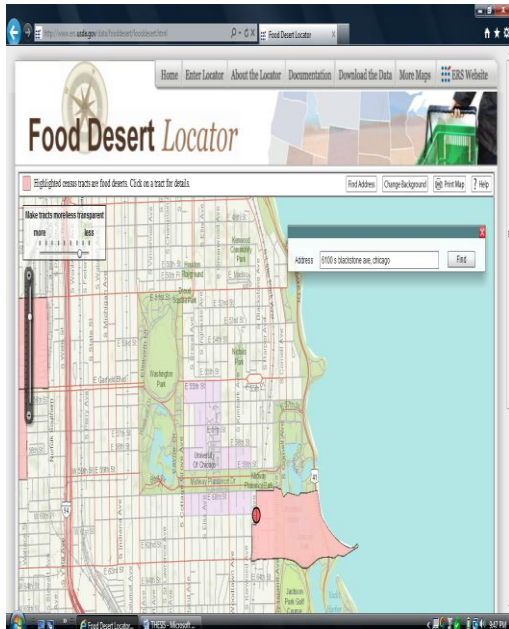


Figure 3 USDA's Food Desert Locator displaying the location of the case study: 61st Street Farmers Market which currently accepts EBT (shown as red dot) located within a food desert (pink highlighted area).

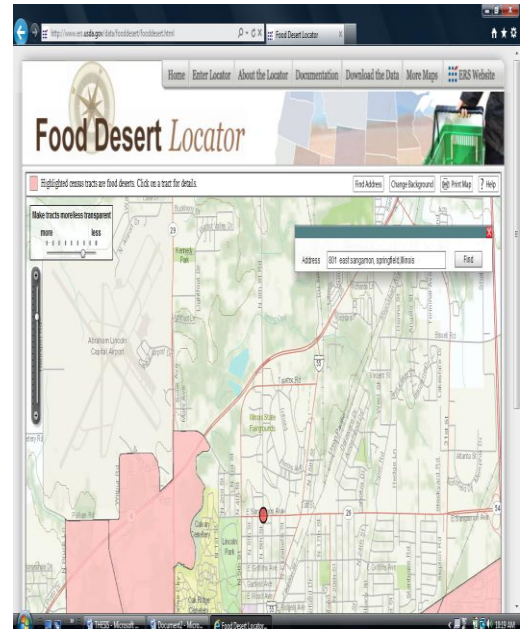


Figure 4 USDA's Food Desert Locator displaying the location of the Urbana, Illinois Farmers Market which currently accepts EBT. 400 South Vine (shown as red dot) located a few block south of a food desert (pink highlighted area).

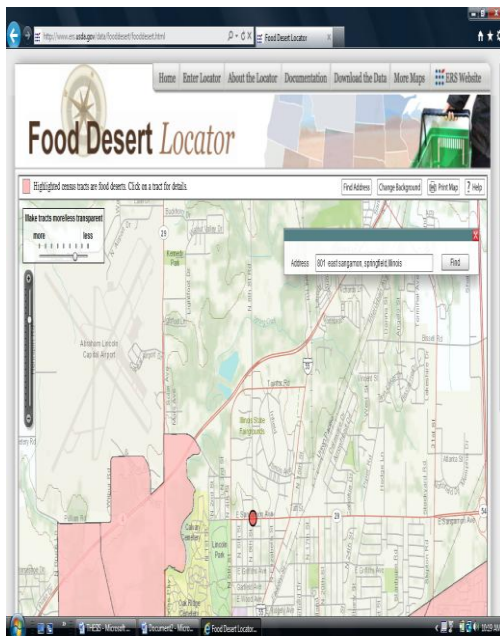


Figure 5 USDA's Food Desert Locator displaying the location of the Springfield, Illinois Farmers Market which currently accepts EBT. Illinois Products Farmers' Market located at 801 East Sangamon Ave./ Illinois State Fairgrounds (shown as red dot) located a few blocks east of a food desert (pink highlighted area).

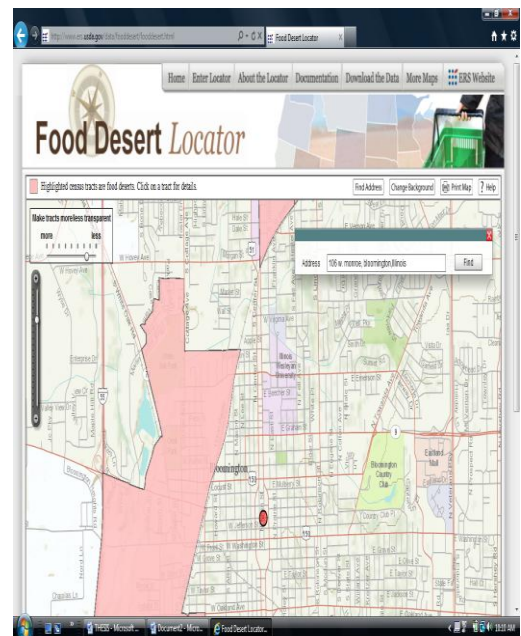


Figure 6 USDA's Food Desert Locator displaying the location of the Bloomington, Illinois Farmers Market which currently accepts EBT. The Downtown Bloomington Farmers' Market is located at the Intersection of Main and Jefferson (shown as red dot) located a few blocks east of a food desert (pink highlighted area).



Figure 7 USDA's Food Desert Locator displaying the location of the Chicago, Illinois Farmers Market NOT currently accepting EBT transactions. Gately/Pullman (Chicago) Farmers Market located at 11141 S. Cottage Grove (shown as red dot) located within a food desert (pink highlighted area)



Figure 8 USDA's Food Desert Locator displaying the location of a Normal, Illinois Farmers Market NOT currently accepting EBT transactions. Uptown Normal Trailside Farmers Market located at 100 W. North Street (shown as red dot) located within a food desert (pink highlighted area)

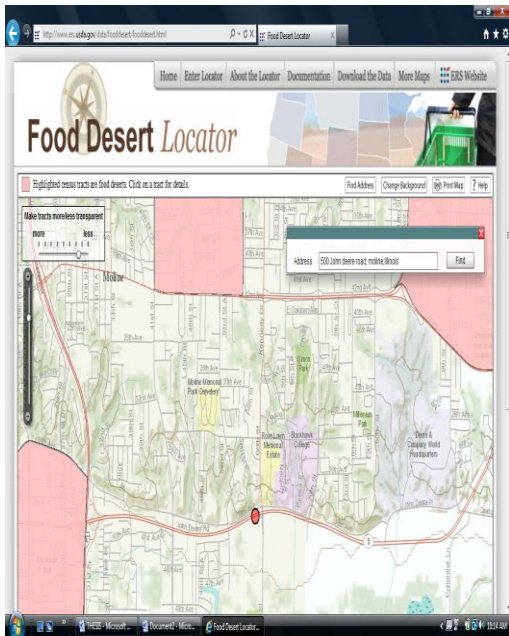


Figure 9 USDA's Food Desert Locator displaying the location of a Moline, Illinois Farmers Market NOT currently accepting EBT transactions. Trinity 7th St. Moline Farmers Market located 500 John Deere Road (shown as red dot) located within a food desert (pink highlighted area).

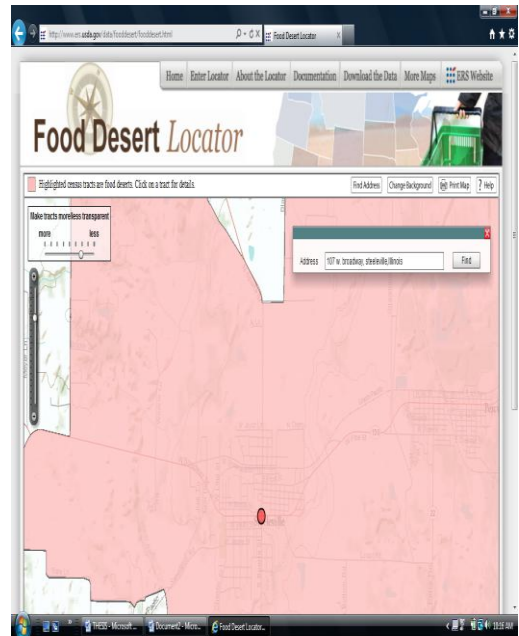


Figure 10 USDA's Food Desert Locator displaying the location of a Steeleville, Illinois Farmers Market NOT currently accepting EBT transactions. Steeleville Farmers Market located 107 West Broadway (shown as red dot) located within a food desert (pink highlighted area).

Research Question 3- Study Design

3) How do the socio-economic characteristics compare among farmers' markets that accept EBT and those that do not accept EBT?

Study Area

Of the listed 288 Illinois farmer's markets, 8 markets were selected, using the USDA's Food Desert Locator, to analyze as a sample of the farmer's markets population, of which, 4 SNAP/EBT accepting markets and 4 non- EBT accepting markets (Table 3).

**Table 3. Farmers' markets used as analysis sample for Illinois farmers' markets
4 Illinois farmers' markets that accept EBT and 4 Illinois farmers' markets that do not. * indicates case study: 61st Street Farmers Market.**

EBT markets	Census tract	County
*6100 S. Blackstone Avenue,; Chicago, 60637	4202	Cook
400 S. Vine; Urbana, 81801	55	Champaign
800 E. Sangamon Avenue; Springfield, 62702	4	Sangamon
106 W. Monroe; Bloomington, 61701	16	McLean
Non-EBT markets		
11141 S. Cottage Grove Avenue, Chicago, 60602	5003	Cook
100 W. North Street, Normal	1.02	McLean
500 John Deere Road, Moline	202	Rock Island
107 W. Broadway, Steeleville	9511	Randolph

Data Collection

Using the U.S Census Bureau's American Fact Finder database found at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>, information was collected on the census tract level for 8 selected Illinois farmers' markets (Table 3). Necessary for a small geographic area, such as the census tract, the American Community Survey provides through the U.S Census Bureau American Fact Finder 5 year estimates based on data collections between January 2005 and December 2009. The socio-economic demographic characteristic data for the 8 farmers' markets chosen for the analysis and imported into excel which included: total population (TP), income, age, ethnicity, poverty level, employment status, food stamp recipients (SNAP) and educational attainment (Appendix E). The excel files were condensed to include data necessary for this study and the file was then imported into ArcGIS 10 as a shape-file.

Mann- Whitney U Test

The non-parametric Mann-Whitney U (Ranking) Test is used when the test assumptions for parametric test are violated. Unlike parametric test, the data of non-parametric test are not required to be drawn from a normally distributed population nor is an equality of variances required (Morgan et al. 2007). The Mann-Whitney U Test evaluates whether the mean ranks on the test variables are found to differ significantly between 2 groups. In other words, it's used to determine if a difference exist between 2 groups.

The Mann-Whitney U Test combined all the observations within each test variable into one group and ranked them from lowest to highest. Each variable contained descriptive values/categories. For example, the variable population contained values for the number of people above poverty and below poverty within each area. Full descriptions of the variables' values/categories are listed in Appendix D. Once the values were ranked, they were placed back into their respective groups of EBT or non-EBT accepting. SPSS then calculated the mean ranks

for each group and computed a test statistics which determined whether there was a significant difference in the mean ranks for both groups.

In this study the two groups being tested were farmers' markets that accept EBT and non-accepting EBT markets. This test produced a p (probability) value or calculated probability used to estimate whether the null hypothesis (H_0) was rejected or retained:

H_0 (null hypothesis): There is no difference between the socio-economic characteristics of the EBT and non-EBT accepting farmers' markets areas;

H_1 (alternative hypothesis): There is a difference between the socio-economic characteristics of the EBT and non-EBT accepting farmers' markets areas.

This study used the p (probability) value as a means to interpret statistical significance. Probability (p) values range from 0 (no chance) to 1 (absolute certainty). A p-value less than the α (alpha) of .05 ($p < .05$) would suggest that the results from the test are statistically significant (unlikely to have arisen by chance/ the difference is considered significant) and therefore the null hypothesis is rejected; if the p-value is greater than alpha ($p > .05$) this would suggest that the difference is reasonably a chance finding and the idea that there is no difference between the EBT accepting and non-EBT accepting farmers' market areas would be retained.

CHAPTER 4

RESULTS/ FINDINGS

Research Question 1- Case Study Interview Findings

The 61st Farmers Markets accepted EBT on the first day of the markets opening on May 16, 2008. Although the market chose to initiate EBT acceptance immediately, the familiarity of farmers' markets accepting EBT was uncommon to EBT users, because of this, sales from EBT usage for market season 2008 were not impressive. "So our first year in link we did about \$1100; second year total combined sales were over \$6500 and then 2010 things just went even more crazy more crazy cause we did \$10,100 in link and \$7300 in double value so more than a thousand percent increase in link sales in 2010," (Dennis Ryan, interviewed by Deidra Davis, April 2011).

However, rather than focusing on their immediate profits or any other aspect of the markets operation for the first year, EBT acceptance in this market eventually helped to cultivate its success in the following areas:

- 1) Market operations: As more and more attention has been brought to the 61st Farmers Market, via word of mouth, advertisement, news, etc, there is no doubt that EBT has had a profound impact on the market over the years. The location of this farmers market allows the market offer access to EBT users, but also to a community of consumers already familiar with farmers' markets. Community socio- economic characteristics are important, especially when a new market is being established into a community. Typically, patrons of farmers' markets are "foodies": those who know of the benefits of fresh food and vegetables and are concerned with stimulating their local economy. The 61st Farmers Market provides quality fruits, vegetables, meats and even baked goods to an affluent community in their surrounding area, in addition

to introducing the benefits of the farmers' market to the unfamiliar and in some cases, impoverished EBT residents nearby. Having consumers that regularly frequent the market helps to maintain the economic flow of the market, while it establishes itself with future market goers, the neighboring EBT users, resulting in a wealth of positive economic stimulation for the farmers and the market, ultimately creating a successful, widely known, and patronized farmers' markets where everyone can have access to fresh fruits, vegetables and potentially more.

In addition to reporting the results of research question 1, excerpts from the interview are presented in this section, and in Table 4, and are categorized into the 4 literature topics:

- Farmers' Markets and Consumers
- Effectively Operating Farmers' Markets
- Importance of Market Accessibility
- Healthy, more nutritious foods

Farmers' Markets and Consumers

The establishment of relationships and lengthy dialog is somewhat inevitable when it comes to market vendors and the consumers. Unlike traditional grocery store, vendors and consumers of farmers' markets are able to converse over goods and services provided through direct farmer- consumer interaction. The 61st Street Farmers Markets consisting of about 20 vendors each Saturday, April through November, provides consumers with a wide array goods and opportunities to engage in conversation with the farmers. In a portion of this interview, Ryan was asked to describe some community interactions that he felt were the consequences of the markets acceptance of EBT:

“I think in general, to start, in a farmers market, the typical conversation is like 10 times longer than if you did it at a supermarket. It's like 10 minutes verses 1

minute, so people meet other people and talk. People get to know their neighbors and relationships are formed. Grandmothers are coming with their grand-kids introducing them to it [the market]. We only have one picnic table so people are sitting down and talking to people they may not have talked to and at the demos [food demonstrations] everyone sits together. It becomes like ‘hey I’m going to go to the market, why don’t we meet there and have a coffee’ and I think what’s wonderful is that we have such a diverse community that people start to see that; because we’re so divided by this big main street people are coming across the street now and they’re seeing the market and meeting their neighbors and those relationships form, and we’d hope those relationships turn into even bigger things like ‘hey you want to start a food business?’ (Dennis Ryan, interviewed by Deidra Davis, April 2011).

Effectively Operating Farmers’ Markets

Dennis Ryan explains how he has implemented strategic practices in the markets daily operation which has, in effect, led to many accomplishments’ for the market including providing healthy nutritious foods, dietary education and annual farm tours to children in the community (Table 4). Below is an excerpt of Ryan discussing why he feels some markets do not perform well:

“Some [Farmers’ markets] don’t do the research, some don’t ask the questions. They see a farmers market and don’t realize the work that goes into it. I’m here [The Experimental Station- home of the farmers market, bike shop and up and coming vegan café] 6 days a week during the season; I get here at 8 in the morning and leave at 5; that’s good, (laugh) to be able to get out on time ,because yeah it takes a ton of work. My day is filled up with the market; all the outreach, all the education, from everything as simple as making sure the farmers are ready to start, the logistics, the applications. So I think the success does point to proper planning and proper organization that gives the farmers confidence. If they know that you’re organized they’ll have a bit more confidence; they’ve seen enough farmers’marks and they’ve seen markets fail and succeed and there are certain factors that will ensure better than others that your market will succeed. So other markets that haven’t [done well] I will say that some of the reasoning is that maybe they didn’t take the time they should have, I would say that maybe they focused on certain things that aren’t as important as opposed to education and more marketing. Where we see the best marketing tool is the education and outreach; they spend tons on fliers and ads which don’t really help, I don’t think. They don’t have a full time market manager, sometimes it’s a volunteer, and it takes a lot of time to do it and if they can’t do all these things especially if you want to launch in a place where people don’t have access to healthy foods, money

is an issue and time is an issue. So we have to make sure all these things are happening and you can't do that if you're not organized and not staffed." (Dennis Ryan, interviewed by Deidra Davis, April 2011).

As far as handling SNAP/EBT transaction, Dennis Ryan states:

"Typically there is one central location, we do it at our information table so that way it doesn't stand out, cause with SNAP/LINK users there's a stigma attached to it and they have to be treated as every other shopper in this market the shopping is slightly different but that's just by the nature of the system." (Dennis Ryan, interviewed by Deidra Davis, April 2011)

Importance of Market Accessibility/ Healthy, more nutritious foods

The farmers' market accessibility to all communities was a point that Ryan expressed throughout the interview. The Experimental Station, already established in the community, was a great location to add a farmers' market. The community, being very familiar with the positive outreach activities held at 6100 South Blackstone, via the Experimental Stations numerous entities -one being the bike shop, provided a foundation for the 61st Farmers Market to grow and thrive in this community. The Woodlawn area (located directly south of the 61st Farmers Market) is considered a food desert, consumers who would normally have to drive, walk or take public transportation to obtain fresh fruits and vegetable are now able to stay within their community and purchase food that are not only healthy and nutritious, but also aids to stimulate the local economy.

"to the north of us is an affluent university community, where the current President Barack Obama, prior to his presidency, lived several blocks away; but we have a food desert immediately to the south of us"(Dennis Ryan, interviewed by Deidra Davis, April 2011).

Continuing on with our conversation about the 61st Street Farmers Markets growth in the community, as well as within, Ryan told a story about a person influenced by the markets dynamics and desire to contribute their abilities and time to such a cause:

“...so they kept calling, wanting to be a part of the market and I said we have to be careful of who/what we bring in. So they’re like “let’s do that”, I’m like “we already have that”, or they say “I can do this” but we have one of those.... I have three of that. So [this person] kept calling back and then said “well what do you need”? I said “I need this”, then this person goes “yeah I can do that”. Funny enough it’s like this person had all the equipment, all the stuff and said “yeah, I used to do this I have all the equipment I just don’t do it anymore”. So that got them into the market, they shop at the market buys all organic- a complete health-nut and all that stuff, understands nutrition everything. So now they’re here at the market and lives very close, only a few blocks away. So we get to know them and then they start to know the farmers. So now they get all the ingredients from the farmers. So that’s building the community! So we want to start adult cooking classes, they know how to cook; they cook healthy foods, uses local stuff. They are already at the market people see them. We say hey, do you want to teach our cooking classes? They agree, and are now teaching cooking classes. We say, we want to do kids cooking classes? Can you do that? They are incredible teaches, so and can do that as well. It’s not a ton of money but it’s something-they are starting their own business and now.... Because we have an incubator space, a business incubator space below us, which used to be a café but the owner had to move on so we rent out the space and they are now building that space up as well as another space to start a healthy raw vegan food business. And you don’t hear about that in the Wood-lawn neighborhood and they lives here and has clientele, followers and they’re all going to come down and buy their food and they will still source from the market. So now their clients become introduced to the building and they see the bike shop and they see the market and they see the events and it all just keeps rolling... and it keeps the dollars within the community, so then the community grows”(Dennis Ryan, interviewed by Deidra Davis, April 2011).

Table 4. Interview responses from Dennis Ryan which corroborate with literature topics.

<i>Literature Topics</i>	<i>Dennis Ryan's interview responses</i>
Farmers' Markets and Consumers	<ul style="list-style-type: none"> • "A typical conversation is like 10 times longer than at a supermarket" • "Communities learn, farmers get new shoppers" • Keep vendors as consistent as possible... "If you're a shopper and you come to the market one day and you see farmer 'Bob' and you love his stuff and for some reason he didn't show up next week you're gonna be upset, you're not going to come back again so that hurts the other farmers".
Effectively Operating Farmers' Markets	<ul style="list-style-type: none"> • Financial Contributors/ receive grants • Dedicated market managers/ volunteers • Relationships w/farmers based on trust • The markets' hours of operation must remain consistent; to change market hours or days of operation "that would be a death, you can't do that. Once you start- keep it rolling". • Outreach - "The outreach is like the education the fliers, church activities, the schools, cooking classes... So when we think about what community we're reaching and how they get their news, that's where we try to access them. Word of mouth is 65% of our clients". • "link transactions are highest at the beginning of the month; Although benefits vary through the month, but on average it's the first of the month"
Importance of Market Accessibility	<ul style="list-style-type: none"> • Purpose in the community: "rebuild the food culture, do outreach, [food/nutrition] education and make it affordable to everyone"
Healthy, more nutritious foods	<ul style="list-style-type: none"> • "Most of our sales, link sales, goes to fruits and vegetables- over 60 to 70%", • "We would not bring food into the community that we will not eat ourselves"

2) Personal inspirations: As Dennis Ryan expressed within our interview, his personal goals in the beginning phase of opening the 61st Farmers Market were -"to support the diversity of our community and to be sure that everyone has access to healthy food"(Dennis Ryan, interviewed by Deidra Davis, April 2011). Accepting EBT allowed the market organizers to satisfy their personal business goals by supplying their [the markets] products to a community where individuals possessing SNAP

funding could utilize government assistance for sustenance on fresh fruit and produce available within their own community.

Research Question 2- Map Production of Illinois Farmers' markets

ArcGIS 10.0 provided the following output of farmers' markets in Illinois that were listed on the USDA National Farmers Market Directory (Appendix B). Figure 11 is a map displaying 288 farmers' markets in Illinois. Notice the north- eastern portion of Illinois where the farmers' markets are clustered. This may be correlated to the fact that Chicago is the largest city within Illinois where Cook, DuPage, Will, Kane, McHenry counties are shown clustered with farmers' markets (Figure 11).

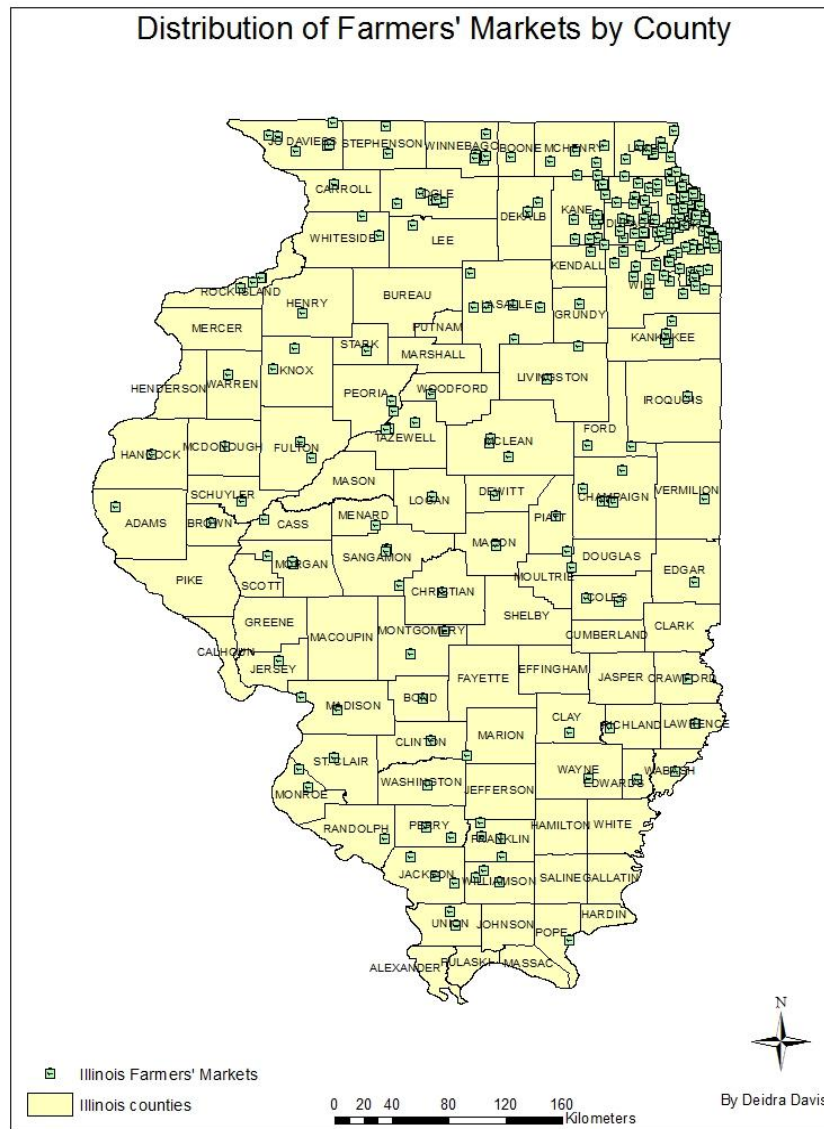


Figure 11. The distribution of farmers’ markets across the state of Illinois.

Figure 12 shows the 22 markets across Illinois that accept EBT. A listing of these markets is located in appendix C. Note that the largest county in Illinois, by population and area, has the greatest number of farmers’ markets. The 61st Farmers Market is shown highlighted in red.



Figure 12. The 22 listed Illinois farmers' markets that accept SNAP/EBT (Illinois Link card). The Experimental Stations 61st Street Farmers Market, case study, shown in red.

The following inset map shows a larger detailed view of the farmers' markets in Cook County featuring the case study; the 61st Street Farmers Market.

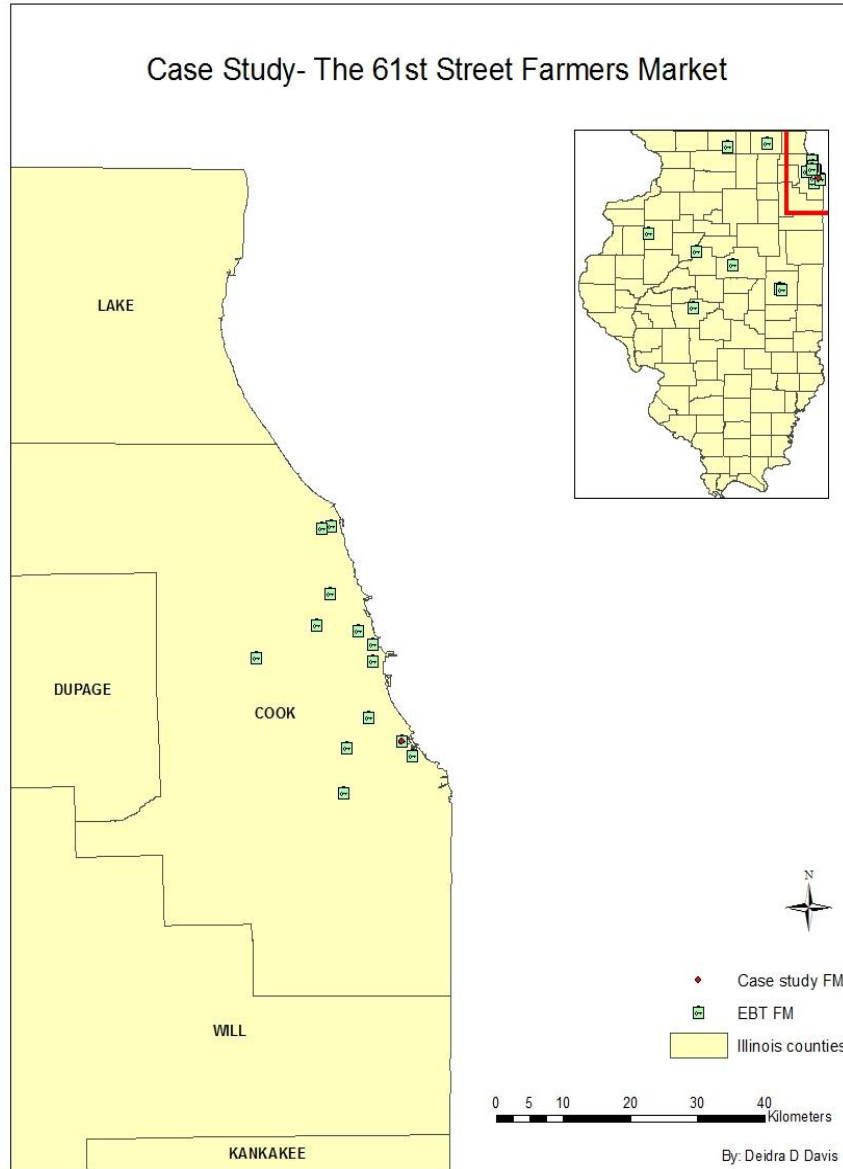


Figure 13. Expanded view of Illinois farmers' markets in Cook County which accept EBT, farmers' markets including the case study The 61st Street Farmers Market (red).

The map in figure 14 displays the 8 farmers' markets used for the analysis of EBT and non EBT accepting markets. The markets displayed as red dots are the markets that are listed as currently accepting EBT and the markets displayed as green squares are the markets where EBT is not accepted.

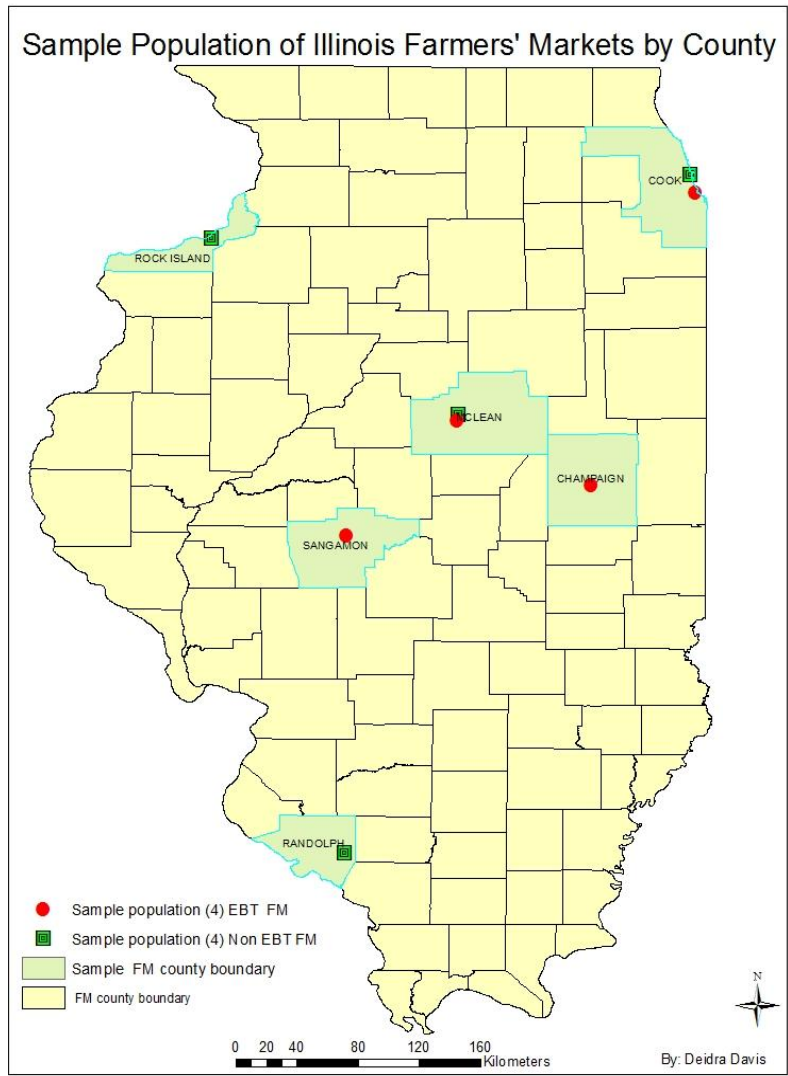


Figure 14. Distribution of the sample population of Illinois Farmers' Markets; 4 which accept EBT and 4 non-EBT accepting markets.

Food Desert

Of the 22 listed farmers' markets that accept EBT in Illinois, only 1 farmers market is located within a USDA declared food desert. The 61st Farmers Market located at 6100 South Blackstone is located within a food desert (Figure 3), which is also the case study within the framework of this project. Figures 4-6 shows the other EBT markets that unfortunately are not within a USDA food desert, but close to a declared food desert:

- 400 S Vine, Urbana – Champaign County
- 800 E. Sangamon Avenue; Springfield- Sangamon County
- 106 W. Monroe, Bloomington- McLean County

Likewise, it is expected that farmers market not currently accepting EBT would not necessarily be located within a food desert, however, the results shows 3 non-EBT accepting farmers' markets located within a USDA declared food desert area (Figure 7, 8 and10):

- 11141 S. Cottage Grove Avenue, Chicago - Cook County
- 100 W. North Street, Normal- McLean County
- 107 W. Broadway, Steeleville – Randolph County

The 4th non-EBT accepting farmers' market, 500 John Deer Road, Moline- Rock Island County, used in this study was not found within a food desert, however, according to the USDA's food desert locator, it is surrounded by 3 food desert (Figure 9).

Research Question 3- Socio-economic characteristic between EBT and non-EBT markets

Since Mann-Whitney U test ranks data from low to high, the variable EBT (categories: yes or no) with the highest mean rank had the higher number of observations within that respective variable under the particular EBT acceptance category. Because the alpha level was greater than .05 (α) for each variable tested, it can be concluded that there was enough information to retain the null hypothesis and conclude that there was no significance difference between the two groups. Both the EBT accepting and non-EBT accepting farmers’ markets did not differ on either test variables listed in Table 5, therefore we fail to reject the null hypothesis stating that there is no difference between the socio-economic characteristics of the EBT and non-EBT accepting farmers’ markets.

Table 5. Test variables along with their respective p value (sig.) (collapsed for readability).Appendix D contains a full description of collapsed variables.

<i>Variable</i>	<i>EBT acceptance</i>	<i>Mean rank</i>	<i>Sig.</i>
SNAP recipients	Yes	4.50	1.000
	No	4.50	
Ethnicity	Yes	31.91	.791
	No	33.09	
Income	yes	23.12	.496
	no	25.88	
Employment	yes	69.91	.456
	No	75.09	
Poverty Status	Yes	21.88	.345
	No	27.12	
Educational Attainment	Yes	30.27	.337
	No	34.73	
Population	Yes	7.00	.208
	No	10.00	
Age	Yes	10.67	.204
	No	14.33	

CHAPTER 5

DISCUSSION

With all the success of the 61st Street Farmers Market, Dennis Ryan acknowledges what he believed to be an important business decision:

“why this works and why this street [61st Blackstone] is a key reason to our success- is because it’s a border street; it’s a street that separates two very diverse neighborhoods- we’re talking to the north of us is an affluent university community [where President Barack Obama once lived several blocks away], and we have a food desert immediately to the south of us and we believe that border location allows us to succeed” (Dennis Ryan, interviewed by Deidra Davis, April 2011).

With the success of farmers’ markets generally being attributed to the level of participation from the vendors (Rimal et al. 2010), the 61st Farmers Market is not in short supply of vendors or of providing space for 20 vendors as well as a continually growing vendor waiting list. So much so that Ryan has even had to refer vendors to other markets.

Literature expresses the importance of more engaged neighborhoods of farmers’ markets and their influence on the markets viability, whether direct or indirect. Detre et al.’s (2010) article explains that a university/college provides a captive group of consumers, students, many of whom are transportation constrained and must rely on retail food outlets that are in close proximity to their campus. Likewise, the fact that the 61st Street Farmers Market is situated between the affluent neighborhood of the University of Chicago (to the north) and the impoverished Woodlawn community (immediately to the south) is an example of how the combination of these two areas allows this market to thrive and generate profitable gains while educating their newer, inexperienced consumer base about the benefits of a farmers’ market. Findings of research question 1 indicate that the locations of farmers’ markets are an important factor when deciding whether to accept EBT, as well as, how to secure sufficient market funding.

Markets located within food deserts or near them would be expected to have an active POS terminal(s) available for EBT users because of the lack of fresh foods and vegetables within a reasonable distance, per USDA's definition of a food desert. This situation compels EBT users to find other means of gathering fresh fruits and vegetables for their households where supermarkets and grocery chains are unavailable or too tasking to travel. Likewise, where there are no food deserts, but farmers' market, it seems these areas would not be expected to readily become EBT acceptors because there are other resources for fresh food and vegetables within the area. However, when studying the USDA's food desert locator, it was found that farmers' markets that currently accept EBT are not even located within a food desert, except for the case study. Unfortunately, the farmers' markets that are not currently accepting EBT are located within USDA declared food desert regions and have a great population of EBT users who, at the moment, are unable to use their SNAP funds at their local farmers market.

This leads to findings from the Mann-Whitney U Test which fails to reject the H_0 , that the distribution of the [variables] across farmers' markets areas that are EBT and non-EBT accepting are the same for all variables. Population, age, race, income, poverty level, educational attainment, SNAP and employment are considered to have no significant difference between the EBT and Non-EBT accepting markets, according to the mean rank and p-value generated from the Mann Whitney U test. Adding validity to this study is the findings of the most essential variable - the SNAP recipients. The SNAP recipients mean ranks for EBT and non-EBT areas are equal leading to a p-value of significance of 1.000. This result is supported by the raw data for SNAP which expresses a likeness in the populations for EBT and non-EBT farmers' market locations for SNAP recipients at 766 and 782, respectively. These results, especially of the SNAP recipients, add validity to the fact that there is no significant difference

between EBT and non- EBT farmer's market communities and the non-EBT markets could potentially benefit from accepting SNAP into their farmers' markets.

Recommendations

Congress should re-authorize the 2012 Farm Bill with stipulations for the USDA to follow:

- 1) Trouble-free pilot run (of EBT transactions) to non-EBT accepting markets.

Food desert areas should offer consumers access to fresh foods and vegetables via farmers' markets. So what is preventing non-EBT accepting farmers' markets, located in food deserts, from accepting EBT? As mentioned previously, starting a farmers market takes a great deal of organization, time, commitment, competent managers and most importantly- funds. The wireless POS terminals are expensive to purchase, problematic for outdoor farmers' markets, and have a costly operating expense especially for markets that are not largely patronized by SNAP users. To remedy this, government or state agencies can provide wireless EBT machines to markets for an introductory trial period, while covering all operating expenses. In addition, to providing the machines, markets should be supplied with equipment training and immediate access to personnel when equipment malfunction occurs. After a specified time period, state agencies should analyze the markets operation using the EBT equipment and if it is feasible to continue with its operations then the agency should further assist the markets with EBT operations, until they can operate the terminal independently. This recommendation seems rather pampered, but we must consider that some markets may not want to take the chance of risking their profits, if any, on a system that may or may not be of an advantage. Along with financial assistance to farmers' markets for the operation of EBT machines, markets should be presented with practical cases of EBT farmers' markets that have created a successful market.

2) Aid to Farmers' Market

Farmers' markets should receive funding to launch their market, specifically those located within food deserts. The emphasis of the initiating funds should concentrate on financially supporting the market manager(s), market operating cost (EBT) and food coupon incentive programs.

Additional funding should be allotted solely for the purpose of farmers' market community development and educational outreach programs. For instance, the additional funding will provide farmers' markets stands where people can learn how to prepare healthy, nutritious meals from the foods they purchased from the market; to help improve the effort of preparing foods the markets can also provide literature, in the form of pamphlets, booklets or recipe cards, to consumers about their purchase.

3) Farmers

Farmers and local growers should be educated about opportunities to get their goods to varying communities, via farmers' markets, and farmers should be exposed to the growing SNAP/EBT accepting farmers' markets. Farmers' should be provided with literature of practical cases about successful EBT farmers' markets, and provided with opportunities to interact with other farmers and farmers' markets that continue to grow. The farmer should be empowered and supported by the USDA to seek grants and other financial assistance which would bring financial stability and an awareness of the necessity for the production of their crops.

4) County Health Departments

As obesity and other health concerns rise, SNAP funds issued by the USDA should include a purchase requirement. Eligible recipients should be required to purchase a specific amount, set by the USDA or local government issuing SNAP, of fresh produce, fruit and

vegetables. Compelling the SNAP recipient to utilize the government funds to purchase healthful foods could lead to a decrease in obesity and other health crisis plaguing the low-income low-access communities.

Limitations

The USDA's definition and location of food desert were used in this study, but literature varies in their definition of food desert. Although the basic concept is the same (lack of availability of quality fresh fruits and vegetables) different distances are used to classify an area as a food desert. Furthermore, the discrepancy in defining a uniform classification for a food desert will lead to inconsistencies in whether an area is really considered to be lacking in access to fresh fruits and vegetables.

CONCLUSION

For a long time advocates have pushed to get government food assistance funds accepted at more than just conventional, industry style grocery chains. In 2010, there were only 25 listed SNAP/EBT accepting Illinois farmers' markets, but that number is growing as EBT/SNAP acceptance is being recognized by more farmers' markets as an opportunity which not only provides healthy nutritious foods to those who may not obtain them elsewhere, but also opens up a greater opportunity for communities to expand beyond their common neighbor and make healthier food access choices to ALL. As Baker et al (2009) states, "the creation of close relationships between farmers and consumers can lead to increased producer incomes as well as improved consumer access to fresh foods, while communities benefit from boosts to local economies".

Overall, the widespread acceptance of EBT at farmers' markets provides families with the assistance that they need to supply sustenance for their families, however, the full benefits of this government funding could be utilized more efficiently if the farmers' markets in those areas

would accept EBT- not only to provide healthier food choices to EBT users, but also to stimulate their local economy by bring the government funds, via EBT, into their neighborhood farmers' markets.

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APPENDICES

APPENDIX A

INTERVIEW QUESTION *

Market Operations	
1	What was the opening date of the 61 st street Farmers' market?
2	What are the markets' days/hours of operation?
3	On an average market day, how many vendors are selling products at the market?
4	What forms of payment are accepted at your market?
5	When did you begin to accept LINK (at the very beginning of operation or as the market progressed)?
6	During what week of the month are your LINK transactions highest?
7	About how many LINK transactions has your market had in 2008, 2009, 2010? Respectively, what were the total LINK sales? Daily average?
8	Do all vendors participate in EBT transaction?
9	Are all vendors required to participate in EBT program?
10	How did you introduce the individual farmers to the idea of EBT acceptance?
11	How do you handle LINK transactions?
12	Do you offer any incentives to customers using LINK?
13	What is the method of EBT transactions? Which option do you use? Tokens/ scrips, receipts or manual vouchers
14	Do you own your EBT machine?
15	What start-up cost did you incur due to the implementation of the LINK/SNAP program? How did you cover this cost?
16	What is your average monthly cost to operate the LINK/SNAP program? How did you cover these costs?
17	Do you have any types of outreach programs?
18	Can you describe community interactions that you feel were the consequence e of the markets acceptance of EBT?
Personal Motivations	
1	What was the influence of the placement of the market at 6100 S. Blackstone?
2	Was your business plan well thought out? What was it?
3	What would you credit to the success of your farmers market?
4	Do you have any recommendation to other farmer market coordinators looking interested in implementing the Illinois LINK/SNAP program?

*Provided by Dr. Sylvia Smith, SIUC Food & Nutrition, 2011.

APPENDIX B
288 ILLINOIS FARMERS' MARKETS FROM THE NATIONAL
FARMERS MARKET DIRECTORY (USDA).

#	MARKET NAME	MARKET ADDRESS	CITY	ZIP CODE
1	3 French Hens French Country Market	Canal Port, W. Illinois Ave.	Morris	60450
2	61st Street Farmers Market	6100 S. Blackstone Ave.	Chicago	60637
3	Addison Farmers Market	One Friendship Plaza	Addison	60101
4	Algonquin Farmers Market	Washington St & S Harrison St.	Algonquin	60102
5	Alton Farmers and Artisans Market	550 Landmarks Blvd.	Alton	62002
6	Andersonville Farmers Market	1500 W. Berwyn Ave.	Chicago	60640
7	Anna/Union County Farmers Market	1150 E Vienna St.	Anna	62906
8	Arlington Heights Farmers Market	N. Arlington Heights Rd. at E. Eastman St.	Arlington	60004
9	Arthur Produce Auction	354 N Cr-100 E	Arthur	61911
10	Ashburn (Chicago) Farmers Market	6700 S. Kedzie Ave.	Chicago	60629
11	Athens Farmers Market	Jefferson St.	Athens	62613
12	Aurora Farmers Market ATC	Aurora Transportation Center, 233 N. Broadway	Aurora	60505
13	Aurora Farmers Market East	2200 Ridge Ave.	Aurora	60504
14	Aurora Farmers Market West	1901 N. Galina	Aurora	60506
15	Austin (Chicago) Farmers Market	5600 W. Madison St.	Chicago	60644
16	Ava Farmers Market	Main St. & Fifth	Ava	62907
17	Barnharts Stone Corner Organic Farm Market	2169 E. Honey Creek Rd.	Oregon	61061
18	Barrington Farmers Market	Cook and Lake Cook Roads	Barrington	60010
19	Bartlett Farmers Market	203 Main St.	Bartlett	60103
20	Batavia Farmers Market	28 S.Waters St.	Batavia	60510
21	Beardstown Farmers Market	101 W 3rd St.	Beardstown	62618
22	Belleville Old Town Market	620 N. Illinois St.	Belleville	62220
23	Belvidere farmers Market and Crafts	1940 N. State St.	Belvidere	6108
24	Benton Farmers Market	Huddleson	Benton	62812
25	Berwyn Open Market	3322 Oak Park Ave.	Berwyn	60402
26	Beverly (Chicago) Farmers Market	9500 S. Longwood Dr.	Chicago	60602
27	Bolingbrook Farmers Market	Brouton & Janes	Bolingbrook	60443
28	Bond County Farmer's Market	Third and Franklin Streets	Greenville	62246
29	Bronzeville (Chicago) Farmers Market	3000 S. King Dr.	Chicago	60602
30	Brookfield Farmers Market	8820 Brookfield Avenue	Brookfield	60513
31	Bureau County Farmers Market	1023 N. Main St.	Princeton	61356
32	Burr Ridge Farmers Market	County Line Rd S/E of Lifetime Fitness	Burr Ridge	60527

33	Cambridge Farmers Market	876 County Seat Boulevard	Cambridge	61238
34	Canton Farmers Market	90 E. Locust St.	Canton	61542
35	Carbondale Farmers Market	2101 W Main St.	Carbondale	62901
36	Carbondale Main Street Grower's Market	200 E. Main St.	Carbondale	62901
37	Carlyle Courthouse Square Farmers Market	8th St.	Carlyle	62231
38	Carterville Farmers Market	304 S. Division St.	Cartville	62918
39	Carthage Farmers Market	Courthouse Square	Carthage	62321
40	Centralia Farmers Market	E 2nd St. at S. Locust St.	Centralia	62801
41	Champaign County Fair Farmers Market	229 Mattis Ave.	Champaign	61821
42	Charleston Farmers Market	500 7th St.	Charleston	61920
43	Chatham (Chicago) Farmers Market	E 87th Pl at S Langley Ave	Chicago	60619
44	Chicago Nettlehorst French Market	Corner of Broadway & Melrose in lakeview	Chicago	60657
45	Chicago's Green City Market	Between 1750 N. Clark & Stockton Drive	Chicago	60614
46	Chicago's Green City Market	1799 N. Clark St.	Chicago	60622
47	City Centre Market	20 N Water St., Ste 370	Decatur	62523
48	City of Cuba	403 E. Jefferson Street	Cuba	61427
49	City of Zion Farmers Market	Shiloh Blvd & Sheridan Rd	Zion	60099
50	Clinton Area Farmers & Artisans Market	100 S. Center St. Ste 101	Clinton	61727
51	Colonial Village Farmers Market	1240 S. Alpine	Rockford	61108
52	Community Winter Market	11 North Fifth Street	Geneva	60134
53	Conuco Farmers Market	2800 W. Division St.	Chicago	60622
54	Country Club Hills Farmers Market	4200 W. 183rd St.	Country Club Hills	60478
55	Country Side Farmers Market		LaGrange	60525
56	Crete European Market	1321 Main St.	Crete	60417
57	Crystal Lake Farmers Market	Depot Park, Woodstock & Williams Streets	Crystal Lake	60014
58	Cuba Farmers Market	403 E. Jefferson St.	Cuba	61427
59	Daley Plaza Chicago Farmers Market	50 W. Washington St.	Chicago	60602
60	Danville Farmers Market	100 N. Vermilion St.	Danville	61832
61	Deerfield Farmers Market	Deerfield Rd. & Robert York Ave.	Deerfield	60015
62	DeKalb Farmers Market	200 Palmer Ct.	DeKalb	60115
63	Discover Sycamore's Farmers Market	300 W Elm St.	Sycamore	60178
64	Division Street Chicago Farmers Market	1200 N Dearborn	Chicago	60610
65	Dixon Farmers Market	317 W. 3rd St.	Dixon	61021

66	Downers Grove Farmers Market	Main Street Metro Station	Downers Grove	60516
67	Downs Village Market	S. Seminary St.	Downs	61736
68	Downtown Bloomington Farmers Market	N. Main St. at E. Jefferson St.	Bloomington	61701
69	Downtown Downers Grove Market	5001 Main St	Downers Grove	60515
70	Downtown Elgin Harvest Market	120 E Highland Ave	Elgin	60120
71	Du Quion Farmers Market	Keyes Park at Park and Divisions	Du Quoin	62832
72	Dunning-Eli's (Chicago) Farmers Market	6701 W. Forest Preserve Ave.	Chicago	60602
73	Dwight Main Street Farmers Market	132 E Main St	Dwight	60420
74	East Dundee Farmers Market	319 N River St	East Dundee	60118
75	East Moline Farmers Market	1112 42nd Ave.	East Moline	61244
76	Eden Place Community Farmers Market	4417 S. Stewart Ave.	Chicago	60609
77	Edgebrook Farmers Market	1639 N Alpine & Highcrest	Rockford	61107
78	Edgewater Green Farmers Market	6034 N. Broadway St.	Chicago	60660
79	Edwards County Farmers Market	S 4th St. at E. Main St.	Albion	62806
80	Elburn Farmers Market	500 Filmore St	Elburn	60119
81	Eli's Cheesecake and Wright College Farmer's Market	6701 W. Forest Preserve Drive	Chicago	60634
82	Elizabeth Farmers' Market	411 W. Catlin	Elizabeth	61028
83	Elk Grove Village Farmers Market	1000 Wellington Ave.	Elk Grove Village	60007
84	Elmhurst Farmers Market	105 E. Vallette St.	Elmhurst	60126
85	Englewood Farmers Market	6452 S Ashland Ave.	Chicago	60637
86	Erie Street Farmers Market	500 W Erie St	Chicago	60610
87	Evanston's Farmers Market	University at Oak Ave.	Evanston	60201
88	Evergreen Park Farmers Market	9001 S Kedzie Ave	Evergreen Park	60805
89	Farmer Fridays at Uncommon Ground	1401 West Devon Ave	Chicago	60660
90	Farmers Market on Historic N.1 st	North 1st Street	Champaign	61820
91	Farmers Market on the Square	49 S Central Park Pl	Jacksonville	62650
92	Farmstand at CHSAS	3857 W 111th St	Chicago	60655
93	Federal Plaza (Chicago) Farmers Market	230 South Dearborn St.	Chicago	60602
94	First Market in Mahomet	IL-47 & E Main St.	Mahomet	61853
95	Flora Farmers Market	122 N. Main St.	Flora	62839
96	Flossmoor Farmers Market	1000 Sterling Ave	Flossmoor	60422
97	Frankfort Country Farmers Market	Downtown at Breidert Green Oak & Kansas St.	Frankfort	60423
98	Galena Farmers Market	121 E. Commerce St.	Galena	61036

99	Galena Territory Farmers Market	2000 Territory Drive	Galena	61036
100	Galesburg Farmers Market	Parking Lot - see description below	Galesburg	61401
101	Garfield Park (Chicago) Farmers Market	300 N Central Park Ave.	Chicago	60602
102	Gately/Pullman (Chicago) Farmers Market	11141 S. Cottage Grove Ave.	Chicago	60602
103	Geneva French Market	South St. at 4th St	Geneva	60134
104	Geneva Green Market	75 North River Lane	Geneva	60134
105	Geneva Winter Market	11 N 5th St	Geneva	60134
106	Gibson City Farmers Market	126 N. Sangamon	Gibson City	60936
107	Glen Ellyn Farmers Market	400 Main St.	Glen Ellyn	60611
108	Glencoe French Market	355 Park Ave.	Glencoe	60022
109	Glenview Farmers Market	1510 Wagner Rd.	Glenview	60025
110	Glenwood Sunday Market	6900 N. Glenwood Ave.	Chicago	60626
111	Golconda Farmers Market	310 E. Main St.	Golconda	62938
112	Grayslake Farmers Market	147 Center Street	Grayslake	60030
113	Green City Market	1750 N. Clark St.	Chicago	60614
114	Greenwood Methodist Church Market	11474 Ward Rd	Valier	62891
115	Gurnee Farmers Market	Grand Ave. & Kilbourne Rd.	Gurnee	60031
116	Heritage Farmers Market	20235 State Rt. 9	Perkin	61554
117	Herrin Farmers Market	Park Ave.	Herrin	62948
118	Hines Veterans Hospital Farmers Market	5th Ave.	Hines	60141
119	Hinsdale Farmers Market	19 E. Chicago Ave.	Hinsdale	60521
120	Home Grown Market on the Square	321 West 2nd Avenue	Milan	61264
121	Homer Glen Farmers Market	159th & Bell Rd.	Homer Glen	60491
122	Homewood Farmers Market	18200 Dixie Highway	Homewood	60430
123	Huntley Farmers Market	11704 Coral St.	Huntley	60142
124	Hyde Park (Chicago) Farmers Market	5211 S. Harper Ave.	Chicago	60602
125	Illinois Products Farmers Market	Grandstand Ave.	Springfield	62702
126	Immanuel Indoor Farmers Market	616 Lake St.	Evanston	60201
127	Independence Park Farmers Market	3945 N Springfield Ave.	Chicago	60618
128	Jacksonville Farmers Market at Lincoln Square	901 W. Morton Ave.	Jacksonville	62650
129	Jacksonville Main Street Farmers Market on the Square	100 Block of West Douglas	Jacksonville	62650
130	Jerseyville Farmers and Artisan Market	N State St. & E Exchange St.	Jerseyville	62052
131	Joliet City Center Farmers Market	W. Van Buren St. at N. Chicago Sts.	Joliet	60432
132	Kankakee County Farmers Market I	100 E. Merchant St.	Kanakee	60901
133	Kankakee County Farmers Market II	805 N. Kennedy Dr.	Kankakee	60901

134	LaGrange Park Farmers Market I	439 N. LaGrange Rd.	LaGrange	60525
135	LaGrange Park Farmers Market II	53 S. LaGrange Rd.	La Grange Park	60526
136	Lake Bluff Farmers Market	40 E. Center Ave.	Lake Bluff	60044
137	Lake Forest Market on the Square	Market Square	Lake Forest	60045
138	LaSalle Farmers Market	2nd St. & Gooding St.	La Salle	61301
139	Lawndale (Chicago) Farmers Market	3555 W. Ogden Ave.	Chicago	60623
140	Lawrence County Farmers Market	712 12th St.	Lawrenceville	62439
141	Lena Farmers Market		Lena	61032
142	Libertyville's Main St. Farmers Market	W Church Street	Libertyville	60048
143	Lincoln Farmers Market	Pekin St. at N. Kickapoo St.	Lincoln	62656
144	Lincoln Mall Farmers Market	Rt. 30	Matteson	60443
145	Lincoln Park (Chicago) Farmers Market	2000 N-700 W lincoln Park High School Parking lot	Chicago	60602
146	Lincoln Square Chicago Farmers Market	City parking lot adjacent to Brown Line station	Chicago	60602
147	Lincolnwood Farmers Market	4707 W Pratt Ave.	Lincolnwood	60712
148	Lisle French Market	Downtown Lisle-Burlington	Lisle	60532
149	Lockport Farmers Market	Rt. 7 by Historic Canal	Lockport	60441
150	Logan Square Farmers Market	3107 W Logan Blvd	Chicago	60647
151	Lombard Farmers Market	Park Ave. N. of St. Charles Rd.	Lombard	60148
152	Macomb Farmers Market	Court House Square	Macomb	61455
153	Main Street Farmers Market	700 block of 15th Avenue	East Moline	61244
154	Main Street Farmers Market Downtown Aledo	S. College Ave.	Aledo	61231
155	Main Street Paris Farmers Market	Southside of Square	Paris	60420
156	Main Street Libertyville Farmers Market	133 E Cook Ave.	Libertyville	60048
157	Manhattan Farmers Market	Wabash St.	Manhattan	60442
158	Manteno Market	S.E. Corner of Division & Main	Manteno	60950
159	Marengo Friday Farmers Market	W Washington St. at S Ann St.	Marengo	60152
160	Marion Farmers Market	507 W. Main, Senior Citizens Parking Lot	Marion	62959
161	Marseilles Farmers Market	Knudson Park on Lincoln St	Marseilles	61341
162	Mattoon Farmers Market	500 Broadway Ave.	Mattoon	61938
163	McHenry Farmers Market	3400 Pearl St.	McHenry	60050
164	Mendota Farmers Market	700 Main St.	Mendota	61342
165	Metamora Farmers Market	On the Square in Metamora	Metamora	61548
166	Midtown Farmers Market	1132 2nd Ave.	Rockford	61104
167	Milan Farmers Market	900 W. 4th St.	Milan	61264
168	Mokena French Market	Wolf Rd. at Front St.	Mokena	60448
169	Moline Farmers Market	135 River Drive	Moline	61265
170	Monee Farmers Market	25510 S Governors Hwy	Monee	60449

171	Monmouth Farmers Market	122 W. Boston Ave.	Monmouth	61462
172	Monroe County Farmers Market- Columbia IL	229 N. Main St.	Columbia	62236
173	Monroe County Farmers Market- Waterloo IL	100 W. Mill St.	Waterloo	62298
174	Monticello Main Street Farmers Market	State and Livingston Streets	Monticello	61856
175	Morgan Park (Chicago) Farmers Market	Shiloah M.B. Church lot, 92nd & Ashland	Chicago	60602
176	Morton Farmers Market	210 S Main street	Morton	61550
177	Mount Morris Farmers Market	117 Main St	Mt. Morris	61054
178	Mt. Carmel Farmers Market	219 N Market St.	Mt. Carmel	62863
179	Mt. Carroll Farmers Market	116 E Market Street	Mt. Carroll	61053
180	Mt. Morris Farmers Market	Mt. Morris Public Library	Mt. Morris	60154
181	Mt. Morris Farmers Market	105 S. Mckendrie Ave.	Oregon	61061
182	Mt. Prospect Farmers Market	Metro Station parking lot	Mount Prospect	60056
183	Mt. Sterling Farmers Market	200 Pittsfield Rd.	Mt. Sterling	62353
184	Murphysboro Farmers Market	City Administration Building at 12th St.	Murphysboro	62966
185	Museum of Contemporary Art Streeterville Chicago Market	220 E Chicago Ave	Chicago	60611
186	Naperville Farmers Market	200 E. 5th St.	Naperville	60563
187	Nashville Chamber of Commerce Market	South side of Courthouse	Nashville	62263
188	Near North (Chicago) Farmers Market	Old Division & Dearborn Streets (1200 N-50 W)	Chicago	60602
189	Nettelhorst French Market	3252 N Broadway St.	Chicago	60657
190	New Lenox Farmers Market	1 Veterans Parkway	New Lenox	60451
191	Nokomis Farmers Market	301 E State St.	Nokomis	62075
192	North Bloomington Street Farmers Market	1215 North Bloomington(Route 23)	Streator	61364
193	North Center (Chicago) Farmers Market	Belle Plain/Damien/Lincoln (4100N - 2000N)	Chicago	60602
194	North End Commons Farmers Market	City lot at Latham and King Streets	Rockford	61103
195	North Riverside Farmers Market	2401 DesPlaines Ave.	Riverside	60546
196	Northfield Farmers' market	4 Happ Rd	Northfield	60093
197	Oak Lawn Farmers Market	North Parking Lot of Villiage Hall	Oak Lawn	60453
198	Oak Park Farmers' Market	460 Lake Street	Oak Park	60302
199	Old Dundee Farmers Market	319 N. River Street	East Dundee	60118
200	Olde Schaumburg Centre Farmers Market	190 S. Roselle Road, Town Square	Schaumburg	60193
201	Olympia Fields Farmers Market	20301 Western Ave.	Olympia Fields	60461

202	Oneida Farmers Market	221 W Hwy 34	Oneida	61467
203	Orangeville Farmers Market	Richland /creek Trailhead W. High St	Orangville	62450
204	Oregan Farmers Market	304 S. 5th St.	Oregon	61061
205	Orland Park Farmers Market	14700 S Ravinia Ave	Orland Park	60462
206	Oswego Country Market	Main St.	Oswego	60543
207	Ottawa Area Chamber of Commerce Farmers Market	100 Jackson Street	Ottawa	61350
208	Our Lady of the Brook Farmers Market	3700 Dundee Rd.	Northbrook	60062
209	Palatine Farmers' Market	Smith and Wood Street	Palatine	60067
210	Palos Heights Farmer's Market	NW Corner of Harlem Ave. & Route 83/College Drive	Palos Heights	60463
211	Palos Park Women's Club Farmers Market	123rd & 88th Ave.	Palos Park	60464
212	Park Forest Farmers Market	271 Lakewood Blvd.	Park Forest	60466
213	Park Ridge Farmers Market	19 Prairie	Park Ridge	60068
214	Pawnee Farmers Market	Village Square	Pawnee	62558
215	Paxton Farmers Market	249 North Market Street	Paxton	60957
216	Pekin Downtown Farmers Market	17 S. Capitol St.	Pekin	61554
217	Peoria Farmers Market at the Metro Centre	4700 N. University- Metro Mall	Peoria	61614
218	Peoria Riverfront Market	300 SW Water St, Liberty Park	Peoria	61602
219	Pinckneyville Farmers Market	1 E Water St.	Pinckneyville	62274
220	Plainfield Farmers Market	IL- 59 & W Lockport St.	Plainfield	60544
221	Plaza Marketplace	1 Courthouse Square	Hillsboro	62049
222	Polo Chamber of Commerce Farmers Market	101 E. Mason St.	Polo	61064
223	Pontiac Farmers Market	Courthouse Square on Washington St.	Pontiac	61764
224	Port Clinton Square Farmers Market	600 Central Ave.	Highland Park	60035
225	Portage Park Farmers Market	4100 N Long Ave	Chicago	60641
226	Prairie Crossing Farm Market	18701-18899 W Casey Rd.	Grayslake	60030
227	Printer's Row (Chicago) Farmers Market	Dearborn & Polk (36W - 800S) Parking lot	Chicago	60602
228	Prudential Plaza (Chicago) Farmers Market	130 E Randolph St.	Chicago	60601
229	Quincy Historic District Farmers Market	Washington Park	Quincy	62301
230	Rantoul Chamber of Commerce Farmers Market	107 N. Kentucky	Rantoul	61866
231	Ravinia Farmers Market	Dean Ave. (Between St. John's & Roger Williams Ave	Highland Park	60035
232	Richland County Farmers Market	White Squirrel Dr.	Olney	62450
233	Richton Park Farmers Market	440 Meadow Rd. N	Bourbonnais	60914
234	Ridgeville Park District Farmers	Ridgeville Park	Evanston	60202

	Market			
235	Riverview Farmstead Farmer's Market	111th and Book Road	Naperville	60564
236	Robinson Farmers Market	Courthouse Square	Robison	62454
237	Rochelle Farmers Market	Main St.	Oregon	61061
238	Rock Falls Farmer marke	400 W 2nd Street between 4th & 5 Ave	Rock falls	61071
239	Rockford City Market	North Water Street	Rockford	61104
240	Roscoe Main StreetSquare Farmers Market	Hwy 251 and Williams Dr.	Roscoe	61937
241	Roselle Farmers Market	Main St & Prospect St	Roselle	60172
242	Rushville Main Street Farmers Market	210 N. Congress St.	Rushville	62681
243	Saturday Produce Market	One College Park	Decatur	62521
244	Sears Tower Plaza Farmers Market	233 S Wacker Dr.	Chicago	60606
245	Seguin Gardens Market	3100 S Central Ave	Cicero	60804
246	Sesser The Tuesday Sale	IL-148	Sesser	62884
247	Shore Bank (Chicago) Farmers Market	Shore Bank Parking lot, 70th & Jeffery	Chicago	60602
248	Skokie Farmers Market	5127 Oakton Street	Skokie	60077
249	South Chicago Farmers Market at Chief Nomo Oasis	2650 E 83rd St	Chicago	60617
250	South Shore (Chicago) Farmers Market	7054 S Jeffery Blvd	Chicago	60649
251	Southport Green Market	Southport and Grace at Blaine School parking lot	Chicago	60613
252	Springfield Old Capital Farmers Market	Adams Street, Between 3rd & 5th Sts.	Springfield	62701
253	St. Alphonsus Liguori Farmers Market	411 n Wheeling Rd	Prospect Heights	60070
254	St. Charles Farmers Market	307 Cedar Avenue	St. Charles	60174
255	Stark County Farmers Market	Downtown Wyoming	Toulon	61491
256	Steeleville Farmers Market	107 West Broadway	Steeleville	62288
257	Stockton Farmers Market II	Downtown Stockton nextto Caseys on Highway 78	Stockton	61085
258	Stokton Farmers Market I	Off Highway 20 at Stockton High School	Stockton	61085
259	Sugar Grove Chamber of Commerce Farmers Market	10 Municipal Drive	Sugar Grove	60554
260	Taylorville Farmer's Market	Downtown Taylorville, East side of Square	Taylorville	62568
261	The Land of Goshen Community Market	Downtown Edwardsville, on St. Louis Street	Edwardsville	62025
262	The Sunday Market	2301 W. Maypole	Chicago	60612
263	Thornton Farmers Market	W Margaret St & Hubbard St	Thornton	60476
264	Tinley Park Farmers Market	Metra Station 173rd & Oak Park Ave.	Tinley Park	60477

265	Trinity 7th St. Moline Farmers Market	500 John Deere Rd.	Moline	61265
266	Twin City Farmers Market	Downtown Sterling	Sterling	61081
267	Uptown Chicago Farmers Market	1145 W. Wilson (4600n-1145w) Truman College	Chicago	60640
268	Uptown Normal Trailside Farmers Market	100 W North St	Normal	61761
269	Urbana's Market at the Square	400 South Vine Street	Urbana	61801
270	Vandalia Country Market	421 W Gallatin St.	Vandalia	62471
271	Villa Park French Market	E Park Blvd at S Ardmore Ave.	Villa Park	60181
272	Village of Lake Bluff Farmers Market	On East Center Ave. - corner of Center & Sheridan	Lake Bluff	60044
273	Village of Orland Park Farmers Market	Village Center Complex	Orland Park	60462
274	Village of Skokie Farmer's Market	5127 Oakton	Skokie	60077
275	Warren Farmers Market	110 W Main St.	Warren	61087
276	Warrensville Farmers Market	3S260 Warren Ave	Warrenville	60555
277	Watseka Farmers Market	First Trust & Savings Bank parking lot	Watseka	60970
278	Wauconda Farmers Market	West side of Main St. in front of the Village Hall	Wauconda	60084
279	Waukegan Farmers Market	S Lewis Ave at Belvidere Rd	Waukegan	60085
280	Wayne County Farmers Market	Courthouse Square & Walmart Parking Lot	Fairfield	62837
281	West End Market	Church Street and Dodge Avenue	Evanston	60201
282	West Frankfort Farmers Market	1002 E Cleveland St	West Frankfort	62896
283	Western Springs French Market	Hillgrove Ave between Lawn & Grand Ave	Western Springs	60558
284	Wheaton Farmers Market	Westside of Bldg on Boardwal adj to Cross St	Wheaton	60187
285	Wheaton French Market	200 S Main St.	Wheaton	60187
286	Wicker Park/Bucktown (Chicago) Farmers Market	Wicker Park & Damen Streets	Chicago	60602
287	Winfield Farmers Market	Prairie Trail Center Shopping Center parking lot	Winfield	60190
288	Woodstock Farmers Market	Woodstock Town Square	Woodstock	60098

APPENDIX C

FARMERS' MARKETS IN ILLINOIS THAT ACCEPT SNAP BENEFITS. The case study examined within this study is shown bold and italicized (1) in the list.

#	MARKET NAME	MARKET ADDRESS	MARKET CITY	ZIP CODE
1	61st Street Farmers Market	6100 S. Blackstone Ave.	Chicago	60637
2	Beverly (Chicago) Farmers Market	9500 S. Longwood Dr.	Chicago	60602
3	Daley Plaza Chicago Farmers Market	50 W. Washington St.	Chicago	60602
4	Division Street Chicago Farmers Market	1200 N Dearborn	Chicago	60610
5	Downtown Bloomington Farmers Market	N. Main St. at E. Jefferson St.	Bloomington	61701
6	Eden Place Community Farmers Market	4417 S. Stewart Ave.	Chicago	60609
7	Englewood Farmers Market	6452 S Ashland Ave.	Chicago	60637
8	Evanston's Farmers Market	University at Oak Ave.	Evanston	60201
9	Farmers Market on Historic North 1st Street	North 1st Street	Champaign	61820
10	Galesburg Farmers Market	Seminary St. b/t Simmons St. and Kellogg St	Galesburg	61401
11	Illinois Products Farmers Market	Grandstand Ave.	Springfield	62702
12	Oak Park Farmers' Market	460 Lake Street	Oak Park	60302
13	Peoria Riverfront Market	300 SW Water St, Liberty Park	Peoria	61602
14	South Shore (Chicago) Farmers Market	7054 S Jeffery Blvd	Chicago	60649
15	Urbana's Market at the Square	400 South Vine Street	Urbana	61801
16	West End Market	Church Street and Dodge Avenue	Evanston	60201
17	Woodstock Farmers Market	Woodstock Town Square	Woodstock	60098
18	Chicago's Green City Market	Between 1750 N. Clark & Stockton Drive	Chicago	60614
19	Lincoln Square Chicago Farmers Market	4700 North Lincoln Avenue	Chicago	60602
20	Logan Square Farmers Market	3107 W Logan Blvd	Chicago	60647
21	Midtown Farmers Market	1132 2nd Ave.	Rockford	61104
22	Lawndale (Chicago) Farmers Market	3555 W. Ogden Ave.	Chicago	60623

APPENDIX D

The 8 variables used in SPSS contained several observations within each variable. The Mann-Whitney U Test ranked the values, lowest to highest, in each level and generated the test statistic outcome.

Variables	Levels/categories within each test variable			
SNAP recipients	1 -Yes	2 -No		
Ethnicity	1 -Caucasian	2 -African American	3 -American Indian and Alaskan Native	4 -Asian
	5-Native Hawaiian	6 -Some other race	7-Two or more races	8 -Two or more races with some other race
Income	1 - <\$14,999	2 -\$15,000-24,999	3 -\$25,000-34,999	4 -\$35,000-44,999
	5 -\$45,000-59,999	6 -\$60,000		
Employment	1-Employed males ages 16-24	2 -Unemployed males ages 16-24	3-Males not in the labor force ages 16-24	4 -Employed males ages 25-54
	5 -Unemployed males ages 25-54	6 -Males not in the labor force ages 25-54	7-Employed males ages 55+	8 -Unemployed males ages 55+
	9 -Males not in the labor force ages 55+	10-Employed females ages 16-24	11-Unemployed females ages 16-24	12 -Females not in the labor force ages 16-24
	13 -Employed females ages 25-54	14 -Unemployed females ages 25-54	15-Females not in the labor force ages 25-54	16 -Employed females ages 55+
	17 -Unemployed females ages 55+	18 -Females not in the labor force ages 55+		
Poverty Status	1-Above poverty		2 -Below poverty	
Education	1- Male population some HS	2 - Male population 18+ HS graduate	3 -Male population 18+ some college	4 -Male population 18+ college grad
Population	1 -Total male population	2 -Total female population		
Age	1-under 5-17	2 – 18-54	3- 55+	

APPENIDIX E
INTERVIEW CONCENT FORMS
COVER LETTER

Dear Dennis Ryan:

I am a graduate student seeking my Master's degree in the Department of Geography & Environmental Resources at Southern Illinois University-Carbondale.

The purpose of the interview is to gather information about the Farmers' Market located at 6100 S. Blackstone, Chicago, Illinois. In addition, there a few short answer questions that ask your opinion of how to successfully administer government funded assistance programs at Farmers' markets. This interview will be audio taped; the audio tape will only be reviewed by the researcher and the advisor.

This interview involves a single subject, Dennis Ryan, and as a result your responses will not be confidential even if a pseudonym is used. The interview can take 1- 2 hours to complete.

Questions about this study can be directed to me or to my advisor, Dr. Leslie Duram, Department of Geography & Environmental Resources, SIUC, Carbondale, IL 62901-4515.

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Thank you for taking the time to assist me in this research.

Deidra Denice Davis

drddd@siu.edu

This project has been reviewed and approved by the SIUC Human Subjects Committee. Questions concerning your rights as a participant in this research may be addressed to the Committee Chairperson, Office of Research Development and Administration, SIUC, Carbondale, IL 62901-4709. Phone (618) 453-4533. E-mail: siuhsc@siu.edu

CONSENT FOR AUDIO TAPING

(Signatures of participants required)

Consent to Participate in Research

I, _____, agree to participate in this research project conducted by Deidra D Davis, graduate student of Southern Illinois University Carbondale; Department of Geography & Environmental Resources.

I understand the purpose of this study is to investigate a Farmer's Market, 6100 S. Blackstone Avenue, which currently participates in the Illinois SNAP program and analyze their accepting methods and how this has added to the success of the Farmers' Market and the community.

I understand my participation is strictly voluntary and I may refuse to answer any question without penalty. I am also informed that my participation will not exceed 2 hours.

I understand that my responses to the questions will be audio taped, reviewed only by the researcher and advisor, and that these tapes will be transcribed/stored and kept for 5 days in a locked file cabinet. Afterward, these tapes will be destroyed/ deleted.

I understand questions or concerns about this study are to be directed to Deidra D Davis, drddd@siu.edu or her advisor Dr. Leslie Duram, Geography & Environmental Resources, duram@siu.edu.

I have read the information above and any questions I asked have been answered to my satisfaction. I agree to participate in this activity and know my responses will be tape recorded. I understand a copy of this form will be made available to me for the relevant information and phone numbers.

"I agree _____ I disagree _____ to have my responses recorded on audio/video tape."

"I agree _____ I disagree _____ that (researcher name) may quote me in his/her paper"

Participant signature and date

This project has been reviewed and approved by the SIUC Human Subjects Committee. Questions concerning your rights as a participant in this research may be addressed to the Committee Chairperson, Office of Research Development and Administration, SIUC, Carbondale, IL 62901-4709. Phone (618 453 4533. Email:siuhsc@siu.edu.

CONSENT FORM

My name is Deidra Davis. I am a graduate student at Southern Illinois University-Carbondale. I am asking you to participate in my research study. The purpose of my study is to investigate a Farmer's Market, 6100 S. Blackstone Avenue, which currently accept Illinois SNAP benefits, and analyze their accepting methods and how this has added to the success of the farmers' market and the community. Participation is voluntary. If you choose to participate in the study, it will take approximately 1-2 hours of your time. You will be asked a series of questions by Deidra Davis: closed and opened ended questions as well as a few short answer questions that ask your opinion of how to successfully administer government funded assistance programs at farmers' markets. This interview involves a single subject, Dennis Ryan, and as a result your responses will not be confidential even if an pseudonym is used.

If you have any questions about the study, please contact me or my advisor: Deidra D Davis, drddd@siu.edu (researcher) or Dr. Leslie Duram, Geography & Environmental Resources, duram@siu.edu (advisor).

Thank you for taking the time to assist me in this research.

This project has been reviewed and approved by the SIUC Human Subjects Committee. Questions concerning your rights as a participant in this research may be addressed to the Committee Chairperson, Office of Research Development and Administration, SIUC, Carbondale, IL 62901-4709. Phone (618) 453-4533. E-mail: siuhsc@siu.edu

Participant Signature and Date