Systems Synthesis Project Report:

Fighting Hunger While Positively Impacting the Food System

Integrating SNAP Benefits at Pittsburgh Citiparks Farmers’ Markets

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By

Katherine Bergman-Bock, Joshua Ferris, Tenneal McNair, Corinne Ogrodnik, Timothy Quayle, Xiaodan Qin, Alecia Shipman, Julia Tischuk, Alana Van Fossen

Faculty Adviser

Greg Lagana

Carnegie Mellon

Heinz College
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Project Summary

Just Harvest requested a team of nine masters’ students from the Heinz College at Carnegie Mellon University to conduct a four-month research project to determine how to integrate the Supplemental Nutrition Assistance Program (SNAP) into area farmers’ markets. For this project, the team:

- Investigated common practices of operating programs nationwide
- Created GIS maps locating area farmers’ markets, SNAP recipient densities, and market transit access
- Assessed local farmer interest for the project
- Investigated and negotiated contracts for card processing service options
- Developed a marketing strategy to reach SNAP recipients
- Designed a program evaluation plan
- Investigated financing strategies for project implementation and prepared a grant proposal template

Based on our findings, we recommend that Just Harvest implement a central cashier system at each Citiparks farmers’ market, utilizing a token-based scrip system. This system requires that Citiparks farmers’ markets users of SNAP, credit, and debit cards first go to the central cashier; the central cashier runs the user’s card in exchange for market tokens; the card users purchase produce with market tokens; and farmers exchange tokens for cash reimbursement after the market.

We recommend that Citiparks employees currently assigned to each market serve as the central cashier for each market and that Just Harvest manage the training and accounting activities necessary to operate the system at each market, and the marketing and evaluation tasks of the project.

Resources required for this project include personnel time from Citiparks farmers’ market staff and Just Harvest management and staff, point of sale machines, token supplies, marketing expenses, and evaluation expenses. The research team recommends that Citiparks market staff operate the central cashier station as a part of their regular market management activities, and that Just Harvest seek local and federal funds to support operating procedures.
Introduction

It is not often that a simple policy solution can benefit a myriad of seemingly distantly related groups of people. However, the solution provided in this paper of integrating Supplemental Nutrition Assistance Program (SNAP) – or food stamps – benefits into Pittsburgh farmers’ markets is such an opportunity. Based on four months of in-depth research and outreach, the authors of this report have concluded that integrating SNAP at Pittsburgh farmers’ markets provides a multitude of benefits in the following ways:

- Increases access of low-income people to high quality, fresh local food
- Supports the local farming economy by providing local farmers with access to an additional revenue stream
- Benefits farmers’ market customers by offering an additional avenue for convenience purchasing via debit and credit cards

Research conducted for this report reveals that this opportunity has been realized in various locations across the country, as many states and cities over the last two years have instituted a SNAP integration program into their farmers’ markets. As of 2009, an estimated 5% of 4,685 farmers’ markets nationwide accepted SNAP benefits and collected over $4.3 million in benefits, up from $1 million during the 2007 season (Schumacher, Suzanne, & Krumbhaar, 2009).

Placed into the larger context of food insecurity, SNAP is the main line of defense against hunger for one in every nine Americans. In 2009, the program provided more than $40 billion in annual benefits to approximately 32.5 million people nationwide, over half of whom were children (Schumacher, Suzanne, & Krumbhaar, 2009). In Allegheny County, over 143,000 residents receive SNAP benefits – up 40% from ten years ago - and these recipients spend approximately $17 million every month in benefits at local food retailers (Pennsylvania Hunger Action Center, 2008).

While the SNAP program is critical for the livelihood of our nation’s most vulnerable families, many still lack access to fresh, high quality nutritious food. Low-income neighborhoods are often “food deserts,” lacking a supermarket or central location to purchase food. A 2009 USDA study indicates that approximately 23.5 million Americans lack access to a supermarket within a one-mile radius of their home (PolicyLink, 2005). Moreover, many low-income residents lack vehicle transportation to access a supermarket outside of their locale, leading them to frequently rely on convenience stores and other locations for food shopping that do not carry fresh healthy food (PolicyLink and The Food Trust, 2009). This lack of high quality nutritious food for low-income
residents contributes to growing health problems, as higher rates of diabetes, heart disease, and obesity exist amongst these communities. Studies show that residents with access to fresh produce consume healthier diets, indicated by approximately a 22% increase in produce consumption for every additional supermarket in a census tract (PolicyLink and The Food Trust, 2009).

While there are several ways to approach improving access to fresh healthy food in low-income communities, improving these communities’ access to farmers’ markets can be a key link in the effort. Often, farmers’ markets are the only source of fresh produce near low-income neighborhoods that are underserved by supermarkets and vehicle transportation. The Robert Wood Johnson Foundation identifies farmers’ markets as an important avenue of intervention that should be incorporated into a larger effort of access improvement (Morland, Steve, & Roux, 2002). Providing access to farmers’ markets can fill an immediate need, as well as provide an opportunity to boost the local economy by creating an additional revenue stream for local farmers. According to PolicyLink “(f)armers’ markets can help sustain small farmers while providing fresh food for residents, opportunities for small business development, and a public space for increased social interaction,” (PolicyLink, 2005).

While this solution appears somewhat straightforward, technology and infrastructure barriers have kept it from realizing widespread implementation. The problem originated when millions of low-income families lost access to farmers’ markets as the federal government mandated a shift from paper food stamps to a debit-like access card transaction process called Electronic Benefits Transfer (EBT). Although this modification delivered a variety of benefits to food stamps users, such as adding convenience and reducing stigma, it also had unintended consequences for recipients and local farmers. Prior to the transition, food stamps were accepted as checks. This simple, user-friendly redemption process allowed farmers to sell produce to food stamps recipients and redeem the cash value hassle free. Farmers and food stamp users alike enjoyed the benefits of this relationship. Unfortunately, as all states were required to switch to EBT by 2002, both food stamps recipients and farmers lost the benefits that the program offered.

Integrating SNAP into Pittsburgh farmers’ markets, will reestablish this mutually beneficial relationship. In addition, the SNAP Benefits at Farmers’ Market Integration program would introduce the availability of credit and debit card sales at Pittsburgh farmers’ markets and increase the purchasing capacity of all market customers. Similar programs throughout the nation have shown dollar per customer amounts increase by as much as 20-25% within the first year of introduction of SNAP, credit, and debit card sales. Finally, providing access to and strengthening farmers’ markets can help invigorate communities on a larger level, as “Street Markets are a place,
way of life, and magnet for social and economic activities, they can serve several purposes simultaneously and thus are relevant to planners seeking multipurpose tools for social, economic, and community development,” (Morales, 2009).

**Just Harvest**

As the client of the student research team, Just Harvest serves as an ideal entity to implement this program. Having served Pittsburgh residents since 1986, Just Harvest seeks to ensure that poverty does not necessitate hunger or a deficiency in nutrition.

<table>
<thead>
<tr>
<th>Just Harvest’s mission is to promote economic justice and work to influence public policy and to educate, empower, and mobilize the citizens of our community towards the elimination of hunger and poverty.</th>
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Just Harvest advocates the following principles: meet food and other human needs on an emergency and ongoing basis; foster an end to poverty and hunger, and to the conditions that maintain and perpetuate poverty and hunger; foster social, political and economic equality; protect the economic security, dignity and rights of low-income people; maximize participation of poor people in the matters which affect their lives; promote/advocate international policies designed to meet basic human needs of poor people, and maximize participation by those people; and empower people to act in their own behalf.

Recently, with the economic downturn, Just Harvest’s programs and activities have been focused on helping residents who are newly navigating the SNAP benefits system. In 2009, Just Harvest processed over 500 food stamp applications in the year’s first 6 months, more than double the previous year. With years of experience working with SNAP recipients, and with a deep knowledge of the local food system, Just Harvest’s capacity to facilitate the implementation of the SNAP program at Pittsburgh farmers’ markets is clear.

**Carnegie Mellon University Center for Economic Development**

The Center for Economic Development (CED) at Carnegie Mellon University's Heinz College has played a key advisory role for this project. The CED conducts applied research to improve the institutions, communities, and economy of the Pittsburgh region, and has provided ongoing oversight and input for the research team.
The Citiparks Farmers’ Market Scope

Fortunately for the scope of this project, Pittsburgh is a city that enjoys a robust farmers’ market network. With dozens of markets serving local residents, the farmers’ market is commonplace in many of Pittsburgh’s communities. While the research team supports the eventual integration of SNAP benefits at all city markets, the scope of focus for this project was narrowed to the Pittsburgh Department of Parks and Recreation (Citiparks) farmers’ market network. Citiparks annually hosts seven markets at different locations across the city throughout a six-month season. These seven markets are located in the North Side, South Side, East Liberty, Bloomfield, Carrick, Market Square, and Beechview neighborhoods. Each market operates on a different day of the week for four hours during the late afternoon, and the market season runs from mid-May through mid-November.

Our reasons for concentrating on the Citiparks farmers’ market network are threefold. First, it provided an established and well-integrated system of markets. Second, it offered the largest network of markets that operate under one central manager. Last, because Citiparks markets are managed by City government, it provides an opportunity for public-private partnerships that will ultimately strengthen the foundation of the program.
Methodologies

The methodologies used for this research project are as follows:

- Literature reviews
- Case study reviews
- GIS mapping techniques
- Phone interviews
- Face to face interviews
- Focus groups
- Program evaluation planning
- Spreadsheet modeling and simulation

The application of these methods is discussed in more detail throughout each section of the report.
Chapter 1

Common Practices

The research team sought early on to identify which practices of SNAP and farmers’ market integration best fit the characteristics of the Pittsburgh Citiparks farmers’ market system. To do this, the team evaluated and compared the advantages, disadvantages, and costs associated with each commonly practiced method in various identified markets across the region.

The team analyzed each process model in terms of cost, complexity/manageability of the system, challenges of implementation, outreach efforts, and marketing in order to determine the best long-term strategies for implementation. With numerous practices currently available to accept EBT transactions, it was also necessary to focus on the feasibility and sustainability of implementing a system in Pittsburgh.

To investigate common practices, we first conducted a general document/literature review. Next, we created a comparative analysis of common practices, and finally we conducted expert interviews with farmers’ market SNAP program personnel.

Research Approach

The group used the following methods to investigate background research:

- **Summary Document Research.** We focused on gaining a basic understanding of the history of accepting SNAP benefits at farmers’ markets. Researching various Government Accounting Office (GAO), Food and Nutrition Service (FNS) reports and other reputable articles helped us focus the development of this research into a practical approach.

- **Online Market Research.** After gaining a basic understanding about the nature of EBT and the issues involved in implementing it at farmers’ markets, we sought to further understand the types of systems used at farmers’ markets to accept SNAP benefits. With the help of the FNS website and other online resources, cursory online research was conducted to understand the experiences of several SNAP farmers’ markets programs in Pennsylvania, Michigan, New York, Arizona, Iowa, Hawaii, California, Alabama, and Virginia.
Conducting Case Studies

Case studies were employed to further analyze these business methods in a way that would help identify the market system that was most appropriate for the implementation of an EBT system at Pittsburgh Citiparks farmers’ markets. The specific case studies were originally to be chosen based on similar demographic and market characteristics of Pittsburgh markets. Unfortunately, lack of market data and market demographic information made these criteria unsuitable to base the case studies upon. Working off of recommendations from Just Harvest and markets with a national reputation for successful implementation, we conducted case studies on five specific EBT farmers’ markets programs. We used the following methods to conduct these case studies.

- **Document Research.** This research focused on developing a basic understanding of the nature of each program selected as a case study. Online research and published documents helped us to acquire the background successes and failures of each case study.

- **Questionnaire Development.** A questionnaire was developed by our research team to further specify required information necessary for the successful analysis of a farmers’ market case study. This questionnaire was based on a number of criteria and included the comparison of each process model in terms of cost, complexity/manageability of the system, challenges to implementation, outreach efforts, and marketing.

- **Phone Interviews.** Phone interviews were conducted for each farmers’ market case study. By speaking to farmers’ market program personnel and market managers directly, we were able to gather more detailed information relating to the practical nature of implementing these various methods.

- **Process Model.** We created a process model that mapped out the types of systems available for implementation and mapped each case study to its relevant method. This enabled us to comparatively evaluate each method in terms of advantages and disadvantages. These analysis tools helped clarify the data collected and informed our recommendation of an appropriate implementation system for Pittsburgh Citiparks farmers’ markets.

**Weaknesses**

Several weaknesses exist in the comprehensive nature of our data collection process. Due to time and project constraints, we were not able to create an exhaustive review of farmers’ markets currently accepting SNAP benefits around the country. Therefore, identifying the most appropriate case studies that were comparable to Pittsburgh in terms of demographic and market information
was not feasible. Also, the limited number of interviews per case study may constrain the conclusive nature of our findings. The largest gap in our data collection derives from not being able to physically observe the farmers’ markets that were evaluated. Inability to observe first-hand how each process and market system operates generates a weakness in our ability to fully interpret the case studies.

Summary of Findings about EBT Systems

The research methods above helped us identify four general delivery systems that have been adopted to support EBT transactions at farmers’ markets. These can be grouped into two general categories: individual vendor-level or centralized market-level transaction systems.

- An individual vendor-level system implies that the two components of the EBT transaction—the debiting of account funds and the physical exchange of goods—are both completed at the farm stall where the produce is being purchased.
- A centralized transaction system implies that there is one central cashier station at the market where an SNAP customer’s account is debited, while the goods are still exchanged at the farmer’s stall.

Each system is described in brief below, grouped by system level. Following the description is a summary of advantages and disadvantages associated with each system, along with an anecdotal example of the system’s implementation at a farmers’ market.

A. Individual Vendor-Level Transaction Systems

- Individual Wireless Point of Sale (POS) Terminal
- Offline Vouchers

Individual Wireless Point of Sale Terminal
Farmers and farm product vendors can operate their own point of sale terminals. This typically requires vendors to lease or own a wireless POS device as well as apply for a FNS account to become an authorized EBT-accepting vendor. An EBT card is swiped at each farmer stand using the POS device, and the farmer debits the amount funds required for the purchase, which are deposited into the farmer’s bank account.

Advantages
A major advantage of having vendors operate their own wireless devices is portability: farmers’
market vendors typically sell their produce at more than one market, and the device can accompany
the vendor to each market site. In cases where debit/credit are accepted forms of payment in
addition to EBT, the stigma of SNAP usage can be assuaged, as EBT users become indistinguishable
from other customers (The Food Trust, 2009).

Disadvantages
Four critical disadvantages exist.

- Equipping each vendor in a farmers’ market can be expensive, as wireless POS terminals
can cost between $800 and $1,000 each (Sustainable Food Center, 2009).
- Farmers may be reluctant to embrace the responsibility of learning how to use the device
and troubleshooting when complications arise.
- Individual farmers would be required to apply for and secure their own FNS account to
become an authorized vendor. This process can last up to three months.
- Farmers’ markets are typically cash-based operations. Card-based transactions ultimately
slow down the transaction process, which may be inconvenient for both farmers and
customers.

Case Study
The Iowa Department of Human Services’ EBT Wireless program has funded 167 individual farmers
to accept SNAP benefits at selected farmers’ markets as of 2009. This state program provides free
wireless POS equipment (based on seasonal, rental options) to qualified vendors across Iowa and
also enables the vendors to accept the credit cards. This is an opt-in system that requires individual
farmers throughout the state to take initiative for operating the POS device to accept SNAP benefits
and ensure that the redemption process is running smoothly. Promotional tactics and marketing of
the program falls on the individual farmers who offer this service. For example, Des Moines farmers
provide $.50 coupons to all visitors at their market as an incentive to buy more produce. Program
administrators consider the EBT Wireless program to be a success, although convincing farmers to
opt in to the program has been the biggest challenge (Iowa Department of Human Services, 2010).

Offline Voucher System
Farmers can also complete EBT transactions by filling out a standardized paper voucher with SNAP
customer. The voucher must be completed with the vendor’s FNS number, the customer’s EBT
account number and signatures from both the vendor and customer. The vendor may call a toll-free
hotline to confirm that there are sufficient funds in the customer’s EBT account and obtain an
approval code. The farmer later mails the voucher to the state-contracted bank that administers SNAP disbursements to process the transaction. This system is typical for small farm stands with lower customer turnover than that of larger markets with high customer volumes.

**Advantages**
The singular advantage of a paper voucher system is the reduced cost of particular aspects of implementation: market vendors incur no capital or operational expenses associated with this system.

**Disadvantages**
A disadvantage with this system is the time cost. The process of completing a transaction with a paper voucher is more time consuming than a cash or card-based transaction (Lish, 2010). Thus, the paper voucher system is not ideal for larger, multi-vendor markets with large customer volumes.

**Case Study**
The Greater Pittsburgh Community Food Bank operates a series of thirteen single-vendor farm stands in low-income neighborhoods throughout the Pittsburgh area where access to fresh produce is limited. According to the project’s coordinator Vicki Lish, the offline voucher system is appropriate for the small size and nature of the food stand project. However, this transaction process was considered to be somewhat cumbersome for farmers and program administrators to complete (Lish, 2010).

Also, due to technological advances in wireless POS technology, many farmers solely rely on the offline voucher system as a back-up option. Individual farmers who utilize POS devices, such as in Cedar Rapids, Iowa, use the offline voucher system only if their device experiences a technical malfunction and a transaction cannot be completed. For Cedar Rapids, the offline voucher is not an efficient system to handle their high-volume sales that occur on a daily basis.

**B. Centralized Market-Level Transaction Systems**

- *Receipts*
- *Paper Scrip or Tokens*

Centralized market-level transaction systems imply that the process for completing EBT transactions is managed at the market-wide level. A central management function is carried out by
an overarching entity, whether it is a local government, a farmers’ market association, or another non-profit entity charged with day-to-day management of system implementation during a market season. Although staffing costs associated with centralized transaction systems are significant, they can be offset by the scale economies achieved through the sharing of equipment, materials and reduced time costs of administration among farmers at the market (Doyle, 2007).

Receipts
In a receipt system, customers get a receipt from each farmer for food purchases, leave their items at the stand, bring the receipt to a centrally located POS device to pay for their purchases with their EBT card, and then return with the receipt to each farmer to pick up their items. Market managers keep track of the receipts and reimburse farmers based on the day’s purchases (USDA Food and Nutrition Service, 2010). This transaction system is similar to the offline voucher system mentioned above, with the key distinction that the transaction is electronically completed at the market, and not at a later date via a paper-based approach. Also similar is the market context in which the receipt system is commonly utilized—in small markets with few vendors and slower customer traffic.

Advantages
The singular advantage with the receipt system, like that of the offline voucher system, is cost reduction. Instead of equipping every farmer/farm stand with an individual wireless POS terminal, transactions can be completed using one terminal.

Disadvantages
Of all the EBT transaction processes available to farmers’ markets, the receipt system is the most cumbersome for the vendor and customer. Time costs implied with this system are not logistically feasible for markets with a medium to high volume of customers.

Case Study
The Food Trust in Philadelphia manages a series of over a dozen small farmers’ markets in low-income neighborhoods throughout the greater Philadelphia area. Each market accepts EBT using the receipt system. An interview with Jon Glyn, the farmers’ market manager, revealed that the receipt-based system slowed down the transaction process (Glyn, 2010). The limitations of this
time cost are reflected by the fact that the Food Trust recently implemented a pilot program in one market that eliminated the receipt system and equipped each farmer with a transaction machine.

**Paper Scrip or Tokens**
The paper scrip or token system requires market currency, and a centrally located POS device. In this transaction system, a market staff person swipes the EBT card and debits an available amount requested by the customer in exchange for paper scrip or tokens that can be used to shop at all eligible farm stands in the market. After customers trade their scrip in exchange for farm products, farmers submit the scrip/tokens to market staff for payment to be reimbursed on a weekly, biweekly or monthly basis.

In this type of system, it is important that the scrip be difficult to counterfeit. For this reason, markets often opt to use wooden or plastic tokens rather than paper currency. Tokens typically bear the printed name or logo of the market or sponsoring organization along with the dollar amount of the currency. Tokens are usually available in no more than two different dollar value denominations (typically $1 and $5).

In the cases where markets wish to extend payment options to credit and debit card users, a separate scrip currency must be produced to represent those transactions. This is a legal requirement, because unlike EBT scrip, debit and credit card scrip can be returned for a cash reimbursement. Unused EBT scrip can be kept by the customer until their next trip to the farmers’ market or returned to the central cashier day of purchase and refunded to the customer’s SNAP account.

**Advantages**
The advantages of utilizing EBT through a centralized scrip/token transaction system are many.

- A centralized system reduces the amount of administrative work required to establish an EBT-accepting transaction process. Only one FNS number is obtained by the market so that farmers do not have to navigate an application process that can take up to three months to complete.
- The centralized scrip system also eliminates for farmers the burden of dealing with wireless card processing technology. The reluctance of farmers to personally embrace this technology has been well documented in our interviews, focus group and document
research. In keeping with the cost, material and equipment sharing advantages of centralized transaction systems, the scrip system reduces transaction fees imposed by banks and third party processors for purchases with credit or debit cards.

- Ease of use for farmers and customers make this transaction system most attractive. Paper scrip or tokens exchanged for farm goods is the fastest transaction process available at the farm stand level, and the tactile feel of market currency retains the physical nature of transactions between farmers and customers.

Disadvantages
Compared to the other vendor-level transaction systems, the scrip system entails a significant amount of administrative work. A survey conducted by the Michigan Farmer’s Market Association suggests that of all the costs associated with administering EBT programs at Michigan farmers’ markets, staffing, administration and accounting for centralized scrip systems posed the most significant hurdle.

Another disadvantage is the accounting liability of unused market currency that was purchased by a SNAP recipient. Although once purchased, market currency can be redeemable for the entire market season or beyond, unused currency makes the accounting and reimbursement process difficult for managers (Michigan Farmers Markets Food Assistance Partnership, 2009).

Case Study
Our research suggests that the token-based scrip system is the most popular transaction system among farmers and market managers. Ninety percent of farmers’ markets in Michigan that accept EBT operate under the paper scrip/token system (Michigan Farmers Markets Food Assistance Partnership, 2009). An illustrative case of system implantation is that of Detroit’s Eastern Market. One of Michigan’s oldest farmers’ markets, the Eastern Market is a massive, indoor year-round operation that serves an estimated peak volume of 40,000 customers daily. The Eastern Market’s token-based scrip system for EBT transactions was first implemented in the summer market season of 2007. The program began with 14 EBT-accepting vendors enrolled. That number eventually expanded to 48 during the season. By the conclusion of the first year of implementation, EBT sales averaged $715 weekly and total sales were $36,484 (Detroit Eastern Market, 2010).
Recommendation for Best System

Based on our review of EBT transaction models at other U.S. farmers’ markets, and our interviews with market managers, USDA personnel and Pittsburgh farmers, we recommend implementing a centralized transaction system using market tokens for EBT utilization at Pittsburgh Citiparks farmers’ markets. We have determined that the token-based centralized transaction system presents a best fit for Citiparks markets because of its ease of use for farmers, customers and administrators; the attractive nature of market currency, and its applicability to the size and scale of the Citiparks network of farmers’ markets.

Easy to use for farmers

According to past experiences, farmers have struggled with the technological complexities associated with wireless POS devices (Millman, 2009). A centralized token-based redemption system is easier to use for farmers because it reduces their individual reliance on this expensive technology.

Having a centralized market system also reduces the burden of administrative paperwork that farmers would otherwise have to complete in order to become eligible to accept food stamps. Instead of requiring each farmer at the market to apply for a FNS account, a single account can be established for the entire market. The accounting process with tokens is simple for farmers, who will not be required to execute and additional accounting procedure, but rather perform a simple tally and exchange with the central cashier manager at the end of the market day – a process akin to cashing in casino chips after a day of winning.

Additionally, the quick transaction time with tokens stands to limit any potential disruption to the farmer’s business process. In fact, tokens present an opportunity to speed up the transaction process from a cash transaction, as farmers are not expected to give cash change to EBT customers for purchases. This reduces the incidence of breaking larger denominations of dollar bills or running out of small denomination bills. Tokens are a cash-like currency that allows farmers to maintain the simple one-on-one transaction experience that they are used to.

Easy to Use for Customers
The token-based scrip transaction system is customer-friendly because it is simple. The clearly labeled token denominations make keeping track of benefit spending easy for customers. It allows customers to limit their desired spending amount before attempting to make a purchase at the farm stand, avoiding any embarrassment arising from the possibility of insufficient account funds to cover purchases. If a customer wishes to purchase more tokens on the same market day, there’s no limit on the number of transactions permitted. If a customer purchases tokens and chooses not to redeem them, he can hold on to them and use them at the next market. This presents the opportunity for repeat patronage by SNAP recipients at Citiparks farmers’ markets. Finally, the quick transaction time is as convenient for customers as it is for farmers.

Easy to Use for Program Administrators

With a single staff person in charge of accounting processes, the scrip system is designed to reduce accounting and transaction errors. It allows for a cross-reference for farmers to keep track of sales and safeguard accounting accuracy. If administrators choose to incorporate debit and credit card services in the program for Citiparks, the scrip system provides a streamlined system for dual-mode transactions and concurrent accounting procedures. Lastly, the overarching accounting and reimbursement function of a centralized cashier makes it easy to collect revenue measures for evaluations of the program’s impact.

Market Currency is Attractive to Customers

Market currency, especially in the form of wooden tokens, is attractive because it retains the physical nature of transactions between farmers and customers. Using tokens can be an exciting experience for SNAP, credit and debit users, especially those who are first-time shoppers at farmers markets. Market currency also provides for future promotional opportunities and incentive programs, like matching funds for healthy food purchases. In this type of incentive program, a SNAP customer receives a matching dollar amount in tokens for every SNAP dollar spent at the market, up to a certain threshold. Last, a central location where SNAP funds are debited at the market provides an additional venue for social service outreach to SNAP participants by creating a focused location for media dissemination.

Applicable to the Citiparks System of Farmers’ Markets

The Citiparks network of seven farmers’ markets, which operate on a rotationally daily basis, is perfectly scaled for a centralized transaction system. Rather than purchasing or leasing several POS
devices for individual farmers at each market, only a few devices are needed for a centralized system. The same POS device and market currency can be used for virtually every market, reducing capital costs. Also, Citiparks staff and management personnel already oversee each market, and thus can be trained to operate the central cashier system. Additionally, because many farmers sell goods at more than one Citiparks market, it is feasible for the accounting and disbursement of EBT payments to be streamlined into one process, as is required for a centralized system.

**System Implementation Recommendations**

Determining the best system to accept EBT at Pittsburgh Citiparks markets is the first step in successfully developing a project plan. The central cashier system, which utilizes tokens, seems to be the most appropriate system for the needs of Pittsburgh farmers’ markets. The development and implementation of this new business model will require the convergence of many details and the creation of trustworthy partnerships among farmers, market managers, and the central cashiers. Fortunately many farmers’ markets around the nation have already implemented successful central cashier systems. Their business practices have been well recorded and can be adopted as a guide for the Pittsburgh Citiparks farmers’ markets.

**Technology**

The central cashier system uses a wireless POS device to accept SNAP benefits and credit/debit purchases. These machines can cost on average $800 to $1500 per machine (NexTag, 2010). Many farmers’ market EBT programs, such as those in the state of New York and Iowa bought wireless, handheld POS devices when first deciding to accept SNAP benefits. However, with advances in technology, seasonal operation, and increased demand for EBT and credit/debit purchases, these same farmers’ markets no longer own devices outright. Most farmers’ markets that accept EBT now rent their POS terminals. Renting these handheld devices has allowed central cashier programs to operate on a seasonal basis with little to no additional cost, while also providing the opportunities to obtain the newest technological and maintenance updates. Also, renting the POS device verses buying the machine alters the fees associated with utilizing debit and credit capabilities of the machine. The next chapter will discuss the issues related to accepting credit/debit purchases along with EBT in further detail.
Training

Training is a key component to make the implementation of this central cashier system successful. Changing the farmers’ market structure to incorporate a central cashier requires a precise layout of the rules and tasks associated with each stakeholder - the farmers, the cashiers, and the market manager. Farmers’ markets across the country utilize a market manager position to set up, oversee and evaluate the daily operations of the central cashier system. With the help of the FNS field contact, market managers inform farmers as to what produce items can be purchased with SNAP benefits, the no cash-refund rules for EBT customers, and the scrip redemption rules and procedures. A participation agreement between the market manager and the farmers/vendors must be signed at the onset of this project, so that each party clearly understands the roles and responsibilities associated with each participant.

The market manager must also ensure that the central cashiers are fully trained. A staff person or qualified volunteer must learn how to run the central cashier system, operate the POS device, and clearly account for the tokens sold to customers throughout the market and redeemed by farmers at the end of the market. A specific log and accounting procedure must be set up, so the cashier can accurately operate the centralized token system. For example, market managers in New York collect the books and the POS device each day at the close of the market and enter the transactions into their system for accounting. Program administrators here must clearly outline the accounting and training procedures needed to run this system before the project is implemented.

Fraud

One of the reasons that food stamps were converted from paper to electronic benefit transfer (EBT) was to limit occurrence of fraud. FNS states that “with an EBT card, SNAP customers pay for groceries without any paper coupons changing hands. EBT eliminates paper coupons and creates an electronic record for each transaction that makes fraud easier to detect” (USDA Food and Nutrition Service, 2010). It was important to verify whether or not implementing a central cashier system that utilizes tokens would greatly exaggerate the occurrences of SNAP fraud. After speaking to a number of farmers’ market managers and program personnel, not a single person reported any incident of fraud related to EBT tokens. Market personnel in Michigan and New York affirmed that they had not experienced any issues with fraud related to the wooden tokens, however the general perception of fraud related to SNAP benefits persists without evidence. Wooden tokens with
specialized designs and coloring are used because they are difficult and costly to replicate, thereby limiting any potential occurrence of fraud (Old Time Wooden Nickel Co., 2010).

Marketing

Marketing is a crucial element in augmenting the successful implementation of an EBT system at Pittsburgh Citiparks farmers' markets. Markets that have been successful in accepting EBT do not overlook the importance of consistently reminding SNAP recipients that a new service is being offered at the local farmers’ market. Many farmers' markets across the nation provide farmers with a media kit to help promote the EBT program in a clear, concise, and organized fashion. Media kits include “We now accept EBT” signage, EBT posters, and brochures in both English and Spanish. See Appendix 1.a. for an example.

Although these are only a few simple techniques utilized to advertise and market the new EBT system, many farmers’ markets with central cashier systems are promoting their programs through these outlets. A marketing guidelines for Pittsburgh Citiparks farmers’ markets will be discussed in greater detail in a later section of this report.

Evaluation

Farmers’ markets do not typically have the time, money, or staff to conduct a full evaluation of their EBT programs. Limited resources dictate that extra funds go towards defraying transaction fees and administrative costs. Therefore, most farmers’ markets only conduct program evaluation in terms of revenue analysis. Farmers' markets with central cashier systems look to see how EBT and credit/debit sales transactions (by dollar per customer amounts) increase or decrease on a monthly and annual basis. However, it should be the goal of these markets to evaluate multiple aspects of their EBT programs. Evaluation on a number of criteria can provide market managers with an accurate picture about the performance of the program, and if it is appropriately meeting the needs of farmers, customers, cashiers, etc.

It was our goal to create an evaluation plan that is effective and realistic. Executing an evaluation plan alongside the implementation of this new central cashier system will enable Pittsburgh Citiparks to accurately assess the nature and success of this program. It will also ensure that problem areas are corrected before they become emergencies that could potentially dismantle the collective efforts of the project. Researching common evaluation techniques and industry recommendations guided the creation of an evaluation plan that aims to collect useful, accurate,
and reliable data while also keeping in mind the time-constraints and practical realities and costs of implementing a new system at a farmers' market.

System Evaluation Plan

After extensive research and benchmarking, we were able to develop an evaluation plan that can continuously assess and improve the implementation of a central cashier system at Pittsburgh Citiparks farmers' markets. To best measure the success of this system to accept EBT, a broad but feasible evaluation schema must include outcomes, measurement strategies, and criteria for success.

Outcomes

The desired evaluation outcomes, broken down by quantitative or qualitative method, divide into four broad goals:

1. Allow EBT customers to shop at Citiparks farmers’ markets
2. Increase revenue for farmers
3. Provide a quality experience that will enable program sustainability
4. Raise consumer awareness about farmers’ markets.

Unfortunately, Pittsburgh farmers' markets are lacking in data related to farmers’ market attendance, sales, etc. Thus, this evaluation plan also focuses on building up baseline data to enable a pre post comparison of program impact.
### Evaluation Plan

<table>
<thead>
<tr>
<th>Goal</th>
<th>Suggested Methods for Evaluating Goals</th>
</tr>
</thead>
</table>
| **Allow Pittsburgh EBT recipients to use their EBT benefits at the central cashier system at the seven Citiparks Pittsburgh farmers’ markets.** | • At the beginning of each market season, tally the number of farmers who accept EBT.  
  • Track redemption of EBT transactions. Estimate percentage of EBT revenue for EBT/Credit/Debit revenues, or for total revenues.  
  • Utilize comment cards to determine ease and satisfaction of farmers’ market customers with the central cashier system.  
  • Conduct an annual focus group for the farmers’ markets by asking EBT customers to determine the quality and ease of their experience. |
| **Increase local farmers’ revenues at these farmers’ markets.**       | • Determine average weekly market sales for farmers at selected locations by survey  
  • Estimate “dollar per customer” amounts (DBC).  
  • Measure farmers’ market sales by analyzing transactions broken down by category (cash, EBT, credit, and debt). |
<table>
<thead>
<tr>
<th>Implement a cashier system that is simple and sustainable in the long-term.</th>
<th>Track attendance rates at all seven markets.</th>
<th>Survey cashiers of the centralized system to determine ease of the system from their perspective.</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Track issues involved with technological malfunction of the POS device at the central cashier station.</td>
<td>· Conduct a focus group of farmers that sell at the markets to determine whether the central cashier system is overly cumbersome for farmers and vendors.</td>
<td>· Utilize a third party, secret shopper program to judge treatment and ease of EBT usage in the markets.</td>
</tr>
<tr>
<td>Raise consumer awareness about the fresh, low-cost produce sold at farmers’ markets.</td>
<td>Conduct price comparison analysis between produce sold at the farmers’ market and the local grocery store.</td>
<td>Include questions about marketing, messaging, and price in customer focus group.</td>
</tr>
</tbody>
</table>

**Measurement Strategies**

Measurement strategies were developed for each goal, thereby assessing the progress of the EBT program.

**Goal 1- Allow EBT customers to shop at Citiparks farmers’ markets**

*Farmers Accepting EBT*

This first measure that should be evaluated for this project is to see whether or not Citiparks farmers are opting in to the program. A basic way that can be utilized to collect this data is to conduct a tally count. At the beginning of each market season, the evaluator will count the number of farmers who have opted into the system and are willing to accept EBT tokens. This tally will be conducted at the beginning of every market season, thereby allowing for a trend analysis of EBT accepting farmers over the seasons.
SNAP Revenue

Another easy way to measure the redemption rates of SNAP beneficiaries at the Citiparks markets relates to revenue counts. The central cashier and accountant will track and analyze EBT transaction rates on a monthly basis. Both the dollar amount and total transactions of EBT sales will be measured. This evaluation measure will begin as soon as the markets starts accepting SNAP benefits, thereby allowing for a trend analysis to be conducted by the accountant at the end of each month. This will give the evaluator a complete data set for which EBT transactions can be compared overtime.

SNAP Customer Feedback

To better understand how the system is impacting SNAP recipients, an annual SNAP recipient focus group will be held. This focus group will ask SNAP recipients for feedback regarding how they learned about the access available at farmers’ markets, the quality of central cashier, the ease of shopping with tokens, and how community knowledge about this program can be improved.

SNAP Customer Comment Cards

Another way to gather feedback about EBT customers shopping experiences is to utilize comment cards. Comment cards will be placed at the central cashier table, so that any EBT customer can fill out the card and drop it in a specified box at the table. Comment cards prompt the customer to rate the ease of using the central cashier system and overall satisfaction with their farmers’ market experience. The bottom third is left blank for individual comments or concerns. Comment cards should be collected every month and read by the market manager. Comment cards are a simple, effective way for the farmers’ market to easily acquire information about the overall ease of the central cashier system.

Goal 2- Increase revenue for farmers

Farmers Survey

Benchmarking of other successful city projects has shown that the more invested the local farmer community is to implementing EBT, the more likely the program will have continued success. The measurement tool that will be used to evaluate farmer relations is a farmer survey.
Revenues

Ideally, revenues should increase as a result of this program. Since no revenue data exists for Pittsburgh Citiparks farmers’ markets, a comprehensive evaluation will not be possible without a baseline measure for farmers’ market revenue. This evaluation will measure outcomes by collecting anonymous vendor data of sales and transaction breakdowns on a weekly basis at the central market cashier. Revenue analysis will involve breaking down the farmers’ market sales by cash, EBT, credit, and debit. Both the dollar and percentage amounts of EBT sales will be measured, as well as documenting what type of food is being purchased at the farmers’ markets. This will create a valuable data source for farmers as well as the Citiparks farmers’ markets. The revenues could also be divided by the attendance rates that will be gathered, allowing the attainment of an approximate dollar per customer values. This evaluation will compare the revenue data on a monthly and annually basis, to see the trends in farmer revenue over time.

Goal 3- Implement a quality cashier system that is simple and sustainable

Technology Malfunction Count

For EBT to be successful at Citiparks farmers’ markets, it is important that transactions at the central cashier be processed in a timely fashion. To ensure the ease and quality of the central cashier system, it is important to track any occurrence of technological malfunctions or breakdowns that occur with the POS device. The central cashier must record any incident where the POS device is unable to complete a transaction because it goes offline or fails to process. Understanding the nature of the POS device and how to mitigate technological malfunctions will enable the central cashier to easily satisfy the demands of many customers.

Attendance Count

Ideally, after implementation of the program at Citiparks farmers’ markets, attendance rates should increase as new people begin to recognize the opportunities local farmers’ markets provide. To effectively evaluate the program, it is important to generate an approximate attendance count for the farmers’ market season. An accurate base-line measure would enable comparisons between yearly attendance rates throughout the future. Since no reliable data for farmers’ market attendance currently exists, the first step of this evaluation would be to gather this data.

The measure for this category throughout the three years will be an “Attendance Count.” Workers will position themselves at every possible entrance, ensuring that areas in between booths are
covered as well. Then, during a specified ten-minute period every hour, the workers will count only new adult shoppers entering the market. Tally counters will be utilized and the day of the week will be recorded, since the number of attendees could be affected by weather or City activities planned for that day. This measure will be performed at each market once a month for one season. These ten-minute estimates can be used to approximate hourly data, giving a reasonable attendance count for the market day without having to institute a full-scale count. This method is currently being utilized by a number of farmers’ markets across the country. If this approach is infeasible due to the logistics of staffing the counters, or the cost, a more limited approach that would only focus on assessing “peak hour” attendance might be developed. This would not yield an estimate of total attendance, but would at least provide a usable indicator for measuring attendance trends.

_Cashier Feedback_

In order for the central cashier system to succeed in the short-term, this project needs to ensure that the responsibilities of the cashier position are manageable. The qualitative measurement tool that will be used to evaluate cashier relations is a central cashier focus group. The focus group with cashiers will be performed annually. This focus group will enable cashiers to voice their opinions or concerns about the EBT program and the central cashier system. This focus group aims at evaluating the central cashier system from the perspective of the cashier employee. Evaluating to see whether the cashier feels the position responsibilities are realistic and manageable enables the opportunity for improvement and can go a long way to ensure success of this program.

_Farmer Feedback_

In order for the central cashier system to succeed in the long-term, this project needs to sustain relations with local farmers. The qualitative measurement tool that will be used to evaluate farmer relations is a farmer focus group. The focus group with farmers will also be performed annually. This conversation will allow farmers to voice their opinions or concerns about the EBT program and the central cashier system. The results from these surveys will be aggregated and positives as well as shortcomings of the program identified. This focus group will allow the evaluator to analyze farmer opinion about the season as a whole, as well as plan for the following year. These meetings will be an open forum to present survey and evaluation results, as well as garner farmer’s feedback/personal experience with the implementation of this project. The goal is to have the
farmers feel invested in the program and eventually take initiative to run the program in the long-term to ensure its sustainability.

*Mystery Shoppers*

Measuring the quality of a customer’s experience at the farmers’ markets helps to ensure that customers will return to shop in the future. It is imperative to the success of the market that customers are having a good experience during their visit. To measure quality, this evaluation will rely on mystery shoppers to evaluate customer service at the farmer’s market. A total of six mystery shoppers will shop at the farmers’ markets season, posing as different possible profile customers (e.g. SNAP customer). Two mystery shoppers throughout the season will evaluate three randomly selected markets (totaling six mystery shoppers throughout the farmers’ market season). These mystery shoppers will be trained by the market manager to judge the treatment and ease of EBT usage at the central cashier.

**Goal 4- Raise consumer awareness about farmers’ markets**

*Price Comparison*

Twice a season, one staff member will conduct a price comparison between the produce sold that the farmers’ market and the nearest local grocery store. This employee will compare a predetermined list of seven produce items that are currently being sold at the farmers’ market and the supermarket. Produce will be compared on a price per pound basis at 1 or 2 farmer’s stands and then at the grocery store price. To ensure a quality comparison, the produce must be compared at the same price/weight unit and produce must be checked for both markets on the same day. This evaluation will help to determine whether farmers’ markets are competitive with grocery store prices and ensure that farmers’ are aware of their competitors’ price point. Price advantages could be conveyed in marketing materials.

**Sample Criteria for Success**

Guidelines for success must be in place for comparative evaluation upon the implementation of EBT at Pittsburgh Citiparks farmers’ markets. Some suggested criteria for success by the end of this program include:
<table>
<thead>
<tr>
<th>Category</th>
<th>Criteria</th>
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| **Goal 1** | • At least 10% of all farmers’ market revenues come from EBT recipients  
• Year to year reductions in the number of EBT respondents report feeling uncomfortable during the market day |
| **Goal 2** | • Year to year increase in farmer revenues  
• A dollar per customer rate that increased by at least 20% for the 2nd year of implementation |
| **Goal 3** | • No drop off in farmers’ market attendance over the first 3 years  
• At least five out of six mystery shoppers report a favorable experience  
• 75% favorable ratings of our implementation by farmers in surveys or focus groups |
| **Goal 4** | • Farmers’ market price comparisons for the first year are at least competitive with produce prices of the local grocery store |

**Communication**

At the end of the year, the evaluation methods implemented throughout the season must be synthesized into a final report for the market season. This report will summarize how the project is progressing towards the set forth outcomes and relate any new ideas that have been developed relate to the SNAP farmers’ market access program and its evaluation. This should also be seen as an opportunity for the market manager to gain feedback from funders and advisory board about any advice that relates to the continuing implementation and evaluation strategies of the program.

**Overcoming Weaknesses and Gaps in Common Practices Research**

As previously noted, there are a number of weaknesses related to this analysis. The weakness of greatest concern is the inability to observe first-hand the operations of the various farmers’ markets that were evaluated. Inability to observe first-hand how the process and market system operate generates a weakness in the ability of this sub-group to fully analyze the systems. To overcome this gap in analysis, this team suggests:

- Implement based on commitments from various stakeholders. During this analysis, we used data based on document research and phone interviews with EBT program personnel from farmers’ markets across the nation. While this data was not obtained in person, the
analysis of this team was carefully crafted, and should be considered credible and valid if the stakeholders (farmers, Citiparks, and Just Harvest) agree to partake in supporting this project.

- **Continue research.** Despite the validity of the data acquired, further research should be conducted during the implementation of this system. When deciding what accounting procedure to adopt, who should oversee the cashier system, what media materials to provide, and what redemption process to institute, the market manager should continue to talk to other EBT market managers and FNS contacts from across the country. These conversations will enable Pittsburgh to obtain an expert advice on how best to develop and implement a system that accepts EBT.

**Areas for Potential Future Research**

There are still areas of research that can be explored in the future. Some areas for potential future research include:

- **Compare findings with other farmers’ markets based on demographic characteristics.** Although we based our best practice recommendation on information collected from successful farmers’ markets around the country, further analysis of each system can be conducted based on the experiences of markets that have a similar demographic profile to Pittsburgh Citiparks farmer’s markets.

- **If there are constraints to implementing the program at all seven markets, institute a cashier system at one Pittsburgh farmers’ market to model the process.** Generating partnerships among various organizations throughout the community can turn this recommendation of practice into a reality. Building community support for the central cashier system by implementing a prototype system at one Citiparks farmers’ markets will allow community members to acclimate to the new system, enable market managers to adjust the system to meet customer demand and expectations, and finally advertise collective support for the implementation of the central cashier system at the other markets locations.
Chapter 2
Card Processing Options and Logistics

Critical to the research analysis was developing an understanding of how EBT works in general, as well as what specific considerations to make when choosing banking and point of sale technology options. Further, we deemed it necessary to be knowledgeable about federal requirements for accepting SNAP benefits at farmers’ markets.

Moreover, we understood that the optional inclusion of credit and debit sales into the program could prove crucial in gaining farmer buy-in for our proposal; however, we needed sufficient information about the benefits and drawbacks of credit and debit sales before we could reasonably recommend their adoption. Finally, we sought to investigate contracts available with various banks to make this project feasible. To address these research inquiries, we broke up our investigations into four categories:

1. SNAP and EBT basics
2. Credit and debit cards
3. Banks and point of sale technology service providers
4. Implementation contract options

We investigated each category using a variety of methods. The process of data collection intensified over time, beginning with rudimentary research on-line, continuing with expert interviews, and often ending with quantitative data analysis. We approached each category using the following methods:

**SNAP/EBT Basics**

We first investigated SNAP and EBT basic information through online document research. This focused on understanding the basic history behind the SNAP program and general administrative information such as vendor eligibility requirements and the application process. We also conducted phone interviews with personnel from FNS field offices. After obtaining the general information, we examined how the specific requirements applied to our project.
Credit and Debit Card Options

We conducted document research using Government Accountability Office (GAO) reports and online articles, which allowed us to understand how credit and debit cards functioned and the fees that applied to each type of card. We also conducted interviews with small, local business owners. After understanding the basics, we sought to understand how the specific fees could apply to our project. For this we interviewed the owner of a small, independently owned grocery store in the Oakland neighborhood of Pittsburgh. The interview helped us gain insight into the practical application and flexibility with the various fees.¹

Banks and Technology

While investigating information regarding banking and available point of sale technology, we visited many of the same materials used for credit and debit card exploration. Additionally, we conducted interviews with processor representatives. We held a meeting with a co-director of Just Harvest and a former bank representative to understand the possible negotiation process for the financial services needed for the project. Here, we learned which areas of negotiation were the most important, as well as a list of potential banks that could offer services for the project.

Last, we contacted three different card service vendors. Through these representatives we learned which types of point of sale technology were offered and the benefits and drawbacks of each.

Implementation Contract Options

For assessing contract options, we compared contracts offered by three different card service providers. After negotiating the terms of the contracts, we conducted a spreadsheet analysis of each contract cost breakdown using Monte Carlo simulation techniques. This helped inform our final recommendation of which card service provider contract to accept.

Weaknesses in Research

There were several real weaknesses and challenges in our research process. The most challenging was the lack of data. Obtaining revenue and customer pattern estimates for Citiparks farmers’ markets would have been helpful in modeling the cost structures entailed in each card service

¹ Note: Farmers’ markets were closed during this period of investigation, which is why no farmer/vendor interviews were included.
provider contract. Unfortunately, this type of information is unavailable. Thus, we relied on the relevant estimates based on data from other, similar farmers’ markets. While we feel these estimates are reasonable, revenue estimates gathered from Pittsburgh Citiparks farmers’ markets would have been more helpful for our analysis.

Summary of Findings

SNAP/EBT Basics Priorities

In order to accept SNAP benefits at a farmers’ market, a vendor must be licensed by FNS. The original eligibility requirements for SNAP-accepting vendors include the offering “of at least three different varieties of food of each of the following four staple food groups, with perishable foods in at least two categories, on a daily basis:

- Bread and Grains
- Dairy
- Fruits and Vegetables
- Meat, Poultry, Fish

Or, at least 50 percent of the total sales (e.g., food, non-food, services, etc.) at your store must be from the sale of eligible staple food,” (USDA Food and Nutrition Service, 2010).

As farmers’ markets clearly meet these requirements, the FNS website includes the specific definitional eligibility for farmers’ markets seeking to accept SNAP benefits. According to FNS, a farmers’ market is defined as:

“...a multi-stall market at which farmer-producers sell agricultural products directly to the general public at a central or fixed location, particularly fresh fruit and vegetables (but also meat products, dairy products, and/or grains).”

Along with this definition, FNS provided two different applicant designations for farmers’ markets applying to be SNAP eligible vendor locations. As stated on the FNS online application site:
Designation applies to an umbrella organization/sponsor that operates a farmers’ market location or locations. Designation also applies to direct marketing farmers; these are individual producers of agricultural products, particularly fresh fruit and vegetables, as well as meat, dairy, and/or grains, that are sold to the general public through a direct marketing venue such as a roadside farm stand, pick-your-own operation, and/or market stall within a farmers’ market.

The entire application process can be completed online. Discussions with the FNS official we contacted revealed that the USDA and FNS were eager to accept as many farmers’ market applications as possible (Shelby, 2010). While the FNS website promised a processed application within forty-five days, the FNS representative indicated that the application could be processed within two weeks. She also confirmed that the overarching applicant could be virtually any entity, and that Just Harvest or Citiparks could qualify.

Credit and Debit Card Priorities

As mentioned above, farmers were interested in the prospect of credit and debit card transactions at markets. This enthusiasm is understandable, as our research suggested that total dollars per customer spent rise by as much as 20-25% among card users when credit and debit card transactions are made available at farmers’ markets (Shanahan, 2010). 2

With a Point of Sale (POS) machine, a farmer’s market would have the opportunity to accept credit and debit cards. Our findings can be broken into two categories: how credit and debit cards work in general, including the different fees that will be relevant for this project; and the benefits and disadvantages from accepting credit and/or debit cards.

Credit and Debit Cards: Background

In 2009, the GAO issued a report explaining credit and debit cards and some of the trends involved in their usage. As the report explains, “when a consumer uses a credit card or debit card to make a purchase, the merchant does not receive the full purchase amount because a certain portion of the sale is deducted and distributed among the merchant’s financial institution, the financial institution that issued the card, and the card network that processes the transaction,” (Cackley, 2009).

2 Dollar per customer values signify how much the average customer spends per visit, per farmers’ market.
The focus of this report, however, was the rising costs from these different fees, especially interchange fees, and their occasionally detrimental effect on merchants. The report stated that “for merchants, the benefits of accepting credit cards include increased sales and reduced labor costs. However, the GAO spoke to representatives from some of the large merchants who said their increased payment costs outstripped any increased sales,” (Cackley, 2009).

To gain a different perspective on the benefits and fees associated with accepting credit and debit cards, we interviewed the owner of a small, independently-owned Indian grocery store in the Oakland neighborhood of Pittsburgh. The owner’s views coincided with the GAO’s conclusions: credit card fees are much higher than customers suspect and do not always increase revenues to cover their additional costs to businesses (Kohli, 2010).

While farmers were excited for the prospect of increased revenue through credit and debit card transactions, the fees to cover the different transaction and interchange costs threaten the project’s sustainability. Relevant findings from our research of fee structures are:

- The most important fees are the interchange fees. These end up being the bulk of total merchant costs for accepting credit and debit cards.
- Most merchants pass on the costs of these fees by raising their prices, this affects all customers, regardless of whether or not they use credit/debit cards. We did not consider this to be a viable option for farmers’ markets.
- Each card institution has a separate set of interchange fees and transaction fees. Further, debit cards have different fee levels than credit cards. For instance, debit cards have much lower interchange fees than credit cards. Among credit cards, American Express, Discover, or any rewards cards have much higher interchange fees than regular Visa or MasterCard credit cards. When accepting credit or debit cards, swiping the card is usually less expensive for the merchant that keying in the card (i.e. punching in the credit card number).

Thus, there are many advantages and disadvantages to accepting credit or debit cards. When analyzing the relevant information, we feel that the project could justify either decision of incorporating or not incorporating debit and credit sales. The main advantages and disadvantages include:
Advantages

• Farmer buy-in. Whether or not credit and debit cards involve a high cost, accepting them is crucial to farmer buy-in for this project. While accepting EBT is the main priority, the 20-25% increase in dollars spent per customer has proven to be an important deal-maker for farmers. This has also been an important point for non-farmer vendors who also sell their goods at the market. The Clark Park Farmers’ Market in Philadelphia report on their SNAP/Food Stamp Pilot Program indicated that, in their experience, customers using credit and debit cards spent $15 to $17 more per market visit (The Food Trust, 2009).

• Increased revenues. The increased revenues themselves would be positive for the farmers’ market. This would help the local farmer economy and encourage even more farmers to utilize the farmers’ market system.

• Increased customer base. If credit and debit cards were accepted, it may bring new customers to the market.

• Reducing stigma of public assistance. Introducing other non-EBT card transaction options could potentially draw less attention to EBT card customers at farmers’ markets.

Disadvantages

• Fees. The fees associated with accepting credit and debit cards would be substantial. We decided that trickling down the costs to farmers and thus all customers through higher prices was unacceptable, it may be a challenge to fund this option.

• Additional paperwork and administration. In a token-based scrip system, accepting credit and debit cards necessitates separate tokens for the farmers’ market currency,3 as well as more effort in the accounting and managing areas.

Banks and Technology Priorities

EBT card transactions are electronically processed in a similar manner to debit cards, requiring a point of sale device and a bank account. Thus, a contract for card services would be necessary regardless of whether it is decided to offer credit or debit card transactions at farmers’ markets.

3 Federal regulations require separate tokens for Credit/Debit card currency and EBT currency
Although FNS offers a free point of sale terminal for processing EBT, the free machine terminal requires a power outlet, telephone line, and at least $100 in EBT transactions per month. None of these conditions are certain to be met at Citiparks farmers’ markets. For this reason, we pursued other point of sale technology options.

We found that choosing the financial service provider for the project would likely determine the point of sale technology options for the project. Additionally, different banks offered different fees and costs, which could affect the project’s sustainability. These contingencies made choosing the right bank a crucial decision for the project.

Informed by our findings from farmer outreach and common practices research, we established that point of sale devices used in this project must be:

- Wireless. At many of the farmers’ market locations, phone lines are not available. A wireless machine would be crucial to successful implementation.
- Durable. It was imperative that the machine could withstand the elements and atmosphere of a farmers’ market.

As noted earlier, the bank providing financial services for the project typically offers few options for point of sale technology (Marks, 2010). In fact, practically all Pittsburgh banks use the same card transaction processor and thus the same point of sale technology supplier. Further, we determined through on-line research that most point of sale devices meet our project requirements.

There are three types of banking services available for the project. They involve: working directly with a bank, working with a third party processor, or working with a combination of bank and third party processor.

- Bank. Working with a bank ensures that a single entity is contracted for banking services. For the banks that offer this particular option, they usually have an in-house processor as a division of the bank.
- Third Party. This option is similar to working with a bank, except the third party only works with merchants and vendors and does not engage in other banking activities.
- Bank and third party processor. Many banks do not have the inclination or the resources to have an in-house processor. Instead, they contract out to a separate processor to take
care of many of the details and fees. The bank simply has the account and collects the merchant fees from the third party.

In Pittsburgh, all banks we investigated supporting card services employ the third option: bank and third party processor. If project developers wish to work with a Pittsburgh bank, a contract would be negotiated with First Data, a large third party processor based in Ohio. We initiated negotiations with First Data in order to ascertain costs associated with the contract. We sought to establish a total of at least three possible alternatives for banking contracts, one from each general category, to ensure that project administrators are able to accept the best possible contract.

Upon consulting with Carolyn Shelby, our contact at FNS, we learned of another banking service provider, First National Merchant Services (FNMS). FNMS received positive reviews from farmers’ market personnel in Virginia. FNMS falls into the first general category, as it is a subsidiary of First National Bank. We solicited a contract offer from this bank.

Finally, document research of successful EBT programs at other farmers’ markets led us to pursue a contract offer from Total Merchant Services (TMS). TMS falls into the second category of third party processor.

Contract offers from all three companies are included in Appendix 2. In analyzing these different contracts, there were two general differences: the method of acquiring a point of sale device and the fee schemas. Two options for receiving the POS device are that project administrators could either purchase or rent the equipment.

- Vendor 1 recommended purchasing the equipment, and their rental fees ensured that this was the only viable option.
- Vendor 2 only offered machine rentals. Because most farmers’ markets do not operate year-round, Vendor 2 offered a seasonal option, but this came with an additional $100 in fees each season.
- Vendor 3 also only offered machine rental, and a seasonal option, but did not charge any additional seasonal fees.

Vendors offering a “seasonal option” would allow the farmers’ markets to send back the machine during the periods when the market was not in operation. This means that the market would not have to pay the rental, wireless, or minimum revenue fees during the winter and early spring
months. In addition, each banking option had a different schema of fees. The fees are listed in the table below.  

Fee Schedules (See following Explanation of Fees for clarification of fees)

<table>
<thead>
<tr>
<th></th>
<th>Vendor 1</th>
<th>Vendor 2</th>
<th>Vendor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interchange Fees</strong></td>
<td>Most likely: 1.54% +.30% for their fee</td>
<td>Most likely: 1.85% and a $25 set-up fee</td>
<td>1.69% (none for debit)</td>
</tr>
<tr>
<td><strong>Transaction Fees</strong></td>
<td>$.10 per swipe</td>
<td>$.20 per swipe</td>
<td>$.15 per credit swipe* and $.30 per debit swipe</td>
</tr>
<tr>
<td><strong>Wireless Fees</strong></td>
<td>$12/month per machine</td>
<td>$15.95 month per machine and a $75 set-up fee</td>
<td>$19.95 month per machine</td>
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<tr>
<td><strong>Rental Fees</strong></td>
<td>$39.99/month per machine, 4 yr lease, then own</td>
<td>$19.95 per month</td>
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<tr>
<td><strong>Upgrade Fees</strong></td>
<td>Difference in price</td>
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<td>Free</td>
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<tr>
<td><strong>Batching Fees</strong></td>
<td>$.25 per batch</td>
<td>$.25 per batch</td>
<td>$.25 per batch</td>
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<tr>
<td><strong>Purchasing Price</strong></td>
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<td>N/A</td>
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<tr>
<td><strong>EBT Fees</strong></td>
<td>Most likely: 1.54% +.3% for their fee</td>
<td>$5 per month and $.10 per swipe</td>
<td>$.13 per swipe</td>
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</table>

---

4 Interchange fees differ based on the type of credit or debit card used. In the table, the team used an average of the more common types of cards (e.g. Visa and MasterCard). It should be noted that this table is a very simplified version of each contract/fee schedule.
Explanation of Fees:

- **Interchange Fees**: These are usually the largest fees associated with credit cards. Interchange fees are not fixed, but rather they are a percentage of the total purchase. Thus, if the interchange fee was 1.00% and the customer purchases $100.00 worth of goods, the merchant would owe an additional $1.00 to the credit card company.

- **Transaction Fees**: These fees are a fixed dollar amount and occur every time a credit or debit card is used (per swipe).

- **Wireless Fees**: This fee covers the wireless service.

- **Renting Fees**: These are the fees associated with the cost of renting each individual machine, should the project administrator choose to rent.

- **Batching Fee**: Roughly once a day, the machine needs to send a record of all of its transactions to the processor, this is called a "batching fee" and is relatively inexpensive.

- **Purchasing Price**: If the project administrator elected to purchase the machine, this is the standard cost.

- **EBT Fee**: These are the fees related to EBT usage. Each vendor has a different method: Vendor 1 has an interchange fee, Vendor 2 has a monthly fee plus a transaction fee, and Vendor 3 has a transaction fee.

While these fees gave us a basic idea of the differences within each contract, they were not useful on their own. Thus, we created several mock budgets for each contract. Each contract had at least two possible budgets, one for the usage of credit, debit, and EBT cards; and one if the project only accepted EBT cards and not credit or debit. In addition, there was an additional budget for Vendor 2 to compare whether or not to use the “seasonal option” and accept the additional fee. Results are shown in the table below.

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5 For the assumptions used in creating these budgets, please see Appendix 2
<table>
<thead>
<tr>
<th>Vendor Fees</th>
<th>Vendor 1 Purchase</th>
<th>Vendor 1 Rent</th>
<th>Vendor 1 EBT Only</th>
<th>Vendor 2 Seasonal</th>
<th>Vendor 2 Year-Round</th>
<th>Vendor 2 EBT Only</th>
<th>Vendor 3 EBT Only</th>
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<td>Start-Up</td>
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<td>$100.00</td>
<td>$100.00</td>
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<td>$25.00</td>
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<tr>
<td>(Wireless)</td>
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<td></td>
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</tr>
<tr>
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<td></td>
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<td></td>
</tr>
<tr>
<td>(Machine)</td>
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<tr>
<td>Fee for</td>
<td></td>
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<td>$21381.78</td>
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<td></td>
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</tr>
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**Budget Contract for Each Option**

As the Total Costs column in the budgets show, the fees could be extremely high if credit and debit cards were accepted. Credit and debit acceptance, however, has proven to be an important point when discussing the project with farmers. And, although the team prepared several grant proposals to cover initial costs, accepting credit and debit had no chance of sustainability without some alternatives to raising money that could counter the costs from the banking fees. We do not recommend passing on these costs to farmers, as this would hinder farmer buy-in for the entire project. It would also be unethical and illegal to pass on the costs to the EBT beneficiaries. We found that the best option to cover these costs is to follow the example of several Virginia farmers' markets: charge customers a $1.00 fee for paying with their credit or debit card. This $1.00 fee has proven successful in Virginia and has not significantly hindered credit or debit card usage. Thus, with this additional revenue, the Total Revenue columns show positive net revenue.

While the table comparing the different fee schema shows that each option has its advantages and disadvantages, the budget options show that Total Merchant Services (Vendor 3) was the best alternative for the project. Total Merchant Services beat the other contract options in nearly every cost category, with substantially lower fees than every other option, except for First Vendor 2's EBT-only option. Thus, our recommendation depends on whether or not the project decides to accept credit and/or debit cards.

**Budget Simulation**

The final actual costs of each option will in part depend on the distribution of card sales by EBT, Credit, and Debit cards. As each vendor had different fee schedules for each type of transactions, and because the actual distribution of these types of sales in Pittsburgh is as yet uncertain, the research team ran a budget simulation based on forecasted customer transaction volumes to model this uncertainty, and to see if it might make a difference in the recommended contract option. To execute this simulation we used volume averages to compute the most likely percentage breakdowns of sales coming from debit, credit, and EBT cards. We chose a triangular distribution to model these percentages, as informed from our research, and had no other data to

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7 To market this fee in a more positive way, cashiers could explain it as a contribution, helping the farmers' market to continue and expand.
inform other types of distributions. Lower and upper limits are our best estimates on the limits for each proportion, and the most likely value \( c \) was based on reported values from other markets. Normal distribution was not used, as there was no standard deviation available for the calculation.

The simulation was run with 50,000 trials each time. The team used three different total transaction estimates each time (135,000, 270,000, and 400,000). The first volume estimate was reported by the research team, the second number is an arbitrary doubling of that number, and the third number is a number reported by Citiparks. The 400,000 was reported to the project as annual customers, though we now believe this to be a visitor count and not a transaction count.

**Simulation Results**

For all three volume simulations, Total Merchant Services has the lowest value mean for the forecast performed, and otherwise appeared to dominate other options for most of the possibilities modeled. This simulation suggests that Total Merchant Services will provide the lowest cost at providing this service. In the Appendix please find several tables and graphs detailing the graphical results of this analysis.

**Implementation Strategy Options**

From our research and extensive discussions with project team members, we have determined that there are two possible implementation strategies for EBT/Banking.\(^8\) Each implementation option has its advantages and was evaluated based on the farmers’ markets’ capabilities and the project’s needs:

- Only accept EBT card transactions: This implementation strategy would only allow SNAP benefits to be accepted at markets, but would reduce costs and make them more predictable. Grant funding should be able to cover this program easily. The downside, however, is that with no credit or debit card acceptance, farmers will be less enthusiastic about this program. In addition, the program would lose out on an important sustainability option in the $1.00 convenience fee. Finally, due to the previously mentioned issues with

\(^8\) Note that these options are independent from the negotiations and contract with a bank or third party. This must be decided separately.
the stigma of public assistance, this may discourage EBT users from using this program.

- Accept EBT, credit, and debit cards: This implementation strategy would accept all cards and thus provide benefits for all customers, EBT beneficiaries and others. The disadvantage of this strategy is that costs are more unpredictable, but certainly far higher than with an EBT-only access strategy. It is also likely that implementation would be more complex, necessitating more complicated accounting and another type of token currency. The benefits, however, are that farmers and other vendors will be more excited and enthusiastic about this proposal. In addition, there will fewer concerns related to EBT-stigma: there will both SNAP non-SNAP customers waiting in line for tokens. Finally, with the $1.00 convenience fees, sustainability, even without foundation support, becomes more likely.

**Recommendations**

Based on our findings, we recommend the following:

- Virtually any entity can apply for the FNS license and sign the contract with the bank, including Just Harvest.
- The administrator licensee should implement a program to accept credit and debit cards, along with EBT cards.
- The administrator licensee should select the contract offer from Total Merchant Services.

**Overcoming Weaknesses and Gaps**

As was mentioned previously, there are several weaknesses and gaps in this analysis. The most concerning is the lack of data specific to the Citiparks-run farmers’ markets, or any farmers’ markets in Pittsburgh. To overcome this weakness, this sub-group recommends:

- Implement based on our findings in the Common Practices section of this document. During this analysis, we used data averaged across similar farmers’ markets across the nation. While this data is not as desirable as Pittsburgh-specific data, our numbers were carefully estimated and are both credible and valid.
Conduct continuous evaluation. Despite the validity of the data used, it is still possible that Pittsburgh may prove to be an anomaly or have a set of circumstances of which this project was not initially aware. To guard against any possible negative outcomes, the we recommend developing baseline data levels for all relevant variables (e.g. average number of customers per market, dollar per customer values, total revenues per market, percentage of customers using EBT/credit/debit cards, percentage of revenue deriving from EBT/credit/debit cards, etc.) as soon as the project begins. This will allow the project to catch any anomalies or problems that arise and adjust the implementation plan accordingly before any crises develop.

Areas for Potential Future Research

Although the team has done extensive work, there are still more areas that could be explored in the future. Some areas for potential future research include:

- Eventually working with a local bank. Although we currently feel that Total Merchant Services is the best contract option, a local bank would keep this project within the community. In addition, there may be the opportunity for cross-marketing – with the bank covering some of the costs of letting SNAP beneficiaries know about the program.

- Ownership of the program. While the team currently recommends that Just Harvest be the FNS applicant for the system, the research team has found that many of the more successful programs have a great degree of farmer ownership. This may be something to look into in the future.
Chapter 3
Farmer Outreach

The research team was initially concerned that farmers would not be interested in accepting SNAP benefits because of an unsuccessful EBT pilot program sponsored in the past (Millman, 2009). We initiated our outreach efforts under two assumptions. One initial assumption was that farmers would be hesitant to adopt new technologies. This assumption was informed by the knowledge that technology at the time of the pilot was not dependable. Our second assumption was that the additional potential of exposure to tax liability would dissuade farmers from participating. Our findings proved both notions to be generally incorrect.

Methodologies

Focus Group

For our outreach efforts, we focused on identifying the criteria that would both potentially persuade and dissuade farmers from opting in to a market EBT system. We referred to these criteria as dealmakers and breakers in our research. To identify these potential criteria we approached Greg Boulos and Jennifer Montgomery of Blackberry Meadows Farm in Natrona Heights. Blackberry Meadows Farm is a certified organic farm that has been serving the region since 1992. Until recently, the farm owners had been participating vendors of two Citiparks farmers’ markets. Farm ownership changed hands to Boulos and Montgomery three years ago, and the new owners now sell fresh produce through a Community Supported Agriculture (CSA) program, the East End Food Coop, and two (non-Citiparks) farmers’ markets focused on the niche organic market. Because they do not currently participate in Citiparks markets yet have in the past, we felt they could provide valuable insight to our outreach efforts from an informed, yet neutral standpoint. The meeting with Boulos and Montgomery was conducted as an informal focus group. This structure enabled us to elicit candid feedback regarding early approaches to our program development.
Boulos and Montgomery suggested the following to secure farmer buy-in:

- Promote a central cashier system structure
- Find a redemption system that is simple and easy
- Prioritize the redemption-reimbursement cycle to a reasonable timeframe
- Investigate the possibility of accepting credit and debit cards at farmers’ markets.
- Consider fraud prevention measures

**Phone Interviews**

Citiparks emerged as a central stakeholder in this project. An initial meeting with Tom Driscoll, the director of farmers markets for Citiparks, revealed the eagerness of participating Citiparks farmers to reintroduce food stamps benefits into the markets. We attempted to solicit a contact list of farmers that participate in the Citiparks markets, however we were informed that the list is not typically made publically available. Therefore, to help focus the scope of our outreach efforts, Mr. Driscoll identified several Citiparks farmer vendors whom he considered to be leaders within the farmers’ market community.

The goal of our outreach was to discover specific positive and negative opinions Citiparks farmers have in integrating EBT in their markets. The team created a structured questionnaire for phone interviews that included the following questions to the farmer:

- *What are your general impressions of accepting food stamps at farmers’ markets?*
- *Did you accept food stamps in the past? What was your experience with it?*
- *Do you see a potential for problems accepting food stamps at the farmers markets?*
- *Would you participate in a system that was structured with a central cashier?*
- *Would you participate in a system that took two weeks for reimbursement?*
- *Would you support the integration of credit and debit sales at the market?*

The questionnaire was designed with open-ended questions to facilitate an informal discussion and to maximize the comfort level of the farmer being interviewed. This format benefited the researchers as it made accessing the farmers easier; however it did limit advanced data collection techniques like audio or video recordings. Additionally, the method for identifying farmer interviewees was likely biased, due to the inability to collect a full sampling frame. Despite these limitations, we are confident that the results are strong enough to generalize to the Citiparks farmer population.
One-on-One Meetings

Mr. Driscoll invited the team to meet with a group of farmers at a Citiparks market location in the South Side neighborhood of Pittsburgh. At the meeting, two researchers had one-on-one discussions with farmers and explained the proposed central cashier system. Farmers were asked the same questions as those listed above for the phone interview. At the end of each meeting, farmers and vendors were asked to sign a petition of support for the project. Eight out of nine different farmers and vendors interviewed signed the petition of support.

Farmer Reactions

Phone interviews were conducted with six farmers. We found that all six farmers were overwhelmingly enthusiastic about the program and desire to capture new revenue channels by accepting SNAP benefits, and especially by accepting credit and debit sales. Farmers also expressed a motivation for the ability to provide access to fresh and locally grown produce for SNAP recipients.

During an interview, one farmer that had participated in the previous pilot effort reported that the card service technology had slowed down his individual transaction time and that he would not be interested in operating his own machine. However, this same farmer expressed interest in a central cashier system and agreed to opt in if the system was implemented. It should be noted that though supportive, this farmer remained skeptical that card service technology could be relied upon in the central cashier system, and that sufficient marketing would be conducted to attract SNAP customers.

We interviewed Frank Zibritosky's of Zibritosky's Orchard over the phone. The orchard has been in business for almost 20 years and sells at multiple markets within the Citiparks system. When the central cashier station structure was presented, Mr. Zibritosky was very enthusiastic. He said "The central cashier is a great idea. We don't need to change how we work and we can get more customers. I like it!" He explained in the interview that the potential for problems would be less in a centralized cashier system, and that it preserves the fashion in which his business is conducted.

We interviewed Joe King who operates a farm in Valencia, PA over the phone. The King family has been in the Citiparks markets for over 25 years and has been farming for over 30 years. Mr. King explained the importance of maintaining the speed of the business in farmers' markets and was enthusiastic about the central cashier concept. For Mr. King, the ability to reach a larger
customer base is very important and he expressed feeling that this program would offer such opportunities.

We met with D.J. Jodikinos from the Jodikinos Farms in Clinton, PA. Jodikinos Farms is a family run farm with a farm stand of their own on their property. The Jodikinos family is one of the largest vendors in the city and the family is represented in every Citiparks market except the downtown market. Mr. Jodikinos knew about the previous pilot project and emphasized how the technology had slowed business for the farmers using the machine. Mr. Jodikinos was asked if he would be interested in accepting EBT in the market, his response was “Of course we would. Our farm has been trying to figure this out before you showed up.”

General Impressions

Overall, farmers are overwhelming positive about implementing a central cashier system and incorporating the use of SNAP, credit and debit sales into their business processes. They clearly recognize this as a revenue generating opportunity. They understand the potential for growth in their business that this opportunity presents, and are well aware of the increase in SNAP redemption at farmers’ markets both nationally and regionally. Additionally, vendors who have non-SNAP-eligible items for sale (mostly prepared foods) are eager to accept credit and debits cards at the market using the central cashier system. Most reported dissatisfaction with their current practice of turning customers away who approach them with SNAP or credit and debit cards.

In almost every conversation the first concern expressed is the processing time. The quick hand-to-hand transaction nature of the market is vital to the success of their business. If a farmer develops a queue, the nature of the market means customers can easily find the same or substitute product from another vendor. If a farmer has to wait on a machine to electronically process a transaction, the farmer will lose business.

Farmers are not overly concerned with reimbursement time or technology adoption. Any reservation from the previous pilot program comes from the time effect the technology had on the hand-to-hand business model, not the technology itself. The central cashier system is the only model reviewed that preserves the quick hand-to-hand business process for the farmer. Farmers were not concerned about a delay in the receipt of their income. Many expressed the desire to minimize the turn around on this payment, but this was not a deal breaker for the farmers or vendors. The farmers have experience with reimbursement lag from using the WIC coupons and from accepting paper food stamps coupons in the past.
Recommendations

Farmer enthusiasm should not cloud the real concerns they had about the system. First and foremost, farmers want appropriate training for the system. They requested very explicit directions on SNAP eligible goods and a desire to be informed of associated regulations. Many farmers are familiar with the regulations of the WIC program and are open to complying with related policies. Farmers requested that training include education on SNAP eligible and non-eligible foods, directions for the reimbursement process, the accounting procedures, and the token exchanges.

For project implementation, farmers will need to sign a vendor contract. This will be a contractual agreement for farmers to opt in to the system and remain in the system for the duration of the season. It is common for most agreements to be on a seasonal basis. The contract will spell out options and obligations for the individual farmers. After the official contract signing and training session, farmers expressed interest in receipt of a sign on packet. This packet could be a folder or a binder that includes all of the rules, important contact information (for Just Harvest/implmenter, cashier/accountant/ check writer), and laminated signs for their stands announcing that they accept SNAP tokens. The markets also need standardized signage to show which vendors accept SNAP, credit, or debit.

The research team recommends that Just Harvest continue close communication with farmers. It is important to note that outreach should be an activity that happens all year round, though outreach will differ in content and frequency depending on whether the market is in season or not. The most direct outreach method will be to attend the markets. Recognizing the importance of the social network that exists in these markets is very important. Future studies could be done in mapping these networks and evaluating the results to understand the local farmer community.

The 2010 market season should begin with immediate visits to the markets for introductions to all of the farmers and vendors in the markets. This team believes a positive rapport between the project implementer and the farmers will be vital to success. There is great potential for continued outreach to the farmers in the off-season. In the past, Citiparks hosted an annual meeting of the farmers and vendors associated with its markets. This meeting no longer occurs. The organization that chooses to take responsibility for farmer outreach should reintroduce this tradition. Many farmers expressed an interest in this meeting and regretted that Citiparks no longer hosted it.
Currently there is no coordinated outreach to farmers in Southwestern Pennsylvania. We found that the Citiparks farmers’ markets themselves are a central node in this network of farmers. An organization could capitalize on this and create a network for outreach. Farmers are looking for ways to come together and interact. If a local group were to take the lead in this organizing effort they would be rewarded with a secure base of active farmers.

If no organization finds that it is within its mission to accept responsibility for farmer outreach, then an organization should be created to do so. Formally organizing farmers into a group will benefit both the farmers and the region. The long-term sustainability of this project will only be achieved if farmers continue to opt into the system every season.

**Future Research**

Future research should include a study to investigate how farmers are organized in other markets. A social network analysis of these farmers would produce insight on how the market operates and on the relationships between these farmers. This research could be used to assess the best strategies to incorporate farmers in regional food policy initiatives.

The research team found that many SNAP farmers’ market access programs were implemented - or at least initiated - by a coalition of farmers. Why did this not occur in this region? Future research may shed light on this question. If this project is to have long-term sustainability, relationships must be developed with the farmers in the region. One should reach out to a farmer just as they would any regional business person. Farmers want to expand their business, and they are always looking for new opportunities to increase revenues. Accepting SNAP benefits is a natural extension for most farmers because it gives them access to a larger customer base.
Chapter 4
Locating Farmers’ Markets, SNAP recipients, and Access

To determine whether there is a sufficient customer base to sustain SNAP usage in Citiparks farmers’ markets, it was crucial to examine where SNAP recipients live in relation to Citiparks farmers’ markets, as well as determine their physical accessibility to the markets. The investigation reveals which farmers’ markets are surrounded by the greatest density of SNAP recipients. These recipients should be aggressively targeted with marketing efforts.

Investigation

Collecting data on SNAP recipients was challenging. The sensitive nature of data describing persons receiving public assistance made it difficult to obtain information on specific SNAP beneficiaries. We worked closely with the Allegheny County Department of Human Services to obtain accurate but anonymous counts of SNAP users at the zip code and census block group level from the Pennsylvania Department of Public Welfare. This process was complicated by the fact that it entailed more than two months of waiting before ACDHS was able to release the data and by the fact that University protocol required that ACDHS first process the data into anonymous aggregated form before receipt. A data sharing agreement also had to be negotiated and signed before receipt.

The data needed for mapping the farmers’ markets was less difficult to obtain. This entailed online research using the Pittsburgh Citiparks website, document research using a Pittsburgh Post-Gazette article and utilization a USDA GIS shape file of farmers’ markets in Pittsburgh. Finally, we secured a current list of farm stands operated by the Greater Pittsburgh Community Food Bank published on the organization’s website.

For transport access, we used a report published in 2007 by the Greater Pittsburgh Community Food Bank that lists the percentage of households who lacked access to personal vehicles. This data was grouped by neighborhood and was based on U.S. census data from 2007.

Collecting data for the study of transit routes from the Allegheny County Port Authority was also a challenge. Although we obtained a shape file that mapped major routes, the shape file was outdated (2001) as the Port Authority recently changed many routes in April 2010. To update the routes, we referenced the online schedules of all of the major routes that approached any of the seven Citiparks markets in Pittsburgh. The process of updating the routes was arduous. To help visualize the analysis, we obtained an online layer of world satellite imagery from the website of
ESRI, the developer of a commonly used GIS application called ArcView. The images had been collected by the US Geological Survey and were helpful in visualizing both transit and walking access to each farmers’ market.

All other data and shape files needed for the project were obtained from the GIS Tutorial Health data library on the Heinz College server.

**Data Analysis**

**Proximity Analysis**

The Proximately Analysis was conducted to determine the location of farmers’ markets in relation to SNAP recipient densities.

**Farmers’ Markets**

The team began the analysis by determining the location and characteristics of farmers’ markets and stands in Pittsburgh. Location and hours of operation for the seven Citiparks farmers’ markets were obtained from the Citiparks website. Locations and hours for other farmers’ markets and food stands in Pittsburgh were gathered from the Pittsburgh Post-Gazette and the US Department of Agriculture. The longitude and latitude were determined for each market and stand. Three shape files were created and added into ArcMap, one displaying the seven Citiparks farmers’ markets, one displaying other farmers’ markets, and one displaying food stands. These layers, displayed on top of an outline of Pittsburgh neighborhoods, were used as the baseline for comparison and analysis in the study.

**SNAP recipients**

The team gathered the best available data on SNAP recipients from Allegheny County and the PA Department of Public Welfare. The following dataset of information was gathered and utilized.

Included in the dataset:

Department of Human Services Data:

- Count of 2006 Screened Eligibles\(^9\) for SNAP by Zip Code

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\(^9\) Precise data on the number of food stamp recipients was not available for this study. However, one indicator of food stamp program participation was available, screened eligibles. All applications and renewals for food stamp participation must be screened by a process conducted at a central location by the Pennsylvania Department of Public Welfare. Screening can occur based on individual requests, or through batch process requests submitted by public agencies such as the Allegheny County Department of Human Services. For example, clients...
• Count of 2009 Screened Eligibles for SNAP by Zip Code
• Count of 2006 Screened Eligibles for SNAP by Census Block Group
• Count of 2009 Screened Eligibles for SNAP by Census Block Group

Non Department of Human Services Data:

• Count of 2006 Screened Eligibles for SNAP by Zip Code
• Count of 2009 Screened Eligibles for SNAP by Zip Code
• 2006 and 2009 Demographic Data of Screened Eligibles

The team also used census block group data from the US Census. Census block group data was added as a shape file to the map of farmers’ markets. DHS and non-DHS zip code level data were aggregated to create aggregated counts for 2009 by zip code and block group. Each was displayed as a choropleth map. Missing data problems with the DHS 2006 data set made map to map comparisons between both years inadvisable. These problems were not present in the 2009 dataset.

From these maps, we were also able to determine where SNAP screened eligibles live in relation to Citiparks farmers’ markets, and which Citiparks farmers’ markets have the most SNAP recipients living nearby. A one-mile buffer was created around each Citiparks farmers’ market to count this data. The number of census block group centroids within this buffer was counted, and the total number of screened eligibles within each centroid was counted. This count was aggregated to display the total number of screened eligibles living within one mile of each Citiparks farmers’ market. Census block groups within the one-mile buffer located across a river were not counted because rivers represent a major access barrier to access in the Pittsburgh community.

Findings

General trends

Countywide, the number of DHS and non-DHS screened eligibles increased from 106K to 186K between 2006 and 2009, an increase of 75%. The increase is likely due to several factors, including the ongoing recession, expanded program eligibility (see

______________________________________________________________
receiving services from the Allegheny County Department of Human Services are typically screened on a periodic basis to determine their eligibility for the food stamp (SNAP) program. Those individuals that are deemed eligible are classified as "screened eligibles".
The universe of screened eligibles includes both the adult applicant and their dependents. Screened eligibles may not actually apply to and/or receive food stamps, and should be viewed as a measure of potential participation, not actual participation in the program. Further, although most screened eligibles represent unique persons, duplication is possible due to repeated screenings. .
http://www.pittsburghlive.com/x/pittsburghtrib/news/regional/s_638411.html), and because of a streamlined application process.

Proximity Analysis

The following two maps show Citiparks farmers’ markets, other farmers’ markets, food stands and screened eligibles for SNAP benefits broken down by zip code and census block group for 2009.
The next map shows Citiparks farmers’ markets and screened eligibles for SNAP benefits broken down by census block group for 2009. A one-mile buffer is displayed around each farmers’ market and the number of screened eligibles living within each buffer was counted. The map shows where eligibles are concentrated, but underestimates the number of eligibles present because they represent DHS clients only. Non-DHS data was not available at the census block group level.

Using this proximity analysis, we found that the East Liberty, Bloomfield and North Side Citiparks farmers’ markets have the highest number of SNAP eligibles living within one-mile.

As demonstrated by this analysis farmers’ markets are already located in areas with SNAP recipients, and the number is increasing. This indicates that there is a sufficient customer base to potentially sustain SNAP benefits programs within the markets, particularly within the East Liberty, Bloomfield and North Side farmers’ markets.
Access Analysis

An important objective of the access analysis was to examine walking, vehicle, and transit access to each of the seven Citiparks farmers’ markets to determine the positioning of markets to serve SNAP recipients. Along with the proximity analysis, it was our hope that these investigations could inform future decisions regarding the program in terms of marketing efforts, resource allocation and possible site choices for future farmers’ markets.

The map below shows neighborhoods ranked by household vehicle access. The darker shades represent neighborhoods that have a higher proportion of households who lack access to personal vehicles. Note that the darker shades correspond with higher SNAP applicant densities. Through this analysis we determined that some of the markets that serve areas including high number of SNAP applicants lack vehicle access, most notably the North Side and East Liberty communities.
The final series of maps and tables depict transit access to each of the seven Citiparks markets. Each map shows an aerial view of the market area at an extent of 1:5,500 feet. The photographs helped us investigate potential physical barriers to accessing the markets. A pink transparent buffer is placed around each market, which represents a 1,320-foot distance – about a 5-minute walking distance according to urban planning protocol. Transit routes are symbolized by yellow lines, some of which are identified by route number. The tables accompanying each map layout list the transit routes that pass within these five-minute walking radii during market hours. This helped us determine which markets are better served by public transit, as some routes pass through market areas more frequently during market hours than others. It is important to note that each market is only open one day of the week for four hours. This means that there is a short time window for those who depend on transit to access the markets. Markets that have more transit lines passing frequently through the walking distance radii during transit hours were considered to be more accessible by public transportation.
Transit Access to the Pittsburgh North Side Farmers’ Market, 2010

Frequency of Port Authority Bus Passes within a 5-minute walking radius of the North Side Farmers’ Market
Market hours: Friday 3:30pm to 7:30pm, May to November

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<td>54C</td>
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Transit Access to the Pittsburgh Downtown Farmers’ Market, 2010

Frequency of Port Authority Bus Passes within a 5-minute walking radius of the Downtown Farmers’ Market
Market hours: Friday 10:00am to 2:00pm, May to November

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Transit Access to the Pittsburgh East Liberty Farmers’ Market, 2010

Frequency of Port Authority Bus Passes within a 5-minute walking radius of the East Liberty Farmers’ Market
Market hours: Monday 3:30pm to 7:30pm, May to November

<table>
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Sources: Pittsburgh CityParks, Port Authority of Allegheny County, ESRI

Design by Tim Qubite and Kaiadan Gin
April 20, 2010
Frequency of Port Authority Bus Passes within a 5-minute walking radius of the Bloomfield Farmers’ Market

Market hours: Thursday 3:30pm to 7:30pm, May 14 to November 19

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<td>86B</td>
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</table>
Transit Access to the Pittsburgh South Side Farmers' Market, 2010

Frequency of Port Authority Bus Passes within a 5-minute walking radius of the South Side Farmers’ Market
Market hours: Tuesday 3:30pm to 7:30pm, May to November

<table>
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</table>

Sources: Pittsburgh Cityparks, Port Authority of Allegheny County, ESRI

Designed by Tim Quilty and Xiandan Gao
April 10, 2010
The mapping of transit routes within a 5-minute walking radius of each farmers’ market provided significant insight into our analysis of access to markets in the Citiparks system. The Downtown Market has the greatest number of transit routes that pass within the market area, however most of the routes do not pass through during market hours, making them useless in providing access to markets. Intuitively this makes sense, as the most frequent downtown bus trips are likely to occur during the morning and late afternoon commute rushes, not during the 10:00am – 2:00pm operational window of the Downtown Market. Additionally, the largely suburban Carrick and Beechview markets are less served by transit during market hours, as demonstrated by the maps and tables.

The North Side Market has eleven routes passing through its market area, two of which pass through more than ten times each way. The East Liberty Market has a remarkable fourteen routes that pass through the walking radius during market hours, with four routes passing through more than ten times each way. We conclude that given the high incidence of SNAP recipients in these two market areas, along with a relative increase of available transit access during market hours, that the North Side and East Liberty Citiparks Farmers’ Markets have the highest probability of benefiting from the integration of SNAP benefits into the markets.
Chapter 5 Marketing Guidelines

Administrators of operating programs across the country, as well as participating Citiparks farmers, identified marketing as a key component for the success of the project. Thus, a marketing plan should be devised for Just Harvest to enable the organization to inform and attract Pittsburgh’s SNAP community to the Citiparks farmers’ markets to purchase fresh produce and healthy goods. Developing a comprehensive marketing plan did not fit into the scope of this project, as such an effort would have required a separate research project unto itself. Instead, we present here some research, ideas, and recommendations as a foundation for the eventual development of a marketing plan.

Key Considerations

Primary concerns of any marketing plan will be determining the best channels for promoting Citiparks farmers’ markets to recipients of SNAP benefits, finding and profiling this target audience, and determining the tools needed to reinforce all marketing efforts. Other considerations include the types of messaging (and wording) that needed to be used in promotional material.

Methods

The issues were investigated in a variety of ways to provide solutions and establish marketing priorities. To this end, the marketing team did the following:

- Executed one-on-one and group interviews, as well as phone calls, to local and regional organizations who work closely to recipients of SNAP benefits. We conducted interviews with relevant organizations to gain insight on common practices being used in the Pittsburgh and Ohio non-profit communities to successfully market to SNAP recipients. Organizations interviewed included the Alleghany County Women, Infants, and Children Program (WIC), the county’s Area Agency on Aging, the Ohio Association of Second Harvest Food Bank, The Greater Pittsburgh Community Food Bank, and Mount Ararat Baptist Church. These interviews also revealed possible strategies for messaging, activities, channels, and responses.

- Read and evaluated various case studies, surveys, essays, and articles focused on marketing goods at a farmers marketing, general marketing, and farmers market consumer reports. While no documents were found that related specifically to Pittsburgh farmers’ markets, there were many on others throughout the country. This document research gave a
broader view of farmers’ market marketing techniques, as well as specific customer data such as trends, concerns, challenges, and preferences. This review also highlighted the importance of marketing and advertising for farmers’ markets. Documents were found through online publications and periodicals, library research tools, and from the recommendations of previously interviewed experts and organizations.

- Examined County food stamp eligible demographics using the aforementioned non DHS data file.

Critical Gaps and Weakness

- Despite the efforts of the marketing team, there were weaknesses in this analysis. Size of the interview pool. The sample size of the local organizations interviewed is too small to get a thorough array of opinions, and we may have missed out on important or new ideas.

Findings

The team examined the issues of target audience, positioning, branding, and messaging, and promotion and marketing channels. Strategies on pricing and place were briefly addressed, but not investigated.

Target Audiences

Before our marketing messages can have any real effect on SNAP recipients, the team needed to first understand those who the project seeks to address and serve. The following provides a description of each group:

At the national level in 2008, the typical SNAP household grossed $8,400, while 24% of its monthly funds came solely from SNAP (Wolkwitz & Trippe, 2009). Adult recipients are often single, female, and of “working age”—which is noted as being generally between ages 23-40. “Working-age” women represented 28% (a large group) of all food stamp users, however, children are also (if not most) important in our evaluation of market segments. For example, 49% of SNAP recipients are actually children from this particular segment (Wolkwitz & Trippe, 2009). While many of these recipients no doubt live in low income communities where food stamp use is common, anecdotal evidence suggests that the recent recession has created a wave of newly low income recipients who were formerly middle class. We have no information on the size of this group, but we assume it is a much smaller segment of the Pittsburgh SNAP community.
**Demographic Analysis of Non DHS Screened Eligibles**

A limited amount of demographic data (race, age, and marital status) was also available for the non DHS client file, but not for the DHS file. Based on 2009 figures, the non DHS file represents about 30% of the total screened eligible count for both the DHS and non-DHS put together. While there may be systematic differences in the demographics between these two files, the information in the file seems useful in that it represents a large portion of the population. Results suggest County user demographics are aligned with national patterns for food stamp user demographics.

As demonstrated in the graphs below, in 2009 more than half of screened eligibles were Caucasian and just over 40% were African Americans. Additionally, the data demonstrates that between 2006 and 2009, the number of Caucasian screened eligibles increased from 49 to 52 percent, and the number of African American screened eligibles decreased from 48 to 43 percent. In regards to the age of screened eligibles, it is apparent that over half are children under the age of 19, and that the number of child screened eligibles increased by almost 3 percentage points between 2006 and 2009. Most likely, screened eligible children are household residents of screened eligible adults. Additionally, over 35 percent of screened eligibles are between the ages of 19 and 49, and the age breakdown has remained fairly constant between 2006 and 2009. Moreover, over three quarters of screened eligibles have either never been married or are not currently living with a spouse, thus implying a large percentage of single-parent households. Marital Status Breakdown has also remained fairly constant between 2006 and 2009. Last, the majority of screened eligibles live in zip codes in or crossing into City of Pittsburgh, and other first ring municipalities, though this percentage decreased from 64 percent in 2006 to 61 percent in 2009.
A. Race Breakdown

Screened Eligibles by Race
2006, Non DHS Clients

White 49%
Black 48%
Other 3%

Screened Eligibles by Race
2009, Non DHS Clients

White 52%
Black 43%
Other 5%
B. Age Breakdown

Estimated Age, Screened Eligibles, Non DHS Clients

- 55.4% (Blue) for <19, 52.7% (Red) for 19-22
- 10.3% (Blue) for 23-29, 11.1% (Red) for 23-29
- 10.9% (Blue) for 30-39, 11.6% (Red) for 30-39
- 9.1% (Blue) for 40-49, 9.4% (Red) for 40-49
- 5.2% (Blue) for 50-59, 4.9% (Red) for 50-59
- 2.5% (Blue) for 60+, 3.4% (Red) for 60+
C. Marital Status

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<thead>
<tr>
<th>Marital Status</th>
<th>2009</th>
<th>2006</th>
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</thead>
<tbody>
<tr>
<td>Never Married</td>
<td>59.6%</td>
<td>60.2%</td>
</tr>
<tr>
<td>Married - Living With Spouse</td>
<td>20.8%</td>
<td>17.9%</td>
</tr>
<tr>
<td>Divorced</td>
<td>8.7%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Separated - Not Living With Spouse</td>
<td>7.9%</td>
<td>8.6%</td>
</tr>
<tr>
<td>Widow/Widower and other</td>
<td>3.0%</td>
<td>3.3%</td>
</tr>
</tbody>
</table>
D. Geographic location

In 2006, 64% of screened eligibles lived in zip codes for the City of Pittsburgh or selected inner suburbs, in 2009, 61% of eligibles lived within this area. Conversely, 36% lived in zip codes outside of this area in 2006 vs. 39% in 2009. In 2006, African Americans comprised 57% of screened eligibles within the city/inner suburb area, while 31% of those lived outside of this area. In 2009 these figures dropped to 52% and 28% respectively. In 2006, whites comprised 40% of screened eligibles in the city/inner suburb area, and 66% of eligibles outside this area. By 2009 these figures had grown to 42% and 68% respectively.
Positioning, Branding, and Messaging

Given the target audience above, what strategies make sense to position farmer’s markets as an alternative for SNAP users? We can offer the following ideas on positioning as start. Citiparks farmers’ markets should position themselves as the community's fun, healthier, alternative food retailer. Consumers should also be made aware that produce at farmer's markets is “fresh and local.” Other advantages or facts to stress about shopping at farmer's markets might include:

- product specific price advantages vs. grocery stores, where they are present;
- the availability of culturally relevant foods; and
- as noted by Ken Regal of Just Harvest, the relative ease of the shopping experience in a “junk food and cheap toy free” environment for mothers with children.

Branding should include a unique and distinctive identity for the Citiparks farmer markets that reinforces its positioning goal. The identity should include a logo and an accompanying symbol that signifies its commitment to supporting the community, providing good tasting and nutritious foods, and promoting its fun atmosphere. There should also be a memorable tagline, such as “Get fresh at your local Citiparks Farmers’ Market”. In all communications, the Citiparks new identity should be well placed, highly visible, and stand out among others. The identity should also be strong enough that audiences can immediately associate it with Citiparks markets and its positioning goal.
Branding Examples

http://chambernews.files.wordpress.com/2009/03/farmers-market-logo.jpg

http://www.deutschtown.org/news-events/fresh-fridays.html

http://www.downintheholler.com

http://www.visaliafarmersmarket.com

http://www.neoshomo.org/

http://www.ralphsjol.com
Our conversations with local organizations, particularly the Allegheny WIC office and the Greater Pittsburgh Community Food Bank, suggest that the SNAP community prefers messages that are direct, simple, and relevant. They should be "to the point", easy to read and understand, and speak about their daily challenges. This helps them connect their values to the messages and associate these values with farmers' markets.

**Promotion**

A crucial element of promotions is utilizing various marketing methods and incorporating several communication tools into the overall marketing mix. Marketing should focus its promotional efforts on various forms of advertisement and publicity. Recommended advertising channels include: (1) print media (2) community organizations, institutions, and social services, and (3) advertising via Port Authority buses and shelters. Publicity tactics to generate a buzz around the Markets and their efforts are also recommended. This will be done by working local media outlets to get story and article features, using local public figures as endorsers, and organizing special events in which the aforementioned publicity tactics can be conjoined.

Messages used could include slogans like, “Your farmers market now accepts EBT,” “Get fresh at Citiparks Farmers Markets,” “Healthy families, shop fresh foods,” and “Go fresh and buy for less at your local farmers market.” Those targeting local groups, organizations and offices should include messages like “Help us, help you. Tell your community to “go fresh” at Citiparks Farmers Markets”.

**Potential advertising channels**

*Newspapers/Community Papers*

Advertising in newspapers, community papers, and magazines like the Pittsburgh Post Gazette, the Pennysaver, and the Pittsburgh Courier are vital to the marketing campaign because of their large reach throughout the city and county. Ads should be placed in the advertising sections, food sections, community sections, and sections where social/economic justice is discussed. Costs for newspaper and other periodical advertising varies on the periodical, the length of ad run time (or number of issues it is shown in), size of the advertisement (full page, half a page, etc.), and availability of advertising space. A broad range is between $200-500.

*Posters/ Flyers*

Distributing and posting flyers and posters throughout a neighborhood is an inexpensive and fast way to get the word out about the products, services, and experiences that this project offers. They should be posted to church and school bulletin boards, on doorsteps, in laundromats, and other
local small businesses. Public libraries, and community centers are also great locations. A disadvantage of this tactic is that it will be more difficult to stand out, as many organizations utilize flyers. Thus all material must be outstanding and provide valuable messages. Printing costs total about $400-$650 at stores like Staples and Kinko’s for 500 8”x11” prints.

**Lamar, Port Authority & Other Outdoor Mass Advertising**
The Lamar Advertising Company and Port Authority of Allegheny County provide a variety of ways to advertise within the Pittsburgh public transportation system. This is a great way to have our target audience come upon the project’s marketing messages, rather than the project bringing or sending them to the target audience. To reach the huge percentage of residents who take public transportation daily, we recommend utilizing advertisement opportunities at Lamar’s bus shelters, as well as on the interior and exterior of Port Authority buses. This allows people riding, waiting, and passing by buses and bus shelters to see our messages. Lamar also offers billboard advertising at $940 per panel (additional rate vary by location), which is noted as being seen by over 900,000 people each 4-week rental period. Costs for bus shelter ads are estimated to be $1,000 per panel (for up to 5 panels) for an ad period of four weeks, while interior and exterior bus ads (combined on one bus) are estimated to be almost $1,500 for a four period week. Actual costs might be lower due to the City’s close partnership with Port Authority.

**Mailers/Email Lists**
Utilizing Citiparks’ and Just Harvest’s mailing lists, mailers and email blasts can be a highly effective way to inform SNAP recipients about this opportunity and other events, sales promotions and current happenings. To reach an even greater number of the audience, Citiparks can make use of its seasonal sponsors’ city-wide reach. Its 2009 sponsor, Duquesne Light, reaches almost half of Allegheny County through its services and sends regular communications to its millions of customers throughout all of Allegheny County. This would be a tremendous outlet for informing the broadest possible audience of Citiparks’ efforts. Furthermore, borrowing and renting mailing lists, or collaborating on mailings with other organizations should be sought out.

**Other Organizations that Serve the Disadvantaged**
Local organizations that assist and speak directly to the project’s audience, such as the Greater Pittsburgh Community Food Bank and the County WIC Office, are valuable because they share similar views on food justice and human rights. They would be useful to distribute the project’s messages and marketing materials. The project may be able to utilize their mailing lists, events, and connections to other organizations and the community.
Community Development Corporations

Community Development Corporations should be natural allies for this project. Vibrant, sustainable farmer’s markets are an asset to any neighborhood, and ensuring their success is in the interest of any CDC (in fact many CDCs are responsible for starting up farmer’s markets across the County). Conversely, many of these same CDCs are also well connected to the local fabric, and could help promote the project from organization to organization, as well as directly to residents through community engagement activities.

Internet Advertising and Web Apps

The internet is an essential tool to spread the word about this project quickly and easily. Everything from discussion forums, to blogs, websites, social media applications, and food stamp screening applications can be utilized cheaply. Just Harvest can utilize the state’s COMPASS site, where individuals apply online for SNAP benefits. It can also create a special page on the Just Harvest website announcing its work with Citiparks to make this opportunity available to SNAP recipients. This should also be where related event and market promotions are placed. It would also be valuable in providing downloadable “How to Get to the Market” or “Exchange Your Food Stamps for Market Tokens” fact sheets to our audience.

A more active and visible Facebook page will also aid us in promoting market offerings and will continue to serve as another platform for urging people to spread the word. Creating online advertising banners can be placed on online publications, “Foodie” blogs, food justice/hunger websites and parenting websites, as well as websites of affiliates and partners.

Also, collaborations with the Pennsylvania Association for Sustainable Agriculture’s Pennsylvania Buy Fresh Buy Local® program should prove valuable in getting the word out, as they work to “to make it easier to find, choose, and appreciate great local foods while supporting the farmers and lands that produce them” by creating food guides, and organizing events, farmers markets, and tours (Pennsylvania Association for Sustainable Agriculture, 2010).\(^\text{10}\) Advertisements placed online range in price from $25-500 for ad banners on blogs, websites, and online publications.

Publicity suggestions

Citiparks should be working with the media, as it is important to remain visible and relevant.

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\(^\text{10}\) Please see the Appendix 4 for a complete list of internet websites, blogs, and forums to consider for online advertising and publicity.
- Build relationships with the local media (television, radio, online, and print) and journalists interested in food and food justice by sending invitations to events and market days and by providing them story and article ideas about the markets and its affiliates.
- Use news releases (press releases) about Citiparks now accepting SNAP, as well as on events, milestones, and occurrences.
- Approach photographers and videographers at local papers, magazine and television stations to see what goes on in the markets. Bill Wade at the Post Gazette is a good example, as he previously produced video documentary on the East Liberty Citiparks farmers’ markets for the newspaper.
- Piggyback on events and other happenings across neighborhoods for opportunities to speak to the press.

*Use community leaders and public figures as endorsers of the Markets and eating fresh produce.*
- Approach priest/preachers, politicians, well-known professionals, and other known figures to speak at markets and at their places of business about the importance of taking advantage of shopping markets with SNAP benefits.
- Use testimonials of community leaders on print material, websites, and on Markets signage.
- Utilize the local sports teams and their players who, as a part of their own mission, aim to give back to the community through charitable work or donations.
- Reach out to local well-known artists (music, spoken word, visual arts) to join market festivities or provide in-kind performances

**Pricing**

The role in creating a pricing strategy will be to monitor prices of keys items at markets, then compare these prices to the competition. This will ensure that high prices aren’t impeding potential SNAP customers. As already noted, we suggest this project periodically compare prices on key items. It must be acknowledged however, that pricing is solely the decision of farmer’s and the project will have not have control on the final prices set.

**Place**

Our research has shown that three of the seven Citiparks farmers markets’; East Liberty, North Side, and Bloomfield are located near neighborhoods found to have the highest concentration of SNAP recipients and/or the highest number of individuals eligible to receive SNAP benefits. They are also located in close proximity to bus stops. Furthermore, the markets’ locations become great
roadmaps for advertisement placement and distribution, and are near to potential collaborating organizations and community entities, such as the East Liberty Presbyterian Church and the Urban League of Greater Pittsburgh.

Other essential elements explored in the distribution strategy are stand and display organization and maintenance. This entails things like ensuring that the markets grounds/floors are clean and litter free, the farmer and vendor stands are set-up in a logical and easily navigable manner, and that, where necessary, complementary products are grouped together.

Sample Market Media for Farm Stalls

Source: Farmers' Market Wireless EBT Kit <http://www.nyfarmersmarket.com/ebt.htm>
Areas for Future Research

There are many areas for potential future research that could improve the project as it develops.

- Develop additional data on Pittsburgh’s SNAP community, Citiparks’ farmers, and the markets themselves. The project could use surveys, focus groups, and one-on-one interviews to collect primary data. This data would give the organization better insight into the plan’s recommended target audiences, the Citiparks farmers, and the markets themselves. Important data to be collected would include counts, observations, and records of the audience, their behavior, preferences, and needs in relation to fresh foods and farmers markets.

- Conduct pricing analysis. Possible analyses would include: analyzing customers’ sensitivity to price or analyzing and monitoring current prices set at farmers’ markets versus supermarkets.

- Conduct product evaluations and analyses. Evaluating what SNAP recipients want to buy, most often purchase, and what they will most likely come to farmers markets for, is crucial for predicting the success of this program. It would provide a solid indication of whether significant numbers of customers will use their benefits at the Citiparks markets. Looking at what produce are most often purchased at grocery chains could be a good indicator of what customers would want to see at farmers’ markets. Product evaluation and analysis is highly valuable to attracting and retaining new customers.

- Implement nutrition education. In the future, it may be possible for Just Harvest to implement or partner with another organization to create nutrition education programming that works to supplement all marketing efforts. These programs should teach people the importance of eating healthy, how they can implement healthy foods into their diets, and even how food should be prepped and cooked. There are various organizations throughout the city that conduct similar programs and have been successful at promoting healthier eating habits among the lower-income community.

Sample Marketing Strategies
**Product**

We suggest marketing both the goods sold at the farmers’ markets and the markets themselves to the Pittsburgh SNAP community. So, the product strategy will entail tactics aimed towards promoting and improving both parts. The following table identifies the product strategies (including branding), their significance, and the associated tactics geared towards marketing the farmers’ markets and its food products.

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Tactics</th>
</tr>
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</table>
| Acknowledge and address audiences’ food and nutrition challenges, while increasing their understanding, comfort, and interest in nutrition. | • Provide nutrition facts and information pamphlets, and “Recipe of the Week” cards.  
• Display food facts signs around the market, explaining particular goods people often know little about or that are rarely found in your average grocery store.  
• Provide weekly cooking demonstrations that focus on two or three ways to prepare the vegetable/fruit of the week, placing ovens next to willing farmers selling that product. |
| Show the markets’ interest in connecting to the community in which it serves.       | • Display logos and symbols of partnering organizations on Citiparks welcome banners.  
• Display special thanks to partners and the community on Citiparks welcome banners.  
• Organize an opening ceremony/event that openly invites community members.  
• Invite church groups and other neighborhood groups for early openings or special sales  
• Organize a “Community Day” honoring the neighborhood and highlighting neighborhood vendors. |
| Rebrand the market as a total food shopping experience, not just another shopping venue. | • Utilizing in-kind services, organize family activities, such as face painting, live art, and cartoonists.  
• Request in-kind performances from local musical artists for live entertainment.  
• Have workers and volunteers give informational (and entertaining game-based) group |
will work to tackle that first battle of this project—getting SNAP recipients to come into the markets.

**Offer great customer service and improve customer understanding of the payment process.**

This will help make those who are not familiar with the layout or the atmosphere of a farmers' market feel more comfortable, while working towards building customer loyalty.

<table>
<thead>
<tr>
<th>Tours.</th>
</tr>
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<tbody>
<tr>
<td>• Host opening and closing ceremonies/event.</td>
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<table>
<thead>
<tr>
<th>• Provide “How the EBT/Token System Works” literature.</th>
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<tbody>
<tr>
<td>• Provide signs directing customers to particular vendors or products when guides are not available.</td>
</tr>
<tr>
<td>• Ensure the central cashier personnel are knowledgeable about market events so that customer questions are responded to properly.</td>
</tr>
<tr>
<td>• Provide employees with standardized training on efficiently using the cash register and conflict resolution.</td>
</tr>
</tbody>
</table>
Chapter 6
Project Financing, Implementation Timeline and Grant Proposal

The overarching goal for this project was to put our research into practice and provide Just Harvest with the platform to implement our recommendations within Pittsburgh’s farmers’ markets. It was crucial to use project data to determine realistic costs and create an implementation plan that the client could use to build a case for support. The results presented in this portion of the report reflect the processes used to locate potential funding streams, financial data, logistical conclusions, and sustainability efforts. These results are synthesized in a final funding proposal, which will allow the client to seek financial support for the long-term execution of this project.

Investigation of Funding Sources
One of the most basic and fundamental steps was to research the funding atmosphere available to projects of this caliber. To do this, it was vital to recognize the project’s mission and align those ideas with the missions of selected funders. The mission of the SNAP farmers’ market access project was to reconnect farmers to SNAP recipients by providing low-income families access to the fresh, nutritious produce available at Citiparks farmers’ markets.

The project team identified available funding opportunities primarily through the Carnegie Library of Pittsburgh’s (CLP) Foundation Center, which served as a Cooperating Collections affiliate of the national Foundation Center located in New York City, New York. This database served a network of over 500 national organizations, including affiliates in Puerto Rico, Australia, Mexico, Brazil, Nigeria, South Korea, and Thailand. The CLP location offered access to a myriad of grant-seeker and funder resources that helped identify eligible entities whose goals paralleled the projects main focus. The database provided information on private, individual, corporate, and public funding opportunities.

This project’s funding inquiries also pursued the recommendations of Just Harvest and other suggestions provided by the projects network of support. After reviewing the available opportunities, web-based and telephone research was further explored to assess the required documentation for support, current donation status, and the pattern of giving within each organization.
Funding inquiries did not include extensive research beyond the above stated methods, which may have limited the entire breadth of private, local, and federal funding available to this project. Further inconsistencies may also exist when considering each organization's pattern of giving, as every single organization did not provide donation information.

**Project Implementation Costs**

Following this investigation, the project required a review of averages costs of implementation based upon the research conducted by the team. These conclusions were then cross-referenced with the actual costs of personnel, marketing, evaluation, banking, and general operation; assumptions that were also determined by the research team. Total costs, and associated tasks, were synthesized into a cohesive implementation plan, which will be included in the recommended proposal. Both the implementation plan and proposal outlined the required resource allocations and related timelines that provided the client with a general project map. The staff resources for implementation, although founded on actual experience, may be inconsistent with the project’s actual required resources. These conclusions were based upon averages and realistic assumptions specific to the Pittsburgh market.

**Summary of Findings**

Conclusions from the Foundation Center database and various referrals identified the following entities as potential avenues for operating support. Each organization was included because their funding mission, pattern of giving, and funding schedules were congruent with the needs of this project.

**Richard King Mellon Foundation**

Funding Interests:

- Almost exclusive to Southwestern Pennsylvania
- Commitment to economic and business development
- Commitment to the conservation of wildlife habitat, scenic vistas, and historic battlefields

Giving History: $58,000,000 in 2009

Funding Schedule: Ongoing review process

Application: Western PA Common Grant

**Eden Hall Foundation**

Funding Interests:
• Educational programs dedicated to the advancement and dissemination of useful knowledge. Support of schools is generally confined to four-year privately funded and controlled colleges, universities and other educational institutions;
• Social welfare, women's issues, and the improvement of conditions of the poor and disadvantaged; and
• The advancement of better health through support of organizations dedicated to health issues.

Giving History: Not Available
Funding Schedule: Ongoing review process
Application: Western PA Common Grant

_H.J. Heinz Company Foundation_

Funding Interests:

• Nutrition - Promoting improvements in and a better understanding of good nutrition, and contributing to the health and well being of people and communities.
• Youth and Education - Supporting the positive development of children and youth by strengthening systems that affect learning and by sustaining programs that supplement the formal education process.
• Diversity - Promoting the advancement of minority populations and women, with focus on development opportunities for girls and minority youth.
• Healthy Children and Families - Improving the overall well-being of people by ensuring children and families have the resources and services necessary to help them live healthy and happy lives.
• Quality of Life - Promoting programs that support and add to the quality of our communities including increased accessibility for low-income and disadvantaged individuals through art, cultural, educational and outreach programs.

Giving History: 35% of funding is donated in the area Nutrition, 18% to Diversity Strengthening, 17% to Children's and Families, 13% to Employee Programs, 12% to Quality of Life, and 5% to youth and Education.
Funding Schedule: Ongoing review process
Application: Western PA Common Grant
*Heinz Endowments*

Funding Interests:

The Endowments supports projects designed to improve the quality of life in the Southwestern Pennsylvania region and to address challenges it shares with communities across the United States. Grant-making program areas are the following.

- Arts and Culture
- Children, Youth and Families
- Education
- Environment
- Innovation Economies
- Special Initiatives

Giving History: $60 Million annually

Funding Schedule: Quarterly review process

Application: Western PA Common Grant

*Federal, Farmers Market Promotion Program*

Funding Interests:

- “Growing Farmers” - Projects that develop training and educational programs for new direct farm marketers on the benefits, challenges, and logistics of agricultural direct marketing in a given region.
- Professional Development - Projects that develop professional expertise for farmers market managers, farmers/vendors, boards, and organizations to effectively manage and/or operate farmers markets and other direct marketing enterprises.
- Expanding Local and Rural Economies - Projects that improve food access in local, rural, and underserved communities to promote the consumption of fresh fruits and vegetables from local farms. These projects should focus on changing consumer purchasing habits while fostering job creation and increasing the economic viability of local farmers in a specific community, region, or State.

Giving History: Expected grant awards estimate $5,000,000 in 2010

Funding Schedule: Annual

Application: Provided application documents.

Limitations: This project is eligible for operating support for 1 year. Support will not be granted for consecutive years.
All entities except the Farmers Market Promotion Program (FMPP) receive the Western PA Common Grant Application. This requires an executive summary, organization background, statement of purpose, implementation plan, evaluation methods, and budget in order to consider the document complete. The documents required for the FMPP are similar to the Common Grant, but require the information to be more detailed and in a standard format. After researching available funding opportunities and identifying required documentation, the next step was to compile the required information and complete the standard proposal. A comprehensive cost breakdown and implementation plan was needed to complete this process.

Conclusions from the research team determined that costs included personnel, weekly materials, the EBT transaction device and related fees, initial start-up capital, evaluation methods, and marketing materials needed for the project.

We further determined that successful implementation would require a diverse staff and could occur over series of 5 phases: Research and Development, Baseline Evaluation, Implementation, Program Evaluation and Sustainability. These phases would allow Just Harvest to integrate SNAP benefits into Pittsburgh’s markets at a gradual pace, and provide a sustainable foundation for continuous program support.

A budget outlining these costs, and an implementation plan outlining the phases of this project have been developed and submitted as part of the grant proposal template we provided to the project client, Just Harvest. The template will also include information on evaluation costs, organizational design, and potential community partners.

**Recommendations:**

We propose that Just Harvest implement the project over a 3-year period from 2010 through 2012. The Research and Development phase occurred during the spring of 2010 and has culminated with this report, the Baseline Evaluation phase should occur during the 2010 farmers’ market season, and the Implementation through Sustainability phases should occur on a continual basis from 2011 through 2012. This process will give Just Harvest time to build the appropriate resources, community partnerships, and project design that will ensure the longevity of this project in Pittsburgh’s markets.

Implementation will only be possible through secured funding from supportive donors. The proposal template includes all of the necessary materials that will allow Just Harvest to seek funding through the above stated entities. Short-term funding should be pursued through R.K. Mellon and H.J. Heinz Company, and long term funding should be pursued through the Heinz Endowments and/or the Farmers’ Market Promotion Program. These organizations have the
financial resources and funding history to support this program as it matures into a solid community program.

As this project develops, it is essential to continuously evaluate its effectiveness to ensure that each objective is met. The following sustainability recommendations will support long-term success.

1. Maintain consistent and informative donor relationships, which could promote repeat grant requests.
2. Continue to evaluate program effectiveness, publish public reports and convene advisory committee meetings.
3. Maintain supportive community partnerships and include their collaboration efforts in a funding request.
Summary of Conclusions

To better position Citiparks farmers’ markets to serve SNAP recipients, the research team recommends the following:

- Implement a central cashier system at each Citiparks farmers’ market, utilizing a token-based scrip system
  - Citiparks should operate the central cashier for each market
  - Just Harvest should manage the training and accounting activities necessary to operate the system at each market, and the marketing and evaluation tasks of the project
- Just Harvest should apply for the FNS license
- Implement a program to accept credit and debit cards, along with EBT cards
- Select the contract offer from Total Merchant Services
- Conduct a system implementation training for participating farmers
- Maintain close communication with participating farmers
- Further develop and implement an aggressive marketing strategy to the Pittsburgh SNAP community
- Secure funding for project implementation

By following the recommendations provided, Just Harvest has the opportunity to give low-income families in Pittsburgh access to fresh, affordable, local, and nutritious food. These recommendations also provide the opportunity to bring long-term benefits to local farmers by expanding their customer base, and to city neighborhoods by improving the long-term viability of thriving seasonal markets in their communities.
Works Cited


Lish, V. (2010, April 22). Farm Stand Specialist, Greater Pittsburgh Community Food Bank Farm Stand Program. (T. Quayle, Interviewer)

Marks, T. (2010, March 3). (K. Bergman-Bock, & X. Qin, Interviewers)


Appendix 1

Market Manager Questionnaire

Northwest Detroit Farmers' Market
with Pam Weinstein

The Grandmont Rosedale Development Corporation serves a diverse multi-neighborhood area in northwest Detroit, which includes Grandmont #1, Rosedale Park, North Rosedale Park, Minock Park and Schoolcraft. The GRDC has operated a medium-sized seasonal farmers' market since 2006, serving the needs of a low-income population that lacks access to fresh produce. The following interview was conducted via telephone on February 15, 2010.

1. Logistics

Q: What is the seasonal operation of your market and how many vendors do you have?

A: Our market has been in operation since 2006 and it runs from June to October. Last season, we had 20 vendors at our market.

Q: What type of system do you have in place to accept EBT and why?

A: We use a central wireless card swipe machine and wooden tokens. In addition to accepting EBT, we accept credit and debit.

Q: If you use scrip/tokens, please explain the typical step-by-step transaction process.

A: So a customer comes up to the manager stand and shows her Bridge card—they're called Bridge cards here in Michigan—and she tells us how much she wants us to charge. If she asks for five dollars, then we charge her card for five dollars and giver her five dollars worth of tokens. She can then buy produce with the tokens.

Q: What happens when Food Stamp users purchase scrip/tokens but never use them?

A: Tokens are good for the entire season. They don’t expire. Unused tokens do create an accounting problem because the money has already been spent.

Q: Does your market(s) allow credit/debit transactions?
Q: How do you deal with preventing unqualified items from being sold?

A: Our vendors sign an agreement form. The form indicates which items are allowed to be sold for food stamps.

2. Financial

Q: Costs associated with EBT (financial)? Did you engage in negotiations with a bank over transaction fees?

A: We purchased a device for $800. Wireless monthly fees are $25. It costs about $350 per month for the EBT and total costs come out to be about $2,850 per month to run the whole market.

Q: How is financial record keeping handled?

A: As the market manager, I do the books every week.

Q: How are farmers reimbursed and how often?

A: Our vendors are reimbursed once per month.

Q: How is the system staffed? What are the staffing costs?

A: Our staff is mostly volunteers or paid AmeriCorps volunteers run the system on market days.

Q: Who covers the costs and how did you pay for this (grants, state funding, farmers pay for it themselves, etc.)?

A: We’ve received grants from other organizations, like the state of Michigan and the City of Detroit. We haven’t applied for the FMPP. The program wouldn’t exist without grants.

3. Buy-In

Q: How did you convince farmers to participate?

A: There was no buy-in needed. The way they see it, more customers means more money.

Q: Were there any reservations among farmers?
A: No.

Q: Which type of redemption system do/would farmers most prefer?
A: Definitely the tokens. They don’t want to mess with the devices.

Q: Were there any issues with fraud?
A: We’ve had nothing like that.

Q: How have you successfully promoted to Food Stamp users?
A: We promote using flyers, signs at the market and word of mouth. We serve customers from three contiguous zip codes. Word travels far. We don’t have money for newspaper ads.

4. Challenges faced in implementing the EBT system

Q: What has been your program’s biggest challenge?
A: The biggest downside has been the record keeping. It’s time consuming. It takes on average four hours per week. Or maybe 6-8 hours including writing the checks at the end of the month.

Q: Do you see your program as being sustainable? If not, what would make it sustainable?
A: [Time constraints prevented interviewer from asking this question]

Q: Do you have good relationships with the federal/state/local officials that deal with food stamps in your locality? If so, how did you build that relationship?
A: [Time constraints prevented interviewer from asking this question]

Q: How have you measured success?
A: [Time constraints prevented interviewer from asking this question]

5. Closing questions

Q: Do you have any advice for markets attempting to implement EBT?
A: If you’re working with a city government, you may not want to keep your farmers waiting for the City to pay them. You might want to think of another way to skin the cat. You should look at the
Ypsilanti farmers’ market. They have a public/non-profit partnership running their market.

Q: Do you have any written reports/evaluative documents used to analyze your program that could help use better make our decision about best practices?
A: Let me see what I have and I’ll try and get you something.

Q: May we contact you in the future to follow up on any additional questions we may have?
A: Of course.

Philadelphia Food Trust Markets
with Jon Glyn

The Food Trust operates a system of farmers markets in urban and suburban Philadelphia, with the mission of providing food access to underserved communities. The network helps provide over 125,000 customers with access to farm-direct produce. Among the Food Trusts’ network are a couple of medium-sized markets, and over a dozen smaller farm stands – all of which accept EBT as payment. The following interview was conducted on March 18, 2010.

1. Logistics

Q: What is the seasonal operation of your market and how many vendors do you have?
A: So we have many markets. But they’re not like the traditional farmers’ markets that you think of. Most of our markets are very small. Only 2-3 farmers and fewer customers. The Clark Park market is larger, with 14 vendors. The small markets only operate in the early summer through late fall. Clark Park operates year-round.

Q: What type of system do you have in place to accept EBT and why?
A: For all of our small farmers’ markets, we have customers pick out their produce, and the farmers give them a receipt for the purchase. Then they take the receipt to the person with the wireless terminal and swipe their card. It works out because there are only a few customers shopping at the market at one time. But it’s a really slow process. For our pilot at the bigger market [Clark Park], each farmer has their own wireless device. We received a grant for the pilot from the FMPP and we rented 13 wireless machines.
Q: If you use scrip/tokens, please explain the typical step-by-step transaction process.
A: N/A

Q: What happens when Food Stamp users purchase scrip/tokens but never use them?
A: N/A

Q: Does your market(s) allow credit/debit transactions?
A: For our pilot program we allow debit and credit. The debit and credit really increased revenues more than the EBT.

Q: How do you deal with preventing unqualified items from being sold?
A: It’s not really an issue. We don’t have any items that don’t qualify for food stamps.

2. Financial

Q: Costs associated with EBT (financial)? Did you engage in negotiations with a bank over transaction fees?
A: I’m not really sure about negotiations. The rental fees for the machines are about $30 per month. The wireless fees and other fees are about $65 per month.

Q: How is financial record keeping handled?
A: The Food Trust has one bank account where EBT transaction funds are deposited. We issue a check to the farmers once every month. I do the record keeping and send the accounting to another person in the office.

Q: How are farmers reimbursed and how often?
A: Once per month.

Q: How is the system staffed? What are the staffing costs?
A: I manage the market. It takes about 16 hours per month to do the accounting and 25 hours including all the other work.

Q: Who covers the costs and how did you pay for this (grants, state funding, farmers pay for it themselves, etc.)?
A: We paid for the pilot with the FMPP grant. The Food Trust pays for part of the system.

3. Buy-In

Q: How did you convince farmers to participate?
A: We really didn’t need to.

Q: Were there any reservations among farmers?
A: There was one issue because we have a couple of Amish farmers. We got around them having to use the devices because we trained their drivers how to use them. They all have drivers to drive them to the market with their produce. Whenever they need to use the wireless machine, the call the driver over to handle it.

Q: Which type of redemption system do/would farmers most prefer?
A: They don’t want anything that’s going to complicate things. [When asked if he thought farmers would like a token-based scrip system] I’ll bet that works because the farmers wouldn’t have to mess around with the machines. Anything that’s easy to use, they’ll use. We just happened to go with having each farmer use his own wireless machine.

Q: Were there any issues with fraud?
A: None.

Q: How have you successfully promoted to Food Stamp users?
A: We don’t really do much promotion for the market, other than flyers and what’s on the Food Trust website. We have signs at all our markets advertising EBT.
4. Challenges faced in implementing the EBT system

Q: What has been your program’s biggest challenge?

A: The technology is still behind. The market has some dead spots for the wireless signal. So the signal can be iffy. We know where they are and we try to avoid them.

Q: Do you see your program as being sustainable? If not, what would make it sustainable?

A: I think having the credit and debit makes it sustainable.

Q: Do you have good relationships with the federal/state/local officials that deal with food stamps in your locality? If so, how did you build that relationship?

A: N/A

Q: How have you measured success?

A: We look at the sales volume of the transactions. The EBT actually makes up a small proportion of card sales. So we want to see both EBT and credit and debit sales increase.

5. Closing questions

Q: Do you have any advice for markets attempting to implement EBT?

A: It sounds like you guys are on the right track. I would just say that you should look out for the next big thing with technology. It’s improving slowly. I just talked to a guy at a company that is doing payments through cell phones with text messaging. It’s called Xipwire. You should look into that.

Q: Do you have any written reports/evaluative documents used to analyze your program that could help use better make our decision about best practices?

A: Other than what I’ve already sent you, there’s nothing.

Q: May we contact you in the future to follow up on any additional questions we may have?

A: Yes
Appendix 2

Assumptions used to create budgets:\textsuperscript{11}

- Number of customers per week: 4,500
- Number of customers per season: 135,000
- Percent of customers using EBT: 10%
- Percent of customers using credit cards: 25%
- Percent of customers using debit cards: 20%
- Average dollar per customer amount: $25.00

\textsuperscript{11} All assumptions were made based on data collected by the research team
Appendix 2.a.

Monte Carlo Simulation

Methodology

The ranges of values used were a combination of Iowa DHS\textsuperscript{12} statistics and research conducted by the research team. Iowa reported the following data:

- The average transaction (dollar per customer value) was $18.64 for the 2006 season with a high of $27.18 and a low of $12.23.
- The average EBT transaction (dollar per customer for EBT recipients) for the 2006 season was $8.40 compared to the average commercial transaction of $21.92.

The team found that an average transaction amount was $25 for electronic currency (credit, debit, and EBT cards) and this number was confirmed independently by Vendor 2 and Vendor 3. To be conservative, the team decided to use $20 as the expected value for average credit/debit purchase distribution.

For the average EBT purchase, the team used the same uniform distribution, but set the expected value at $10. This is slightly higher than the $8.40 reported by Iowa, however the team decided for an even discrete number for the sake of simplicity.

<table>
<thead>
<tr>
<th></th>
<th>Triangular Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Using EBT</td>
<td>1.0% 10.0% 15.0%</td>
</tr>
<tr>
<td>% Using Credit Cards</td>
<td>10.0% 25.0% 35.0%</td>
</tr>
<tr>
<td>% Using Debit Cards</td>
<td>10.0% 20.0% 30.0%</td>
</tr>
</tbody>
</table>

\textsuperscript{12} http://www.dhs.state.ia.us/index.html
<table>
<thead>
<tr>
<th>Uniform Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average EBT Purchase</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>$5</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Average Credit/Debit Purchase</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>$15</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>$25</td>
</tr>
</tbody>
</table>

Simulation results are shown on the next page.
Appendix 3

Interview with Mr. Zibritosky

Mr. Zibritosky had accepted paper food stamps in the past, and explained this had been beneficial for him. He currently accepts WIC coupons. Mr. Zibritosky spoke about the unreliable technology in the pilot project and described it as a business hindrance. He went on to claim that he would accept EBT if the technology was more reliable and if orders could be processed at a much quicker rate.

When the central cashier station structure was presented, Mr. Zibritosky was very enthusiastic. He said "The central cashier is a great idea. We don't need to change how we work and we can get more customers. I like it!" He explained in the interview that the potential for problems would be less in a system like this, and that it preserves the fashion in which his business in conducted. Mr. Zibritosky considered this structure as important to his marketing strategy as he wanted to advertise with a "Now Accepting SNAP Benefits" slogan in his literature. Mr. Zibritosky stressed the importance of knowing what foods cannot be sold to customers who are using the SNAP.

Interview with Joe King

We interviewed Joe King Farm from a farm of the same name in Valencia, PA over the phone. The King family has been in the Citiparks markets for over 25 years and has been farming for over 30 years. Mr. King explained the importance of maintaining the speed of the business in farmers’ markets and was enthusiastic about the central cashier concept. For Mr. King, the ability to reach a larger customer base is very important. Mr. King stated his profit is 50% lower (for every $1 invested) than what it was in the late 1970's, citing increased fuel prices as one reason. Giving low-income users access to fresh produce is also an important idea for Mr. King. He is a religious missionary and explained the value of a system like this one. He currently donates his left over produce to the food bank after every market.

Interview with Mr. Jodikinos

We met with D.J. Jodikinos from the Jodikinos Farms in Clinton, PA. Jodikinos Farms is a family run farm with a farm stand of their own on their property. The Jodikinos family is one of the largest vendors in the city and the family is represented in every Citiparks market except the downtown market. Mr. Jodikinos knew about the previous pilot project and emphasized how the technology
had slowed business for the farmers using the machine. Mr. Jodikinos was asked if he would be interested in accepting EBT in the market, his response was “Of course we would. Our farm has been trying to figure this out before you showed up.”

Mr. Jodikinos was already looking to accept EBT, credit cards, and debit cards at the stand at his home farm. He is enthusiastic about the idea and emphasizes the need to reach out to a broader customer base. He also stated the importance of marketing a system like this one. He places a lot of emphasis on people using the system. Mr. Jodikinos expressed concern that the system would be implemented without the farmers and vendors trained on how a central cashier system works. He noted that he and his staff would need to know what they could sell to SNAP recipients, where they would get reimbursed, and who they would call with problems.
Appendix 4

Potential Online Marketing/Publicity Sites

Boring Pittsburgh: *the Good, the Bad, and the Boring*
http://boringpittsburgh.com

Pop City
http://www.popcitymedia.com/

Eat Local Pittsburgh (blog)
http://eatlocalpittsburgh.blogspot.com

Eat Wild Pennsylvania
http://www.eatwild.com/products/pennsylvania.html

Edible Allegheny Magazine
http://www.ediblecommunities.com/allegheny

Facebook
http://www.facebook.com

Farm to Table
http://www.farmtotablepa.com

FoodRoutes
http://www.foodroutes.org

Harvest Eating
http://www.harvesteating.com

Post Gazette online
http://www.post-gazette.com

City Paper
http://www.pittsburghcitypaper.ws/gyrobase/index

Slow Food Pittsburgh
http://www.slowfoodpgh.com

Table & Spoon: Pittsburgh’s Guide to Table Project
http://www.tableandspoon.com

The Food and The Road | Pittsburgh
http://theforkandtheroad.com

The Pennsylvania Buy Fresh Buy Local® program
http://www.buylocalpa.org

TribLive - Pittsburgh Live
http://www.pittsburghlive.com

Visit PA
http://www.visitpittsburgh.com

WQED online
http://www.wqed.org
IheartPGH
http://iheartpgh.com

KDKA online
http://kdka.com

Local Goodness Pittsburgh
http://www.localgoodness.com

Local harvest: Real Food, Real Farmers, Real Community
http://www.localharvest.org

Market Square Blog
http://marketsquarepgh.blogspot.com

Pathways to SmartCare Wellness Program
http://www.pathwayswellnessprogram.com

Pennsylvania Association for Sustainable Agriculture
http://www.pasafarming.org