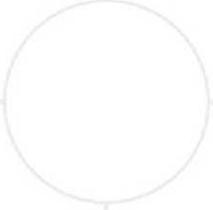
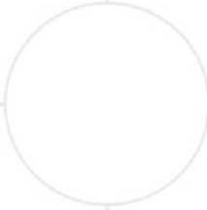
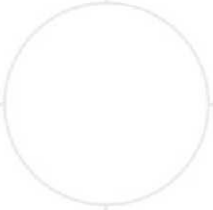
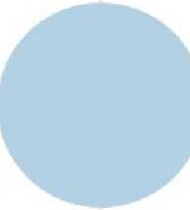




**SNAP Healthy Food Incentives
Cluster Evaluation
2013 Final Report**



Preface

This *SNAP Healthy Food Incentives Cluster Evaluation Final Report* was prepared by Community Science with support provided through Fair Food Network and Wholesome Wave from the Aetna Foundation, The Kresge Foundation, CDC Foundation, and Kaiser Permanente. The report summarizes the findings from a two-year cluster evaluation examining the use of SNAP incentives at farmers' markets by Fair Food Network, Wholesome Wave, Roots of Change, and Market Umbrella.

Community Science staff and consultants contributing to this report include: Ricardo Millett (Project Director), LaKeesha Woods (Deputy Director), David Chavis (Technical Reviewer), Margaret Paek, Amber Golden, Angel St. Jean, and Allison Hyra. Carolyn Dimitri, Research Associate Professor at New York University's Department of Nutrition, Food Studies, and Public Health provided consulting on the economic impact of SNAP incentives.

Community Science would like to thank Dr. Oran Hesterman (CEO and President, Fair Food Network), Michel Nischan (CEO and President, Wholesome Wave), Richard McCarthy (Executive Director, Market Umbrella), and Michael Dimock (President, Roots of Change) for their leadership and assistance in developing, planning, and implementing the cluster evaluation. We also thank the staff from the cluster evaluation organizations who shared their knowledge, experiences, and data on SNAP incentives programs, including Skye Cornell (Wholesome Wave); Rachel Chadderdon Bair (Fair Food Network); Emery Van Hook (Market Umbrella); Bobbie Peyton, Betty Hall, and Jezra Thompson (Roots of Change); and Martin Bourque (Ecology Center). We very much appreciate the willingness of the evaluators working with Fair Food Network and Wholesome Wave to share their data and knowledge of the SNAP incentive programs, including Leena Mangrulkar and Jane Morgan (JFM Consulting Group), and Lydia Oberholtzer (Department of Agricultural Economics, Sociology, and Education, Pennsylvania State University).

Executive Summary

This cluster evaluation documents the strategically executed efforts and results achieved by four “healthy food incentive programs” to motivate Supplemental Nutrition Assistance Program (SNAP) customers to purchase healthier foods with their benefits, and to address financial challenges experienced by local farmers. The farmers’ markets included in this cluster evaluation are affiliated with four non-profit organizations — Fair Food Network (FFN), Market Umbrella (MU), Roots of Change (ROC), and Wholesome Wave (WW).

Each organization has been shaped by a history of advocacy championed by concerned citizens seeking solutions to manifest dysfunctions in our food system and the effects of such dysfunctions on the environment, as well as the health impact on Americans, particularly the growing number of vulnerable low-income residents. Collectively, the four programs in this cluster evaluation represent a subgroup of the estimated 20 or so practicing “SNAP healthy food incentive food practitioners” in the country. In 2012, together these four programs managed 518 farmers’ markets incentive programs that served 131,598 SNAP customers and engaged 4,852 farmers/vendors in 24 states and the District of Columbia. For the cluster evaluation, we selected a sample of 31 farmers’ market program sites that had the capacity to provide required data. These sites were selected to capture variations in geographic location and size of market (large, medium, and small).

The increasing SNAP population (approximately 42 million) and issues of food insecurity, obesity, and related health effects far outstrip the capacity of these and other healthy food practitioners to address them. However, the four program practitioners in this cluster strongly believe that a disciplined examination of their programs’ management practices and results could inform their field of fairly independent and fragmented practitioners. In addition, it was their hope that this initial documentation of their program impacts and potential could provide documented evidence to encourage continued program funding and support for their field of practice.

A cluster evaluation provided the most appropriate methodology to learn from the experience of the four organizations while taking into account variations in their approaches. This evaluation focused on discerning, capturing and documenting program management and implementation patterns, trends, and related results across the program variations. All four programs provide a financial incentive to encourage SNAP participants to spend their benefits purchasing fresh produce at participating farmers' markets. How we understand and interpret the data across the four programs and sample sites, which are in different geographic, state, and program management modalities, is dependent not only on data analysis but also on the inclusion of program managers' experience and on the review and discussion of both data and experiences, or "meaning making." In the case of incentive programs, cluster evaluation

methodology was applied to discerning and documenting connections among incentives, SNAP participants' purchasing behaviors, and the revenue outcomes for farmers by answering the following questions:

- 1) What do the four organizations and 31 cluster evaluation sites look like?
- 2) How have SNAP recipients' food purchasing behaviors changed?
- 3) How have healthy food incentive programs affected local farmers and the local economy in which they operate?
- 4) What are the revenue and cost implications of implementing the incentive program?
- 5) What are the essential strategies and components of an effective healthy food incentive program?
- 6) What are the factors and conditions that can affect the implementation of an effective healthy food incentive program?

Findings

Characteristics of the markets offering incentives and the evaluation sample

Affiliated markets

- ***Over the course of the evaluation, the four cluster organizations almost tripled the number of markets they support that offer SNAP incentives, from 177 markets in 2010 to 518 markets in 2012.*** The evaluation collected data on all the markets with which the four organizations worked to assess the scope and reach of their efforts. There was tremendous growth in the SNAP incentive programs supported by the four organizations participating in the cluster evaluation over time.
- ***In 2012, the four organizations supported markets in 24 states and the District of Columbia and consumers redeemed more than \$1.5 million in SNAP incentives.*** The organizations vary in the number of markets with which they work and in their geographic scope. The variations in the size of the incentive dollars associated with ROC and WW is partly driven by available funds. In WW's case, it is also driven by the organizations that run the markets; these partners are given flexibility to define their own match programs, as long as they do not match above the one-to-one limit. Finally, all of the organizations rely on funding from the private sector to support their incentive programs. This use of private funds has in some cases enabled the organizations to increase the benefits to low-income individuals and families.

Cluster evaluation sites

- ***The majority of the markets in the cluster evaluation were small to medium, with 50 or fewer vendors.*** Market size is based on the average number of vendors who sell food that can be purchased using SNAP benefits. The markets were categorized into small,

medium, and large. Consistent with previous research (e.g., Agricultural Marketing Service, 2011; Stephenson et al., 2007), most markets in the evaluation were small (40% in 2011; 61.2% in 2012) or medium (36.7% in 2011; 32.2% in 2012).

- **Markets had typically been accepting EBT funds for at least three years before they also began accepting incentives; the relative newness of the incentive programs reflects the extensive growth in the organizations' incentive initiatives, especially since 2010.** Approximately three-quarters (74%) of markets had been accepting EBT funds for at least three years before they also began accepting incentives. About half of the participating markets (48%) began offering incentives in 2011, and nearly one-third (29%) began offering incentives in 2010.

Changes in SNAP recipients' food purchasing behavior

- **More than 80% of markets provided a one-for-one incentive match for SNAP benefits, and approximately three-fourths (77%) of markets had a maximum match of \$10 or \$20.** The markets in the sample varied to a small degree on the amount of every SNAP dollar that they matched and to a greater degree on the maximum amount of SNAP benefits for which a customer could receive incentives. The markets with smaller matches (i.e., \$0.40 and \$0.50 per \$1.00 in SNAP benefits) varied incentives over the course of the year, offering increased incentives of \$0.50 and \$1.00 for part of the year. The variation was driven by an attempt to stretch incentive budgets for the year. However, program managers generally agreed that a dollar for dollar match with a \$20 maximum was the best incentive structure. Markets also varied on the amount of SNAP benefits that qualified for a match.
- **SNAP recipients took advantage of their SNAP incentives, redeeming 73% of incentives distributed in 2011 and 96% in 2012.** The 2012 market manager survey (18 out of 31 [51%] responded) indicated that markets saw an average of 225 SNAP transactions per month. On average, each market distributed \$16,554 in SNAP dollars and \$11,754 in SNAP incentive dollars. Because of the limited variability in incentive match ratios (i.e., the large majority of markets had one-to-one matches), the data cannot be used to assess whether different incentive amounts and maximum incentives were associated with greater incentive use.
- **The large majority (more than three-fourths) of SNAP recipients reported that they have increased their purchase of produce because of the incentives and that SNAP incentives were a strong factor in their decision to shop at a farmers' market.** The findings suggest that the incentives affected their local spending decisions, helping attract business and increase customers' access to local fresh foods. However, given that customers did not redeem all of the distributed SNAP incentive dollars, the reasons

for not using their incentives should be explored further (e.g., difficulty returning to the market).

Effect of the healthy food incentive programs on local farmers and the local economy in which they operate

- **Based on survey responses, SNAP incentives appear to have a positive financial effect on farmers' market vendors. The majority of vendors (at least 64%) reported that they sell more produce, make more money, and have more customers because of the SNAP incentives.** Vendor participation rates varied by market, from 22% to 100%. Several factors may contribute to vendor participation. The cluster evaluation collected data from all four organizations at the vendor level in 2012. About three-quarters (74%) of vendors in 2012 agreed that the incentives provided them more new and repeat customers.
- **SNAP incentives appear to have a positive financial effect on local communities. About one-third (35%) of SNAP customers who reported their anticipated spending planned to spend an average of \$33 in the community around the farmers' markets.** Slightly more than one-half (57.3%, n=411) of customers surveyed at the four programs' markets in 2012 reported on their spending plans on the day of the market. Approximately one-third of these respondents (35.0%, n=144) planned to shop at nearby businesses, expecting to spend \$33 on average.
- **Based on economic multiplier model estimates, adding SNAP incentive programs at the affiliated farmers' markets generated \$2.1 million to \$4.3 million in economic activity and saved or created 23 to 47 jobs.** A total of \$1,454,000 of SNAP benefits was redeemed in 2011 across the 349 markets affiliated with the four cluster organizations that year, matched by incentives valued at \$938,000 (average of 65 cents of incentives per dollar of SNAP benefit spent; Dmitri, 2012). Based on Economic Research Service (ERS) economic multiplier estimates using these markets, the SNAP benefit incentives had a positive impact on local economic activity and jobs.

Revenue and cost implications of implementing the incentive program

- **Vendors report positives (e.g., revenue) and negatives (e.g., effort needed to participate) from participation in SNAP incentive programs.** The main reported strengths were the extra income the program generates (from 11 markets). Market managers also reported vendors' comments about the program diversifying their clientele. The reported challenges of the incentive program included: counting and keeping separate tokens for the market (n=2); remembering the SNAP token rules and specific criteria for the program (n=4); and disagreement with the use of federal benefits (n=1).

- **For the vast majority of markets (94%), employees rather than volunteers were involved in implementing the incentive programs, with approximately 70% of markets having two or more paid staff. Most market managers (88%) indicated that their staff size was sufficient to run their markets effectively.** The limited number of markets that are volunteer-operated and the number with multiple paid employees make these markets somewhat unusual. This large proportion of paid staff among the cluster evaluation sites may be because the criteria used by the organizations for partnering with markets are more likely to be fulfilled by a market with paid staff.
- **Most market managers (at least 62%) felt that the incentive programs led to more customers and sales as well as increased vendor interest and retention at the markets. A minority (12% to 40%) reported negative impacts related to efficient operation of the markets.** Consistent with vendor and customer reports, most market managers who completed the market manager survey in 2012 felt that the incentive programs led to more customers (63%) and sales (96%). In terms of negative impacts, a minority of market managers also reported challenges with quickly (40%) and smoothly (30%) completing transactions and with having sufficient staff to run the market efficiently (12%).

Essential strategies and components of an effective healthy food incentive program

Marketing and recruitment

- **Key strategies to advertise and recruit for the incentive programs included distributing online and print materials, face-to-face meetings, and establishing partnerships with farmers' networks.** The four organizations in the cluster evaluation employed a variety of strategies to inform individuals about the incentive programs and to recruit markets.
- **Shared philosophies and missions among prospective markets and sponsoring organizations are important considerations for recruitment of markets.** The cluster organizations ensured that prospective markets shared the philosophical and mission ideals of the sponsoring organization. While philosophical alignment is an important criterion, other more basic and practical considerations that inform recruiting and partnering decisions were also considered. The program contracts specify the expected activities of the farmers' markets and the funding they will receive from the program.

Program management and staffing

- **The four cluster programs provided technical assistance to markets on partnerships, recruitment and staffing, advertising, and operations to help them effectively implement incentive programs.** Each of the four has available technical assistance either through program partners (regional market programs), a contracted partner such as a state farmers' market association, or through program staff. Repeatedly, the four

programs used their size and expertise to support the individual farmers' markets with knowledge, funding, and access that could only be obtained through collective action.

- ***Assessing for capacity during site selection as well as providing assistance throughout implementation of incentive programs were important to ensure that market staff had the support necessary to effectively promote the programs, manage operations, and address challenges.*** Program managers repeatedly stressed that markets can only function well with enough available and trained staff. In addition to screening for capacity during site selection, program managers provide support throughout the implementation of the project to sites. Program managers also identified the ability to comfortably describe the incentive program to market-goers and to advocate for the program as a vital staff capacity.
- ***Although most cluster market sites used primarily paid staff, program managers identified the important role volunteers can play in increasing the capacity to implement the programs.*** Because paid market managers are often juggling multiple tasks, markets have used volunteers to provide needed support. Although volunteers can help support a small staff, their involvement sometimes has drawbacks, such as weakened communications.

Health-related impacts

- ***In light of limited capacity to provide health services, programs have developed partnerships with health-related organizations to promote healthy outcomes for consumers.*** Few healthy incentive food practitioners have the capacity to directly integrate health, nutrition, and related services into their programs. However, several cluster programs have developed partnerships with statewide health and nutrition networks that help them produce and incorporate SNAP-Ed nutrition messaging in public radio and web-based communication campaigns. Moreover, many are providing healthy produce cooking demonstrations, on-site or online nutritional education, and most are planning to implement more health-related programming in the near future.

Factors and conditions that can affect the implementation of an effective healthy food incentive program

- ***Not surprisingly, insufficient funding support was noted as a principal barrier to effective program management.*** Even after achieving success in recruiting a network of affiliated partners, program managers agreed that lack of funding limits their capacity to provide effective technical assistance and program management support. Program managers' opinions about the availability of funding varied. Some program managers worried about funding sustainability. Compounding the sustainability issue, the SNAP

incentive program has become an expectation of customers and the funds are going faster than in previous years to support an increasing customer base.

- ***Program managers strongly suggest that a core market capacity is “friendliness,” to make farmers’ markets welcoming for everyone.*** The market managers stated that friendliness at markets is different for everyone and hard to define, although making the farmers’ market welcoming for all who attend the market is a goal of most programs. A market manager commented that the growing number of SNAP customers is a good sign of the friendliness of the markets.
- ***Programs have recognized the importance of sustainability and have shifted or incorporated strategies to garner ongoing support.*** Programs have implemented strategies to work toward having the greatest sustainable impact. Additionally, political will to sustain the incentive programs varied across programs and by levels.

The evaluation findings point to important areas for future research. With respect to economic and utilization issues, market transaction data indicated that 72% to 96% of SNAP dollars and incentives distributed (taken out of the EBT account) were actually redeemed at vendor stands over the course of the initiative. The rest of the funds went unused. Possible reasons for this gap include that tokens were lost, misplaced, or saved for a future visit that did not occur. Regardless, a loss in purchasing power negatively affects the financial benefits provided by the incentive program, and means that SNAP participants have fewer funds to mitigate food insecurity. Future work should strive to better understand this problem in various communities and test innovative solutions to increase SNAP redemption rates. Additionally, further exploration will be helpful to determine what maximum amount of SNAP benefits matches maximizes participation by SNAP customers. To better understand the health impacts on individuals who use SNAP incentives to purchase fresh produce, future research also should explore changes in consumption and other health behavior. Finally, examining the relationship between various implementation strategies and reported changes in consumers, vendors, and markets will help better identify promising practices for effective incentive programs.

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I. Introduction

Healthy food incentives, which add a “bonus” value to Supplemental Nutrition Assistance Program (SNAP) benefits as a way to encourage the purchase and consumption of fresh fruits and vegetables, represent a promising strategy to address two related social and economic concerns: access to affordable healthy foods and support of local economies. According to a recent USDA study, almost 42 million individuals in the United States are enrolled in SNAP to subsidize their access to food and reduce rates of food insecurity.¹ Paradoxically, SNAP participants at risk of food insecurity are also relatively more inclined to obesity and its corresponding effects on general health and well-being related to the purchase and consumption of less expensive foods high in sugar, fat, and preservatives. This profile of SNAP participants shows that new research is needed to disentangle the connections among poverty, SNAP participation, and obesity. At the same time, healthy food incentive program practitioners have focused on the pressures that small, local farms feel from the overwhelming production and marketing successes of big corporate agribusiness.² Healthy food incentives have linked the need for low-

The following terms are used in this report:

- ❖ **Affiliated markets:** Local farmers’ markets that receive funding, technical assistance, and/or support from one of the four umbrella organizations.
- ❖ **Cluster evaluation sites:** The 31 farmers’ markets that participated in the cluster evaluation, which are supported by the four umbrella organizations.
- ❖ **Farmers:** For healthy food incentive programs, farmers are usually limited to small, family, or group-owned farms. These farmers grow food mostly to market directly to consumers.
- ❖ **Farmers’ market:** Usually a temporary, seasonal shopping center that allows farmers to directly market and sell produce and other wares to customers.
- ❖ **Healthy food:** Fresh, unprocessed fruits and vegetables.
- ❖ **Incentive/bonus:** A credit of funds spent on qualifying foods used to buy more qualifying foods. In other words, an incentive reduces the cost of qualifying foods.
- ❖ **SNAP:** Supplemental Nutrition Assistance Program is the official name of the program informally referred to as food stamps. SNAP provides Electronic Benefit Transfer (EBT) cards that allow program participants to purchase food using government subsidies.
- ❖ **WIC:** The Special Supplemental Nutrition Program for Women, Infants and Children is a means-tested benefit that provides vouchers to pregnant and parenting women and their children under age 5.

¹ In April of 2012, the USDA/Office of Research and Analysis released a major report, ‘Building a Healthy America: A Profile of the Supplemental Nutrition Program, cited the following “Key Fact”: “In fiscal year 2011, on average, SNAP provided \$134 a month to 44.7 million individuals in 21.1 million households each month.” It is reasonable to assume given the increased economic downturn the number of individuals swelling SNAP ranks is now closer to 50 million.

² “Fair Food: Growing a Healthy Sustainable Food System For All” (Chapter 1: the System and its Dysfunctions)

income individuals to have access to low-calorie, nutritious produce that can improve health outcomes to the economic security and stability needs of small, local farmers by subsidizing low income individuals purchase of produce from local farmers at farmers' markets. Several organizations have designed innovative healthy food incentive programs as a solution to the linked problems of poverty and malnutrition while supporting and sustaining small, local farmers.

History of Incentive Programs

Research on the history, scope, and reach of healthy food incentive programs suggests that the Takoma Park (MD) farmers' market, founded in 1983, was a pioneer in the “producer movement” that singled out economic issues faced by local farmers in capturing their share of consumer market as large producers and farming dominated consumer purchases (Winch, 2008). Takoma Park was also an early pioneer in securing philanthropic funding (specifically from the W.K. Kellogg Foundation in 2000) to support its version of a SNAP incentive program. The City of New York’s Department of Health and Mental Hygiene’s “Health Bucks” was the first healthy food incentive program for SNAP recipients. It was one of the first programs to directly identify incentives as a strategy to impact growing rates of obesity among SNAP participants and within low-income neighborhoods. The core idea across incentive programs is simple: adding bonuses to SNAP or other means-tested benefits relieves the economic pressure that often leads participants to make unhealthy food choices with their limited purchasing resources. Moreover, by restricting the use of the bonus funds to the purchase of healthy foods at farmers’ markets, the bonus was designed to make improvements in two areas: incentivizing the purchase and consumption behavior of SNAP customers toward healthier foods and assisting local farm economies by increasing the demand for their fresh food produce.

Research also has profiled other healthy food incentive programs that are no longer in operation due to funding challenges, but whose program features continue to be replicated by many current program models (Winch, 2008). One particularly noteworthy model was sponsored by the United Way of Bedford Massachusetts. The program was launched in 2003, predating many of the other programs in the report. It was likely the first incentive program to address the pressing issues of hunger and poverty in low-income populations and the economic pressures experienced by local farmers. These significantly critical issues, surfaced by community voices and championed by United Way donors and community advocates, eventually motivated a collaborative partnership response (with others including the Southeastern Massachusetts Agricultural Partnership, University of Massachusetts Extension Nutrition Education Program and local community non-profit advocacy organizations). Their program, “Greenbucks,” was not SNAP-related; instead, any low-income resident with “nutritional needs” could apply for Greenbuck dollars. Greenbucks’ participants received

vouchers worth \$100 to purchase fresh produce from 12 local, small scale Massachusetts farmers annually.

While the current iteration of food incentive programs focuses on increasing consumption of healthy produce grown by small, local farmers, the use of an incentive/bonus structure was actually a key feature of the first version of SNAP's predecessor, the Food Stamp Program (FSP). The FSP was conceived by U.S. Secretary of Agriculture administrators as a strategy to feed the growing numbers of undernourished city dwellers at a time when farm surplus tonnage was increasing.³ FSP participants received slightly subsidized orange stamps that could be redeemed for any item. In addition, they received highly subsidized blue food stamps to purchase food declared "surplus" by the Agriculture Department.

Implementation

There are an estimated 8,000 farmers' markets in the United States, but only about 21%^{4,5} are "program ready" to incorporate EBT and related USDA certifications required to allow SNAP customers to use SNAP and incentive dollars to purchase fresh produce. Close to 42 million people are enrolled in SNAP, but only a small percentage participate in healthy food incentive programs. The leaders of the four organizations in the cluster evaluation estimate that there are no more than 20 healthy food incentive program organizations currently operating in the country. At the same time, the issue of food insecurity is looming larger among the growing marginalized and economically disadvantaged segments of our society. Incentivizing SNAP participants to change their purchasing and consumption behavior toward healthier foods in local farmers' markets (or grocery stores where local produce is available) is a major challenge, as there are not enough funded healthy food incentive programs to meet the potential demands of the SNAP enrollees.

Incentive programs follow a variety of models, but are heavily dependent on foundation funding to support incentives and general program management. Foundations have been willing to provide program support and demonstration funds over the past decade to respond to "food insecurity" issues and documentation of positive impacts of healthy incentives programs, but are unlikely to establish permanent funding streams. The size of the bonus that nonprofit practitioners provide differs across programs and organizations. Some programs offer a one-to-one match that "doubles" the value of SNAP dollars spent on qualified foods up to a

³ <http://www.fns.usda.gov/snap/rules/Legislation/about.htm>

⁴ Percentage calculated using 2012 numbers from Wholesome Wave. <http://wholesomewave.org/making-snap-purchases-easier-at-farmers-markets-makes-sound-sense/#sthash.I0062vDF.dpuf>

⁵ The USDA/Agricultural Marketing Division's website reports that in 2013 there were 8,144 farmers markets listed in the USDA National Farmers Market Directory (a 3.6% increase from 2012).

maximum amount (e.g., \$20, \$15, or \$10), while others match only a portion of SNAP dollars. Other distinguishing features of healthy food incentive programs include:

- **Scope of operations:** Healthy food incentive programs operate in a limited number of farmers' markets within a city, municipality, state, or in several states across the country. While most SNAP healthy food incentive programs are integrated into existing farmers' markets, some programs have created their own markets by recruiting select small farmers.
- **Program staffing and budgets:** Staff sizes and budgets vary widely depending on the range of related program services offered in addition to the bonus incentives. Most programs are highly dependent on volunteers to reduce operating costs. Most also hire a market manager to handle activities, relationships, and financial transactions among customers, farmers, other vendors, and community-wide stakeholders. Critical tasks include servicing SNAP customers' conversion of EBT to program script tokens (with the added bonus values); recruiting farmers and SNAP enrollees; acting as an ambassador to the local community; ensuring a user-friendly process that allows SNAP customers to use their benefits at the farmers' market in a manner that does not single them out and protects their integrity and dignity; and managing data collection on the efficacy and proficiency of program operation and services.
- **Wraparound health and nutritional program services:** Some incentive programs offer additional supports and education opportunities, such as nutritional classes, brochures, educational materials, web-based platforms that provide a variety of nutritional information, and health services provided directly by program staff or through referrals to other organizations.

Evidence of Effectiveness

There is a growing body of evidence that suggests participation in SNAP healthy food incentive programs can have a positive effect on purchasing and consumption behaviors and subsequently can improve health status. In July 2013, USDA published the results of the Healthy Incentives Pilot (HIP) program (Abt Associates, 2013). This is the most rigorous study to date on the effects of incentive bonuses on SNAP recipients' purchase/consumption of healthy foods. The experimental research design randomly assigned 7,500 SNAP households in Hampden County, Massachusetts, to a treatment group and the remaining county residents (approximately 50,000) formed the control/nonparticipating HIP group. Participants received 30 cents (credited back to their EBT card) for every benefit dollar spent, up to \$60, on "targeted" fruits and vegetables. Like most healthy food incentive programs, HIP restricted purchase to fruits and vegetables without added sugars, fats, oils, or salt. Both experimental

and control groups were interviewed to determine purchase and consumption behaviors before and after pilot implementation.

The findings of the USDA research pilot indicated:

- Approximately two-thirds of SNAP HIP participants bought more fruits and vegetables with their benefit dollars.
- Most HIP treatment group members (approximately two-thirds) reported they were motivated by the bonus incentive to purchase fresh fruits and vegetables. The remaining one-third reported they did not take advantage of the incentive program to buy more produce for various reasons (e.g., did not hear about the program, did not understand how the program worked, or did not remember which fruits and vegetables qualified for the incentives).
- Most HIP treatment group members suggested that incentives made the purchase of fresh fruits and vegetables more affordable; that given the opportunity they would like to continue in the program; and that the program increased their attention to nutrition and health-related information and messages, improved their attitudes toward nutrition, and increased their likelihood to participate in nutrition education classes.

USDA's recent independent pilot of a healthy food incentive research project represents an important opportunity to diversify and solidify public and private incentive funding. The findings of this experimental study parallel the findings of many less rigorous studies conducted by healthy food incentive practitioners and by this cluster evaluation. Primarily, there is a positive association between the use of bonus incentives and SNAP customers' healthy purchasing and consumption behavior. This collective body of research findings strongly indicates a positive relationship between bonus incentives and the desired effects of increasing SNAP enrollees' purchase and consumption of healthier foods. Additional research is needed to determine what levels, forms, and program delivery mechanisms of incentive bonus are most effective in achieving these desired effects. Although USDA's pilot study adds compelling credibility to the experiences of the four healthy incentive programs in this cluster evaluation and others in this field, the on-the-ground knowledge of incentive practitioners is critical to informing any efforts USDA (and other federal agencies) might undertake to replicate incentive programs on a national scale. Practitioner experience can help identify strategies to effectively achieve the desired consumer purchasing, consumption, and economic impacts on local farm economies.

Building upon this research, the current cluster evaluation of Fair Food Network, Market Umbrella, Roots of Change, and Wholesome Wave markets was designed to elucidate key strategies and potential economic influences of healthy food incentive programs. This

evaluation report aims to inform philanthropic funders of bonus incentives, Congress, the USDA, and the larger field on promising implementation strategies to achieve positive results for both small farm revenues and families at risk of food insecurity. Section II provides an overview of the methodology of the evaluation and participating sites. Section III describes the evaluation findings, and Section IV provides conclusions and lessons learned.

II. Evaluation Methodology

This section describes the cluster evaluation design, research questions, cluster evaluation programs and site selection, and data collection and analysis strategy. Additional details on the cluster evaluation programs as well as data collection tools and analysis methods are in Appendices A through D.

Evaluation Questions

Identification of farmers' markets characteristics and five core evaluation questions guided the evaluation:

1. What are the characteristics of the farmers' markets offering incentives?
2. How have SNAP recipients' food purchasing behaviors changed as a result of the healthy food incentive program?
3. How have the healthy food incentive programs affected local farmers (e.g., revenues, jobs) and the local economies in which they operate?
4. What are the cost implications of implementing the healthy food incentive programs?
5. What are the essential strategies and components of an "effective" healthy incentive program?
6. What are the factors and conditions that can affect the implementation of an effective healthy food incentive program?

In addition, we collected descriptive data on the participating programs (e.g., total number and location, size, number of years in operation, and demographics of the communities in which the markets are located) to better contextualize our findings.

The Cluster Evaluation Sites

The cluster of healthy food incentive programs participating in this study captures many of the variations described above. While we do not know the number or form of all of the various incentive programs nationwide, we posit that Wholesome Wave, Fair Food Network, Market Umbrella, and Roots of Change represent important variations in program approach

and amount of bonus value added to SNAP benefits. The four organizations all rely on private sector funding, have dedicated staff capacity including market managers, and provide health-related services critical to their program mission of providing access to healthy food provided by local farmers at lower cost to vulnerable families receiving SNAP. The following are brief histories and descriptions of each program's approach and goals (Refer to Appendix A for complete descriptions).

Wholesome Wave. Wholesome Wave (WW), founded in 2007, has the longest-standing incentive program in the cluster. Its mission models the core objectives of healthy food incentive practitioners, specifically to increase access to affordable, fresh, nutrient dense, locally-grown produce to historically underserved communities, and to create economic viability through local food commerce to help rebuild our nation's food system. With foundation support, WW launched a pilot of the "Double Value Coupon Program" (DVCP) at the Westport, Connecticut, farmers' market in 2008. The success of the pilot quickly led to an expansion of the program in 2009 to ten states and the District of Columbia. Today WW programming involves 55 partner organizations working with 3,200 farmers in 24 states and the District of Columbia.

WW encourages partners to use a variety of community-specific strategies to implement DVCP, and requires all partners to adhere to certain guidelines. DVCP markets must have the capacity, training, and certification to accept at least one form of federal benefits (i.e., SNAP, WIC, Farmers' Market Nutrition Program), as well as the incentive, which can only be spent with local farmers.

Roots of Change. Root of Change (ROC) traces its origins to an effort undertaken in 1999 by a group of foundations that came together to identify and address the challenges facing the modern industrialized food system. They formed an advisory group of food system leaders and healthy food practitioners, named the Roots of Change Council, to further define environmental, social, and economic problems and to identify actions that could be taken to address them. After five years of intensive research, the Roots of Change Council published a 1,000-page report outlining a path of action to move California toward a vision of a next generation sustainable food system. This document, "The Vivid Picture Project: Envisioning a Sustainable Food System in California" continues to frame ROC's action agenda.

By 2008, the ROC planning council received seed grant support to move forward with the implementation of sustainable food system projects. Among the first was a healthy food incentive project, "Market Match," designed to employ small farmer vendors to meet the nutritional needs of California's low-income population. ROC first addressed the CALFresh EBT barriers encountered by farmers and SNAP residents in using benefit dollars at farmers' markets.

Early in its implementation phase, ROC also formed an organized group of sustainable food system leaders and organizations involved in farmers' markets operations. The California Farmers' Market Consortium (CFMC) focuses on building capacity within community-based organizations that work to improve food security by increasing healthy food access and increasing revenues for farm vendors in farmers' markets. CFMC's primary goal is to optimize the "Market Match" nutritional impact on SNAP recipients and the revenue impact on specialty crop farmers. Fundraising to support Market Match's incentive bonus dollars, then, has become a critical function for ROC. ROC has developed significant capacities and credibility in the philanthropic and public funding community. As the central organizer of CFMC, ROC redistributes incentive grant dollars to food incentive program partners. However, ROC requires CFMC partners to invest time and effort into their own fundraising efforts to match ROC base support. Frequently, ROC and their CFMC partners raise sufficient funds to offer a dollar-for-dollar incentive match. However, sustained fundraising sufficient to offer that match is becoming increasingly challenging. Recently, ROC has made appeals to the California Department of Food and Agriculture to allow some portion of federal funding to be used to support Market Match's incentive bonus.

Fair Food Network. Fair Food Network (FFN) was created by an agronomist in an effort "... to ensure that current and future generations will enjoy a food system that is healthy and sustainable for us all." FFN is headquartered near economically depressed Detroit, Michigan. FFN's program, "Double Up Food Bucks (DUFB)," was launched in Detroit in 2009 as a pilot project designed to respond to the needs of both economically disadvantaged residents and local farmers. The project provides families who receive SNAP benefits with the means to purchase more Michigan-grown fruits and vegetables at farmers' markets. When recipients use their SNAP benefits to shop at participating markets, the amount they spend is matched dollar for dollar up to \$20 per visit with DUFB food tokens. Since 2009, FFN has repeatedly expanded its reach and now operates in 100 farmers' markets throughout the state.

FFN is pushing the traditional healthy food incentive programs model by expanding its operation to include three full-service grocery stores in Detroit. Rather than relying entirely on seasonal markets, this program variation brings point-of-sale transactions of healthy farm-grown produce closer to residential neighborhoods with the intention of attracting more SNAP enrollees. SNAP customers who spend at least \$10 of their EBT script benefits on fresh fruits and vegetables will receive a Double Bucks card worth \$10 toward their purchase of Michigan-grown produce in these grocery stores. At the same time, providing incentives in traditional markets marks a significant detour from other healthy incentive programs, and brings with it unique implementation challenges.

Market Umbrella. Market Umbrella (MU) was originally founded (1995) as an educational institution at Loyola University in New Orleans. MU has a dedicated focus on food ecology, sustainability, and community education. Building on years of working with farmers' markets in the New Orleans area and in surrounding states, MU has developed the organizational capacity to capture, document, and catalogue solutions to marketing, distribution, and revenue problems faced by Gulf Coast family and small farmers and fishers. Building on this experience, MU has documented lessons learned in developing effective public markets that provide assistance to several states and countries.

Healthy food incentive programming has been a recent addition to advance MU's mission of "cultivating the field of public markets for public good," particularly in the aftermath of hurricanes Katrina and Rita, which left many low-income neighborhoods without access to any food retailers. In 2008, MU created its incentive program, "Market Match," for SNAP and the Farmers Market Nutrition Program (FMNP). The program provides SNAP, WIC, and Supplemental Security Income (SSI) customers with incentive tokens for use at affiliated farmers' markets. Market Match operates during annual campaigns that run from mid-July through mid-September. During the Market Match campaigns, SNAP shoppers at any of the three Crescent City Farmers' Market locations can swipe their Louisiana Purchase Card (or other state EBT card) at the Welcome Tent, and, while supplies last, receive matches of up to \$25 per market visit. Funding for Market Match has come from national and community foundations. The program has received support from state and city public health officials, in great part because of their shared concern over high childhood obesity rates in Louisiana.

Site selection

The executive directors of Fair Food Network and Wholesome Wave met with the Community Science evaluation team to share their vision and objectives for a cluster evaluation. They were not interested in an evaluation design that would capture findings that could be generalized to the universe of healthy incentive food practitioners. They were, however, committed to launching an evaluation that would capture best practices from a geographically diverse set of incentive program practitioners and their affiliated sites that could become a basis for initiating field-wide learning, coherence, and increased effectiveness in addressing the complex issues of food insecurity and a broken food system. In order to conduct such an evaluation that would capture best practices from a geographically diverse set of incentive program practitioners and their affiliated sites that could become a basis for initiating field-wide learning, 30 farmers' market sites were selected to serve as the study sample with the assistance of the executive directors of the four cluster evaluation organizations. One additional FFN site was added in 2012, for a total of 31 sites. The final farmers' market sample

included 12 Wholesome Wave, 11 Fair Food Network, five Roots of Change, and three Market Umbrella markets. (See the map in Exhibit 3 for site locations)

Sample selection criteria. A sample of 31 markets was selected from the set of all markets offering incentives. These markets were selected based on the following criteria:

- Having a strong healthy food and food sustainability mission;
- Committed to documenting best practices and increasing SNAP incentive standardization;
- A mix of smaller, medium, and large markets;
- Inclusion of markets that had a greater capacity to collect data; and
- Geographic diversity, which WW was able to provide through its range of markets across the country.

(See Section III.1. for a detailed description of the market characteristics.)

Based on this site selection criteria and the methodology of a cluster evaluation, we documented implementation and outcomes among strong programs to provide lessons learned and best practices in the field. The data and findings should not necessarily be viewed as reflective of the average SNAP incentive farmers' market program.

Cluster evaluation "looks across a group of projects to identify common threads and themes that, having cross confirmation, take on greater significance."
— WKKF Evaluation Handbook

Cluster Evaluation Design

Given the diversity of the programs but their common focus on changing food systems to increase access to healthy foods for historically underserved populations, a cluster evaluation design was implemented. A cluster evaluation is an analysis of multiple grants or organizations that are addressing the same issue but have independently developed their approaches. The technique was developed by the W.K. Kellogg Foundation (WKKF, 2004) in the 1980s to analyze the work of multiple grantees funded to address the same issue but not required to use the same techniques or approaches (Sanders, 1998).

- **Cluster evaluations are collaborative, and allow all participants to contribute to the evaluation design and development** (Millett, 1995). All four organizations involved in this cluster evaluation have been active participants and have shared data that they have collected themselves for their own evaluation and monitoring processes.

- **Cluster evaluations are not designed to evaluate individual projects or approaches to a particular issue** (Russon, 2005). This evaluation does not assess whether any of the four organizations has developed a more effective approach to the use of healthy food incentives for SNAP recipients. Instead, the goal of the evaluation is to describe what these organizations are doing, their contribution to promoting SNAP use at farmers' markets, and the lessons they have learned.
- **Cluster evaluations use the data collected by the individual projects or organizations that participate in the evaluation** (WKKF, 2004). Cluster evaluations are designed to synthesize and summarize data collected by participating organizations for their own individual project evaluations or for administrative or monitoring reasons. Because of this, the data are usually collected through different methods and the measures used are not always uniform. In the interest of learning, this cluster evaluation has taken full advantage of the available data; at the same time, the organizations involved have worked toward consistency in the measures they are using. Thus, early data (2010 and 2011) in this evaluation were gathered using grantee's individual measures, while in 2012 common survey and interview questions were developed and implemented to collection information from market customers, vendors, and market managers. See "2012 Standardization of Measures" section below for more information.

Initial Measurement Development

The first year of the evaluation, 2011, was in many respects a pilot phase that assisted us in identifying and resolving several data collection challenges. The Community Science team identified multiple sources of discrete data that were needed to answer the impact questions and observed a variation in the capacity of program staff to produce this data consistently across all study markets. We identified several challenges to meeting the desired requirements of data consistency. Variations in data collection schedules across the four programs affected our ability to access and analyze standardized information on our originally agreed schedule. Program managers' day-to-day management of incentive program operations in multiple market sites competed with the added demands of the cluster evaluation data collection schedules. Two of the four cluster organizations were further challenged with having to incorporate changes in their survey instruments to collect additional data and to make operational adjustments to define critical variables in consistent, cross-culture program ways.

Experience gathering and analyzing data at this level of operational detail varied by program site. To help gather data from the markets, the program managers from each of the four cluster programs supported data collection and served as intermediaries between market program staff and the Community Science team. These program managers played a critical

partnership role with Community Science as data collection agents in year one and throughout year two. They brokered Community Science's data needs with the sites' market managers and consistently assisted us in addressing additional information need for clarity and standardization. They informed and positioned the evaluation data collection and analysis plan to generate data based on the experiences of healthy food incentive practitioners to inform and advance best practices of interest to funders and the field of practice.

2012 Standardization of Measures

The 2011 convening of cluster evaluation organizations in New Orleans marked a pivotal point in our efforts to achieve greater data consistency and standardization. During the meeting, cluster participants were given an opportunity to review, interpret, and make meaning of our preliminary findings prior to the final report. After examining some of the challenges of unique data collection efforts, the convened group was determined to improve on their efforts to pursue a strategy to attain more robust data consistency in 2012. The 2011 cluster evaluation data captured similar concepts but each program had unique question wording. The New Orleans convening motivated cluster participants to commit to a common set of core survey questions to enhance comparability and robustness of study findings. Community Science offered technical assistance to all program managers and their respective market managers to support this program-led standardization effort. The evaluation team also worked with the program managers to develop core questions for market managers. Additionally, we employed online survey software designed to facilitate data gathering and submission to Community Science.

The cluster organizations' program managers continued to play a critical role as we developed standard core surveys for the 2012 round of data collection. Ultimately, the cluster evaluation comprised the following data sources (see Appendix B for a copy of the instruments):

- **Market Site Profile forms:** Describe location of the market, size of the market (total farmers/vendors), time period in which the market operates, presence of a market manager, and number of years' experience and capabilities with EBT. Program managers provided these data from the administrative tracking of the markets.
- **Market Sites Monthly Transaction Reporting form:** An electronic spreadsheet with separate tabs (workbooks) for each market to report monthly transaction activity (e.g., incentive amounts provided for every dollar of SNAP benefits, maximum amount of SNAP incentive, total number of market vendors). Program managers provided these data from the administrative tracking of the markets.

- **Consumer Survey:** Designed to discreetly solicit information from SNAP customers regarding their purchases, quality of the healthy foods, propensity to shop in the surrounding area of the market, and likelihood of returning as a shopper. Market managers administered the survey once each market season.
- **Vendor Survey:** Designed to capture information regarding transaction/revenue benefits from participating in the incentive program, plans to increase staffing/jobs at market sites, plans to increase farming acreage, and purchase of additional equipment to better meet future demands of SNAP incentive customer demands. Market managers administered the survey once each market season to the farmers.
- **Market Manager Survey:** Created in 2012 to assess implementation of the incentive programs including staff and volunteer activities, marketing and implementation strategies, partnerships, and perceived influence of the program on vendors and customers. The evaluation team administered the survey online to the market managers of three of the four cluster organizations, and the other organization administered the survey questions to market managers as part of its existing tool.
- **Program manager semi-structured interviews and surveys:** The interview and survey questions asked program managers' perspectives on strategies and capacities necessary to effectively implement incentive programs as well as lessons learned for the field. The survey also asked about health-related services and impacts of the programs and the implications of the Farm Bill on incentive programs. The evaluation team conducted the interviews and surveys in the spring of 2012.

Data Analysis Strategy

Survey and market transaction data were analyzed using descriptive statistics (e.g., frequencies, percentages, averages) to determine SNAP benefit and incentive redemptions and the influence of incentive programs on customers, vendors, and farmers' markets. Common key themes were extracted from qualitative data from interviews, and surveys of program managers, vendors, and market managers to identify promising practices, needed capacities to operate incentive programs, and implementation challenges. It is important to note that the 2011 survey data were derived from separate surveys conducted by the organizations participating in the cluster evaluation. In contrast, the data collected in 2012 came from measures standardized across the four sites. Since the measurements and sampling frames differ between 2011 and 2012, differences in results from the two years should be interpreted with caution. Additionally, as the markets in the evaluation are not a representative sample of farmers' markets across the country, the emphasis of the evaluation is on elucidating implementation practices and lessons learned rather than on the generalizability of the survey and interview data.

To understand the economic impact of incentive programs, the evaluation team recruited a consultant experienced in applying input-output impact modeling techniques, in particular models that could be applied to farmers market scenarios. The consultant employed select input-output multiplier models developed by the Economic Research Service (ERS)/USDA to determine how a SNAP benefit is redistributed in the community through additional spending (Dmitri, 2012). (A detailed description of the multiplier model can be found in the economic impact report in Appendix C.)

The evaluation data collection framework is presented in Appendix D. It identifies the evaluation questions and related data sought to answer them, as well as the approaches and sources used to capture the needed information.

III. Findings

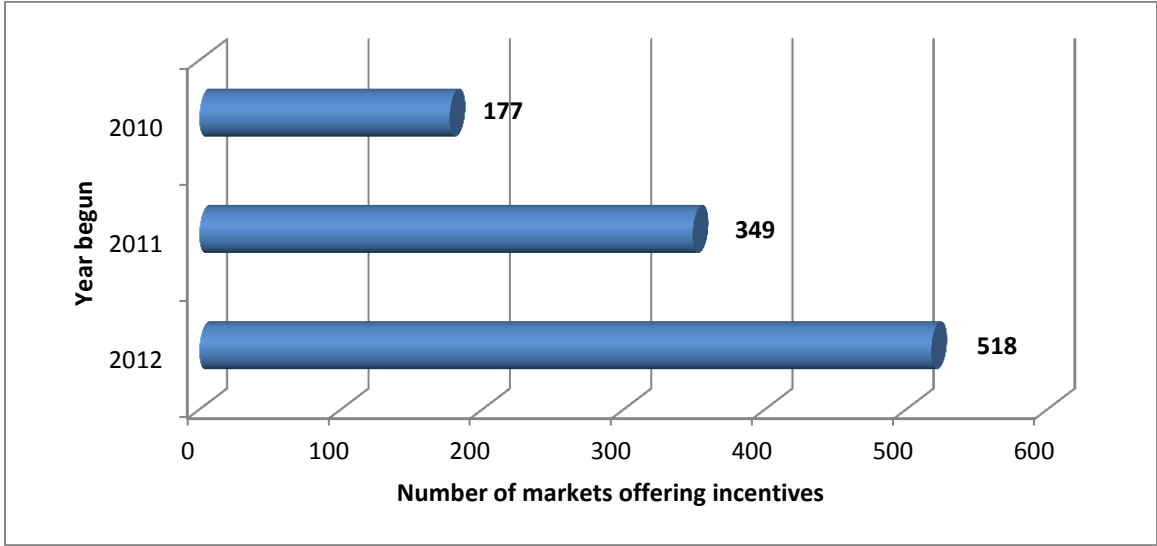
1. Characteristics of the markets offering incentives and the evaluation sample⁶

Affiliated markets

Over the course of the evaluation, the number of markets the four cluster organizations supported that offered SNAP incentives almost tripled, from 177 markets in 2010 to 518 markets in 2012. The evaluation collected data on all the markets with which the four organizations worked to assess the scope and reach of their efforts. There was tremendous growth in the SNAP incentive programs supported by the four organizations participating in the cluster evaluation. In total, the four organizations increased incentive presence from 177 markets in 2010 to 518 in 2012 (almost 300% increase). In 2012, these markets served 131,598 SNAP customers and engaged 4,852 famers/vendors (See Appendix E for a table of the number of markets affiliated with each cluster organization and customers served). The growth in the total number of markets that offer incentives is shown in Exhibit 1.

⁶ Indicators: Total number and location of markets participating in incentive programs; number and location of markets in cluster evaluation; characteristics of markets (e.g., size, number of years markets have used EBT and participated in SNAP, market operating period); demographic characteristics of communities in which markets are located; demographic characteristics of market customers

Exhibit 1. Number of markets affiliated with FFN, WW, ROC, and MU offering SNAP incentives

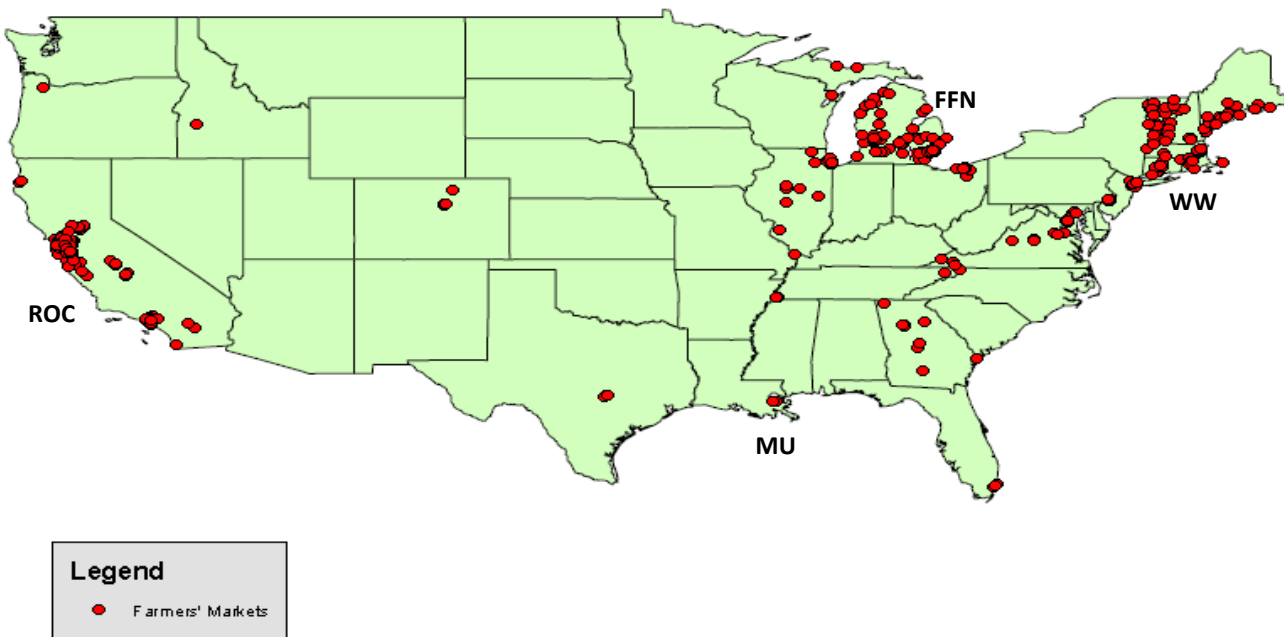


The four organizations supported markets in 24 states and the District of Columbia in 2012, and consumers redeemed more than \$1.5 million in SNAP incentives (see Exhibit 2). The organizations vary in the number of markets with which they work and in their geographic scope. FFN and MU consistently use a one-to-one match for SNAP benefits. Most markets that WW works with also have a one-to-one match, but some employ a different match. Markets that work with ROC currently vary in their match, but ROC is in the process of determining whether more standardization would be helpful. The variation in matches for markets affiliated with ROC and WW is partly driven by available funds. In WW’s case, it is also driven by the organizations that run the markets; these partners are given flexibility to define their own match programs, as long as they do not match above the one-to-one limit. Finally, all of the organizations rely on funding from the private sector to support their incentive programs. This use of private funds has in some cases enabled them to increase the benefits to low-income individuals and families. As shown in the map in Exhibit 3, there is a heavy concentration of WW markets in New England, with smaller but sizable concentrations in Georgia, the mid-Atlantic states (including the Washington, DC, metropolitan area), and Illinois. Michigan and California have a high concentration of markets because ROC and FFN are based in those states. Though less noticeable on this map, New Orleans has multiple markets that offer incentives because it is the focus area for MU.

Exhibit 2. Characteristics of SNAP incentive programs, 2012

Feature	Organization				
	Fair Food Network	Market Umbrella	Roots of Change	Wholesome Wave	TOTAL
Number of markets offering SNAP incentives	75	3	134	306	518
Location of markets	Michigan, plus one in Ohio	New Orleans	California	24 states and Washington, DC	24 states and DC
Match (how much incentive is provided for every \$1 in SNAP benefits)	\$1	\$1	\$0.40 - \$1	\$1	
Maximum amount of incentive benefit offered	\$20	\$25	\$5 - \$10	\$5 - \$25	
SNAP incentives distributed	\$888,321	\$10,761	\$156,348	\$616,539	\$1,671,969
SNAP incentives redeemed	\$783,581	Not available	\$153,695	\$610,990	\$1,548,266
Source of incentive-funding support offered to markets	Private funding (mainly foundations, but also other private organizations and direct fundraising)				

Exhibit 3. Location of markets that offer SNAP incentives that are affiliated with FFN, WW, ROC, and MU



Cluster evaluation sites

The majority of the markets in the cluster evaluation were small to medium, with 50 or fewer vendors. Exhibit 4 shows a map of the sample markets with California, Michigan, and New Orleans highlighted because of the concentration of markets in those areas. Market size is based on the average number of vendors who sell food that can be purchased using SNAP benefits. The markets were categorized into small, medium, and large, as shown in Exhibit 5. As discussed in Stephenson, Lev, and Brewer (2007), different researchers tend to use different measures for market size. The ones used here are somewhat different than those discussed in Stephenson et al. (2007), but are similar enough for some comparisons. Consistent with previous research (e.g., Agricultural Marketing Service, 2011; Stephenson et al., 2007), most markets in the evaluation were small (40% in 2011; 61.2% in 2012) or medium (36.7% in 2011; 32.2% in 2012).

Exhibit 4. Location of cluster evaluation sample markets

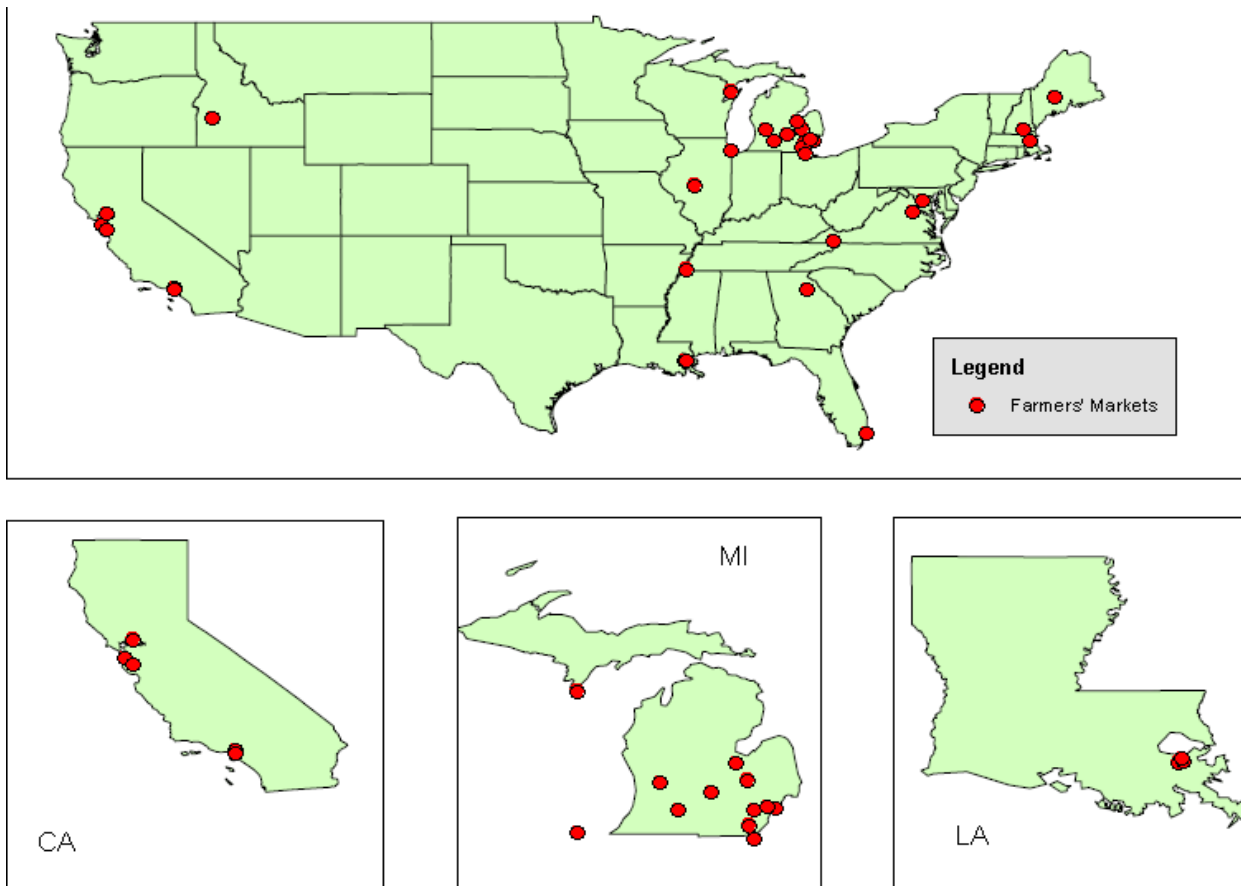
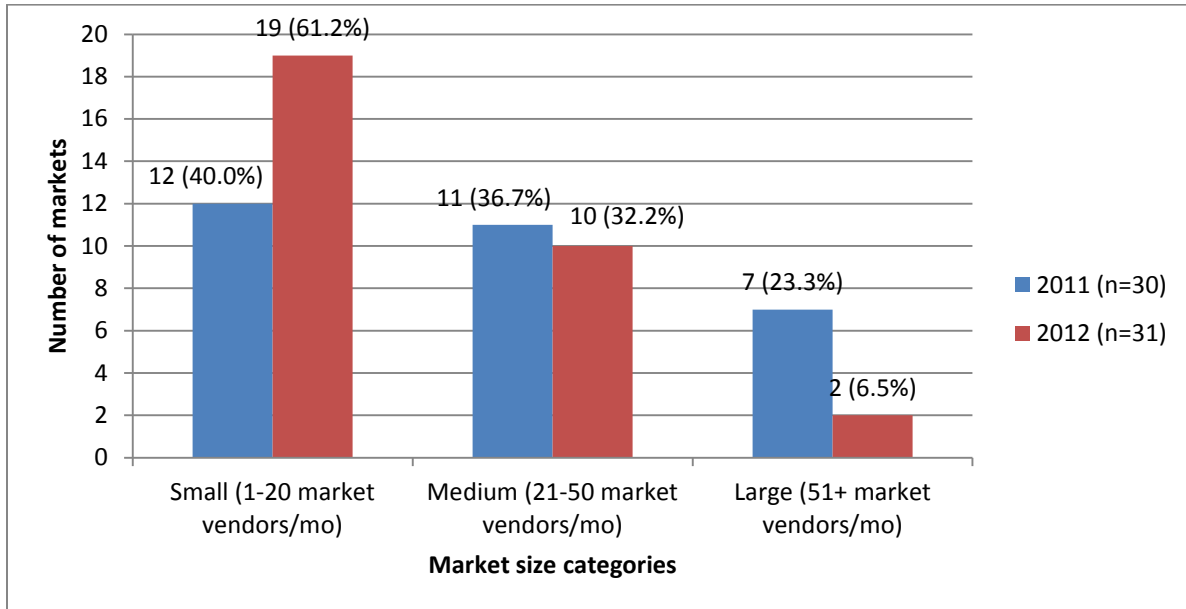


Exhibit 5. Number of cluster site markets by market size



Typically, markets had been accepting EBT funds for at least three years before they also began accepting incentives; the relative newness of the incentive programs reflects the extensive growth in the organizations' incentive initiatives, especially since 2010. As shown in Exhibit 6, approximately three-quarters (74%) of markets had been accepting EBT funds for at least three years before they also began accepting incentives. About half of the participating markets (48%) began offering incentives in 2011, and nearly one-third (29%) began offering incentives in 2010 (Exhibit 7).

Exhibit 6. Number of years that markets have used EBT, n=31 as of 2012

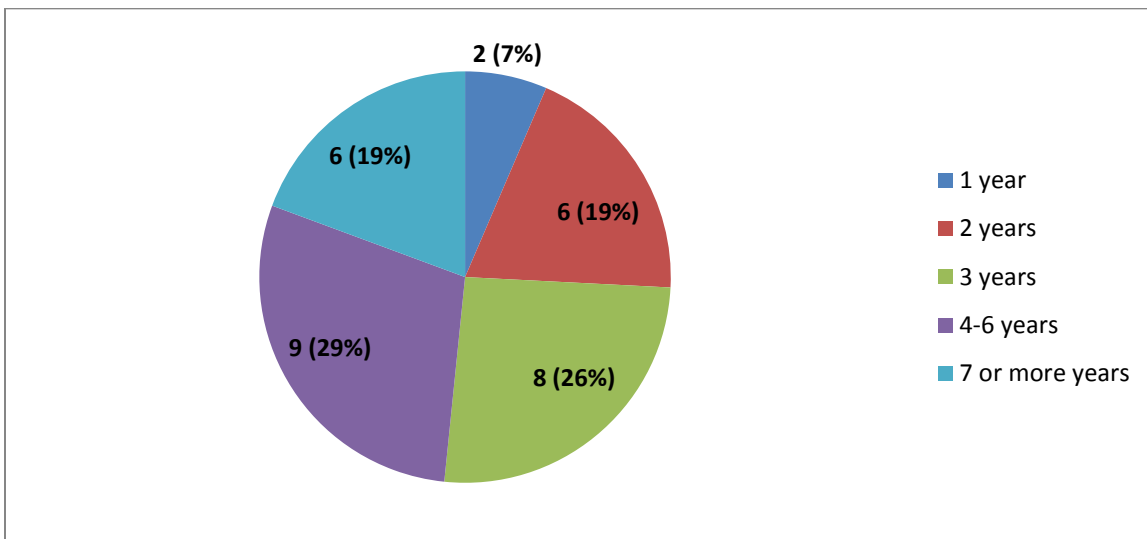
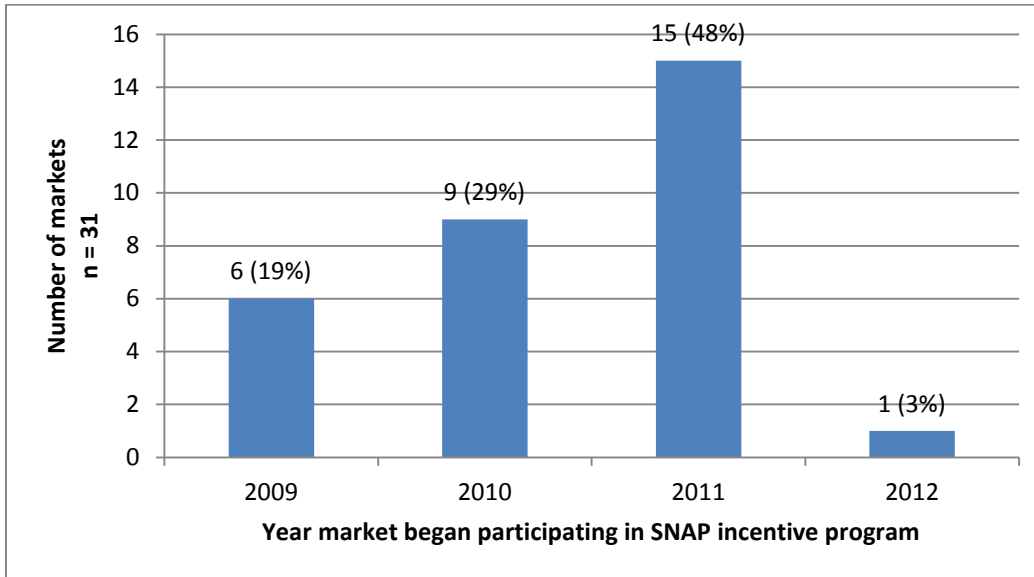


Exhibit 7. Year sample markets began participating in SNAP incentive program



2. Changes in SNAP recipients' food purchasing behavior⁷

More than 80% of markets provided a one-for-one incentive match for SNAP benefits, and approximately three-fourths (77%) of markets had a maximum match of \$10 or \$20. The markets in the sample varied to a small degree on the amount of each SNAP dollar they matched and to a greater degree on the maximum amount of SNAP benefits for which a customer could receive incentives (Exhibits 8 and 9). More than 80% of markets provided a one-for-one match for SNAP benefits (e.g., a total of \$5 spent on fruits and vegetables provided access to a total of \$10 of produce). Three (10%) matched 50 cents on the dollar, and two (7%) matched 40 cents. The markets with smaller matches (i.e., \$0.40 and \$0.50 per \$1.00 in SNAP benefits) varied their incentives over the course of the year, offering increased incentives of \$0.50 and \$1.00 for part of the year. The variation was driven by an attempt to stretch incentive budgets throughout the year. Markets also varied on the amount of SNAP benefits that qualified for a match. The majority matched \$10 (29%) or \$20 (48.4%) of SNAP benefits spent. The others matched \$5, \$25, or provided incentives for all SNAP dollars spent. When asked about the best incentive amount to offer at farmers' markets, program managers agreed that a dollar for dollar, \$20 maximum was the best incentive structure.

⁷ Indicators: Total number of SNAP transactions per market day; total number of first-time SNAP transactions per market day; total dollar amount of SNAP benefits distributed and redeemed per market day; total dollar amount of SNAP benefits distributed and redeemed in the year prior to the incentive program; total dollar amount of incentive benefits distributed and redeemed per market day

Exhibit 8. Amount of incentive match for each \$1 of SNAP benefits (sample markets), n=31

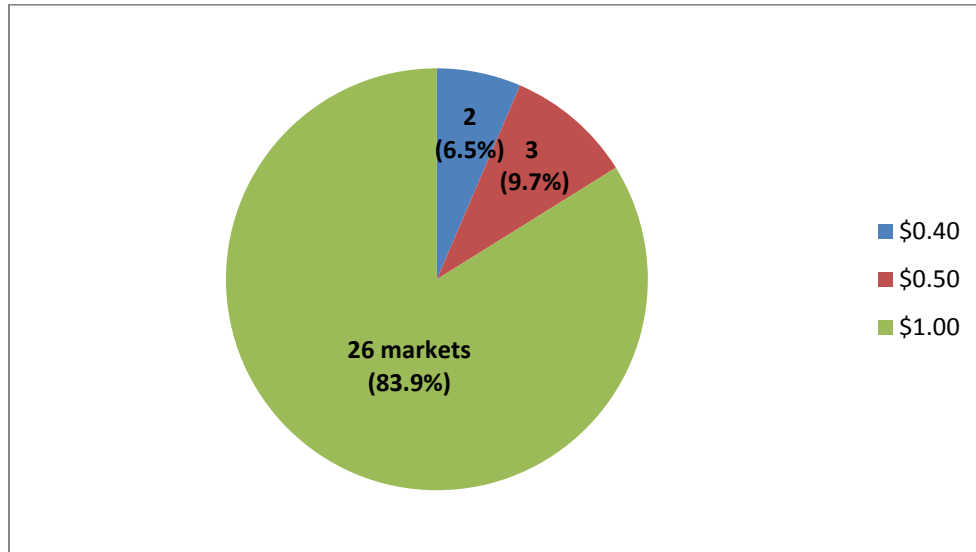
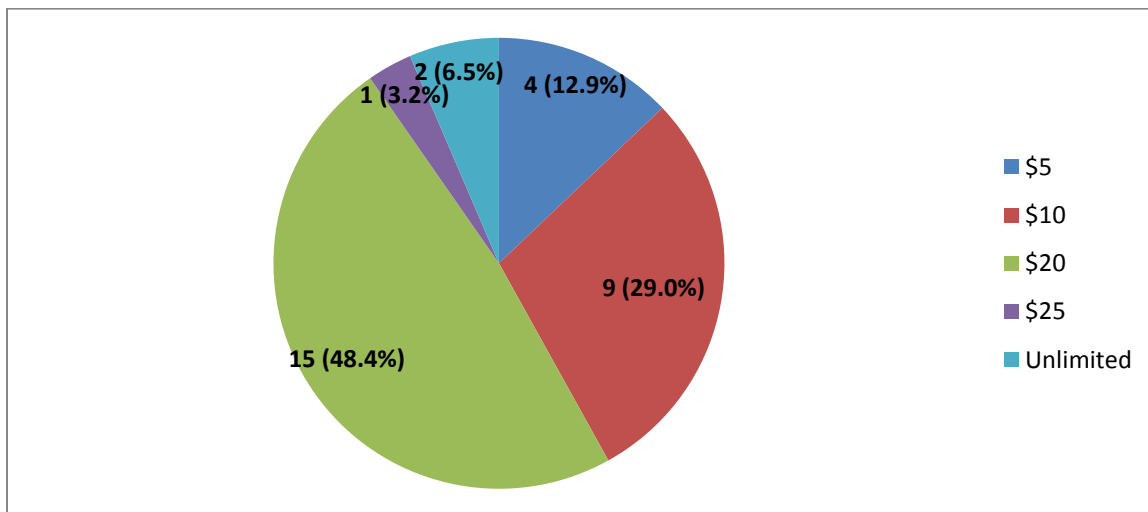


Exhibit 9. Maximum amount of SNAP benefits per week subject to the incentive among the sample markets



SNAP recipients took advantage of their SNAP incentives, redeeming 73% of incentives distributed in 2011 and 96% in 2012. The 2012 market manager survey (18 out of 31 [51%] responded) indicated that the cluster site markets saw an average of 225 SNAP transactions per month. On average, each market distributed \$16,554 in SNAP dollars and \$11,754 in SNAP incentive dollars. Based on the WW, MU, and ROC monthly transaction reports and the FFN end-of-year summary report (a compilation of all of the markets' transaction data), customers redeemed approximately 72% of SNAP dollars distributed in 2012 and redeemed 96% of incentives distributed. In 2011, customers redeemed approximately 81% of their SNAP dollars and 73% of incentive dollars (See Exhibit 10). Because of the limited variability in incentive

match ratios (i.e., the large majority of markets had one-to-one matches), the data cannot be used to assess whether different incentive amounts and maximum incentives were associated with greater incentive use.

Exhibit 10. SNAP benefit and incentive dollars distributed and redeemed over the course of the evaluation

Year	Benefit dollars distributed	Benefit dollars redeemed ^a	Redemption rate	Incentive dollars distributed	Incentive dollars redeemed	Redemption rate
2011	\$479,149	\$386,651	80.7%	\$346,383	\$253,488	73.2%
2012	\$513,191	\$367,649	71.6%	\$364,380	\$351,105	96.3%

^aWholesome Wave and Market Umbrellas did not track SNAP dollars redeemed.

The large majority (more than three-fourths) of SNAP recipients reported that they have increased their purchase of produce because of the incentives and that the SNAP incentive was a strong factor in their decision to shop at a farmers' market. Market customers were asked about their purchase or consumption of fruit and vegetables.⁸ As shown in Exhibit 11, more than three-fourths of customers reported increases in fruit and vegetable purchase or consumption due to participation in the incentive program in both 2011 (83.5%) and 2012 (77%). The vast majority of customers (85% in 2011; 93% in 2012) also reported that the incentives motivated them to spend their SNAP benefits at the farmers' market (Exhibit 12). The findings suggest that the incentives affected their local spending decisions, helped attract their business, and increased customers' access to local fresh produce. However, given that customers did not redeem all of the SNAP incentive dollars distributed to them, the reasons for not using their incentives should be explored further (e.g., difficulty returning to the market).

⁸ 2011 data compiles responses from FFN's survey that asked how the amount of fruits and vegetables purchased in general changed because of SNAP incentive and WW's survey that asked customers how their consumption of fruits and vegetables changed as a result of farmers' market shopping. All programs asked about purchase and consumption in 2012.

Exhibit 11. The influence of SNAP incentives on fruit and vegetable purchases

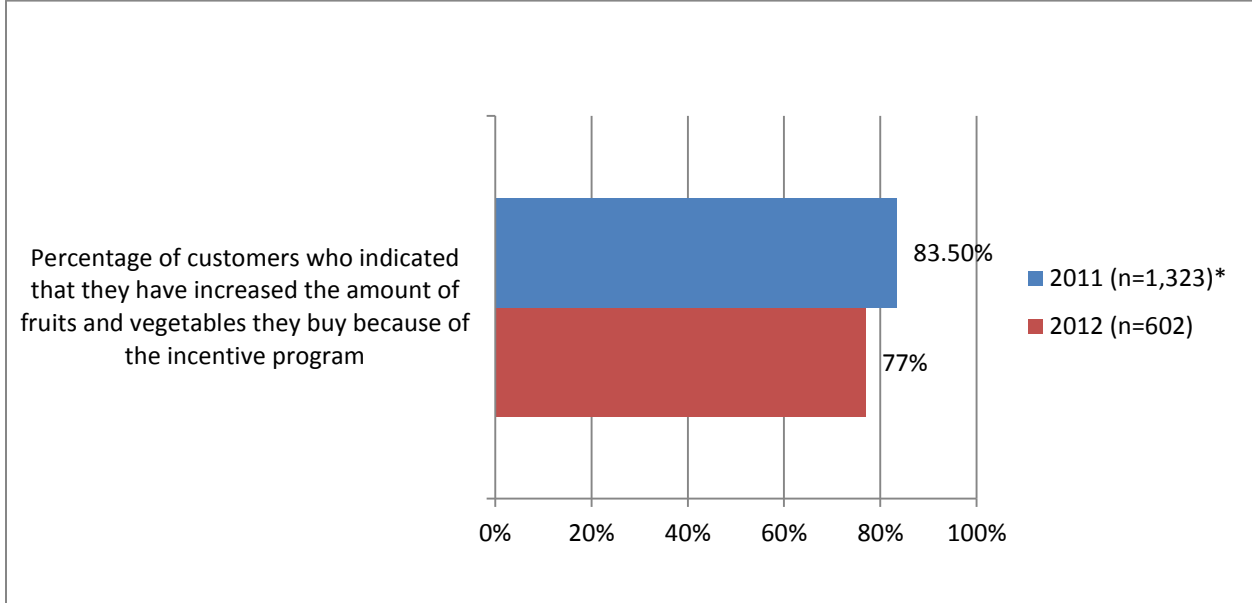
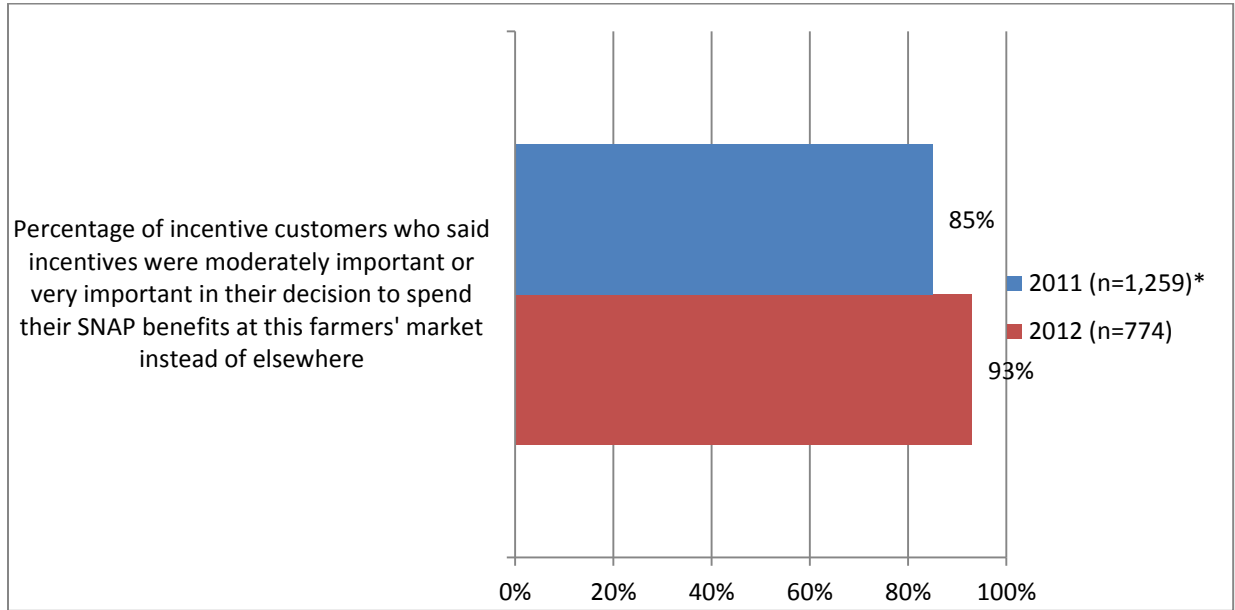


Exhibit 12. Importance of incentives in drawing customers to the market



* 2011 data compiles responses from ROC's survey that asked how important incentives were in drawing them to the market and WW's survey that asked how important incentives were in getting customers to spend food stamps or market checks at the market

3. Effect of healthy food incentive programs on local farmers and the local economy in which they operate⁹

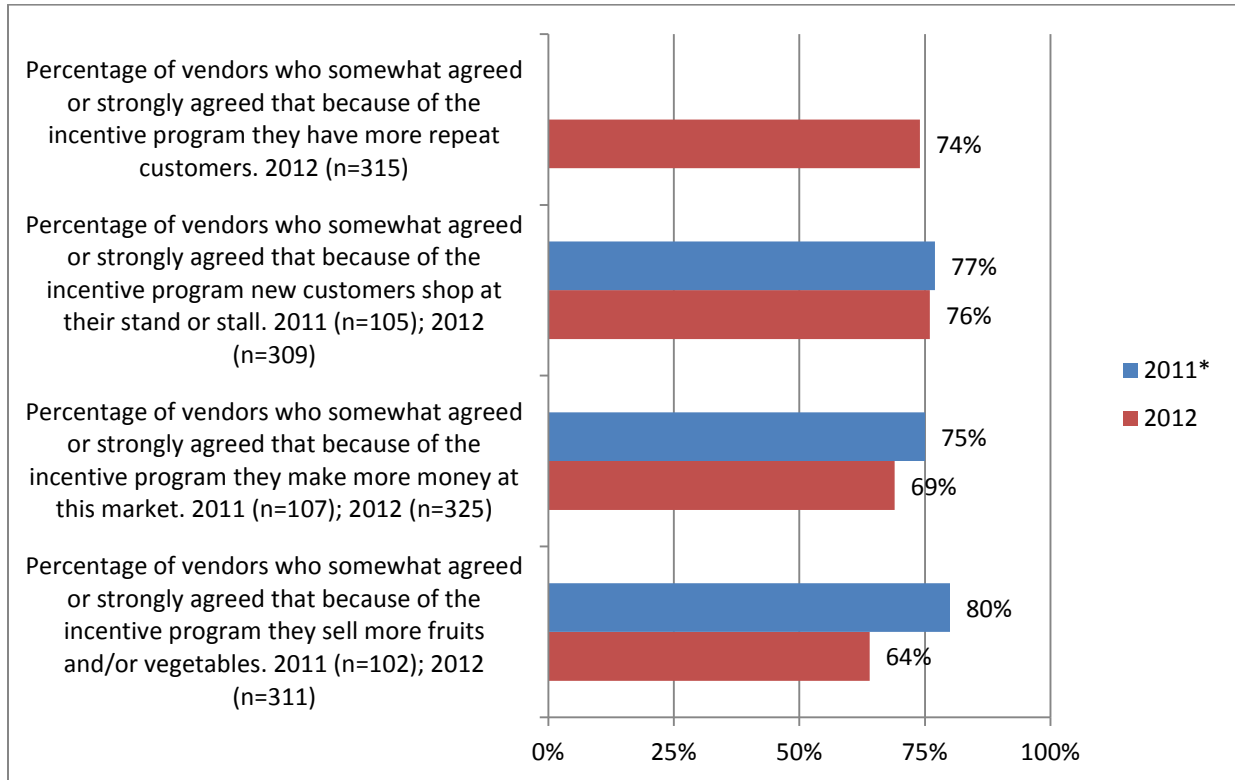
Based on survey responses, SNAP incentives appear to have a positive financial effect on farmers' market vendors. The majority of vendors (at least 64%) reported that they sell more produce, make more money, and have more customers because of the SNAP incentive.

Participation by vendors in the incentive program varied by market. In 2012, an average of 24 vendors participated in the SNAP incentive programs at each of the 31 cluster evaluation markets. Based on market transaction reports, an average of 70% of vendors selling eligible food participated in the incentive program in 2011. In 2012, the average vendor participation rate was 81%. Vendor participation rates varied by market, from 22% to 100%. Several factors may contribute to vendor participation. First, several market programs required participation of any eligible vendor. In contrast, barriers to participation include financial challenges; for example, some funding sources for the incentive match restrict the type of product that was acceptable, and therefore vendors who sell products that do not qualify are unable to participate. Additionally, because the operating period of the SNAP incentive program may not be the entire operating time of the farmers' market, some vendors who have a seasonal product may not sell at the time the SNAP incentive program is operational, and are therefore unable to participate.

Prior to 2012, both FFN and WW collected vendor-level data (FFN in 2011 – see Morgan, Mangrulkar, & Wedepohl, 2012). The cluster evaluation collected data from all four organizations at the vendor level in 2012. Key findings from the FFN vendor survey in 2011 and all four sites in 2012 are shown in Exhibit 13. About three-quarters (74%) of vendors in 2012 agreed that the incentive provided them more repeat customers. Both FFN and the 2012 survey show that three-quarters of vendors felt that they received new customers because of the SNAP incentive. Similarly, most vendors felt that they made more money at the market and sold more fresh produce because of the incentive program.

⁹ Indicators: Total number of vendors participating in the incentive program – absolute number and as a percentage of total vendors in the participating markets; an estimate of the job creation/retention impact (for the farmers) of having the incentive program in place

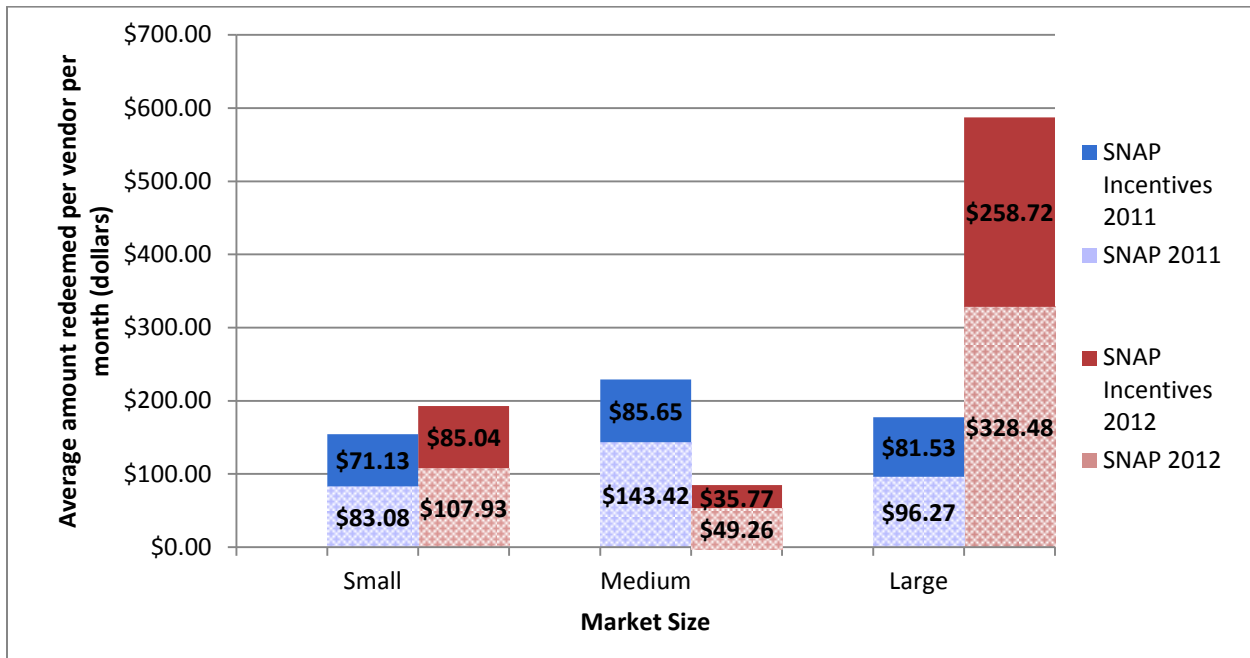
Exhibit 13. Vendor perceptions of incentive program benefits



* Data from 2011 are only from FFN surveys.

To further assess the benefits of participation for vendors, the average monthly SNAP benefit and incentive redemptions per participating vendor were calculated. As shown in Exhibit 14, vendors each accepted between \$71 and \$143 in SNAP benefits and incentives regardless of market size. In 2012, there was greater variability in the redemptions, with vendors each accepting between \$49 and \$328 in SNAP benefits per month and \$36 and \$259 in SNAP incentives per month. Some of the variability can be accounted for by the changes in the proportion of small, medium, and large markets between 2011 and 2012 and the total amount of redemptions reported for the two large markets in 2012.

Exhibit 14. Average monthly SNAP and incentive redemption per vendor by market size



Note: 2011 markets: 12 small, 11 medium, 7 large
 2012 markets: 19 small, 10 medium, 2 large

SNAP incentives appear to have a positive financial effect on local communities. About one-third (35%) of SNAP customers who reported their anticipated spending planned to spend an average of \$33 in the community around the farmers' markets. Slightly over one-half (57.3%, n=411) of customers surveyed at the four programs' markets reported on their spending plans on the day of the market. Of these respondents, approximately one-third (35.0%, n=144) planned to shop at nearby businesses, expecting to spend \$33 on average. Similarly, in 2011, Wholesome Wave (n=1,147) found that almost a third of customers who used incentives at farmers' markets planned to spend money at nearby businesses — an average of \$28 each — and estimated that the total amount spent in support of such businesses would be \$760,000 (Wholesome Wave, 2012).

Based on economic multiplier model estimates, adding SNAP incentive programs at the affiliated farmers' markets generated \$2.1 million to \$4.3 million in economic activity and saved or created 23 to 47 jobs. Based on ERS economic multiplier estimates using the 349 markets affiliated with the four cluster organizations in 2011, the SNAP benefit incentives had a positive impact on local economic activity and produced more jobs. A total of \$1,454,000 of SNAP benefits was redeemed in 2011 across the 349 farmers' markets in the study. These purchases were matched by bonus incentives valued at \$938,000, which is an average of 65 cents of incentive per dollar of SNAP benefit spent. Exhibit 15 summarizes the economic impact estimates based on the three types of multipliers. The estimated economic activity from SNAP

benefits ranged from a low of \$1.3 million to a high of \$2.6 million, with an estimated 14 to 23 jobs created or saved. Adding the incentives to the SNAP benefits increased the amount of economic activity to between \$2.1 million and \$4.3 million, which created or saved an estimated 23 to 47 jobs.¹⁰ (A copy of the full economic incentives report can be found in Appendix C.)

Exhibit 15. Economic impact of farmers market use of SNAP, federal benefits, and incentive expenditures

Multiplier ^a	SNAP	SNAP + incentives	SNAP + other benefits	SNAP, other benefits + incentives
	<i>Economic activity, dollars</i>			
Type I	1,293,960	2,129,205	1,669,040	2,695,369
Type II	2,108,138	3,468,929	2,719,223	4,391,332
Type III	2,602,460	4,282,333	3,356,834	5,421,024
	<i>Number of jobs created/saved</i>			
Type I	14	23	18	30
Type II	23	38	30	48
Type III	29	47	37	60

Notes: ^aType I: direct and indirect effects from SNAP expenditures. Type II: adds multiplicative induced effects of labor income on economic activity. Type III: adds impact on economic activity from capital earnings.

Jobs created are full-time, part-time, and seasonal. Economic activity is measured by GDP. Estimates of economic activity are based on SNAP expenditure multipliers created by USDA ERS (2010), which are shown in the previous table. Estimates are based on data on federal benefits and incentives redeemed at the markets, which were provided by Wholesome Wave, Fair Food Network, Market Umbrella and Roots of Change. (Dimitri, 2012)

Some caveats of the economic impact estimates should be noted. First, the actual number of jobs created by SNAP expenditures and bonus incentives is likely lower than the number predicted by the employment multiplier. The ERS multipliers are specific to government spending, and therefore dependent on the flow of new (government) stimulus dollars into the economy. While philanthropic support for SNAP incentives is critical to sustaining and evolving this program model, it does not have as potent a multiplier effect as do government investments in supporting incentive bonuses. Although ERS and other multiplier models are considered reliable measures of economic impact, more research is needed to

¹⁰ The economic impact of other federal nutrition benefits also was estimated. When all forms of federal nutrition benefits were included in the analysis, the estimated economic activity ranged from \$1.7 to \$3.3 million and 18 to 37 jobs. Adding in the incentives, the estimated level of economic activity was \$2.7 to \$5.4 million, with 30 and 60 jobs created or saved.

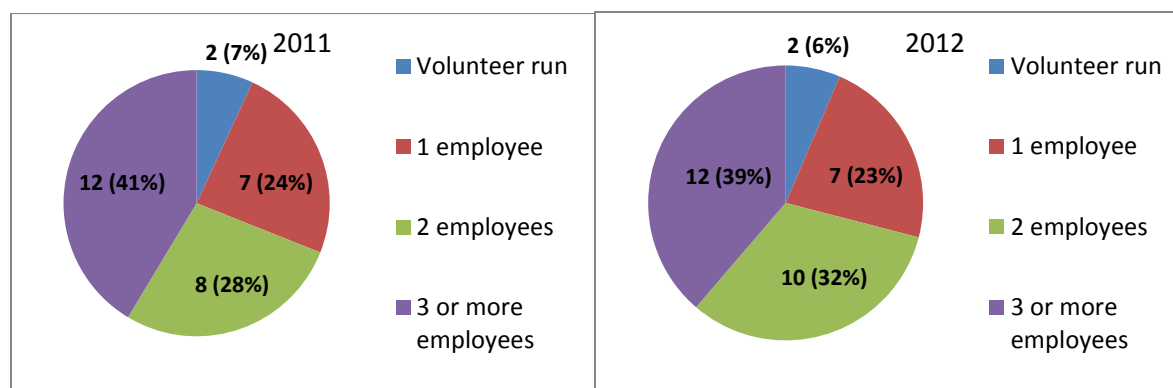
better inform their accuracy in estimating economic activity in direct market systems such as farmers' markets. (A copy of the full economic incentives report can be found in Appendix C).

4. Revenue and cost implications of implementing the incentive program¹¹

Vendors report positives (e.g., revenue) and negatives (e.g., effort needed to participate) from participation in the SNAP incentive program. Market managers were asked to relay any comments from vendors about the program. The main reported strength was the extra income the program generates (from 11 markets). As one market manager explained, *“Vendors appreciate the added revenue (\$60,658 so far this season). Overall, vendors seem to value the program as an asset to the market, and a cost savings in not having to operate card systems individually.”* Market managers also reported vendors' comments about the program diversifying their clientele. The reported challenges of the incentive program included: counting and keeping separate tokens for the market (n=2); remembering the SNAP token rules and specific criteria for the program (n=4); and disagreement with the use of federal benefits (n=1).

For the vast majority of markets (94%), employees rather than volunteers were involved in implementing the incentive programs, with approximately 70% of markets having two or more paid staff. Most market managers (88%) indicated that their staff size was sufficient to run their markets effectively. Data were collected on whether markets were operated by volunteers and how many employees were involved with implementing the incentive program. As shown in Exhibit 16, among the sample markets, only two, or 6%, were volunteer-operated (i.e., had no full- or part-time paid employees). Almost three-quarters of the markets had more than one employee working on the incentive program, and 39% had three or more employees.

Exhibit 16. Number of employees per market in 2011 and 2012



¹¹ Indicators: Revenue from vendor stall rentals; number of hours spent by staff who are directly or indirectly involved in operating the program and their average salary and type of work (e.g., administrative, communications)

The limited number of markets that are volunteer-operated and the number with multiple paid employees make these markets somewhat unusual. The 2006 National Farmers Market Manager Survey found that only 39% of U.S. farmers' markets had a paid employee and only 22% had more than one employee (Ragland & Tropp, 2009). While Stephenson and colleagues (2007) found a higher percentage of markets with paid employees in Oregon (72%), they also found a much higher percentage of volunteer-operated markets compared with the cluster evaluation market sites (28% versus 7%). This large proportion of paid staff among the cluster evaluation sites may be because the criteria used by the organizations for partnering with markets are more likely to be fulfilled by a market with paid staff.

Based on 28 completed surveys, market managers report an average number of 4.2 paid (including interns) staff members who administer the incentive program, and range from 0 (volunteer-run) to 11 employees. Paid staff average 29.5 hours a month working on the SNAP initiative. Markets average two volunteers involved in the incentive program working an average of 17.5 hours per month (n=16). Most (70%) of market managers are full-time year round, a quarter (26%) are part-time year round, and 4% are full-time seasonal (n=23). As shown in Exhibit 17, at the majority of the markets, paid staff and volunteers worked on EBT and incentive transactions as well as marketing and outreach. Paid staff, rather than volunteers, managed bookkeeping. Other reported staff and volunteer activities were related to data collection (e.g., survey administration, collecting data for grants, and data entry; 17.9%, n=17).

Exhibit 17. Farmers' market staff and volunteer responsibilities

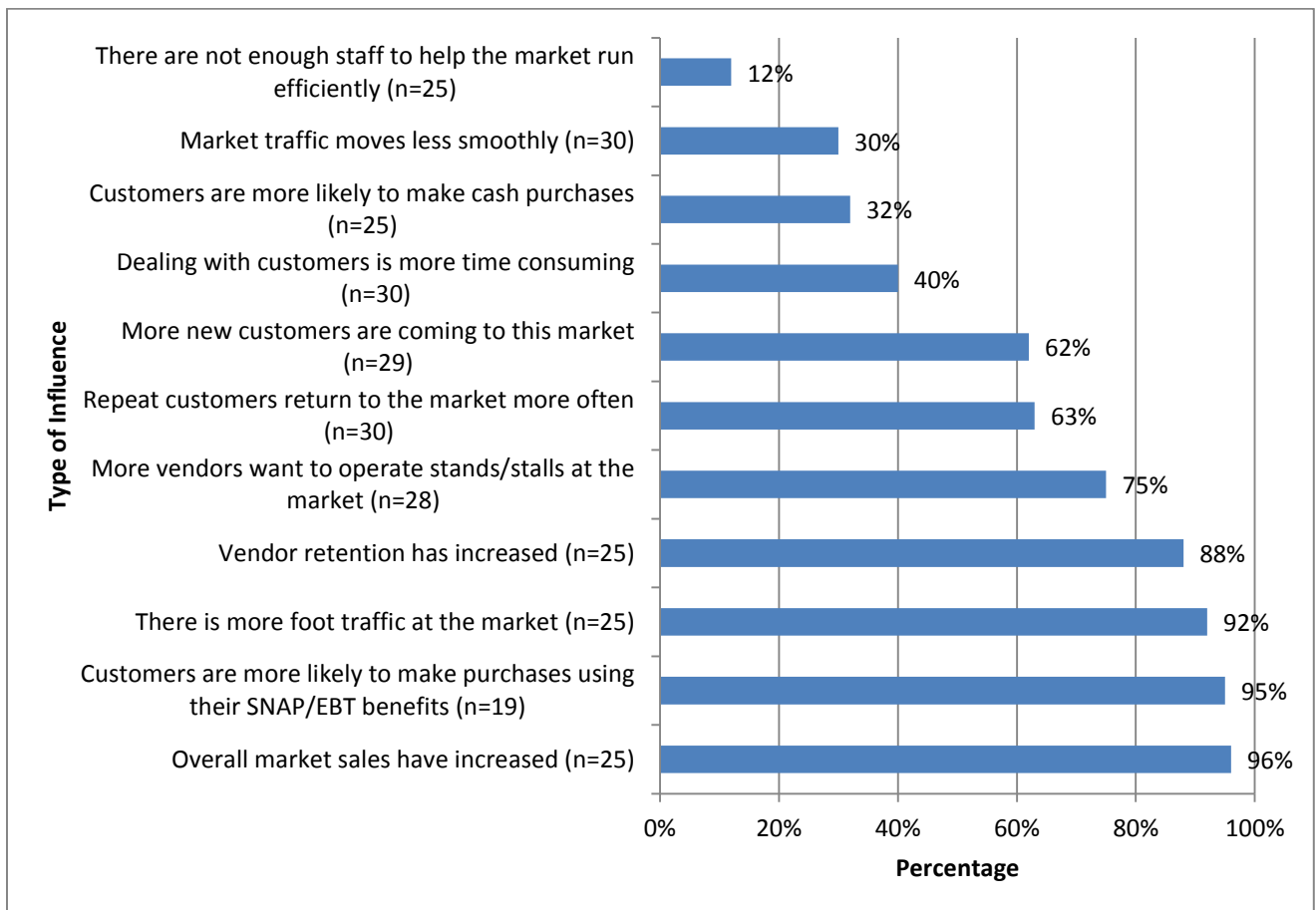
	Working on EBT transaction at the market	Working on incentive program transactions at the market	Bookkeeping	Marketing and outreach	Collecting incentive program tokens from vendors
Paid staff	92.6% (n=27)	88.9% (n=16)	100% (n=25)	88.2% (n=17)	80.0% (n=20)
Volunteers	73.3% (n=15)	66.7% (n=12)	14.3% (n=14)	53.3% (n=15)	16.7% (n=12)

Note: In each case, n represents the number of market managers who answered that question, and the percentages are based on these numbers.

Most market managers (at least 62%) felt that the incentive programs led to more customers and sales as well as increased vendor interest and retention at the markets. A minority (12% to 40%) reported negative impacts related to efficient operation of the markets. Consistent with vendor and customer reports, most market managers who completed the market manager survey in 2012 felt that the incentive programs led to more customers

(63%) and sales (96%; Exhibit 18). Additionally, at least three-fourths indicated that the program caused more vendors to desire or continue to operate stands at the market. In terms of negative impacts, a minority of market managers reported challenges with quickly (40%) and smoothly (30%) completing transactions and with having sufficient staff to run the market efficiently (12%).

Exhibit 18. Influence of the incentive programs on famers' market operations and sales, according to market managers



Note: In each case, n represents the number of market managers who answered that question, and the percentages are based on these numbers.

5. Essential strategies and components of an effective healthy food incentive program¹²

Through interviews and surveys, program managers provided their perspectives on key strategies and factors for implementing healthy food incentive programs. The evaluation data did not allow for tests of effectiveness (e.g., differences in consumer behavior and vendor and market impacts by type of strategy); therefore, the findings are based on program manager perception and experience.

Marketing and recruitment

Key strategies to advertise and recruit for the incentive programs comprised distributing online and print materials, face-to-face meetings, and establishing partnerships with farmers' networks. The four organizations in the cluster evaluation employed a variety of strategies to inform individuals about the incentive programs and to recruit markets. The organizations provided information about their incentive program online and developed promotional materials. They also conducted face to face community exploratory meetings to inform interested prospects on program goals and methods, contracting processes, and other program requirements. The organizations also formed partnerships with statewide farmers' networks and other farmers' market networks able and willing to promote healthy food incentive program to their constituents.

Shared philosophies and missions among prospective markets and sponsoring organizations are important considerations for recruitment of markets. Once a potential market was identified, the organizations ensured that prospective markets shared the philosophical and mission ideals of the sponsoring organization. Providing the means to access healthy foods at farmers' market is an immediate objective, but addressing the issues related to a food system that allows all community members, regardless of economic status, equal access to local foods, while increasing the economic viability of small and midsize farms is an important value context that drives their work. Interest in food system issues and a willingness to be part of an advocacy network strategy and learning community are generally important considerations.

While philosophical alignment is an important criterion, other more basic and practical considerations that inform recruiting and partnering decisions include:

¹² Indicators: Number, type, role, and contractual relationship of partnerships; outreach, promotional, and marketing strategies; program and site staff capacity (e.g., knowledge and skills in program management, knowledge about and commitment to healthy food incentive-related issues)

- **Availability of funds:** All respondents acknowledged this fundamental reality. There are many more farmers' market sites that align with their value orientation and other minimal organizational and management conditions than they could financially support.
- **Organizational staffing limitations:** All incentive programs have highly productive and motivated staff. Most however are at their limits in finding creative ways to stretch their productivity and capacity to recruit and manage additional market sites.
- **Recruitment, screening, and partnership selection criteria:** Preferable market candidates are already USDA certified and/or in the process of acquiring EBT capability to accept SNAP benefits.
- **Experience and connection to community:** Strong market candidates have experience providing services to low-income community members, understand those community members' needs, and are capable of customizing the program to address those needs.
- **Broader connections and service:** Ideal markets also participate in the broader learning community, and are active in policy advocacy efforts.

Once the organizations have identified farmers' markets to implement the incentive program, both parties enter into a formal contract. In addition to the aforementioned requirements, the programs' contracts specify the expected activities of the farmers' markets and the funding they will receive from the program. These expected activities might include calls; invoices and progress reports; transaction tracking, such as SNAP dollars distributed and redeemed; and the development and execution of a program advertising and promotion plan.

Program management and staffing

The four cluster programs provided technical assistance to markets on partnerships, recruitment and staffing, advertising, and operations to help them effectively implement incentive programs. The approaches to managing these capacities differed among the four programs based on the size of the program, age of the program, and relationship the program has with its individual markets. Each of the four has available technical assistance either through program partners (regional market programs), a contracted partner such as a state farmers' market association, or through program staff. Repeatedly, the four programs used their size and expertise to support the individual farmers' markets with knowledge, funding, and access that could only be obtained through collective action. For example, member farmers' markets can gain nonprofit status (501c3), trainings, grant opportunities, and/or volunteer through their relationship with the four programs (ROC, WW, FFN, and MU). Among the practices most often identified:

- ***Establishing and maintaining partnerships*** critical to effective program implementation. Ideally a successful incentive program develops a range of

- partnerships including working with local service organizations or religious groups, particularly those located where SNAP recipients reside in order to inform outreach, program promotion, and consumer relationships.
- ***Developing clear, easy-to-read and easily understandable contract language*** with farmers' market affiliated partners. Maintain ongoing communication and twice-a-year face-to-face retreats to build and acknowledge esprit de corps.
 - ***Working with existing partners to identify and recruit new partners*** by listening for buzz about successful markets not yet in the partnership network and gathering information about prospective markets and market managers as well as baseline information to assess affiliation candidates.
 - ***Developing strategic program relationships*** with state SNAP and WIC programs and their local offices, food bank councils and associations and their local offices, and local and statewide farmers' market associations.
 - ***Developing and disseminating promotional incentive program materials*** (print, radio and television) that are culturally and ethnically sensitive and appropriate.
 - ***Providing technical support to affiliated and partner organizations*** and to market managers to build ongoing EBT, data collection, vendor and consumer relationships, back-end accounting, token (SNAP redemption and bonus incentives) processing and management, on-site program administration and continuous fundraising capacities. In general, building the capacities supporting agencies and community-based organizations that service low-income residents currently enrolled in SNAP.
 - ***Developing and promoting learning communities.*** Each of the four organizations convene affiliated program staff, food system and sustainability advocates and practitioners and others interested to share experiences, program implementation challenges, best practices, management innovations solutions and local and national trends and other related health and food system issues.
 - ***Developing recruitment and employment screening and hiring practices to match work complexities and demands.*** Passion and desire, while important, are not sufficient qualities for an effective healthy food incentive staff. This is particularly true in programs with affiliated markets that offer different levels of incentive bonus matches. These and other program features and state or local characteristics that may present unique program implementation challenges should be taken into account in all employment decisions. In general, the challenge of hiring a capable staff requires careful consideration in recruiting, particularly at the program manager and market manager levels, as these individuals must have the organizing skills, patience, and ability to communicate to the network and maintain program integrity and coherence.

Assessing capacity during site selection as well as providing assistance throughout implementation of incentive programs were important to ensure that market staff had the support necessary to effectively promote programs, manage operations, and address challenges. Program managers repeatedly stressed that markets can only function well with a sufficient number of available and trained staff. In addition to screening for capacity during site selection, program managers provide support throughout the implementation of the project to sites. One organization requires markets to identify people responsible for each component deemed critical to conduct an effectively managed market and asks for description and performance expectation of the functional role. *“We find it helpful to not just get a general response, but it forces people to think through what it takes to run an incentive program and identify personnel.”*

Program managers also identified as vital an ability to comfortably describe the incentive program to market-goers and to advocate for the program. Most organizations addressed this capacity through training, especially around communication. Another issue raised is turnover common to smaller farmers' markets. A strategy to address instability in leadership is to train multiple staff members, ideally including someone who is a board member or has a several-year commitment.

Although most cluster market sites used primarily paid staff, program managers identified the vital role volunteers can play in increasing the capacity to implement the programs. Because paid market managers are often juggling multiple tasks, markets have used volunteers to provide needed support. One program is building a volunteer core to staff the incentive table to respond to inquiries and provide a presence when the manager steps away. Although volunteers can help support a small staff, their involvement sometimes has drawbacks. As one program manager explained, *“Ideally it is best if our staff, who are far more familiar with the program and product locations, are the ones running the program, explaining how the program works, and promoting it. If we are relying on others — volunteers — the communication gets weakened. However, we have a really small staff — so out of necessity it means going to networks with a broader reach all in one location. We do this to maximize efforts, but make sure that paid staff is handling the delicate pieces like transactions.”*

Health-related impacts

In light of limited capacity to provide health services, programs have developed partnerships with health-related organizations to promote healthy outcomes for consumers. Few healthy food incentive practitioners have the capacity to directly integrate health, nutrition, and related services into their programs. However, achieving the core program objective of healthy outcomes can realistically be achieved through creative and strategic partnerships with public health service and other community based organizations. Several

cluster programs have developed partnerships with statewide health and nutrition networks that help them produce and incorporate SNAP-Ed nutrition messaging in public radio and web-based communication campaigns. One has developed a very close working relationship with the city's public health agency that partners to develop health related educational programming at their farmers' market sites. Other programs are actively seeking to establish working partnerships with state universities and public health departments to design components of their current farmers' market program menus.

6. Factors and conditions that can affect the implementation of an effective healthy food incentive program¹³

Funding

Not surprisingly, insufficient funding support was noted as a principal barrier to effective program management. Even after achieving success in recruiting a network of affiliated partners, program managers agreed that funding limits their capacity to provide effective technical assistance and program management support. As one respondent explained, *"...paradoxically the two reinforce each other...as we become more effective with our outreach strategies that brings more customers to the market, generating more demand for incentives... this places more demands on already limited program budgets."*

Program managers' opinions about the availability of funding varied. One program manager rated funding as a 3 (scale 1-5), saying that it has been quite successful in attracting long-term funding through partnerships (mostly philanthropic organizations), but that it has been difficult to attract new supporters. These markets engage individual fundraising and special events as well as have donation buckets at the farmers' markets to support incentives for low-income families. Another program manager spoke to the funding that has occurred through participation in the consortium and collaboration with Wholesome Wave. Additionally, the program looks for different opportunities by participating in different food communities and making sure the program remains successful by continually exploring and taking advantage of funding. Similarly, a program manager stated that it has been an easy effort to find funding, explaining that, *"it is an easy sell; because of the structure we can say a local foundation is funding right back into community. Also the program is statewide and well known and it is perceived as a good investment."* In contrast, some program managers worried about the sustainability of funding. For example, one program has sought support from a variety of sources and, because of inconsistent commitments, must continually "re-shop" funding, or approach previous funders for additional rounds of support. Compounding the sustainability

¹³ Indicators: Demographics of surrounding community; demographics of SNAP participants; Location and friendliness of site; availability of fresh fruits and vegetables (e.g., number of supermarkets within certain proximity); availability of funding; other factors and conditions

issue, the SNAP incentive program has become an expectation of the customers and the funds are going faster. Strategies to sustain the programs include cutting down the match to stretch the dollars to serve a broader population and building networks of markets. One program manager commented that the philanthropic community can and should sustain the incentive program on its own: *“The avenue to sustain it is through the Farm Bill and through public and private partnership- 50% match from philanthropic community, critical community to draw funds, and then be able to access public funds and bring into community. If we are successful in advocating, it can unlock philanthropic dollars.”*

Friendliness

Program managers strongly suggest that a core market capacity is “friendliness” to make farmers’ markets welcoming for everyone. The market managers stated that friendliness at markets is different for everyone and hard to define, although making the farmers’ market welcoming for all who attend is a goal of most programs. One program manager stated, *“In order for programs to have impact, they need to really be a business, and it is only beneficial to appeal to customers.”*

Specific strategies that markets employ to achieve friendliness include:

- Connecting to other stakeholders;
- Promoting the program through word of mouth to excite and attract community members; conducting tours and cooking demonstrations;
- Ensuring available food interests a diverse farmers’ market customer base;
- Making sure that that all transactions (other than cash) have script tokens, such that incentive transactions do not call attention to the SNAP customers and make people feel uncomfortable; and
- Using welcome tents or tables to facilitate incentive program transactions, and to answer customer questions. This setup could also function to swipe the SNAP customers’ cards in a more private setting, and to capture point-of-sale information from incentive customers rather than relying on vendors and farmers who are often distracted by other sales transactions.

A market manager commented that the growing number of SNAP customers is a good sign of the friendliness of the markets. Occasionally there are complaints from customers, usually about a new employee or farmer who hasn’t received the proper training. The cause most likely is that the staff or vendor is unfamiliar with the protocol, and the market manager intercedes immediately to train the employee.

Sustainability

Programs have recognized the importance of sustainability and have shifted or incorporated strategies to garner ongoing support. Programs have implemented strategies to work toward having the greatest sustainable impact. For example, one program has piloted additional healthy living and food accessibility programs such as an incentive program at a corner store and a mobile market. Another program has shifted its focus to advocacy of the Farm Bill and sustaining the network that already exists. Additionally, political will to sustain the incentive program varied across programs and by levels. In New Orleans, the city health department has recently pushed for access to healthy food, and therefore local government is extremely supportive. There has not been as much state-level action in Louisiana. But other supportive programs have sprouted up throughout the state, such as another market incentive for a smaller amount and a food hub that now offer discounts for SNAP. In California, the program managers rated the political will as low, since the program is not effectively reaching out to policymakers; program managers have plans to correct that this year and make more connections. A representative did note that what is going on in California is not happening in isolation. Nationally, Wholesome Wave and Roots of Change are helping set the context, and making it easier to have local-level conversations. Another program manager indicated that state and local officials are very supportive of the program in every department.

IV. Conclusions and Implications

This report provides a summary of findings of a two-year cluster evaluation examining four organizations (and 31 of their affiliated farmers' markets) that have supported farmers' markets in offering incentives to SNAP recipients. The findings of this cluster evaluation of SNAP healthy food incentive programs align with findings of independent studies conducted by the participating organizations and USDA's recent experimental pilot study. Adding incentive bonuses to SNAP benefits has a significant, positive impact on customers' purchasing behaviors at farmers' markets, and on revenues of participating farmers. Economic multiplier models applied to cluster organizations' affiliated farmers' markets suggest that these programs have a significantly positive impact on local economies.

All four organizations emphasized the health related benefits of their programs and collected customer survey data that consistently suggested that participants were purchasing more fresh produce. For example Wholesome Wave's 2011 study, "Double Value Coupon Program Diet and Shopping Behavior Study," found that program customers' fruit and vegetable consumption increased during the program and was sustained after the program season. Roots of Change and Fair Food Network have documented the same conclusions with similar survey studies. However, due to financial constraints, none of the incentive programs

collected systematic health outcome data on program participants. Instead, they engaged and partnered with health and public health agencies to enhance desired health effects on program participants and document their efforts.

The evaluation findings point to important areas for future research. With respect to economic and utilization issues, market transaction data indicated that most SNAP dollars and incentives distributed (taken out of the EBT account) were actually redeemed at vendor stands over the course of the initiative (72% to 96%). A minority of funds went unused. Possible reasons for this gap include that tokens were lost, misplaced, or reserved for a future visit that did not occur. Regardless, a loss in purchasing power negatively affects the financial benefits provided by the incentive program, and means that SNAP participants have fewer funds to mitigate food insecurity. Future work should strive to better understand this problem in various communities and test innovative solutions to increase SNAP redemption rates. Additionally, further exploration will be helpful to determine what maximum amount of SNAP benefits matched maximizes participation by SNAP customers. To better understand the health impacts on individuals who use SNAP incentives to purchase fresh produce, future research also should explore changes in consumption and other health behavior. Finally, examining the relationship between various implementation strategies and reported changes in consumers, vendors, and markets will help better identify promising practices for effective incentive programs.

The cluster evaluation documented program innovations; influences of incentive programs on consumers, vendors, and markets; and lessons learned to inform a fragmented field of practice. The cluster program organizations are poised and ready to share what they are learning about effective program management, marketing, funding, capacity building, sustainability strategies, and achieving desired outcomes with fellow practitioners. After sharing program experiences, program implementation, and outcome data, and advancing ideas on how best to advance and implement solutions to food system issues of common concern through this cluster evaluation, the programs are exploring plans to launch an online “Learning Community” that would bring more program coherence to the field of practice and increase the field’s capacity to be more impactful.

Continued financial support from the private, public, and philanthropic sectors remains critically important to incentive programs, particularly as rising poverty rates in turn increase the number of people facing food insecurity. The Senate version of the Supplemental Nutrition Assistance Program that included dollars for incentive funding offers a potentially important response to promote the success of these programs. If such funding is passed by Congress, the documented effective management experiences of these four organizations will be a useful reference to inform and frame administrative and regulatory guidelines.

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Appendix A: Cluster Evaluation Program Descriptions

Fair Food Network. Fair Food Network (FFN) was created by an agronomist who was deeply concerned with the sustainability of the national food system and with creating a “fair food future.” The organization’s staff, board, and partners are driven by a deep commitment to find solutions “... to ensure that current and future generations will enjoy a food system that is healthy and sustainable for us all.” FFN is headquartered near Detroit, Michigan, arguably the most economically depressed city in the country. FFN’s program, “Double Up Food Bucks (DUFB),” was launched in Detroit in 2009 as a pilot project designed to respond to the city’s “broken food system” that was failing both economically disadvantaged residents and local farmers. The project provides families who receive SNAP benefits with the means to purchase more Michigan-grown fruits and vegetables at farmers’ markets. When recipients use their SNAP benefits to shop at participating markets, the amount they spend is matched dollar for dollar up to \$20 per visit with DUFB food tokens. In August 2010, DUFB expanded its operation to include five Detroit markets, four markets in Washtenaw County, and four markets in Battle Creek. In 2011, FFN expanded its DUFB sites to 54 markets throughout the state of Michigan. Today DUFB operates in 100 farmers' markets throughout the state.

Operating in a city with such a large and disproportionate population of marginalized people of color presents FFN with unique advocacy “relevancy, authenticity, and representation” challenges and opportunities. The city’s predominant African-American citizenry and leaders continue to experience particularly acute feelings of abandonment and marginalization. Hunger, nutrition, and health issues challenge many Detroit-area families and have become major causes of community-based organizations. FFN is committed to providing residents with opportunities to have a voice in shaping programs intending to address their challenging circumstances. Recognizing that the vast majority of Detroit residents and neighborhood leaders have not been a part of most policy debates and resolutions that directly affect their life circumstances, FFN launched “Strengthening Detroit Voices,” an initiative to elevate the voices of residents and leaders regarding policy on food and related issues. The initiative includes convening resident discussion about issues and concerns regarding the food system, connecting residents with other related food and nutrition organizations, and providing information and opportunities for residents to network and strategize on ways to shape health and nutritional programs and policies that impact their lives.

FFN is pushing the traditional healthy food incentive program model by expanding its operation to include three full-service grocery stores in Detroit. Rather than relying entirely on seasonal markets, this program variation brings point-of-sale transactions of healthy farm-grown produce closer to residential neighborhoods with the intention of attracting more SNAP enrollees. SNAP customers who spend at least \$10 of their EBT benefits on local fruits and

vegetables will receive a Double Bucks card worth \$10 toward their next purchase of Michigan-grown produce in these grocery stores. This is a precedent-setting, first-of-its-kind model for healthy food incentive programming because of the potential to attract more SNAP customers and draw more Michigan-sourced produce into large-scale grocery stores. At the same time, providing incentives in traditional markets marks a significant detour from other healthy incentive programs, and brings with it unique implementation challenges.

Market Umbrella. Market Umbrella (MU) has a dedicated focus on food ecology and sustainability, like most health food incentive programs. However, MU has honed this focus to frame a signature educational feature of its mission and programming. Building on years of working with farmers' markets in the New Orleans area and in surrounding states, MU has developed the unique organizational capacity to capture, document, and catalogue solutions to marketing, distribution, and revenue problems faced by Gulf Coast family and small farmers and fishers. Building on this base of experience, they have documented lessons learned in developing effective public markets that provide assistance to several states and countries.

MU was founded (in 1995) as an educational institution at Loyola University New Orleans. Its earliest iteration was known as the Economics Institute, whose mission was to "promote ecologically sound economic development in the Greater New Orleans area." The organization established a market as a public space to directly connect small farmers to customers. This endeavor brought New Orleans restaurant enterprises, city staff, the public, and tourism officials together to form an ethnically diverse community that shares, learns, and cultivates solutions to many of the region's economic problems. The Economics Institute evolved from this beginning phase into a public market incubator and mentor organization, using its Crescent City Farmers Market as a laboratory for learning how to promote public good.

Healthy food incentive programming has been a recent addition to Market Umbrella's arsenal for "cultivating the field of public markets for public good." Market Umbrella was committed to developing a marketplace where diverse ethnic groups could gather and transcend class and racial differences. The devastating aftermath of hurricanes Katrina and Rita left many low-income neighborhoods without access to any food retailers. Neighborhood "food deserts" hit low-income residents hardest, and there was little public or private capacity to increase their access to healthy food. These circumstances gave Market Umbrella's leadership a sense of urgency to utilize general marketplace solutions to promote public good. Adding healthy food incentive programming provided a solution to further link small farmers' economic needs to the nutritional needs of lower-income New Orleans residents.

In 2008, MU created its incentive program, "Market Match," for SNAP and the Farmers Market Nutrition Program (FMNP). The program provides SNAP and Senior/WIC FMNP customers with incentive tokens for use at affiliated farmers' markets. Market Match operates

during annual campaigns that run from mid-July through mid-September. The campaigns are designed to drive additional foot traffic to markets during typically softer sales periods. During the Market Match campaigns, SNAP shoppers at any of the three Crescent City Farmers Market locations can swipe their Louisiana Purchase Card (or other state EBT card) at the Welcome Tent, and, while supplies last, receive matches of up to \$25 per market visit. Funding for Market Match has come from national and community foundations. The program has received support from state and city public health officials in great part because of their shared concern over high childhood obesity rates in Louisiana.

MU is an example of a healthy food incentive program that operates primarily in a single city. However, the organization has carried out its mission to increase the capacity of market sites to be effective places to promote the public good and as spaces for high social interaction for all residents in New Orleans specifically and more generally in any city where people gather. As a result, it has expanded its reach and impact through healthy food incentive programs in three states and several countries. Its influence and impact on public nutrition and health policies and practices in the city of New Orleans is significant. By having a board of directors that represents major religious and academic institutions, public health officials, local restaurants, and racially diverse neighborhoods, MU maximizes its potential influence as a civic force for the achievement of “public good.” The Crescent City Farmers Market hosts “75 food producing families from three states serving 150,000 shoppers visit per year... in a public setting where farmers diversify their livelihoods by selling wholesale to restaurants, alternative retail, and school service providers...” and provides access to affordable healthy foods for SNAP eligible customers.

Roots of Change. Root of Change (ROC) traces its origins to an effort undertaken in 1999 by a group of foundations that came together to identify and address the challenges facing the modern industrialized food system. The group was committed to increasing philanthropic support and funding to nonprofit organizations capable of designing and implementing programs to increase California residents’ access to healthier foods and to supporting small farmers. In 2000, they issued a report about the opportunities and challenges to achieving these goals and objectives. Two years later, they formed an advisory group of food system leaders and healthy food practitioners, named the Roots of Change Council, to further define environmental, social, and economic problems and identify actions that could be taken to address them. After five years of intensive literature reviews, interviews with environmentalists, agronomists, sustainable agricultural activists, and researchers, the Roots of Change Council published a 1,000-page report outlining a path of action to move California toward a vision of a next-generation sustainable food system. This document, “The Vivid Picture Project: Envisioning a Sustainable Food System in California” continues to frame ROC’s action agenda. Implementing the Vivid Picture report’s vision has required intensive strategic

planning. ROC invited individuals committed to improving the California's food system to serve on the strategic planning committee charged with moving the project from visioning to action.

By 2008, the ROC planning council received seed grant support (\$750,000) to move forward with the implementation of sustainable food system projects. Among the first was a healthy food incentive project, "Market Match," designed to employ small farmer vendors to meet the nutritional needs of California's low-income population. The project provided opportunities to not only respond to a food system that was serving society's least advantaged but also an opportunity to impart ROC's long-term visions and agenda for sustainable food policy development that would better serve all Californians. ROC first addressed the CALFresh EBT barriers encountered by farmers and SNAP residents in using benefit dollars at farmers' markets. Providing technical assistance to farmers' markets to launch "Market Match," ROC's healthy food incentive program would become an important feature for achieving desired outcomes and for the overall success of the Vivid Picture for a sustainable food system in California.

Early in its implementation phase, ROC also formed an organized group of sustainable food system leaders and organizations involved in farmers' markets operations. By 2009, ROC successfully organized and managed a statewide partnership organization dedicated to increasing food access and improving the nutritional well-being in California. The California Farmers' Market Consortium (CFMC) focuses on building capacity within community-based organizations that work to improve food security by increasing healthy food access and increasing revenues for farm vendors in farmers' markets. CFMC's primary goal is to optimize the "Market Match" nutritional impact on SNAP recipients and the revenue impact on specialty crop farmers. Fundraising to support Market Match's incentive bonus dollars, then, has become a critical function for ROC. ROC has developed significant capacities and credibility in the philanthropic and public funding community. As the central organizer of CFMC, ROC redistributes incentive grant dollars to its food incentive program partners. However, it requires CFMC partners to invest time and effort in their own fundraising efforts to match ROC base support. Frequently ROC and their CFMC partners raise sufficient funds to offer a dollar-for-dollar incentive match. However, sustained fundraising sufficient to offer that match is becoming increasingly challenging. Recently ROC has made appeals to the California Department of Food and Agriculture to allow some portion of its federal funding to be used to support Market Match's incentive bonus.

Wholesome Wave. Wholesome Wave (WW) has the longest-standing incentive program in the cluster. The organization was founded in 2007 by two advocates of healthy food incentive programs. Its mission is to increase access to affordable, fresh, nutrient dense, locally-grown produce to historically underserved communities, and to create economic viability

through local food commerce to help rebuild our nation's food system. With foundation support, WW launched a pilot of the "Double Value Coupon Program" (DVCP) at the Westport, Connecticut, farmers' market in 2008. The success of the pilot quickly led to an expansion of the program in 2009 to ten states and the District of Columbia. Today WW programming involves 55 partner organizations working with 3,200 farmers in 24 states and the District of Columbia. Core programs have expanded to include healthcare clinic-community integration through the Fruit & Vegetable Prescription Program, as well as regional food hub investments.

WW encourages partners to use a variety of community-specific strategies to implement DVCP, and requires all partners to adhere to certain guidelines. For example, all partners must collect a minimum level of data requested by WW. DVCP markets must have the capacity, necessary training, and certification to accept at least one form of federal benefits (i.e., SNAP, WIC, Farmers' Market Nutrition Program), as well as the incentives, which can only be spent with local farmers.

WW is a recognized leader and pioneer in the healthy food incentive program practitioner community. Most current programs are based on WW lessons learned and management experiences. WW is highly respected for articulating and operationalizing a program vision and philosophy that has helped communities foster stronger relationships between local and regional agriculture in ways that better link these enterprises to underserved individuals. WW has developed learning strategies that document their challenges and successes in identifying, recruiting, and incorporating new partners to its 25-state network. Most importantly, WW brings together its partners, programs interested in duplicating its model, and engaged policymakers at annual convening sessions to learn from WW on-the-ground experiences as an important "meaning making and learning laboratory" for the field of practice.

Appendix B: Instruments

Cluster Evaluation 2012 Consumer Survey Core Questions

POINT OF SALE SURVEY

(Brief survey asked of all individuals who are using SNAP at the market)

1. Is this your first time ever using SNAP at this farmers' market?
Yes
No
2. Is [INSERT NAME OF INCENTIVE PROGRAM] one of the reasons that you are visiting this market today?
Yes
No
Not Sure

SAMPLE SURVEY

(LONGER SURVEY ASKED OF SELECTED CUSTOMERS)

Optional introduction if the survey is not part of a larger survey.

This survey asks about your experience shopping at this farmers' market and your use of SNAP benefits at the market. SNAP is the program that provides you with the card that allows you to buy food at stores and the market. The survey also asks you about your experience with [INSERT NAME OF INCENTIVE PROGRAM] that gives you extra money to spend on healthy food in return for you using your SNAP benefits at the market.

1. Outside of this farmers market, how easy or difficult is it to buy quality fresh fruits and vegetables in your neighborhood?
Very easy
Easy
Neither easy nor difficult
Difficult
Very Difficult
2. Compared to other places where you shop, the prices of fruits and vegetables at this farmers' market are...
Much Lower
Slightly Lower
About the Same
Slightly Higher
Much Higher
Not Sure

3. Do you have plans to spend money elsewhere in the area close to the market today?
Yes, plan to spend ➡ *IF YES: About how much do you plan to spend? \$*
No, do not plan to spend
Do not know

4. How important are the [INSERT FORM OF INCENTIVES OFFERED] in your decision to spend your SNAP benefits at this farmers market instead of elsewhere?
Very important-I wouldn't have come without them
Moderately important
Slightly important
Not at all important-I would have come without them

5. Is this your first time using [INSERT NAME OF INCENTIVE PROGRAM] at a farmers' market?
Yes ➡ *IF YES: Go to question 9*
No

6. Would you say that because of [INSERT NAME OF INCENTIVE PROGRAM] the amount of fruits and vegetables in general that you buy has...
Increased
Stayed about the Same
Decreased
Not Sure

7. Because of [INSERT NAME OF INCENTIVE PROGRAM], are you buying...
About the same kinds of fruits and vegetables you used to buy before you used [INSERT FORM OF INCENTIVES OFFERED]
Some different kinds of fruits and vegetables
Many different kinds of fruits and vegetables
Not sure

8. Would you say that because of [INSERT NAME OF INCENTIVE PROGRAM] your trips to farmers' markets have...
Increased
Stayed about the Same
Decreased
Not Sure

9. What is the zip code where you live?

10. How many children under age 18 live with you?

11. Are you/Is the respondent?

a. *Female*

b. *Male*

Cluster Evaluation 2012 Market Manager Survey Core Questions

This survey asks about your experience with federal nutrition benefit incentives (e.g., Double Up, Double Value Coupon, Market Match) as a farmers' market manager. The incentives are given to market customers to encourage them to shop for healthy food at the market. Please answer each question openly and honestly; there are no right or wrong answers. Your individual responses are confidential, and only the evaluation team at Community Science and [Wholesome Wave, Fair Food Network, Roots of Change, OR Market Umbrella] will have access to your responses. We will combine your responses with those of other market managers in evaluation reports. Your participation is voluntary; you can stop at any time and you don't have to answer any question that makes you feel uncomfortable.

If you have any questions or concerns regarding this survey, please contact LaKeesha Woods of Community Science at 301-519-0722, ext. 110 or lwoods@communityscience.com. Thank you for your time.

1. Please think about the **paid staff** (includes paid interns) needed to administrate the incentive program at your market.
 - a. How many paid staff (hourly or salary, full or part time) are involved in the program?
 - b. Approximately how many hours total do you estimate that paid staff spend on incentive program activities per month?
 - c. What do paid staff spend their time on with the incentive program? (Check all that apply)
 - Working on EBT transactions at the market
 - Working on incentive program transactions at the market
 - Bookkeeping
 - Marketing and outreach
 - Collecting incentive program tokens from vendors
 - Other (please specify) _____
2. Please think about the **volunteer staff** (includes unpaid interns) on the incentive program at your market.
 - a. How many volunteers are involved in the program?
If 0, skip to question 3.
 - b. Approximately how many hours total do you estimate that volunteers spend on incentive program activities per month?
 - c. What do volunteers spend their time on with the incentive program? (Check all that apply)
 - Working on EBT transactions at the market

- Working on incentive program transactions at the market
- Bookkeeping
- Marketing and outreach
- Collecting incentive program tokens from vendors
- Other (please specify) _____

3. What is the market manager's (you or another individual) official involvement at this farmers' market in 2012?
- a. Full-time year round
 - b. Full-time seasonal
 - c. Part-time year round
 - d. Part-time seasonal
 - e. Other (please specify) _____

4. How interested are vendors in participating in the incentive program?
- a. Very uninterested
 - b. Uninterested
 - c. Somewhat interested
 - d. Interested
 - e. Very interested

5. Do all vendors at your market participate in the incentive program?

- Yes
- No

If no:

- What percentage of vendors participate? _____
- What prevents some vendors from participating?

- Don't know

6. How does your market promote the incentive program in your community? (Check all that apply)

- Flyers, brochures, or mailings
- In-person outreach
- Newsletters
- Newspaper ads or articles
- Partnerships with organizations in the community
- Radio advertisements
- Signs or posters
- Subway/bus advertisements
- Website or online ads

Other (please specify) _____

a. Which strategies have been most effective for marketing incentive program coupons in your community, and how do you know they are the most effective strategies? (Name up to three)

7. What other organizations do you work with to provide outreach to federal nutrition benefit customers about your programming? (Check all that apply)

- State or county SNAP or WIC offices
- Senior centers
- Health centers or clinics
- Food banks or other food relief organizations
- Schools
- Other (please specify) _____

a. If applicable, please describe any other roles or functions of these organizations in your food nutrition benefit program beyond outreach.

8. Approximately how many SNAP transactions does your market complete per month? _____

Please tell us more about how the incentive program has influenced sales and operations at your farmers' market. For each of the following statements, indicate how much you agree or disagree.

9. Because my farmers' market participates in the incentive program...	Strongly disagree [1]	Somewhat disagree [2]	Somewhat agree [3]	Strongly agree [4]	Don't know/Not sure
a. More vendors want to operate stands/stalls at the market	1	2	3	4	DK
b. Vendor retention has increased	1	2	3	4	DK
c. There is more foot traffic at the market	1	2	3	4	DK
d. More new customers are coming to this market	1	2	3	4	DK
e. Market traffic moves less smoothly	1	2	3	4	DK
f. Repeat customers return to the market more often	1	2	3	4	DK

9. Because my farmers' market participates in the incentive program...	Strongly disagree [1]	Somewhat disagree [2]	Somewhat agree [3]	Strongly agree [4]	Don't know/Not sure
g. Dealing with customers is more time consuming	1	2	3	4	DK
h. There are not enough staff to help the market run efficiently	1	2	3	4	DK
i. Customers are more likely to make purchases using their SNAP/EBT benefits	1	2	3	4	DK
j. Customers are more likely to make cash purchases	1	2	3	4	DK
k. Overall market sales have increased	1	2	3	4	DK

10. Overall, how successful do you feel the incentive program has been in meeting the needs of...	Very unsuccessful [1]	Unsuccessful [2]	Neither successful nor unsuccessful [3]	Successful [4]	Very successful [5]
a. Federal benefit customers	1	2	3	4	5
b. Market farmers	1	2	3	4	5
c. Overall market and neighborhood	1	2	3	4	5

11. Have you gotten any feedback from **vendors** about incentive program?

a. Yes

What are you hearing from vendors about the added value and/or challenges of the program to them?

b. No (Skip to question 12)

c. Don't know/not sure (Skip to question 12)

12. Have you gotten any feedback from **customers** about incentive program?

a. Yes

What are you hearing from customers about the program and any resulting changes in their purchasing or food consumption behaviors?

- b. No (Skip to question 13)
- c. Don't know/not sure (Skip to question 13)

13. What strategies have been most effective in achieving the goals of the incentive program (i.e., to reach and serve customers who receive SNAP benefits, increase access to farmers' markets, attract vendors to the markets, and increase vendor and customer satisfaction)?

MARKET CHARACTERISTICS

14. Is your market open year round?

- a. Yes

If yes: How many days per week is your market open?

- b. No

If no:

- What are your months of operation? From _____ To _____
- How many days per week is your market open?

15. What percentage of producers/vendors using your market travel the following distances? (Your answers should equal 100%.)

0 - 10 Miles	11 - 20 Miles	21 - 50 Miles	51 - 100 Miles	101+ Miles
_____	_____	_____	_____	_____

16. Approximately what percentage of **producers/vendors** at your market belongs to the following ethnic and racial groups?

Ethnicity:

Hispanic or Latino _____

Not Hispanic or Latino _____

Race:

American Indian or Alaska Native _____

Asian _____

Black or African American _____

Native Hawaiian or Other Pacific Islander _____

White _____

17. Approximately what percentage of **customers that use SNAP benefits** at your market belongs to the following ethnic and racial groups?

Ethnicity:

Hispanic or Latino _____

Not Hispanic or Latino _____

Race:

American Indian or Alaska Native _____

Asian _____

Black or African American _____

Native Hawaiian or Other Pacific Islander _____

White _____

18. Do you have any other comments?

Thank you for your time!

Cluster Evaluation Core Vendor Survey Questions

Optional introduction if the survey is not part of a larger survey.

This survey asks about your experience accepting *[INSERT FORM OF INCENTIVE OFFERED]*. *[INSERT FORM OF INCENTIVE OFFERED]* are given to market customers to encourage them to shop for healthy food at the market.

18. Do you accept *[INSERT FORM OF INCENTIVE OFFERED]*?

Yes

No



*Thank you very much for your time but the survey questions are meant only for vendors that accept *[INSERT FORM OF INCENTIVE OFFERED]**

Questions 2-5. Because I accept *[INSERT NAME OF INCENTIVE PROGRAM]* this year...

	Strongly agree [5]	Somewhat agree [4]	Neither agree nor disagree [3]	Somewhat disagree [2]	Strongly disagree [1]	Don't know/Not sure
19. I sell more fresh fruits and/or vegetables	5	4	3	2	1	DK
20. I make more money at this market	5	4	3	2	1	DK
21. New customers shop at my stand or stall more often	5	4	3	2	1	DK
22. I have more repeat customers	5	4	3	2	1	DK

23. Have you made any of the following kinds of changes as a result of accepting *[INSERT NAME OF INCENTIVES]*?

Increase in production acreage

Yes No

Developing or offering new or different products

Yes No

Starting a green or hoop house to extend your growing season


Yes No

Buying new equipment or vehicles

Yes No

Other (please specify):

24. In thinking about next year, do you plan to grow or sell new or different products because of **[INSERT NAME OF INCENTIVE PROGRAM]?**

Yes  IF YES: What do you plan to grow or sell?

No

Do not know

25. Because of [INSERT NAME OF INCENTIVE PROGRAM] have you had to pay more workers to help at the market?

Yes  IF YES: How many?

No

Do not know


26. Because of [INSERT NAME OF INCENTIVE PROGRAM] have you had to pay more workers to help on the farm?

Yes  IF YES: How many?

No

Do not know

27. Has your base of customers changed (the people who buy from you) because you accept [INSERT NAME OF INCENTIVES]?

Yes  IF YES: In what ways?

No

Do not know

Cluster Evaluation Program Manager Survey

This survey asks about your experience managing a federal nutrition benefit incentives (e.g., Double Up, Double Value Coupon, Market Match) program. Please answer each question openly and honestly; there are no right or wrong answers. Your individual responses are confidential, and only the evaluation team at Community Science will have access to your responses. We will combine your responses with those of other program managers in evaluation reports. Your participation is voluntary; you can stop at any time and you don't have to answer any question that makes you feel uncomfortable. If you have any questions or concerns regarding this survey, please contact LaKeesha Woods of Community Science at 301-519-0722, ext. 110 or lwoods@communityscience.com. Thank you for your time.

Q1 Which organization do you represent?

- Fair Food Network (1)
- Market Umbrella (2)
- Roots of Change (3)
- Wholesome Wave (4)

Q2 How do you think the Farm Bill will impact SNAP incentive programs?

	Strengths/Opportunities	Weaknesses/Threats
	(1)	(1)
SNAP budget (1)		
EBT technology requirements (2)		
Mobile technology projects (3)		
Rural development grants (4)		
Agricultural and veterinary research (5)		
Local food promotion programs (6)		
Other Farm Bill components (7)		

Q3 Please describe how the Farm Bill will impact the health of SNAP recipients (including specific examples whenever possible):

Q4 Please rank the order of importance of the following factors when considering partnering with a farmer's market (1 = most important, 10 = least important):

- _____ Community partnerships (1)
- _____ Data collection capacity (2)
- _____ EBT capability (3)
- _____ Market maturity (4)
- _____ Number of vendors (5)
- _____ Paid staff (6)
- _____ Promotion and marketing strategies (7)
- _____ Token use practices (8)
- _____ Other: (9)
- _____ Other: (10)

Q5 How many markets do you manage for $\{q://QID2/ChoiceGroup/SelectedChoices\}$?

Q6 How does $\{q://QID2/ChoiceGroup/SelectedChoices\}$ orient new markets to the SNAP incentive program?

Q7 What implemented practices seem to work best to retain partner markets?

Q8 Do you partner with health agencies (i.e. health departments, physical activity and nutrition organizations)?

- Yes (1)
- No (2)

Q9 Please list the name of the organization, the type of agency, and the nature of the collaboration.

	Name of Organization	Type of agency	Nature of collaboration
	(1)	(e.g. health department, nonprofit) (1)	(1)
1 (1)			
2 (2)			
3 (3)			
4 (4)			
5 (5)			

Q10 Do you partner with any food banks or any other ‘food security organizations’?

- Yes (1)
- No (2)

Q11 Please list the name of the organization, location, and the nature of the collaboration.

	Name of Organization	Nature of collaboration	Location
	(1)	(1)	(City, State) (1)
1 (1)			
2 (2)			
3 (3)			
4 (4)			
5 (5)			

Q12 Please describe how these partnerships impact the health of SNAP recipients (including specific examples whenever possible):

Q13 What are some of the strengths and opportunities of partnering with community health organizations? Please provide specific examples where possible.

Q14 What are some of the weaknesses and threats of partnering with community health organizations? Please provide specific examples where possible.

Q15 Please describe your strategies and key partnerships in the following program management areas:

	Strategies	Key Partnerships
Direct-to-consumer marketing (1) Healthy eating education (2) Working with health officials (3) Collecting health data (4) Other program management strategies (5)	(1)	(1)

Q16 Please describe your strategies in the following market management areas:

	Strategies	Key Partnerships
Market recruitment (1) Market health advertising (2) Market retention (3) Collecting market data (4) Other market management strategies (5)	(1)	(1)

Q17 Please upload any organizational philosophy (including mission and vision) documents you believe can help inform future SNAP incentive programs:

Q18 Please upload any structure and management documents you believe can help inform future SNAP healthy food incentive programs:

Q19 Please upload any communications about healthy foods documents you believe can help inform future SNAP healthy food incentive programs:

Q20 Please upload any farmer's market management documents you believe can help inform future SNAP incentive programs:

Q21 Please upload any other document you believe can help inform future SNAP incentive programs:

Q22 What are some of the strengths and opportunities of your organization's approach? Please provide specific examples where possible.

Q23 What are some of the weaknesses and threats of your organization's approach? Please provide specific examples where possible.

Q24 What makes an effective SNAP incentive program?

Q25 Please indicate what you consider the most effective SNAP incentive exchange rates (e.g. dollar for dollar up to X dollars or some other exchange rate):

_____ Rate of SNAP benefit match (per \$1) (1)

Q26 Please indicate what you consider the most effective SNAP incentive maximum:

_____ Maximum SNAP benefit match (in \$) per transaction (1)

How satisfied is your organization with your current benefit match rates?

If you could how what rate would you prefer to have in your incentive program?

Q27 What additional SNAP incentive rate variations do you think maximize the effectiveness of incentive programs?

Q28 Please indicate which health leveraging activities your partner markets provide to customers:

	Provide to customers? (1)	# of participating markets (1)	Relevant details (1)
Healthy eating newsletters (1)	<input type="checkbox"/>		
Cooking demonstrations (2)	<input type="checkbox"/>		
Shopping companions (3)	<input type="checkbox"/>		
Healthy recipe distribution (4)	<input type="checkbox"/>		
Other (5)	<input type="checkbox"/>		
Other (6)	<input type="checkbox"/>		

Q29 Please provide strengths/opportunities and weaknesses/threats of each health leveraging approach. Include specific examples wherever possible.

	Strengths/Opportunities (1)	Weaknesses/Threats (1)
Healthy eating newsletters (1)		
Cooking demonstrations (2)		
Shopping companions (3)		
Healthy recipe distribution (4)		
Other (5)		
Other (6)		

Q30 What kinds of health data do you or your partners collect about SNAP incentive program customers?

Q31 For what purpose are the SNAP incentive program customer health data used?

Q32 Who do you think would use SNAP incentive program customer health data for if they had it readily available?

Q33 What are additional ways to assess the health effects of SNAP incentive programs?

Q34 What specific experiences do you or your partners have of the health impact of SNAP incentive programs?

Q35 What would you like to see highlighted in the final cluster evaluation report?

Q36 Please provide any additional comments that you consider relevant to the final evaluation report.

Cluster Evaluation Program Manager Interview

Framing Effective Approaches to ‘Healthy Food Incentive Programs’: Retrospective Considerations

1. Please consider your organizational and implementation experiences over the last five years and describe **lessons learned** in the following areas:
 - a. What works best to identify, recruit, and partner with prospective farmer markets or other entities (e.g. supermarkets) to run a healthy food incentive program. (Copies of contract forms, memoranda of understanding, or other documents can be included to support identified lessons learned.)
 - b. Factors, conditions, and considerations that have been most critical contributors or barriers to managing an effective healthy food incentive program that is aligned with your advocacy values, philosophy, and organizational objectives.
 - c. What funders of incentive programs should know to sustain funding for programs such as yours. (Consider: your experiences and knowledge of providing ‘healthy food’ incentives to SNAP customers; providing a unique economic opportunities for local farmers; and secondary impact achieved on general market customers, vendors, markets, and the community because of the incentives.)
 - d. Any other lessons learned that you want to share to inform practitioners, funders, the field of practice, and other key groups.
2. In addition to providing monetary incentives to help SNAP customers purchase healthy foods, what other **health-related services** does your program provide or facilitate that are intended to **impact the health** of SNAP customers?
 - a. What impact do you think these services have had on customers’ health?
 - b. What additional program features might you integrate into your current SNAP incentive program to enhance health-related impacts on SNAP customers?
3. Please reflect on the **Farm Bill** and how it might unfold. What final version would most concern and what version would most benefit healthy food incentive practitioners and why? (Consider what outcomes would most enhance/challenge healthy food incentive programs.)

Cluster Evaluation 2012 Market Site Profile Form

	DRAFT DRAFT DRAFT	Market Site#1	Market Site #2	Market Site #3	Market Site #4	Market Site #5
1	What organization(s) run(s) the market?					
2	Market City					
3	Market County					
4	Market State (please use two-letter abbreviations)					
5	Market Zip Code					
6	Zip Codes of farmer/vendors who participate in the SNAP incentive program					
7	What is the market operating period (i.e. year-round or start and end dates)					
8	During what months does the farmers market SNAP program operate?					
9	Total number of unique farmer/vendors (i.e. only count each vendor once) who sold food at the market from January 1st through December 31st.					
10	Total number of unique farmer/vendors who participated in the SNAP benefits incentive program from January 1st through December 31st.					
11	Is the market volunteer run?					
12	Does the site have a 'market manager' that reports data and other pertinent information to program leads?					
13	Please list any partners, including funders, whose support enables the incentive program to operate.					
14	What is the dollar amount of the incentive match? (For every \$1 in SNAP benefits, what additional dollar amount worth of food are they able to purchase?)					
15	Does the incentive amount remain constant during the year or does it vary?					
16	Number of total paid staff positions involved in operating incentive program. Include any full or part time staff positions who directly contribute to the operation of the incentive program					
17	Number of hours spent by paid staff involved in operating incentive program.					
18	Average hourly salary rate of any paid staff working directly and/or indirectly involved in operating incentive program.					
19	Any other pertinent characteristics of the site?					
	NOTES					

Cluster Evaluation 2012 Market Sites Monthly Transactions Reporting Form

		January	February	March	April	May	June	July	August	September	November	December
1	Incentive amount for every \$1 of SNAP benefits (e.g., if a customer using the incentive can obtain \$1.50 worth of food for \$1 worth of SNAP benefits enter .50)											
2	Maximum amount of SNAP incentive benefits that a customer can receive per market day (e.g., if a customer is only allowed to get incentives to match \$35 worth of SNAP benefits enter \$35; if there is no maximum enter no maximum).											
3	Number of market days											
4	Total number of market food vendors (count each vendor only once per month)											
5	Total number of market vendors participating in the incentive program (count each vendor only once per month)											
6	Total number of new market vendors (ones who did not participate in prior months) participating in incentive program.											
7	Total number of SNAP transactions											
8	Total number of first time SNAP transactions (new SNAP customers at the market)											
9	Total amount of SNAP benefits distributed											
10	Total amount of SNAP benefits redeemed											
11	Total amount of SNAP benefits redeemed for fruits and vegetables (if this differs from 10)											
12	Total amount of SNAP incentive benefits distributed											
13	Total amount of SNAP incentive benefits redeemed											
14	Total amount of SNAP incentive benefits redeemed for fruits and vegetables (if this differs from 13)											

Appendix C: Economic Impact Report

Federal Nutrition Benefits and Consumer Incentives at Farmers Markets: A National Assessment of Economic Benefits

Carolyn Dimitri¹⁴

Abstract: The use of federal nutrition benefits and incentives at farmers markets is a recent phenomenon, and are intended to increase food access for consumers with limited financial and geographic access to food. At the same time, the federal nutrition benefits and incentives provide market vendors with increased revenues. This paper quantifies the effect of the incentives and federal benefits used in 349 farmers markets around the United States in 2011, and estimates the economic impact of these payments by providing an estimate of the range of the level of economic activity and jobs created or saved. The economic benefits of all forms of federal nutrition benefits ranges from \$2.7 million to \$5.4 million, with a range of 30 to 60 jobs created. If such a program were implemented at all 7,175 farmers markets, at current levels, the economic impact would range from \$55 million to \$111 million, as well as create between 610-1,200 jobs.

Introduction

Farmers markets have the potential to bring multiple benefits to participants, with the benefits extending beyond the market location, encompassing a relatively wide region. More specifically, benefits accrue not only to the consumers who shop in the markets and the neighborhoods where the markets are located, but also expand to the farmers, and the communities in which they farm and live. Non-economic benefits of farmers markets include the provision of healthful food in neighborhoods with limited food access, increased supply of healthy food in areas with adequate food access, enhancing the viability of small and medium size farms thereby preserving rural amenities through the support of local agriculture, and the ability for consumers and farmers to engage in face-to-face contact. Economic benefits, the topic of this paper, of the incentive programs are

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potentially significant, and include creation of jobs in the farmers' communities as well as enhanced economic activity in areas near the market.

The farmers markets in this study all accept federal nutrition benefits as payment for food, as well as provide incentives to consumers (i.e. matching funds for their purchases made with federal benefits). The creation and preservation of markets in areas with a large population of underserved households potentially provides dual benefits in terms of economic development and greater food access. Thus, the combination of farmers markets, federal nutrition benefits and incentives has the potential to provide economic benefits to multiple parties: (1) farmers markets, (2) farmers, (3) neighborhoods surrounding farmers market, and (4) the farmers' communities. The benefits are interdependent, in the sense that a successful market is more likely to provide farmers and communities with economic benefits; neighborhoods with many shoppers can better support the market; and farmers are an essential part of market success.

The revenues earned by markets clearly contribute economic benefits during the year a market is open. While logic suggests that the effect on economic development likely persists over a longer time period, the current state research of research does not directly address the effect of farmers markets in all of their current settings. The bulk of the research considers the long term impact of farmers markets on rural development and those yield mixed findings. Increased value added activities of farmers increases farmer income, but does not always result in more farms and jobs (Van Der Ploeg and Renting, 2000). There is a void in the literature regarding the economic impact of urban farmers markets. However, there is an appealing intuition that suggests that economic impacts are likely to have a significant inter-temporal component: after all, a vibrant market is likely to

remain in business for many years, and will contribute economically to the farmers, consumers, and neighborhood. The more stable the market, the greater is its likely contribution to local community development, farmer income, and the higher the likelihood that a farmer will expand acres planted or change the mix of crops planted to meet demand of consumers at the market (Feenstra et al, 2003). The farmer response, in terms of product mix and quantity of food brought to the market, has a feedback effect on future economic benefits, as these factors potentially increase the success of a market over time.

Despite the intuitive appeal of the positive economic effects of farmers markets and local spending on communities, quantifying the benefits is not straightforward. Because markets for goods and services are linked across the nation (and the world), the effects of a purchase made in a farmers market in NYC will likely be spread around the globe. As a result, the modeling methodology is complex and requires detailed information about the economies in different regions. This paper presents an initial assessment of the national level economic benefits of the incentive programs for federal nutrition benefit customers that are administered by four organizations (Wholesome Wave, Roots of Change, Market Umbrella, and Fair Food Network) in 349 farmers markets around the United States. Three of the not-for profit organizations match all types of federal nutrition benefits (although not at all participating markets) accepted at farmers markets and through CSA farms, including those for senior citizens (Senior FMNP) and Women, Infants and Children (WIC FMNP and WIC Cash Value Voucher or CVV). Some markets sponsored by one organization also match SSI cash. One organization matches only Supplemental Nutritional Assistance Program funding (SNAP). The national analysis is based on SNAP-specific multipliers

developed by the Economic Research Service of US Department of Agriculture (Hanson, 2010). We defer estimating the regional economic effects of the combination of SNAP and incentives for specific farmers markets to future research.

Background and related literature

Literature on profitability of farmers markets

For a farmers market to have maximum economic impact on communities, at a minimum, the market must be viable and successful. Despite the ubiquitous nature of farmers markets, their success is not guaranteed, with market failure occurring relatively frequently. For example, a study of farmers markets in Oregon indicates that, between 1998 and 2005, 62 new markets opened and 32 of these markets did not reopen (Stephenson, Lev, and Brewer, 2008). While the situation in Oregon might not be indicative of the entire nation, the state's experience does indicate that the success of a market is not guaranteed. That said, success of a farmers market should be measured by more than just financial factors (Schmit and Gomez, 2011).

Scale is important in determining whether a market will succeed, with some studies showing that smaller markets are more likely to fail (Schmit and Gomez, 2011; Stephenson et al, 2008). Another critical factor contributing to success of a market is the range of products available for sale. A lack of products, which includes the quantity of products brought to market as well as the range of fruit and vegetables, contributes to market failure (Stephenson et al, 2008). Similarly, farmers participating in markets with a greater number of vendors are more likely to report being satisfied (Schmit and Gomez, 2011). That said, a recent study has shown that farmers in small and medium sized markets (as indicated by the number of farmers) are more likely to report increased sales due to incentive

programming (Oberholtzer, Dimitri and Schumacher, In press). Along the same line of reasoning, success of a market is also related to having enough consumers shopping at the market (Oberholtzer and Grow, 2003; Hughes et al, 2008).

Farmers selling in direct markets bypass the wholesale channel, which consists of distributors, wholesalers, retailers, and other intermediaries, but this does not guarantee higher profits. Farmers face higher marketing costs when selling direct to the consumer than when selling into wholesale channels, with much of the higher costs attributable to labor (Hardesty and Leff, 2010). Thus, the reliance on direct markets does not necessarily increase farmer profits. Research indicates that direct marketing results in an increase in farmer income (Govindasamy et al, 1999).

For federal nutrition consumers, shopping at the farmers market is easier and more affordable (or accessible) when they can make purchases using their federal nutrition benefits. Locating markets near SNAP offices would make it possible for low-income consumers to purchase more produce (Schmit and Gomez, 2011). Statistics indicate that redemption of SNAP benefits at farmers markets increased 74 percent between 2009 and 2010 (Love, 2011). In 2010, across the nation, the average SNAP farmers market sale was \$16.69, with over 453K transactions taking place in direct markets (Love, 2011). Whether and how increased use of benefits at markets, and under which conditions, translates to increases in the sales of individual farmers is an empirical question. However, research suggests that market characteristics are equal in importance to farmer characteristics in determining whether incentives increase farmer sales (Oberholtzer, Dimitri and Shumacher, 2012).

Markets, economic development, and multiplier models

Measuring the impact of spending on local and national economies is a key component of assessing community economic development, particularly within the context of understanding whether new businesses or increased government spending are enhancing community economic development. Typically, regional-input output models are used to assess community economic development, and such analyses rely on “multiplier models.”

Multiplier models form the cornerstone of macroeconomics, and provide an explicit link between spending, economic activity, and employment. The premise of the multiplier model is that new sources of money (such as government spending) have a multiplicative effect on economic activity. Ultimately, the final increase in economic activity is much higher than the initial injection of cash into the economy. The higher level of economic activity is the cumulative result of the multiplier effect, which is dependent on the assumption that consumers, when receiving money, will spend a portion and save the remainder; the amount spent depends on the consumer’s marginal propensity to consume, which is the share of the additional funds he/she uses for consumption (less than 1). For example, if a person receives \$100, and her marginal propensity to consume is 0.7, then she will spend \$70 and save \$30 (see table). The next person will receive the \$70, and of this amount, \$49 is spent and \$21 is saved. Out of the \$49 spent, the next consumer will spend \$34 and save \$15. The money will flow through the economy in this way, and the cumulative effect on the economy will be \$330, which is significantly larger than the original \$100.

Table 1. How \$100 of stimulus spending creates \$330 of economic activity

Marginal contribution to economic activity		Consumed	Saved
<i>Dollars</i>			
(initial amount)	100	70	30
(additional consumption)	70	49	21
(additional consumption)	49	34	15
(additional consumption)	34	24	10
(additional consumption)	24	17	7
(additional consumption)	17	12	5
(additional consumption)	12	8	4
(additional consumption)	8	6	2
(additional consumption)	6	4	2
(additional consumption)	4	3	1
(additional consumption)	3	2	1
(additional consumption)	2	1	1
(additional consumption)	1	1	0
Cumulative effect: 330 (sum of first column of numbers)			

Note: This table assumes the marginal propensity to consume = 0.7

Research has shown that spending by low-income households has a higher impact on the local economy than does that of high-income households (Bernat and Johnson, 1991). This result follows from the empirical finding that high income households save a higher percent of their income, in comparison to low income households (Dynan, Skinner and Zeldes, 2004). In other words, low income households have a higher marginal propensity to consume than do high income households, and consequently, the cumulative multiplier effect from low income households is greater than that from high income households. Additionally, differences in the impact on economic activity have been found between rural and urban consumers. When a consumer is forced to shop outside of his or her region, a greater share of income and activity “leaks” out of the regional economy. The greater the leakage, the smaller the multiplier will be. Research indicates that the more often rural households shop at distant urban centers, the smaller the local multiplier (Olfert and Stabler, 1994). Along this line, the more shopping a household can “do” in the community, the greater the impact on the local community. Rural centers that are

intermediate-sized, with enough shopping amenities, will have the largest multipliers (Olfert and Stabler, 1994).

The community economic development literature uses input-output models to estimate economic impacts (Martinez et al, 2010). The model used most often is the packaged program, "IMPLAN". The model, developed by the Minnesota IMPLAN Group, Inc. (see www.implan.com) is a region-specific model that relies on social accounting matrices to predict the flow of dollars and jobs in a region. The model is used to assess the impact of base closures, for example, or the effect of government stimulus spending. Conducted on a regional level, the total effect is estimated as the sum of direct, indirect and induced effects of the event (such as increased government spending of a certain amount). Using the case of increased government spending of \$400B as an example, the direct effects equal the initial amount spent (\$400B in the example). The indirect effects equal the resultant spending by other local and regional businesses. The induced effects consider the cumulative multiplier effect of spending by workers in the region (see the IMPLAN website for more information http://www.implan.com/v3/index.php?option=com_content&view=article&id=282%3Awhat-is, 2012).

Numerous researchers have estimated the local economic impacts of farmers markets and select aspects of agricultural sectors using the IMPLAN model. Most recently, the IMPLAN model estimated that the organic industry created over 500K jobs in 2010 (OTA, 2012). The economic impact of 12 specialty crops plus dairy, grown in California, is estimated at \$10.8 billion of output, and about 93K jobs a year (Tootelian et al, 2012). The statewide economic impact of the 2004 farmers market season in Iowa was estimated at \$31.5 million of sales and \$12.2 of personal income (directly and indirectly related to the

activity at farmers markets). Further, 140 full time jobs were indirectly related to the farmers market (Otto and Varner, 2005). Agritourism (largely farmers markets and other direct marketing ventures) in Maine generated approximately \$41 million in economic activity and 1900 jobs in 2005 (Allen et al, 2006). Similar results were found for farmers markets in Oklahoma, where economic activity and jobs multipliers were estimated between 1.41 and 1.78 (Henneberry et al, 2009).

An alternative to the IMPLAN model is the use of RIMS II input-output multipliers to estimate economic impact. The RIMS II multipliers were developed by the U.S. Bureau of Census, and users can buy either regional or industry level multipliers (<https://www.bea.gov/regional/rims/rimsii/>, 2012). Future research that examines the regional effects of incentives and federal nutrition benefits in specific farmers markets will make use of these multipliers.

Researchers at the Economic Research Service (USDA) use a similar methodology to estimate linkages between domestic food assistance, agriculture and the economy. The model – Food Assistance National Input-Output Multiplier (FANIOM) – is specifically designed to measure the effectiveness of federal nutrition benefits as a stimulus to the economy (Hanson, 2010). The authors use an input-output model to develop a range of multipliers that can be used to estimate the effect of SNAP spending on economic activity. We use the ERS approach because their multipliers specifically target federal nutrition benefits, which are the subject of this study.

Federal nutrition recipients use their benefits quickly, and thus the funds expended enter the economy quickly. When a consumer receives federal nutrition benefits, he or she will shift some of their cash from food to nonfood expenditures. However, overall food

consumption (and expenditures) does rise. Because of this partial substitution of noncash items towards nonfood items, a consumer's marginal propensity to consume from federal benefits will be less than one. Empirical research estimates that the marginal propensity to consume from SNAP benefits is in the range of 0.23 to 0.35; the ERS model is based on the assumption that food expenditures will increase by 26 percent of the increase in SNAP benefits (Hanson, 2010).

Using the FANIOM input-output model, ERS researchers developed a range of multipliers that can be used to assess the effect of SNAP purchases on economic activity (as measured by gross domestic product) and employment. As the table shows, three multipliers capture the range of economic activity. The first, type I, includes the direct and indirect effects that result from SNAP expenditures. The direct effects in this case accrue to the firms producing and distributing the food purchased by the federal nutrition customers. The indirect effects resulting from the SNAP purchases are the result of increased demand for food products, which is heavily weighted towards farm products. The type II multiplier expands on the type I multiplier by adding the multiplicative induced effects of labor income (jobs saved and created) on economic activity, which results from the amount of spending on goods and services that result from the increased/preserved labor earnings. The type III multiplier adds in the impact on economic activity from capital earnings (for example, dividends, interest, rent, retained earnings, depreciation and profit tax).

The input-output models typically assume that some of the products that consumers purchase are imported and thus the multipliers have been adjusted to account for imports. The jobs impact (or employment multiplier) is measured in terms of the number of full-

time, part-time and self-employed positions created. However, it is important to note that ERS suggests the jobs created, as defined, is more appropriate for assessing the jobs impact of a new industry than for the effect of increased household expenditure (such as increased SNAP spending). The ERS researchers further suggest that the type III multipliers from input output models tend to overestimate the number of jobs created, when compared to other methods, such as the number of jobs per 1 percent change in GDP. Thus the estimated number of jobs created, as based on the employment multiplier, is likely to exceed the actual employment change.

Table 2. Multipliers used to predict effect of federal benefits on macroeconomic variables

Multiplier	GDP	Jobs per million \$ GDP
GDP – type I	0.89	9.8
GDP – type II	1.45	15.9
GDP - type III	1.79	19.8

Note: Jobs per million dollars of GDP was inferred by author, based on work by Hanson, 2010.

Source: ERR-103, Hanson, 2010.

Application to SNAP Expenditures, Federal Nutrition Benefits, and Incentives

In 2011, in the 349 partner markets, a total of \$1,454,000 of SNAP benefits was redeemed. These purchases were matched by incentives valued at \$938,000, which is an average of 65 cents of incentive per dollar of SNAP benefit spent. The partner markets received an additional \$421,000 of Senior FMNP, WIC FMNP AND CVV, and other federal benefits during 2011, and \$215,000 of matching incentives for these other federal nutrition benefits.

The multipliers developed by ERS, listed in the table, can be used in conjunction with the expenditures via SNAP, federal nutrition benefits, and incentives to develop an

estimate on the aggregate level of economic activity and jobs created or saved. Note that the economic impact shown in the table is measured on a national basis; allocating benefits across markets or to specific regions is not possible given the level of information currently available.

The three types of multipliers provide an estimate of the range of economic benefits that accrued from using federal benefits and incentives at the farmers markets in 2011. Because all of the organizations provided matching incentives for SNAP, and only three matched other forms of federal benefits (such as Senior FMNP or WIC FMNP or CVV), the estimates of economic activity are presented in two segments. The first presents estimates for the economic activity resulting from expenditures using SNAP and incentives for SNAP. The second category extends beyond SNAP and includes the other forms of federal benefits accepted at the market, as well as incentives. The same multipliers are used when calculating the level of economic activity and jobs created/saved associated with federal nutrition benefits and incentives.

As the table shows, the estimated economic activity from SNAP benefits ranged from a low of \$1.3 million to a high of \$2.6 million, depending on whether the indirect and induced effects were included. An estimated 14 to 23 jobs were created or saved. Adding the incentives to the SNAP benefits increases the amount of economic activity to the range of \$2.1 million to \$4.3 million, which created or saved an estimated 23 to 47 jobs. When all forms of federal nutrition benefits are included in the analysis, the estimated level of economic activity ranges from \$1.7 million to \$3.3 million, which is associated with 18 to 37 jobs. Adding in the incentives on the federal nutrition benefit expenditures suggests that the estimated level of economic activity resulting from expenditures using federal nutrition

benefits and the incentives ranges from \$2.7 million to \$5.4 million during 2011. The number of jobs created or saved ranges between 30 and 60.

Table. Economic impact of farmers market use of SNAP, federal benefits, and incentive expenditures

	SNAP	SNAP+ incentives	SNAP + other benefits	SNAP, other benefits + incentives
	<i>Economic activity, dollars</i>			
Type I	1,293,960	2,129,205	1,669,040	2,695,369
Type II	2,108,138	3,468,929	2,719,223	4,391,332
Type III	2,602,460	4,282,333	3,356,834	5,421,024
	<i>Number of jobs created/saved</i>			
Type I	14	23	18	30
Type II	23	38	30	48
Type III	29	47	37	60

Notes: Jobs created are FT, PT and SE. Economic activity is measured by GDP. Estimates of economic activity are based on SNAP expenditure multipliers created by USDA ERS (2010), which are shown in the previous table. Estimates are based on data on federal benefits and incentives redeemed at the markets, which were provided by Wholesome Wave, Fair Food Network, Market Umbrella and Roots of Change.

Several caveats are important to note here. The first is that the number of jobs created was likely less than the amount specified in the previous table. As noted by USDA, the number of jobs that were created because of SNAP expenditures is likely less than the amount predicted by the employment multiplier.

Next, the three types of economic activity multipliers are specific to stimulus spending by a government, such as SNAP dollars. Essentially, the level of economic activity estimated is dependent on the flow of new (ie stimulus) funds into the economy. This has implications for how to measure the effect of incentives on economic activity, which will partially depend on the source of the incentive funding. Possible sources of incentive funds are (1) philanthropic dollars, (2) grant money from the federal government, or (3) other forms of government spending. In the case when the incentives are funded through

government dollars, the level of economic activity estimated (and shown in the table) is a reasonable approximation. If incentives are received from private funders, then the level of economic activity is overstated, and would be less than the amount in the table.

Lastly, the multipliers assume the SNAP dollars are used in the traditional food channels, such as supermarkets, and includes imported food as noted previously. The input-output model assumes that SNAP expenditures will ripple through the food system, from retailers back to farm, relying on wholesale-transportation network, with a share going through processors and manufacturers. The assumptions are that a \$1 billion of food expenditures are allocated: (1) 26.2 percent to retailers, (2) 11.7 percent to wholesale-transportation, (3) 56.5 percent to food processors, and (4) 5.6 percent to the farm. Of the \$1 billion, in this model, about \$267 million ends up as increased agricultural production. In the case under consideration, where federal benefits and incentives are used in a direct marketing situation, the effect on economic activity might possibly be greater for the farmer since there is less potential for leakages out of the community. However, to date, research has not directly estimated the size of the multiplier for sales made through direct markets. Future research into the size of multipliers would make it possible to refine the estimate of economic activity for sales that take place in a direct market system.

Potential effects of federal nutrition benefits and incentives

One useful way of assessing the potential effect of federal nutrition benefits and incentives on economic activity and job creation is through a simple simulation, based on the supposition that all farmers markets in the country accept federal benefits, and that markets have incentive programs. Using the data provided by the partner markets, discussed earlier in the paper, the average level of SNAP, other federal benefits, and

incentives, per market in 2011 was approximately \$8,700. According to USDA, in 2011, there were approximately 7,175 farmers markets in the United States (USDA AMS, 2011). If each market received revenues equal to the average level of federal nutrition benefits plus incentives over the course of a year, the total expenditures using would sum to \$62 million. The multipliers presented in table 1 suggest that the total economic activity generated would be in the range of \$55 million to \$111 million, and the number of jobs created would be in the range of 610 to 1200.

This type of simulation is useful to explore the potential of using incentives and federal nutrition benefits on a wider scale. Both the simulation based on the extrapolation of the performance of the 349 partner markets and the actual experience in the partner markets in 2011 provides estimates of economic activity on a national scale. However, the distribution of economic activity is likely to be uneven around the country. The factors determining the level of economic activity are related to how much of the income earned at the markets “leaks” out of the regional economy. The factors that contribute to leakages, and indirectly to the strength of the multiplier, are (1) the relative weights of low and high income households, (2) how incentives are funded (government or private funds), (3) the vibrancy of the farmers markets participating in the incentive programs, and (4) the level of business activities in the communities located near the farmers. For (4), the key factor influencing economic activity is whether enough of the income received at the farmers markets can remain in the farming community. These factors will vary across regions in the US.

Communities that will receive the highest economic impact are those with plenty of local/regional businesses, those with farmers who sell their food at vibrant markets with a

lot of foot traffic, those receiving incentives funded by government spending, and those with a high proportion of low-income households that are eligible to receive federal nutrition benefits. Communities that will receive the lowest impact are those with few businesses, so that most of the income earned at the market will leak out into a wider community. Similarly, communities with many high-income households save a higher share of income. Extrapolating from the literature on economic development and economic multipliers, it is likely that urban markets located in low income neighborhoods would create the largest levels of economic activity for those participating in incentive programming. Since these are often areas with high levels of need in terms of access to healthful food, these results indicating that use of incentives and federal benefits are mutually reinforcing. In other words, in areas with a sufficiently large customer base, incentives for purchasing healthy food at farmers markets have the potential to simultaneously support meeting two critical social needs: enhanced food access and greater economic activity.

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Appendix D: Data Collection Framework

Evaluation Question	Data Needed (by market site)	Source of Data
Description of the markets	a. Total number and location of markets participating in incentive programs	<ul style="list-style-type: none"> Market Site Profiles
	b. Number and location of markets in cluster evaluation	<ul style="list-style-type: none"> Market Site Profiles
	c. Characteristics of markets (e.g., size, number of years markets have used EBT and participated in SNAP, market operating period)	<ul style="list-style-type: none"> Market Site Profiles Monthly Transaction Reporting Form Market Manager Survey Q14-16
	d. Demographic characteristics of communities in which markets are located	<ul style="list-style-type: none"> Program managers Existing demographic data
	e. Demographic characteristics of market customers	<ul style="list-style-type: none"> Program managers Existing demographic data Market Manager Survey Q17
1. How have SNAP recipients' food purchasing behaviors changed?	a. Total number of SNAP transactions per market day	<ul style="list-style-type: none"> Market Manager Survey Q8 (per month)
	b. Total number of first time SNAP transactions per market day	<ul style="list-style-type: none"> Consumer Survey Q1 (frequency of administration of this survey will vary site; yields some information about proportion of 1st time users) Monthly Transaction Reporting Form
	c. Total dollar amount of SNAP benefits <u>distributed</u> and <u>redeemed</u> per market day	<ul style="list-style-type: none"> Monthly Transaction Reporting Form (year-end reports from each program manager about each of their sites)
	d. Total dollar amount of SNAP benefits <u>distributed</u> and <u>redeemed</u> in the year prior to the incentive program	<ul style="list-style-type: none"> Monthly Transaction Reporting Form (in total, and fruit and vegetables if different)

Evaluation Question	Data Needed (by market site)	Source of Data
	e. Total dollar amount of incentive benefits <u>distributed</u> and <u>redeemed</u> per market day	<ul style="list-style-type: none"> Monthly Transaction Reporting Form
Data Collection Process <ul style="list-style-type: none"> Market Manager (MM) uses form to report data to Program Manager (PM) through established reporting systems. PM electronically submits data to CS. 		
2. How have the healthy food incentive programs affected local farmers (e.g., revenues, jobs) and the local economy in which they operate?	a. Total number of vendors participating in the incentive program – absolute number and as a percentage of total vendors in the participating markets	<ul style="list-style-type: none"> Market Site Profiles Monthly Transaction Reporting Form Market Manager Survey Q5 Program managers
	b. An estimate of the job creation/retention impact (for the farmers) of having the incentive program in place	<ul style="list-style-type: none"> Vendor Survey Q8-9 Larger economic impact: Vendor Survey Q2-7 Monthly Transaction Reporting Form (total number of new market vendors) Program managers
Data Collection Process <ul style="list-style-type: none"> CS develops calculation instructions and data collection form Data calculation is used by MM to estimate/document vendor count (absolute and percentages in participating markets). MM forwards data to PM. PM transmits same to CS. CS team (including economic consultant) works with PM to determine best approach to estimating job creation. MM executes data collection strategies and forwards data to PM. PM transmits same to CS. 		
3. What are the revenue and cost	a. Revenue from vendor stall rentals	<ul style="list-style-type: none"> Vendor Survey Q2-3 Interviews with program managers

Evaluation Question	Data Needed (by market site)	Source of Data
implications of implementing the incentive program?	b. Number of hours spent by staff who are directly or indirectly involved in operating the program and their average salary and type of work (e.g., administrative, communications)	<ul style="list-style-type: none"> • Market Site Profile • Market Manager Survey Q1 (paid staff) & Q2 (volunteers) • Market Manager Survey Q3 • Program managers
Data Collection Process		
<ul style="list-style-type: none"> • MM implement data collection accordingly and forward data to PM. • PM and CS reviews data projection/estimates and articulation of revenue cost implications. 		
4. What are the essential strategies and components of an effective healthy food incentive program?	a. Number, type, role, and contractual relationship of partnerships	<ul style="list-style-type: none"> • Market Site Profile • Market Manager Survey Q7 • Program managers and leads
	b. Outreach, promotional, and marketing strategies	<ul style="list-style-type: none"> • Market Manager Survey Q6 • Program managers and leads
	c. Program and site staff capacity (e.g. , knowledge and skills in program management, knowledge about and commitment to healthy food incentive-related issues)	<ul style="list-style-type: none"> • Market Site Profile • Market Manager Survey Q4 • Market Manager Survey Q9 • Market Manager Survey Q13 • Program managers and leads • Materials organizations use to determine markets' capacity to implement a successful incentive program (extract key themes and approaches)
Data Collection Process		
<ul style="list-style-type: none"> • CS designs in-depth interview protocol informed by discussions with program managers to gather data, stories, and related qualitative information (emerging themes/issues in the field of practices) that captures insights. • Ask program managers for organizational information. <ul style="list-style-type: none"> - Telephone interviews with program managers and their staff to identify major thematic responses. - Survey to capture insights from organization staff and leadership - Copies of supporting materials (e.g., contracts and scopes of work, marketing materials, current/future program strategy plans) 		
5. What are the	a. Demographics of surrounding community	<ul style="list-style-type: none"> • Program managers

Evaluation Question	Data Needed (by market site)	Source of Data
factors and conditions that can affect the implementation of an effective healthy food incentive program?	b. Demographics of SNAP participants	<ul style="list-style-type: none"> • Vendor Survey Q10 • Customer Survey Q9-11 • Market Manager Survey Q17
	c. Location and friendliness of site	<ul style="list-style-type: none"> • Market Site Profile (vendor characteristics) • Market Manager Survey Q14-15 • Program managers (including a survey-type question about degree of friendliness)
	d. Availability of fresh fruits and vegetables (e.g., number of supermarkets within certain proximity)	<ul style="list-style-type: none"> • Customer Survey Q1 (Asks about ease of finding fresh fruits and vegetables in neighborhood) • Program managers (including a survey-type question about degree of availability) • Materials organizations use to determine markets' capacity to implement a successful incentive program (extract key themes and approaches)
	e. Availability of funding	<ul style="list-style-type: none"> • Program managers
	f. Other factors and conditions	<ul style="list-style-type: none"> • Materials organizations use to determine markets' capacity to implement a successful incentive program (extract key themes and approaches related to a-e also)
Data Collection Process <ul style="list-style-type: none"> • CS designs in-depth interview protocol informed by discussions with program managers to gather data, stories, and related qualitative information (emerging themes/issues in the field of practices) that captures insights. • Ask program managers for organizational information. <ul style="list-style-type: none"> - Telephone interviews with program managers and their staff to identify major thematic responses. - Survey to capture insights from organization staff and leadership • Copies of supporting materials (e.g., contracts and scopes of work, marketing materials, current/future program strategy plans) 		

Appendix E: Quantitative Summary Data for Each Cluster Organization

Program Name	2012 SNAP Dollars Distributed (Total Dollars in SNAP Benefits)	2012 SNAP Dollars Redeemed/ Spent	2012 Incentive Dollars Distributed	2012 SNAP Incentive Dollars Redeemed	Number of Markets	Number of States	Participating Farmers/ Vendors	Number of Customers (SNAP)
Fair Food Network (FFN)	\$1,027,225.65	\$968,694.88	\$888,320.69	\$783,580.57	75	1	700	89,428
Market Umbrella (MU)	\$34,034.00	Not reported	\$10,761.00	Not reported	3	1	72	1,522
Roots of Change (ROC)	Not reported	\$523,365.00	\$156,348.00	\$153,695.00	134	1	840	17,358
Wholesome Wave (WW)	\$1,008,134.00	Not reported	\$616,539.00	\$610,990.00	306	25*	3,240	23,290
TOTAL	\$2,069,393.65	\$1,492,059.88	\$1,671,968.69	\$1,548,265.57	518	25*	4,852	131,598

*Note: This is made up of 24 states and the District of Columbia.