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*The Evaluation of Food Insecurity
Nutrition Incentives (FINI)
Interim Report*

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Food and Nutrition Service
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The Evaluation of Food Insecurity Nutrition Incentives (FINI) Interim Report

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Executive Summary

The Agricultural Act of 2014 (P.L. 113-79) (the Act) established the Food Insecurity Nutrition Incentive (FINI) grant program. FINI is collaboratively administered by the U.S. Department of Agriculture's (USDA) Food and Nutrition Service (FNS) and National Institute of Food and Agriculture (NIFA). Through FINI, USDA provided \$86.1 million in grants to organizations to design and implement projects to increase fruit and vegetable purchases among Supplemental Nutrition Assistance Program (SNAP) participants by providing incentives at the point of purchase.

Between 2015 and 2017 (three years), a total of 82 grants were awarded to government agencies and non-profit organizations to implement pilot projects, community-based projects, or large-scale projects. Pilot projects include those in the early stages of incentive program development. Community-based projects include those that test strategies that could increase the purchase of fruits and vegetables of SNAP participants, develop effective and efficient benefit redemption technologies, and inform future efforts. Large scale projects include those that test strategies to contribute to our understanding of how best to increase the purchase of fruits and vegetables by SNAP participants and to inform future efforts. Of the 82 grants, 51 projects were community-based or large-scale. The Act also directed USDA to conduct an independent evaluation of the FINI grant program to measure short-term changes in fruit and vegetable purchases and basic measures of nutrition and health status among SNAP participants.

The FINI evaluation has three research objectives:

1. Document each nutrition incentive program by describing its design and operations to identify (a) barriers to and facilitators of implementation and (b) specific lessons learned to support replication of successful programs;
2. Assess the effectiveness of FINI in increasing fruit and vegetable purchases and consumption among SNAP participants; and
3. Compare the relative outcomes of different forms of incentives to help determine the most effective and efficient strategies for using incentives to increase purchase and consumption of fruits and vegetables among SNAP participants.

This interim report focuses on the first two research objectives. Through a process evaluation, this report summarizes FINI implementation through September 2017. Results from an outcome

evaluation provide the estimated impact of FINI on SNAP participant fruit and vegetable expenditures and consumption. The evaluation included large-scale and community-based FINI grantees; pilot grantees were not included. The process and outcome evaluation results were based on data collected from FINI grantees, retailers offering incentives, and SNAP participants. Results presented in this report include data collected from the first three rounds of FINI grantees; results that include FINI grants awarded in 2018 will be included in the final report.

The evaluation found a positive, but modest, impact of FINI on monthly household fruit and vegetable expenditures (up to \$15.32/month) and found no measurable impact on daily adult fruit and vegetable consumption. The likely driver of these results was the relatively low level of awareness and use of FINI among SNAP participants.

Evaluation Design

The FINI grant program evaluation included process and outcome evaluations. The process evaluation described the FINI program models, contexts in which they operated, and grantees' implementation experiences. The process study was informed by information collected from grantees, retailers, and secondary sources. Data collected from grantees included FINI grant applications; grantee program data (i.e., Core Program Data); and interviews with grant program administrators. Information about FINI implementation was collected from retailers through a survey. Other information such as characterizing the neighborhood environments where FINI retailers were located and SNAP Electronic Benefit Transfer (EBT) transactions at FINI retailers were gathered from secondary sources such as from the U.S. Census Bureau and from FNS.

The outcome evaluation assessed SNAP participant awareness and receipt of incentives and measured the impact of FINI on two primary outcomes—increasing fruit and vegetable (1) purchases and (2) consumption—and several secondary outcomes (e.g., shopping patterns, adult food security). Program impacts were estimated by comparing SNAP households with access to FINI (the treatment group) to a matched comparison group with no access to FINI. This comparison identified the share of observed changes in outcomes that were attributable to FINI versus the changes that reflected general trends among a group of similar households that were not receiving FINI. A baseline and a 6-month follow-up survey with SNAP participants served as the primary data sources for this examination.

Four treatment and matched comparison study groups of SNAP participants were sampled. The four treatment groups are as follows: (1) **Farmers Market General (FMG)**: SNAP participants who lived near a sampled farmers market that offered FINI; (2) **Farmers Market Shoppers (FMS)**: SNAP participants who lived near a sampled farmers market that offered FINI *and* who had shopped there within the last year; (3) **Grocery Store Group (GSG)**: SNAP participants who lived near a sampled grocery store that offered FINI; and (4) **Grocery Store Shoppers (GSS)**: SNAP participants who lived near a sampled grocery store that offered FINI *and* who had shopped there in the last year. The analysis included 2,471 SNAP participants who responded to the baseline and 6-month follow-up surveys.

Findings

FINI Reach and Scope

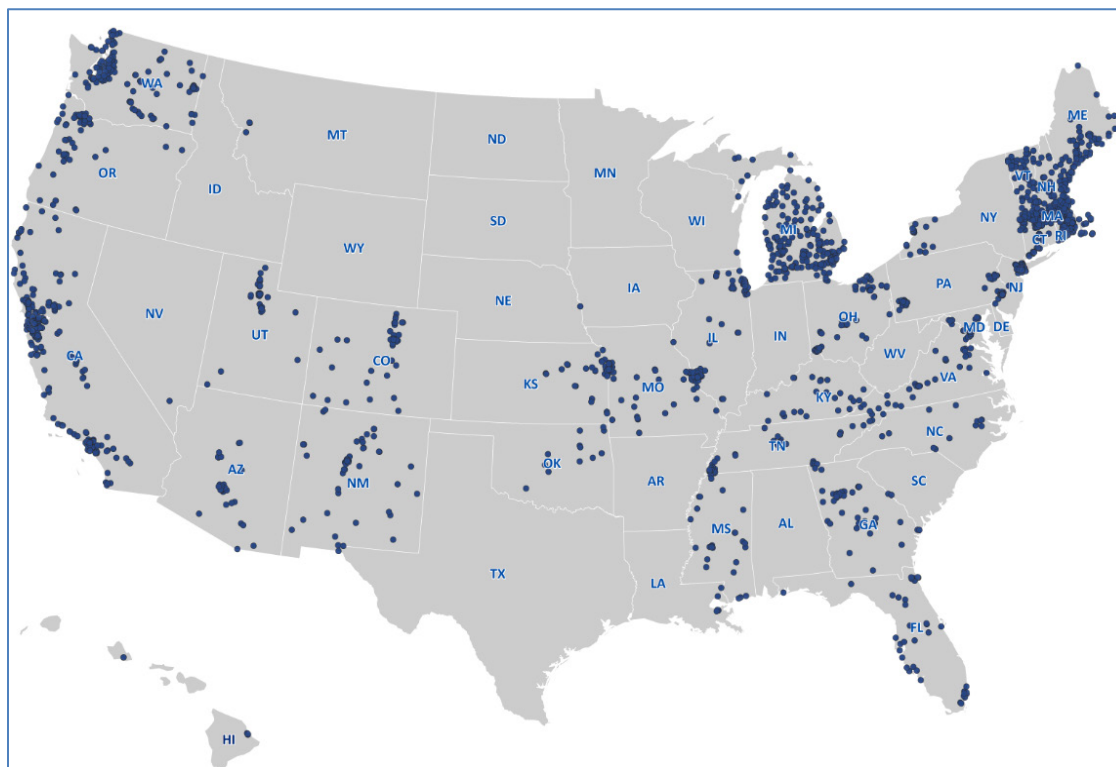
The FY 2015,¹ 2016, and 2017 grantees began implementing FINI at participating SNAP retailers in the second quarter of each calendar year. Over the course of 10 calendar quarters (Q2/2015 through Q3/2017), 39 large-scale and community-based FINI grantees collectively offered incentives at 2,600 retailers in one or more quarters. Farmers markets accounted for the majority—62 percent (1,619)—of FINI retailers; followed by grocery stores (440); direct marketing farmers (342); mobile markets (104); and community-supported agriculture (CSA) programs (100). All retailers had to be SNAP authorized before they could implement FINI. Of the 2,600 retailers that offered incentives in one or more quarters, 223 retailers (8.6%) stopped participating in FINI, with a small number (19) discontinuing within one quarter of launch – either because the retailer permanently closed for business or because of complexities associated with implementing FINI.

FINI retailers operated in most regions of the country, with the exception of some parts of the upper Midwest and South (see Figure ES-1). Grantees operated FINI at retailers in 38 States and the District of Columbia, with the largest retailer concentrations in California (336), Massachusetts (291), and Michigan (288). Generally, FINI retailers were located in low-income neighborhoods with high percentages of unemployed adults and households participating in SNAP. In the

¹ This represents FY 2014-2015 funding. Hereafter, this report refers to grantees funded through this cycle as 2015 grantees, as they received funding in FY 2015.

neighborhoods where FINI operated, one in five households (20.3 percent) had income levels below the poverty level, and overall unemployment level was about nine percent. Approximately 2.6 million households participating in SNAP lived near participating FINI retailers (within one mile in an urban area or 10 miles in a rural area). The majority of FINI retailers (70 percent) were in urban cities, 14 percent were in urban towns, and 15 percent were in rural areas.

Figure ES-1. Locations of retailers operating FINI in the United States



Source: Core Program Data, Calendar Q2/2015–Q3/2017.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017. FINI operated at least one quarter across 2,600 SNAP retailers between Q2/2015 and Q3/2017.

More than 75 percent of grantees and one-third of FINI retailers had previous SNAP-based financial incentive program (SBIP) experience. A greater proportion of farmers markets than other retailer types had prior SBIP experience. About half of farmers markets offering FINI had previous SBIP implementation experience, in part because of the 2010 farmers market incentive blanket waiver, which allowed farmers markets to incentivize fruits and vegetables for SNAP recipients and accept scrip/tokens for SNAP benefits. Comparatively, 20 percent of mobile markets, 11 percent of CSA programs, ten percent of direct marketing farmers, and six percent of grocery stores had prior SBIP implementation experience.

FINI Program Models, Product Eligibility to Earn and Redeem Incentives, and Match Rates

Grantees used three different approaches to offer incentives to SNAP participants: rebates, discounts, and prescriptions. The predominant approach was a rebate model, with few grantees utilizing discounts or prescriptions. Rebate programs were those in which a SNAP participant made a purchase of qualifying items and earned an incentive that could be redeemed for qualifying items on a subsequent purchase. Discount programs reduced the effective price of fruits and vegetables immediately at the point of sale. Rebates and discounts were earned upon purchases made using a SNAP EBT card. Prescription programs did not have this requirement. Prescription programs incentivized purchases of fruits and vegetables for SNAP participants enrolled in health care programs. In these programs, a health care professional wrote a “prescription” for fruits and vegetables that was typically in the form of a voucher. The SNAP participant was then able to redeem the voucher for the identified amount of fruits and vegetables from a participating SNAP-authorized retailer.

FINI program rules defined qualifying fruits and vegetables as “any variety of fresh, canned, dried, or frozen whole or cut fruits and vegetables without added sugars, fats, or oils, and salt (i.e., sodium).” Grantees varied in their choices of products eligible to earn and redeem incentives. As a result, retailers implemented one of four incentive earning and redemption models:

1. SNAP participants earned incentives through the purchase of any SNAP-eligible item. Incentives were redeemed for qualifying fruits and vegetables. Of the 2,600 retailers, 1,946 (75 percent) used this model.
2. SNAP participants earned incentives through the purchase of qualifying fruits and vegetables. Incentives were redeemed for any SNAP-eligible item. Of the 2,600 retailers, 299 (11 percent) used this model.
3. SNAP participants earned incentives through the purchase of qualifying fruits and vegetables and redeemed incentives for qualifying fruits and vegetables. Of the 2,600 retailers, 317 (12 percent) used this model.
4. No purchase was necessary because SNAP participants received a prescription/voucher. The voucher could be redeemed for qualifying fruits and vegetables. Some retailers that accepted prescriptions also offered incentives through rebates or discounts at the point of purchase. Of the 2,600 retailers, 180 (7 percent) accepted FINI prescription program benefits.

Some FINI retailers had further restrictions on the types of fruits and vegetables that could be purchased with the earned incentives. About half of FINI retailers (49 percent) limited incentive redemptions to purchases of fresh produce (i.e., they excluded canned, frozen, or dried fruits and vegetables), and about four in 10 (44 percent) retailers limited incentive redemption to local produce. While the *requirement* for fresh produce is less common at nongrocery retailer types (i.e., farmers markets, direct marketing farmers, mobile markets, CSAs), these other retailer types often offer fresh produce along with other farm grown or raised products.

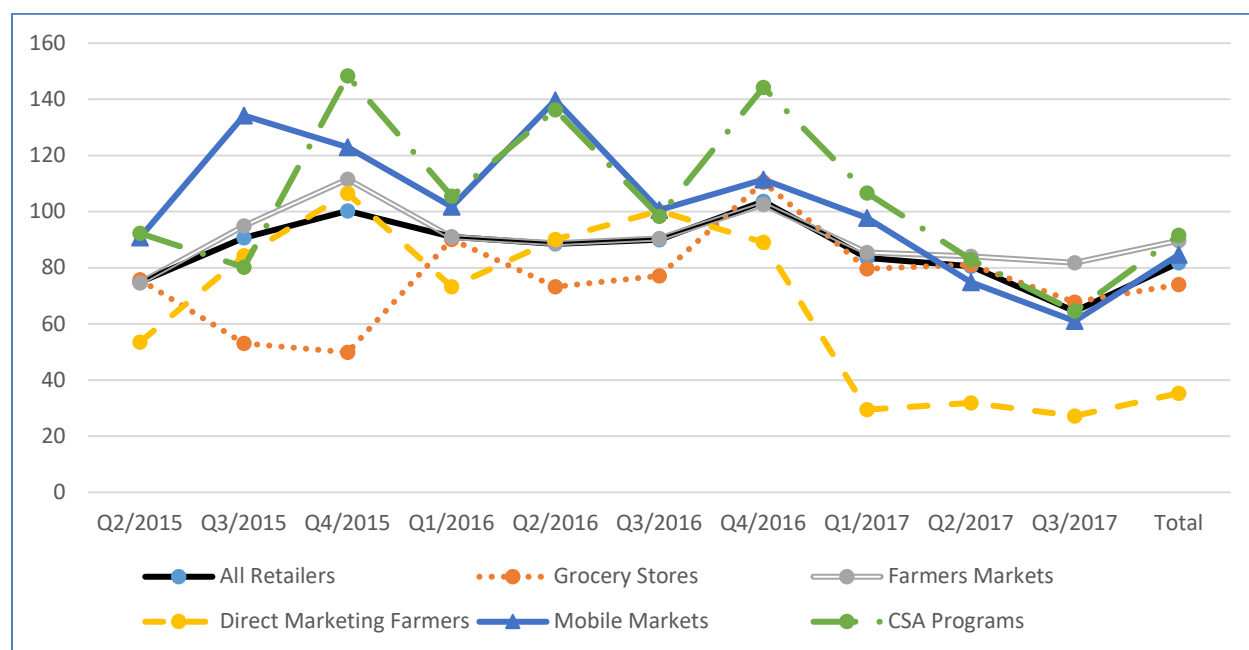
Nearly all (96 percent) of FINI retailers offered incentives to participants on a daily basis—every day the retailer was open—and the remaining retailers offered incentives on a weekly, monthly, or seasonal basis. Most retailers (84 percent) used a \$1:\$1 match rate, whereby a SNAP participant earned an amount in incentives equal to the purchase price of the qualifying products. Fifteen percent of retailers used a match rate lower than \$1:\$1. Some retailers, for example, used a \$1:\$0.50 match rate, and others used a \$5:\$2 match rate. Very few retailers used match rates that exceeded \$1:\$1 or used prescription programs that required verification of SNAP client status but did not require a purchase to earn incentives. Grantees indicated that simplicity and continuity were important drivers of the incentive match rate. They explained that the match rate needed to be simple and easy to understand and consistent with the match rate offered through SBIPs prior to FINI (where applicable).

More than 75 percent of FINI retailers imposed maximums on the value of incentives that could be earned. Among retailers that imposed maximums, most (83 percent) applied them to daily or weekly purchases. The majority of retailers with daily maximums (82 percent) and weekly maximums (94%) allowed SNAP participants to earn up to \$20 in incentives each day/week. Grantees implementing FINI prescription programs also placed limits on the amount of incentives offered per customer. For example, one grantee allowed customers to earn up to \$10 per month in prescription incentives, while another set a cap of \$25 per week. Setting maximums allowed grantees to offer incentives over a longer duration. To encourage incentive redemptions, six grantees instituted incentive expiration dates ranging from 2 weeks to end of market season or calendar year.

Incentive Issuance and Redemption at FINI Retailers

As of September 2017, FINI retailers collectively issued and redeemed incentives worth \$17.3 million and \$14.2 million, respectively—an 82 percent redemption rate (see Figure ES-2). FINI grantees reported slower incentive issuance and redemption early in implementation, but noted that issuance and redemption improved over time, as they overcame start-up challenges.

Figure ES-2. Incentive redemption rate between Q2/2015 and Q3/2017, by quarter/year and retailer type (%)



Source: Core Program Data, Calendar Q2/2015–Q3/2017.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated in 2,600 SNAP-authorized retailers between Q2/2015 and Q3/2017; 2,452 retailers reported issuance and redemption for one or more quarters.

This table excludes five farmers markets that participated in FINI prescription programs only.

Incentive redemption is not limited to the week or season of issuance, allowing for redemption to exceed issuance in a given quarter.

Challenges with FINI Program Implementation

Many grantees experienced challenges in early implementation. Several challenges affected the launch schedule of their projects. These challenges included obtaining timely match funding, onboarding partners and retailers, developing testing and point-of-sale and incentive tracking systems, and training retailer staff.

Another key challenge in early implementation was lower than expected issuance of incentives to SNAP participants. Grantees attributed the low issuance of incentives primarily to marketing and outreach efforts. The 2015 and 2016 RFAs allowed FINI grantees to use promotional materials or educational campaigns that used factual statements intended to inform and not persuade and that were rendered in a medium other than television, radio, or billboard. These restrictions were lifted in November 2016, wherein grantees could use federal or match funds to advertise FINI using any media – including television, radio, and bill boards (USDA, 2016b).

Most grantees used multiple channels to market the program to SNAP participants, but identified direct mailings and outreach conducted by community partners as the most effective strategies. Grantees believed that these efforts positively influenced program perceptions and lent credibility to the program. Creating marketing materials in multiple languages was also deemed important, and partner organizations assisted grantees with translating marketing materials. Grantees also acknowledged the critical role of on-site marketing—through shelf-tags and store cashiers—to improve program awareness and promotion of FINI-eligible products. However, retailers had challenges explaining the FINI program in plain language to customers. In addition, several grantees noted that retailer staff were not able to explain the FINI program to SNAP participants due to language barriers.

Most grantees developed their own materials to train retailers; four grantees adapted and customized training materials developed by two other FINI grantees. Several grantees made changes to their subsequent trainings to clarify points of confusion for retailers as problems revealed themselves. For example, two grantees developed “cheat sheets” to provide new cashiers with a basic understanding of the program. Other grantees created documents for retailers that illustrated what incentives earned through the FINI program looked like and which foods were eligible for purchase using incentives. Based on their experiences in the first year of implementation, grantees altered their marketing strategies and expanded their reach to SNAP participants in the second year. To ensure that the staff were able to implement FINI as intended, and due to staff turnover—particularly in grocery stores—eight grantees offered repeat trainings. These grantees indicated that additional trainings served to reinforce best practices and protocols for existing staff and introduced the program to new staff. Some grantees expressed a desire for paid staff to implement FINI, as they thought the responsibilities of implementing FINI was too much for volunteer staff to shoulder.

Retailers noted changes in produce sales and stocked more and different types of fruits and vegetables as a result of FINI implementation. Overall, about 75 percent of retailers reported increases in store profits because of FINI. More than one-half of the retailers who reported that FINI benefits their business also indicated an increase in traffic from new and/or repeat customers.

Awareness of the FINI Program and Receipt and Use of Incentives

Across the four study groups—FMG, FMS, GSG, and GSS—awareness of FINI and receipt and use of incentives was relatively low. About 31 percent of the FMG group, 68 percent of the FMS group, 39 percent of the GSG group, and 50 percent of the GSS group reported awareness of the FINI program. Use of incentives was also low across the four study groups: 15 percent of the FMG group, 58 percent of the FMS groups, 18 percent of the GSG group, and 24 percent of the GSS group received incentives. Only in the FMS group did the majority of SNAP participants report awareness of the FINI program and use of incentives. The primary driver of incentive receipt among all four study groups was advertising. Each additional source of information about FINI increased the probability of incentive receipt.

Impact of the FINI Program on Fruit and Vegetable Expenditures and Consumption

The two primary outcomes examined in this report were self-reported monthly household fruit and vegetable expenditures and daily cup equivalents of total fruit and vegetable intake (excluding fried potatoes), among adult SNAP participants in the four treatment and comparison groups. The FINI program had a measurable impact only on monthly household fruit and vegetable expenditures in three (FMS, GSG, and GSS) of the four study groups (see Table ES-1); there was no measurable impact of FINI in the FMG group. There was no measurable impact was of FINI on daily cup equivalents of total fruits and vegetables consumed by the adult SNAP participant in any study group (see Table ES-2).

Average baseline monthly expenditures on fruits and vegetables for the FMG, FMS, GSG, and GSS treatment groups were \$59, \$107, \$70, and \$60, respectively. FINI increased expenditures on average by \$15.32 (16.3 percent) for the FMS group, \$9.37 (12.5 percent) for the GSG group, and \$9.90 (14.4 percent) for the GSS group. Incentives were not fully utilized to purchase fruits and

vegetables. Between about one-quarter to one-half of SNAP participants in the four study groups reported spending less of their own money on fruits and vegetables as a result of FINI.

At baseline, daily mean total fruit and vegetable consumption of SNAP participants in the four study treatment groups were half of the recommendation in the Dietary Guidelines for Americans—the FMG, FMS, GSG, and GSS groups consumed an average of 1.9, 2.2, 2.0, and 2.0 cups per day, respectively. The FINI program did not have a measurable impact on daily cup equivalents of fruit and vegetable consumption among adult respondents in all four groups.

Analysis of secondary outcome measures indicated that FINI had modest impacts on where SNAP participants chose to shop, but did not have a detectable impact on types, variety, or frequency of fruits and vegetables purchased by SNAP participants. The evaluation also did not find a measurable impact of FINI on adult food security.

Table ES-1. Impact of incentives on monthly fruit and vegetable expenditures, by study group

Study group	n	Treatment group Regression-adjusted mean (\$)	Comparison group regression- adjusted mean (\$)	Incentive Impact	
				β (\$)	P-value
Farmers market general (N=833)	346	69.01 (2.93)	65.18 (2.60)	3.83 (3.68)	0.30
Farmers market shoppers (N=703)	376	96.29 (2.74)	80.97 (3.82)	15.32*** (4.65)	<0.01
Grocery store general (N=935)	400	71.13 (2.79)	61.77 (2.34)	9.37** (3.80)	0.02
Grocery store shoppers (N=454)	212	69.83 (4.15)	59.93 (2.60)	9.90** (4.88)	0.05

Source: SNAP Participant Baseline and Follow-up Surveys.

Notes: Coefficients represent the change in dollars of fruit and vegetable expenditures, calculated using a multivariate ordinary least squares (OLS) regression. Standard errors in parentheses. The Grocery Store Shoppers group is simply a subset of the Grocery Store General group. Westat included the following controls in each model: baseline outcome, whether or not the respondent received any prior matching amounts for fruit and vegetable purchases (not necessarily from the FINI grant program), overall health, gender, marital status, age, race, born outside of the U.S., education, income, distance to assigned outlet, household size, indicators for children and elderly present in the household, percentage of the local area population on SNAP, an indicator for whether or not the household lived in an urban area, and the FNS region. FNS region was omitted from the Grocery Store General and Grocery Store Shoppers group models due to a lack of variation. A smearing estimate based on Duan (1983) and Abrevaya (2002) is used for correct interpretation of coefficients from the Box-Cox transformations of the expenditure outcome. Per Millen et al. (2005), expenditure variables were set to missing (i.e., trimmed) if above three times the interquartile range of the variable. Model observations (n) differ from sample sizes (N) due to item nonresponse.

***p<0.01

**p<0.05

Table ES-2. Impact of the FINI program on fruit and vegetable consumption – excluding fried potatoes, by study group

Outcome	n	Treatment group regression-adjusted mean (cups)	Comparison group regression- adjusted mean (cups)	Incentive Impact	
				β (cups)	P-value
Farmers market general (N=833)	753	1.81 (0.05)	1.88 (0.05)	-0.07 (0.08)	0.35
Farmers market shoppers (N=703)	635	2.05 (0.08)	1.98 (0.06)	0.07 (0.11)	0.51
Grocery store general (N=935)	850	1.90 (0.08)	1.80 (0.05)	0.09 (0.10)	0.37
Grocery store shoppers (N=454)	419	1.97 (0.11)	1.86 (0.07)	0.11 (0.14)	0.44

Source: SNAP Participant Baseline and Follow-up Surveys.

Notes: Coefficients represent the change in cups of fruit and vegetable consumption, excluding fried potatoes, calculated using a multivariate ordinary least squares (OLS) regression. Standard errors in parentheses. The Grocery Store Shoppers group is simply a subset of the Grocery Store General group. Westat included the following controls in each model: baseline outcome, whether or not the respondent received any prior matching amounts for fruit and vegetable purchases (not necessarily from the FINI grant program), overall health, gender, marital status, age, race, born outside of the U.S., education, income, distance to assigned outlet, household size, indicators for children and elderly present in the household, percentage of the local area population on SNAP, an indicator for whether or not the household lived in an urban area, and the FNS region. FNS region was omitted from the Grocery Store General and Grocery Store Shoppers group models due to a lack of variation. A smearing estimate based on Duan (1983) and Abrevaya (2002) is used for correct interpretation of coefficients from the Box-Cox transformations of the consumption and expenditure outcomes. Per the USDHHS National Cancer Institute (2016), consumption measures were set to missing if a respondent did not answer the frequency of consumption question for fruits or other vegetables. Per Millen et al. (2005), consumption variables were set to missing (i.e., trimmed) if above three times the interquartile range of the variable. For consumption measures, this involved trimming at each component of consumption. Model observations (n) differ from sample sizes (N) due to item nonresponse.

***p<0.01

**p<0.05

Conclusions and Next Steps

The primary goal of the FINI program was to provide financial and non-financial incentives to increase fruit and vegetable purchases among SNAP participants. Financial incentives directly reduced the effective price of fruits and vegetables for SNAP households, thereby enabling households to increase fruit and vegetable purchases and consumption. The evidence to date suggests that the FINI program had a modest positive impact on fruit and vegetable expenditures and no measurable impact on consumption. Relatively low levels of awareness of the FINI program and receipt of incentives contributed to the modest impact of FINI on fruit and vegetable expenditures. Additionally, because the study measured food purchases for *households* and consumption for *individuals*, it is likely that consumption changes at an individual level were small as the food was shared with other household members.

This report presents findings from interim data collection and analyses. FINI is an ongoing grant program and grantees are continuing to provide data for the process evaluation. The final report for

the FINI program evaluation will include additional data and analysis that contribute to the process evaluation, including information collected from 2018 FINI grantees. In addition, the final report will draw on in-depth interviews with SNAP participants who reported receiving incentives to describe participants' experiences and satisfaction with the program.

1. Background and Understanding

1.1 Overview

The Food Insecurity Nutrition Incentive (FINI) Grant Program is intended to increase fruit and vegetable purchases of Supplemental Nutrition Assistance Program (SNAP) participants by offering incentives at the point of purchase. As authorized by Congress through the Agricultural Act of 2014 (P.L. 113- 79), the U.S. Department of Agriculture (USDA) awards grants to eligible government and non-profit organizations to implement pilot, community-based, or large-scale projects that provide monetary incentives to SNAP participants.

The Agricultural Act of 2014 also requires an independent evaluation of FINI, which Westat is conducting for the USDA Food and Nutrition Service (FNS). The evaluation of FINI will document the implementation of the community-based and large-scale FINI grants through a process evaluation, examine program impacts through an outcome evaluation, and describe, through a comparative analysis, program features that appear to be most promising for improving SNAP participant outcomes.

This interim report describes the characteristics of the community-based and large-scale FINI Grant Projects funded in the 2015, 2016, and 2017 grant cycle, describes grantees' experiences with program implementation, and assesses key program outcomes—household fruit and vegetable expenditures and fruit and vegetable consumption of adult SNAP participants. Information presented in this report is drawn primarily from data collected from FINI grant applications, quarterly core program data reported by grantees, interviews with grantees, a survey of FINI retailers, and a baseline and follow-up survey of SNAP participants.

1.2 FINI Grant Program Background

FINI grants fund eligible organizations to design and implement nutrition incentive projects.² The primary goal of FINI is to provide financial incentives to SNAP participants at the point of purchase to increase fruit and vegetable purchases. The grant program defines fruits and vegetables as “any variety of fresh, canned, dried, or frozen whole or cut fruits and vegetables without added sugars, fats, or oils, and salt (i.e., sodium)” (USDA 2014). A secondary goal of FINI is to develop replicable, effective, and efficient technologies for incentive redemption.

Congress provided \$100 million over five years to fund grants and to support administration, monitoring, and evaluation activities. USDA’s National Institute of Food and Agriculture (NIFA) administers the FINI Grant Program and FNS manages the independent evaluation and provides SNAP technical assistance. To date, NIFA has awarded grants through four cycles of Request for Applications (RFAs).

FINI funds three types of projects: (1) pilot projects, not to exceed \$100,000 and one year; (2) multi-year community-based projects, not to exceed \$500,000 and four years; and (3) multi-year large-scale projects, over \$500,000 or greater and not to exceed four years. Pilot projects were aimed at new entrants seeking funding for a project in the early stages of incentive program development. Community-based projects were aimed at organizations already experienced with incentive programs planning to expand the breadth, scope, or reach of these programs. Finally, large scale projects were aimed at organizations already experienced with incentive programs and planning to implement state-wide and regional incentive programs that tested strategies to inform future efforts. To receive a FINI grant, eligible organizations responded to an RFA released by NIFA. The RFAs listed the following seven elements that would lead to “preference” in award:

1. Maximization of grant funds for incentives;
2. Testing of innovative or promising strategies;
3. Development of innovative or improved benefit redemption systems;

² Eligible organizations are limited to state, tribal, or local government agencies and nonprofit organizations, including emergency feeding organizations; agricultural cooperatives; producer networks or associations; community health organizations; public benefit corporations; economic development corporations; farmers markets; CSA programs; buying clubs; SNAP-authorized retailers.

4. Use of direct-to-consumer sales marketing;
5. Demonstrated track record of designing and implementing successful nutrition incentive programs that connect low-income consumers and agricultural producers;
6. Provision of locally or regionally produced fruits and vegetables; and
7. Location of project in underserved communities, particularly Promise Zones and StrikeForce communities.

USDA awarded \$86.1 million in the 2014-2015, 2016, 2017, and 2018 grant cycles.³ In the first round, i.e., 2015, USDA awarded \$31.5 million in FINI grants to 31 local, State, and national organizations. These 31 grantees included 16 pilot projects, seven multi-year community-based projects, and eight multi-year large-scale projects. In the second round, i.e., 2016, USDA awarded \$16.8 million in FINI grants to 27 projects, including to 12 pilot projects, 11 multi-year community-based projects, and four multi-year large-scale projects. In the third round, i.e., in 2017, USDA awarded \$16.8 million in FINI grants to 32 projects, including to 11 pilot projects, 17 multi-year community-based projects, and four multi-year large scale projects. Finally, in the fourth round, i.e., in 2018, USDA awarded \$21 million in FINI grants to 24 projects, including five pilot projects, 11 multi-year community-based projects, and eight multi-year large scale projects.

This interim report presents findings from the process and outcome evaluation of the 51 multi-year community-based and large-scale grants awarded to 47 grantee organizations in fiscal years 2015, 2016, and 2017. Results that include FINI grants awarded in 2018 will be included in the final report.

1.3 Research Objectives

As specified by FNS, the FINI evaluation has three research objectives:

1. Document each nutrition incentive program by describing its design and operations to identify (a) barriers to and facilitators of implementation and (b) specific lessons learned to support replication of successful programs;
2. Assess the effectiveness of FINI in increasing fruit and vegetable purchases and consumption among SNAP participants; and

³ Four organizations received grants in two separate years.

3. Compare the relative outcomes of different forms of incentives to help determine the most effective and efficient strategies for using incentives to increase purchase and consumption of fruits and vegetables among SNAP participants.

This report focuses on the first two research objectives, providing an understanding of program design and operations through September 2017, and estimating the impact of FINI on (1) household fruit and vegetable spending and (2) adult fruit and vegetable consumption.

1.4 Conceptual Framework

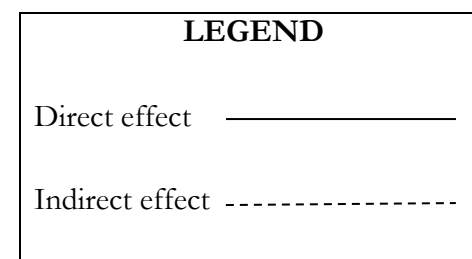
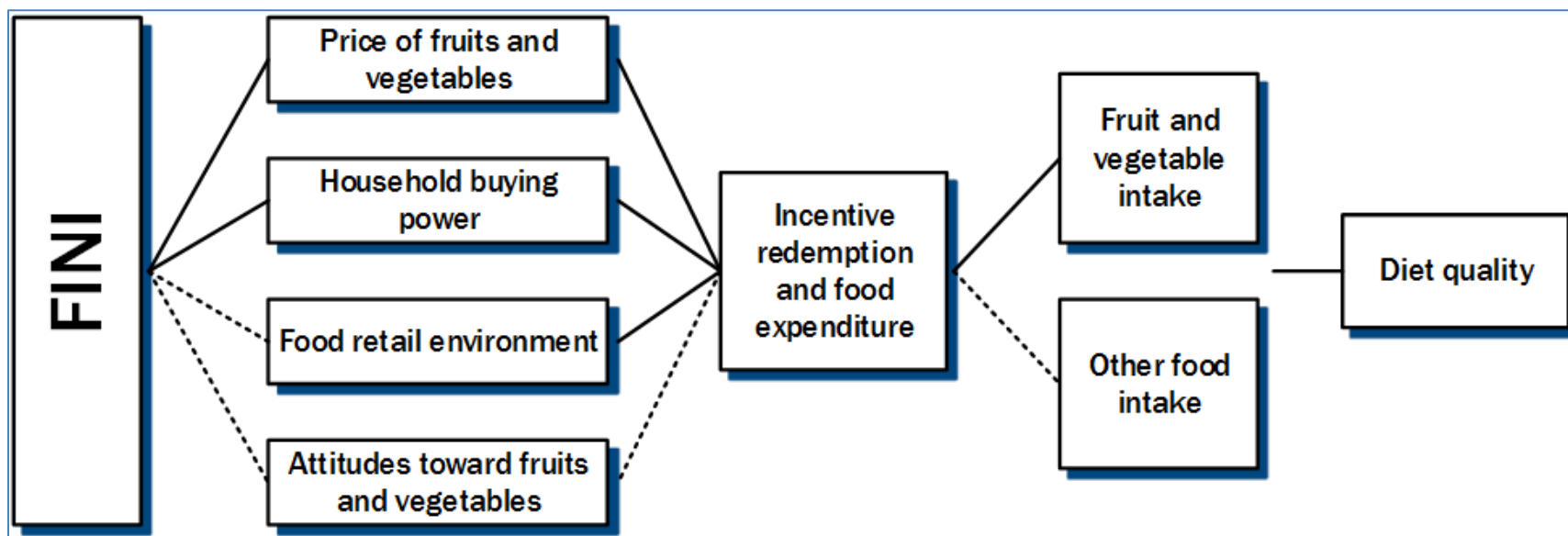
As illustrated in the conceptual model below (Figure 1-1), FINI seeks to directly reduce the effective price of fruits and vegetables for SNAP households. A reduction in price would allow SNAP participants to increase the type and amount of fruit and vegetable purchases. Specifically, lowering the price of fruits and vegetables affects relative prices, which should⁴ increase the demand for produce (the demand effect). This reduction in price also increases the buying power of the SNAP benefits that households could use to purchase more fruits and vegetables or other SNAP-eligible products (the income effect). The incentive distribution model may influence participation in FINI; point of sale discounts may be more effective in increasing purchases than vouchers for later use. FINI could also indirectly influence the availability of fruits and vegetables in the food retail environment and SNAP consumers' attitudes toward purchasing and consuming fruits and vegetables. Changes in SNAP households' expenditures on food may affect their food consumption patterns and may influence diet quality and food insecurity. This evaluation will examine the extent to which FINI increases the purchases of fruits and vegetables.

1.5 Previous Literature

The specific aims of SNAP are to reduce hunger, improve food security, improve the nutritional status of program participants, and provide access to a healthy diet. In support of these goals, SNAP offers nutrition assistance benefits to eligible low-income households (USDA, 2017c; USDA, 2018a). In 2016, about 65 percent of SNAP households include a child, elderly, or disabled individual (44 percent, 12 percent, and nine percent, respectively); (USDA, 2017a). The average monthly per person benefit in 2017 was \$125.80 (USDA, 2017a).

⁴ It is possible that SNAP households could reach a “saturation” point at which lowering the prices of fruits and vegetables would have little or no effect on demand.

Figure 1-1. FINI conceptual model^a



^a Adapted from the logic model developed for the evaluation of the Healthy Incentive Pilot (HIP) (Bartlett et al., 2014).

1.5.1 Food Security Status of SNAP Participants

Studies have consistently found that households that are food insecure are more likely to participate in SNAP and that their food security status improves after participating in SNAP (Nord and Golla, 2009; Ratcliffe, McKernan, and Zhang, 2011; Mabli et al., 2013). SNAP benefits allow low-income households to afford more food than their limited budgets would otherwise have allowed.

1.5.2 SNAP Participants' Diet

The Dietary Guidelines for Americans (DGA) are designed to help Americans select foods that will meet nutrient requirements, promote health, support active lives, and prevent chronic diseases. The food-based guidelines emphasize the importance of making choices to better support healthy eating patterns (USDA and USDHHS, 2015). Diets of most Americans typically fall short of meeting the federal dietary recommendations for whole grains, fruits, nuts and legumes, with disparities in dietary quality across income levels (Wang et al., 2014). Low-income households consume fewer fruits and vegetables than high-income households (Kirkpatrick et al., 2012; Rathod et al., 2012).

Data from the Consumer Expenditure Survey (CES) indicate that, in 2013, households in the lowest income quintile spent \$463 on fruits and vegetables annually (18.4 percent of food-at-home purchases), compared with \$1,167 in the highest quintile (19.3 percent of food-at-home purchases). Consistent with these purchase data, researchers have reported positive associations between income and consumption of nutrient-dense foods, particularly fruits and vegetables (Kant & Graubard, 2007). Moreover, compared to higher income non-participants, SNAP participants and income-eligible SNAP non-participants have lower overall and component-specific Healthy Eating Index–2005 (HEI–2005) scores (Condon et al., 2015). Poor dietary intake and lower HEI–2005 scores are associated with higher risk of obesity, greater abdominal fat stores, and cardiovascular mortality among older adults (Reedy et al., 2014).

1.5.3 Prices and the Demand for Food Products

Empirical studies have repeatedly confirmed that changing the price of a food product changes demand for that food product. Numerous studies have estimated the price elasticity of demand for various foods. The price elasticity of demand measures the percentage change in demand given a

one percent change in price; when demand is not affected by price change, the product is considered inelastic and when the demand for a product decreases with increase in price, it is considered an elastic product. When price elasticity is less than the absolute value of 1, the demand for a product is considered inelastic and when the price elasticity is more than the absolute value of 1, it means the demand is elastic.

Evidence suggest that the elasticity for food products is inelastic, with mean estimates of price elasticity for foods and non-alcoholic beverages ranging from 0.27 to 0.81 (Andreyeva, Long, & Brownell, 2010), with the highest price elasticity for soft drinks, juice, meats, and fruits. Further, price elasticities vary by produce type, ranging from 0.48 for potatoes to -1.10 for citrus, indicating that demand for potatoes is the least elastic and demand for citrus is the most elastic (Okrent and Alston, 2012). The relationship between change in produce prices and its effect on demand provides an opportunity to influence behavior by altering the relative prices of healthy and unhealthy foods.

Using relative price changes to influence healthy purchasing is the basic concept behind the nutrition incentive programs tested through the FINI grant programs. Research in specific settings with selected food products has shown that providing price reductions for healthy foods can induce purchases of those foods in worksite and school settings (French, 2003; Jeffrey et al., 1994). Although the price elasticity of demand varies between food products, empirical research from consumer surveys and scanner data on raising the price of snack foods has generally shown a drop in purchasing. However, achieving a sizable drop in the demand for snack foods requires a fairly large change in price (Block et al., 2010; Gustavsen, 2005; Kuchler, Tegene, & Harris, 2005). Still, many questions remain regarding the influence of price changes on food purchasing patterns, especially for low-income households. The way in which incentives are provided (e.g., coupons, bonus cards) may also affect their impact on purchasing patterns. For example, research conducted by the USDA Economic Research Service (ERS) (Huang and Lin, 2000; Lin and Guthrie, 2007; Dong and Lin, 2009) indicates that household demand for fruits and vegetables as well as dairy was more responsive to price than demand for other food categories; further, low income households were more responsive to price changes than were high income households. Using the 1999-2000 NHANES data, Dong and Lin (2009) noted that Americans consumed 0.96 cups of fruits per day and 1.43 cups of vegetables per day – and that a 10 percent reduction in price of fruits and vegetables (discount at the retailer level) would increase daily consumption of fruits by 0.02 cups to 0.05 cups and vegetables by 0.03 cups to 0.07 cups.

1.5.4 Nutrition Incentive Programs for SNAP Participants

In accordance with the Food, Conservation, and Energy Act of 2008, FNS designed the Healthy Incentive Pilot (HIP) to examine the impact of making fruit and vegetable purchases more affordable by offering point-of-sale financial incentives to SNAP participants. Between November 2011 and December 2012, 7,500 randomly selected SNAP households in Hampden County, Massachusetts, were provided a 30-cent incentive for every SNAP dollar they spent on targeted fruits and vegetables. Results were positive—while estimated price elasticities for fruits and vegetables were 0.76 and 0.99 respectively, HIP participants consumed 0.26 more cups of targeted fruits and vegetables per day than non-participants (Bartlett et al., 2014). The HIP evaluation findings, while encouraging, were limited in generalizability, as the demonstration project was in one county in Massachusetts. Building on the success of HIP, Congress authorized the FINI Grant Program in 2014 to support nutrition incentive programs for fruits and vegetables on a much larger scale.

Nutrition incentive programs have typically been offered at direct-to-consumer retailers such as farmers markets, farm stands, mobile markets, and community-supported agriculture (CSA) programs. Starting in the mid-2000s, several organizations began experimenting with SNAP-based incentive programs (SBIPs) to provide financial incentives to increase access to fresh fruits and vegetables among SNAP participants at farmers markets (e.g., Minnesota’s Market Bucks, New York City’s Health Bucks, Wholesome Wave’s Double Value Coupon Program, Fair Food Network’s Double Up Food Bucks, Roots of Change’s California Market Watch).

In 2011, about 30 percent of farmers markets and 10 percent of direct marketing farmers implemented SBIP (Dixit-Joshi et al., 2013). The majority of organizations implemented SBIPs to develop equitable food systems, and promote and support local food sources and farmers (King et al., 2014).

SBIPs vary in the matching funds they provide. Some programs provide a dollar-to-dollar match, while others may provide \$1 for every \$5 in SNAP benefits spent at the market on a given market day. When a dollar-to-dollar match is offered, there is typically a set limit for such a match (i.e., the match is provided up to \$10 or \$20 per day per SNAP household).

SBIPs also vary in form; they may be offered as a discount at the point of purchase or a rebate in the form of a coupon, scrip, token, or voucher to be redeemed later. Both discounts and rebates potentially increase the overall buying power of the SNAP benefit. However, the way incentive matches are applied differs between point-of-service discounts and rebate programs. For instance, assume a SNAP participant shops at a farmers market offering double-your-dollar benefits—an incentive match rate of \$1:\$1—purchases \$10 worth of on fruits and vegetables at the market. In a rebate model, the shopper spends \$10 and the purchase qualifies the participant to earn an additional \$10 in SNAP-based incentives to use on a later fruit and vegetable purchase. If that same purchase were a direct discount, the SNAP client would pay only \$5 for the \$10 in fruits and vegetables he/she purchased at the point of sale.

1.6 Report Organization

The remainder of this report is organized as follows:

- Methodology (Chapter 2);
- Characteristics of the FINI Grant Projects (Chapter 3);
- Incentive Program Characteristics (Chapter 4);
- FINI Implementation (Chapter 5);
- Patterns of FINI Issuance and Redemption and SNAP Transactions at FINI Retailers (Chapter 6);
- Awareness of the FINI Program and Receipt and Use of Incentives (Chapter 7);
- Impact of FINI on Fruit and Vegetable Expenditures, Shopping Patterns, and Types of Fruits and Vegetables Purchased (Chapter 8);
- Impact of FINI on Fruit and Vegetable Consumption, Preferences, and Adult Food Security (Chapter 9); and
- Conclusions and Next Steps (Chapter 10).

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2. Methodology

The FINI Grant Program evaluation included both process and outcome evaluations. This chapter describes the methodology employed in the process and outcome evaluations, including a discussion of the study design, data, and analytic methods used to assess the 51 grants awarded to 47⁵ community-based and large-scale FINI grantees from the 2015, 2016, and 2017 grant cycles.

2.1 Overview of Study Design

The process evaluation described the FINI program models, contexts in which they operate, and grantees' implementation experiences. The outcome evaluation measured the impact of FINI on two primary outcomes—increasing fruit and vegetable (1) purchases and (2) consumption—and several secondary outcomes (e.g., shopping patterns, adult food security). Results from the process evaluation help to interpret results from the outcome evaluation.

2.1.1 Process Evaluation

The process evaluation assessed how each FINI grantee implemented its project, and ultimately, this information provided context to interpret SNAP participants' fruit and vegetable purchase and consumption patterns. There was variation in the structure of the incentive programs between grantees and, in some cases, between retailers under the same grantee. Therefore, it was important to examine program attributes at both the grantee and retailer level. The outcomes of FINI depended on the grantees' ability to successfully recruit retailers and SNAP participants and manage the financial incentives. The process evaluation identified barriers, facilitators, and strategies that grantees used for overcoming problems, thereby allowing the evaluation to examine the efficacy and efficiency of the projects' operations. This phase of the evaluation also documented the community context in which each retailer was operating. A variety of data sources informed the process evaluation—for instance, grantee applications, key informant interviews, and grantee program data—to describe FINI operating environments. Analysis methods included content analysis of

⁵ This evaluation excludes all pilot grantees. Core Program Data Analysis included retailers funded through 39 grantees; the remaining grantees had not begun FINI implementation as of calendar quarter 3/2017.

interviews with grantee administrators, univariate and bivariate analysis of grantee program data and secondary data, and geographic information system (GIS) analysis.

2.1.2 Outcome Evaluation

The outcome evaluation began with an assessment of SNAP participants' awareness of FINI and receipt and use of incentives and then examined the impact of FINI on two primary outcomes – fruit and vegetable (1) expenditures per month (household level) and (2) daily cup equivalents of consumption (individual level). When many aspects of fruit and vegetable purchase and consumption were estimated, some were likely to appear significant due to chance alone, even when there was no treatment effect (Schochet et al, 2009). To account for this challenge, our approach was to limit the number of primary outcomes examined to two. All other outcomes were considered secondary, or exploratory. The secondary outcomes examined in the outcome evaluation included daily fruit and fruit juice consumption; fruit consumption, excluding juice; vegetable consumption, excluding fried potatoes; monthly fruit and vegetable purchasing patterns; fruit and vegetable preferences; and adult food security in the last month.

Program impacts assessed SNAP households with access to FINI (the treatment group) relative to a matched comparison group with no access to FINI. This comparison identified the share of observed changes that were attributable to participating in FINI versus the changes that reflected general trends among a group of similar households that were not receiving FINI. A baseline and a 6-month follow-up survey with SNAP participants served as the primary data sources for this examination.

2.2 Data Sources and Approach

The evaluation collected data from the following sources: FINI grant applications, Core Program Data (CPD), interviews with FINI grant program administrators, FINI retailer surveys, SNAP participant surveys, SNAP retailer EBT transaction data from FNS, and external secondary data used to describe FINI operating environments. These sources provided programmatic details about planned activities, program operations, the barriers and facilitators that contributed to program challenges and successes, program outputs, the context in which the FINI programs operated, SNAP participants' experiences with FINI, and the impacts of FINI on SNAP participant fruit and

vegetable purchases and consumption. Figure 2-1 summarizes the data collected for process and outcome evaluations. The sections below the figure describe these data sources and the data collection procedures.

2.2.1 FINI Grant Applications

Methods to prepare for the evaluation included the review and abstraction of grant applications for 2015, 2016, and 2017 FINI grantees to summarize basic information related to program design and implementation. The grant applications provided the following information:

- **Grantee Background.** Grantee name/affiliation, location, type (e.g., government or nonprofit organization);
- **Grant Summary.** Grant value, incentive budget, period of performance, logic model;
- **Partnerships.** Other entities (private sector or governmental) contributing funding or other assistance, outside evaluators;
- **Project.** Project type (community-based or large-scale), geographic scope, incentive purchase mechanism, maximum incentive available, time period for the incentive's availability, project innovation, inclusion of nutrition education, outreach mechanisms; and
- **Incentive Delivery.** Type and count of SNAP retailers delivering incentives (farmers markets, farm stands, mobile markets, CSA programs, or grocery retailers); operating days/seasonality.

After review of the grant proposals, research staff conducted informal calls with grantees to verify if they planned to make any change in their approach to FINI implementation since proposal submission. For example, grantees may have changed the incentive start date and roll out schedule, projected SNAP participation, the data collection and reporting requirements for retailers, or plans for collecting SNAP participant data.

2.2.2 Core Program Data

Westat developed a list of retailer types to be specified in the CPD, based on the retailer types specified in the grant applications and indicated during informal calls with grantees. FINI grantees collected quarterly program data—CPD—from their participating retailers (see Appendix A for the

Figure 2-1. Data collection overview for FINI Evaluation Objectives 1 and 2



data form). Quarter 1 (Q1) spanned January to March, Quarter 2 (Q2) spanned April to June, and Quarters 3 (Q3) and 4 (Q4) spanned July to September, and October to December, respectively.

These data captured details about the incentives issued and redeemed during the quarter, operating schedules, and staffing for each FINI retailer. Grantees submitted data to Westat after the end of each quarter. Research staff reviewed the data, examined ranges and missing values, and followed up with grantee staff to verify or correct anomalous information. Grantees began providing these data the first quarter that they implemented FINI at participating retailers. This report includes analyses of CPD collected beginning in Quarter 2 of calendar year 2015 (Q2/2015) and ending in Quarter 3 of calendar year 2017 (Q3/2017).

FINI grantees also submitted annual data (see Appendix B for the data form), which provided information on the grantee organization's management structure for the incentive program, program oversight, cost of FINI operations, and grantee organization staff involved in operating the program. This report includes annual data submissions for Years 1 and 2 of program operations for all 2015 grantees, and Year 1 of program operations for all 2016 grantees.

2.2.3 Interviews with FINI Grant Program Administrators

Senior research staff conducted two rounds of interviews with 2015 grantee program administrators and one round of interviews with the 2016 grantee program administrators. The grantee interviews provided information on how the incentive programs operated, and captured implementation successes and challenges from the grantees perspectives. Research staff conducted interviews with the 15 FINI grant program administrators from the 2015 grant cycle between November and December 2016. Staff also conducted interviews with these grantees and the 15 grantees from the 2016 grant cycle between September and December 2017.

The interviews focused on the grantees' operational approach to the incentive program (see Appendix C for the interview protocol). Interview guides included questions and probes to address three overall objectives:

- Understanding grantees' implementation approach;
- Determining implementation challenges and strategies to overcome them; and
- Identifying processes/protocols that grantees used to interact and communicate with FINI retailers (incentive providers).

The interviews covered topics such as the processes for recruiting retailers, support provided to retailers, retailer compliance monitoring, outreach/marketing mechanisms, nutrition education and wellness activities, and challenges and successes during project implementation and operations. With permission from the respondents, the interviews were audio recorded and transcribed.

2.2.4 FINI Retailer Survey

2.2.4.1 Sample

The retailer survey was a census of the 996 FINI retailers operating with 2015 grant cycle funding. The retailer name and contact information was collected from the quarterly CPD to generate the universe (sampling frame) of participating retailers. This report includes the retailer survey completed by retailers associated with the 2015 grantees.

2.2.4.2 Retailer Survey

The study used separate retailer surveys – one designed specifically for farmers markets and another for all other retailer types – referred to as the grocery store survey.⁶ The retailer survey collected FINI retailers perspectives on implementation and operation of the incentive program. The survey asked retailers⁷ about their motivation for participating in FINI and their experience with FINI. It concluded with open-ended response fields asking retailers to list challenges and successes in implementing FINI. The grocery store survey included additional questions about their perceptions of FINI's impact on their stock of fruits and vegetables. See Appendix D for the farmers market retailer survey and Appendix E for the grocery store retailer survey.

⁶ With the exception of farmers markets, FINI retailers were operated by a single vendor (grocery stores, direct marketing farmers, mobile markets, and CSA programs). Farmers markets had two or more vendors at a single location. Question wording for the two surveys differed to capture the circumstances unique to single or multiple-vendor retailers.

⁷ The survey was addressed to the retail manager.

2.2.4.3 Data Collection

All known FINI retailers operated through 2015 grants received the retailer survey by mail in the fall of 2016. Nonresponding retailers received a post-card reminder letter several weeks after the initial mailing. Approximately three months after data collection began, 2015 grantees were notified about the non-responding retailers with a request to follow-up with the retailers to encourage participation. The overall response rate for the retailer survey was 59.7 percent (595 of the 996 retailers completed the survey).⁸

2.2.4.4 Weighting

The analysis used the propensity score weighting method to develop weights to account for survey non-response. The approach involved modeling whether a retailer responded to the survey, then used the likelihood of response (i.e., the propensity score) to calculate nonresponse adjusted weights. Appendix I describes the process used to create nonresponse-adjusted weights for the retailer survey and Appendix L describes the nonresponse bias analysis. Weights were used for all analyses displayed in this report.

2.2.5 SNAP Participant Survey

2.2.5.1 SNAP Participant Sample

Treatment Group. The SNAP participant survey sample included SNAP participants who lived close to two types of retailers, farmers markets and grocery stores.⁹ SNAP participants included both “shoppers” and “non-shoppers,” shoppers were defined as SNAP participants who had used his or her SNAP EBT card to shop at the sampled FINI (or comparison) retailer within the last year (i.e., pre-intervention) based on transaction data. Conversely, non-shoppers were defined as SNAP participants who had not used their SNAP EBT card to shop at the sampled FINI (or comparison) retailer within the last year.

⁸ Response rate for the five retailer types was as follows: grocery stores – 45.5 percent, farmers markets – 62.9 percent, direct marketing farmers – 40.5 percent, mobile markets – 67.9 percent, and CSA programs – 28.2 percent.

⁹ FINI store types also included farm stands, mobile farmers markets, and CSA programs, but they were not included in the sampling universe, as they accounted for a small percentage of FINI retailers.

SNAP participants were classified into a study group based on three factors: (1) proximity of their residence to a farmers market or grocery store; (2) shopper/non-shopper status; and (3) proximity to a FINI-participating farmers market or grocery store. The study groups for SNAP participants in the treatment group were:

1. **Farmers Market General, Treatment (FMG).** SNAP participants living close to a FINI farmers market, including both shoppers and non-shoppers.
2. **Farmers Market Shoppers, Treatment (FMS).** SNAP participants living close to a FINI farmers market, including only shoppers.
3. **Grocery Store General, Treatment (GSG).** SNAP participants living close to a FINI grocery store, including both shoppers and non-shoppers.
4. **Grocery Store Shoppers, Treatment (GSS).** SNAP participants living close to a FINI grocery store, including only shoppers. This group is a subset of the GSG group.

A separate “shoppers” sample frame was created for farmers markets but not for grocery stores. The separate farmers market shoppers frame was created because a very small percentage of farmers market SNAP participants were shoppers, meaning that it would not be possible to estimate outcomes separately for farmers market shoppers and non-shoppers without drawing a separate sample of shoppers. In contrast to the FMS group, the GSS group was sufficiently represented in the GSG sample frame; therefore, a separate GSS sample frame was not required to conduct outcome analyses of grocery store shoppers.

To construct the SNAP participant sample, the study team defined study areas using the distance around farmers market and grocery store retailers within States with FINI retailers. Urban study areas used a radius of seven miles and rural areas used a 16-mile radius. The radiuses were determined based on the 75th percentile of the distance measured between SNAP households and FINI retailers (see Appendix I for additional details).

Comparison Group. The matched comparison groups for the treatment study groups were created using data from the U.S. Census Bureau American Community Survey (ACS) and the Store Tracking And Redemption System (STARS) database—which allowed for matching treatment group retailers with comparison group retailers (see Appendix I for a description of the matching procedure). Next, SNAP participants in the catchment areas around the non-FINI retailers were matched to the treatment group participants using household-level characteristics from State SNAP caseload data

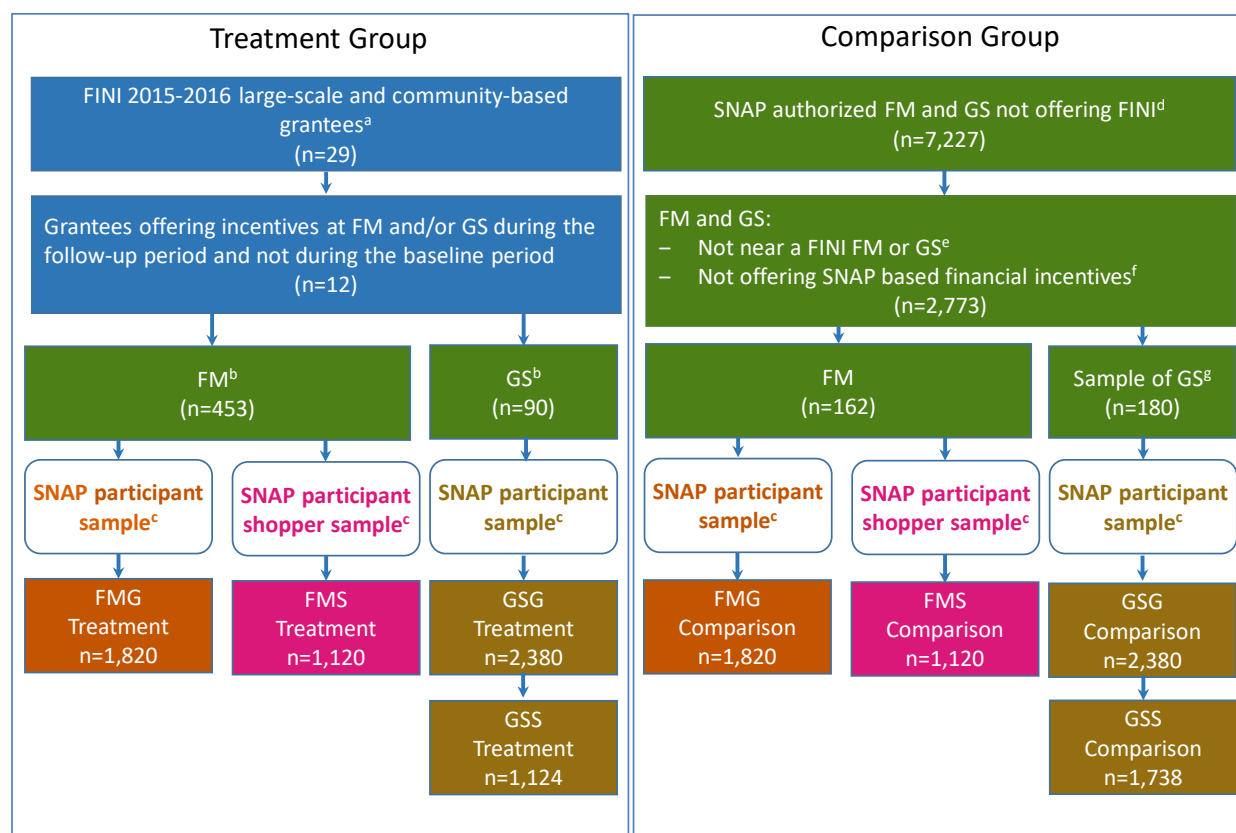
and ACS data. The SNAP participants were sampled in one of the following comparison groups as follows:

1. **FMG, Comparison.** SNAP participants living close to a farmers market not participating in FINI, including both shoppers and non-shoppers.
2. **FMS, Comparison.** SNAP participants living close to a farmers market not participating in FINI, including only shoppers.
3. **GSG, Comparison.** SNAP participants living close to a grocery store not participating in FINI, including both shoppers and non-shoppers.
4. **GSS, Comparison.** SNAP participants living close to a grocery store not participating in FINI, including only shoppers. This is simply a subset of the GSG group.

After developing the sampling frame for the treatment and three comparison groups, the SNAP participant samples for each group were drawn using two steps: (1) sorted each frame by State, grantee, urbanicity, and retailer identifier; and (2) from each sorted frame, drew a SNAP participant sample using the equal probability systematic sampling method, a form of random sampling.

Figure 2-2 provides an overview of the sampling procedure and Appendix I provides additional details about the sampling method, including study group definitions and the procedures used to identify those living close enough to a retailer to be included in the sampling frames, and the power analyses used to determine sample sizes.

Figure 2-2. Overview of SNAP Participant Survey Sampling Procedure



Notes:

FM=Farmers market

GS=Grocery store

FMG=Farmers Market General

FMS=Farmers Market Shoppers

GSG=Grocery Store General

^a One 2016 grantee was excluded because it was not operating FINI during the survey period.

^b Excluded FINI retailers without SNAP households within the catchment areas around the retailer and retailers conducting a randomized controlled trial (RCT) testing the impact of incentive "dosage."

^c Sampled from SNAP participants nearby the treatment or comparison retailer. Nearby SNAP participants were those within a 7-mile radius of the retailer for an urban retailer, and within a 16-mile radius for a rural retailer.

^d Not implementing FINI through a 2015 or 2016 large scale or community-based grant.

^e To avoid contamination, urban comparison group retailers were at least 14 miles away from urban FINI retailers and at least 23 miles away from rural FINI retailers. Rural comparison group retailers were at least 23 miles away from urban FINI retailers and at least 32 miles away from rural FINI retailers.

^f The study team reviewed each potential comparison group outlet to determine if it offered SNAP-based financial incentives. Out of a total of 305 farmers markets reviewed, the team was not able to determine whether 89 farmers markets offered SNAP based financial incentives. Due to the limited number of farmers markets available for sampling, these 89 farmers markets with undetermined SNAP-based financial incentive status were eligible to be included in the sampling frame.

^g There were a total of 2,611 potential comparison group grocery stores (i.e., SNAP-authorized grocery stores not offering FINI nor SNAP-based financial incentives). The research team reduced the size of the eligible comparison group of grocery stores by randomly selecting a subset of 180 grocery stores in the frame (twice the size of the treatment group) based on their store type (e.g., super store, large grocery store, medium grocery store) and urbanicity.

2.2.5.2 SNAP Participant Survey Instruments

Three versions of the SNAP Participant Survey instrument were developed: (1) a baseline survey administered to the treatment and comparison groups; (2) a follow-up survey administered to the treatment group; and (3) a follow-up survey administered to the comparison group. The treatment and comparison groups received identical surveys at both the baseline and follow-up with one exception. The follow-up survey for the treatment groups contained an additional module comprised of questions about awareness of FINI and receipt and use of incentives. Participants had the option of completing the surveys in English or Spanish. See Appendix F for the baseline survey, Appendix G for the follow-up survey administered to the treatment group, and Appendix H for the follow-up survey administered to the comparison group.

The surveys drew many questions from previously tested survey instruments. Types of information collected included data on the primary outcomes (i.e., monthly fruit and vegetable expenditures and daily fruit and vegetable consumption); secondary outcomes (e.g., fruit and vegetable preferences and adult food security status); SNAP participant demographic characteristics (e.g., respondent age, race/ethnicity, marital status, household income); and awareness of FINI and use and receipt of incentives.

2.2.5.3 Data Collection

The baseline SNAP participant survey was fielded between February and May 2017 and the follow-up survey was fielded six months later, between August and November 2017. The baseline survey was mailed to 8,986 SNAP participants and 4,175 SNAP completed the survey. The follow-up survey was mailed to 4,175 SNAP participants who completed the baseline survey, 3,313 completed the follow-up survey. Multi-modal data collection procedures were the same for the baseline and follow-up surveys; respondents completed the survey via web, paper, or telephone (see Appendix I for a description of the sequence of contacts). The response rate for the baseline survey was 63.3 percent, of which 69.2 percent responded to the follow-up survey, resulting in the overall response rate for the follow-up survey of 43.8 percent (see Appendix I for response rates by study group).

2.2.5.4 Weighting and Imputation

Survey weights were constructed to (1) account for nonresponse to the baseline and 6-month follow-up survey and (2) ensured balance between the treatment and comparison groups. Survey weights were used in all analyses discussed in this report. Missing data on demographic information was imputed (item non-response was low). Appendix I provides details about the propensity score approach used to calculate nonresponse-adjusted weights and imputation procedures. Appendix L discusses the nonresponse bias analysis.

2.2.5.5 Sample Characteristics

The analytic sample used for the outcome evaluation included 2,471 SNAP participant survey respondents. The analytic sample excluded survey nonrespondents and ineligible survey respondents (a survey respondent could be ineligible either because the respondent was no longer receiving SNAP or had moved out of the study area).

Table 2-1 displays the characteristics (weighted means and percentages, unweighted sample sizes) of respondents who completed the baseline SNAP participant survey by treatment and comparison groups. The table includes means and percentages for the GSS study group. Although the GSS group was not sampled separately, the baseline characteristics table displays characteristics for this subgroup because the outcomes analyses examined results for GSS as a subgroup.

The four study groups shared many similarities. SNAP participants who responded to the survey were predominately female (more than two-thirds of respondents from each study group). More than 80 percent were unmarried (either widowed/divorced/separated or never married). The majority had completed high school or some college. More than 40 percent indicated that the health of their overall diet was fair or poor. More than half were not in the labor force, and around one-fifth to one-quarter were employed and working, depending on the study group and treatment status. More than half reported annual household income of \$10,000 or less.

In addition to weighted percentages and means, Table 2-1 displays the standardized mean differences (SMD)¹⁰ between treatment and comparison groups within each study group based on weighted means and standard deviations. In the FMG study group, a lower percentage of the treatment group respondents indicated that they “occasionally have some difficulty making ends meet” than those in the comparison group. None of the characteristics were significantly different (SMD>0.25) when comparing treatment to comparison in the FMS study group, indicating that they were well balanced in this group. In the GSG and GSS study groups, race and ethnicity were significantly unbalanced: a significantly higher percentage of respondents in the treatment group than in the comparison group were black and a significantly smaller percentage of the treatment group were white than the comparison group. To account for imbalances, regression models included demographic characteristics of SNAP participants (including race/ethnicity) as control variables. This approach controlled for imbalances on the observed characteristics by holding potentially unbalanced characteristics constant when estimating the impact of the FINI program.

There were some notable differences between the SNAP participant survey respondents and the general population of SNAP participants. Using FY 2016 SNAP participant characteristics (USDA, 2017a) as a comparison, higher percentages of survey respondents were born outside of the United States (over 10 percent, and in some groups higher than 20 percent) than SNAP participants as a whole (about nine percent). Racial composition differed across study groups, but all groups were comprised of higher percentages of white participants than the general population of SNAP participants (39 percent white). This difference between the study sample and the general SNAP population was greatest among the FMS group (over 80 percent white). Additionally, higher percentages of survey respondents (25 percent to 35 percent) received Supplemental Security Income (SSI) compared to the general SNAP population (21 percent). Differences in the racial composition of the study sample and the general SNAP population could be due in part to the location of many FINI retailers in high-poverty areas (see Chapter 3).

¹⁰The SMD is an indicator of the balance between the treatment and comparison groups across the four study groups. The SMD is the absolute value of the weighted mean difference divided by the weighted standard deviation of the treated group. A SMD greater than 0.25 is commonly used to indicate imbalance (Stuart et al., 2013; Garrido et al., 2014). Using the standard of SMD>0.25 to indicate imbalance, most characteristics achieved acceptable balance after weighting; some remained unbalanced.

Table 2-1. SNAP participant survey respondent and household characteristics at baseline

	Farmers market								Grocery store							
	General				Shoppers				General				Shoppers ^a			
	All	T	C	SMD	All	T	C	SMD	All	T	C	SMD	All	T	C	SMD
Gender (n)	833	421	412		703	347	356		935	385	550		454	125	329	
Male (%)	30.67 (1.79)	31.68 (1.18)	29.65 (1.30)	0.043	22.58 (1.58)	21.91 (1.15)	23.25 (1.29)	0.033	30.73 (1.81)	27.82 (1.38)	33.34 (1.28)	0.123	28.80 (1.34)	27.11 (1.95)	29.68 (1.80)	0.058
Female (%)	69.33 (1.79)	68.32 (1.78)	70.35 (1.28)	0.043	77.42 (1.58)	78.09 (1.87)	76.75 (2.04)	0.033	69.27 (1.81)	72.18 (1.86)	66.66 (1.46)	0.123	71.20 (1.86)	72.89 (2.29)	70.32 (2.34)	0.058
Marital status (n)	833	421	412		703	347	356		935	385	550		454	125	329	
Married (%)	14.46 (1.20)	12.53 (0.88)	16.38 (0.91)	0.117	17.63 (1.67)	15.29 (1.05)	19.95 (1.27)	0.130	14.60 (1.17)	15.78 (1.06)	13.54 (0.72)	0.062	12.37 (0.71)	10.09 (1.07)	13.56 (1.15)	0.115
Widowed/Divorced/Separated (%)	42.45 (1.93)	45.18 (1.43)	39.72 (1.30)	0.110	48.23 (1.76)	48.61 (1.54)	47.86 (1.28)	0.015	40.34 (1.70)	35.54 (1.38)	44.65 (1.23)	0.190	42.85 (1.44)	34.65 (1.67)	47.12 (1.94)	0.262 ^b
Never married (%)	43.09 (1.57)	42.29 (1.34)	43.89 (1.69)	0.032	34.13 (1.88)	36.10 (1.66)	32.18 (1.63)	0.082	45.1 (1.89)	48.67 (1.85)	41.81 (1.49)	0.137	44.78 (1.49)	55.27 (2.17)	39.32 (2.30)	0.321 ^b
Age (n)	833	421	412		703	347	356		935	385	550		454	125	329	
18-39 years old (%)	35.74 (1.80)	31.06 (1.30)	40.41 (1.49)	0.202	34.93 (1.86)	34.30 (1.72)	35.56 (1.63)	0.027	35.39 (1.94)	39.21 (1.73)	31.95 (1.31)	0.149	33.85 (1.32)	40.21 (1.89)	30.54 (2.17)	0.197
40-59 years old (%)	37.07 (1.53)	39.73 (1.12)	34.41 (1.36)	0.109	39.96 (2.13)	40.91 (1.45)	39.03 (1.60)	0.038	40.05 (1.71)	38.76 (1.34)	41.29 (1.29)	0.054	40.88 (1.48)	40.45 (1.77)	41.16 (1.99)	0.017
60 or older (%)	27.19 (1.47)	29.21 (1.21)	25.18 (1.10)	0.089	25.10 (1.51)	24.79 (1.17)	25.41 (1.19)	0.014	24.57 (1.30)	22.12 (1.11)	26.77 (0.82)	0.112	25.26 (1.01)	19.43 (1.20)	28.30 (1.52)	0.224
Language spoken at home (n)	825	418	407		700	345	355		928	383	545		449	124	325	
English (%)	89.95 (1.34)	90.97 (1.79)	88.93 (1.43)	0.071	94.94 (1.04)	95.75 (2.27)	94.14 (2.03)	0.080	96.26 (0.63)	95.90 (1.62)	96.59 (1.67)	0.035	97.72 (1.90)	96.95 (2.27)	98.12 (2.38)	0.068
Spanish (%)	11.90 (1.40)	11.62 (0.98)	12.17 (0.87)	0.017	5.77 (0.94)	4.25 (0.56)	7.29 (0.76)	0.151	3.08 (0.53)	3.26 (0.41)	2.92 (0.40)	0.019	3.12 (0.40)	4.88 (0.67)	2.20 (0.54)	0.124
Other (%)	6.05 (0.98)	5.50 (0.51)	6.61 (0.71)	0.049	4.36 (0.71)	4.77 (0.58)	3.95 (0.52)	0.039	3.14 (0.65)	4.49 (0.62)	1.92 (0.27)	0.124	1.27 (0.26)	1.11 (0.38)	1.35 (0.39)	0.023
Race/Ethnicity (n)	819	411	408		697	344	353		920	377	543		449	124	325	
White (%)	54.42 (1.91)	52.30 (1.75)	56.50 (1.29)	0.084	81.47 (1.59)	82.54 (1.91)	80.41 (1.93)	0.056	53.39 (1.72)	44.72 (1.32)	61.16 (1.48)	0.330 ^b	52.43 (1.45)	30.67 (1.53)	63.79 (2.52)	0.719 ^b
Black (%)	21.76 (1.55)	24.14 (1.16)	19.42 (1.24)	0.110	3.61 (0.62)	2.86 (0.49)	4.35 (0.46)	0.090	37.86 (1.53)	45.00 (1.29)	31.46 (1.40)	0.272 ^b	39.21 (1.31)	57.39 (1.81)	29.73 (2.07)	0.559 ^b
Hispanic (%)	19.80 (1.70)	19.29 (1.26)	20.29 (0.97)	0.025	11.77 (1.19)	11.63 (0.90)	11.91 (0.86)	0.009	6.42 (0.71)	7.98 (0.70)	5.02 (0.46)	0.109	7.09 (0.54)	11.46 (0.97)	4.82 (0.79)	0.209
Other (%)	4.02 (0.77)	4.26 (0.53)	3.79 (0.58)	0.023	3.15 (0.78)	2.97 (0.46)	3.33 (0.54)	0.021	2.33 (0.48)	2.29 (0.40)	2.36 (0.34)	0.005	1.26 (0.25)	0.49 (0.17)	1.67 (0.45)	0.169
Participant born outside the U.S. (n)	833	421	412		703	347	356		935	385	550		454	125	329	
Yes (%)	23.09 (1.72)	24.56 (1.24)	21.63 (1.12)	0.068	13.23 (1.43)	11.00 (0.82)	15.43 (0.95)	0.142	17.37 (1.26)	19.55 (1.13)	15.41 (0.92)	0.105	14.48 (1.05)	18.25 (1.64)	12.52 (1.23)	0.148

Table 2-1. SNAP participant survey respondent and household characteristics at baseline (continued)

	Farmers market								Grocery store							
	General				Shoppers				General				Shoppers ^a			
	All	T	C	SMD	All	T	C	SMD	All	T	C	SMD	All	T	C	SMD
Highest education level (n)	833	421	412		703	347	356		935	385	550		454	125	329	
Less than high school (%)	16.51 (1.42)	15.99 (1.03)	17.03 (1.00)	0.029	10.83 (1.44)	8.58 (0.96)	13.06 (1.00)	0.160	16.59 (1.38)	16.99 (1.08)	16.24 (0.74)	0.020	15.98 (1.06)	19.22 (1.63)	14.29 (1.37)	0.125
High school (%)	42.37 (1.93)	42.84 (1.36)	41.90 (1.69)	0.019	30.18 (1.95)	27.85 (1.61)	32.49 (1.61)	0.104	42.20 (1.75)	42.28 (1.42)	42.12 (1.53)	0.003	45.14 (1.49)	44.58 (2.19)	45.44 (2.30)	0.017
Some college/associate's degree (%)	32.98 (1.80)	33.37 (1.28)	32.59 (1.35)	0.016	46.14 (1.89)	49.67 (1.82)	42.64 (1.75)	0.140	35.06 (1.54)	34.83 (1.48)	35.26 (1.14)	0.009	35.52 (1.33)	34.22 (1.94)	36.20 (1.83)	0.042
College graduate or above (%)	8.14 (1.17)	7.81 (0.80)	8.48 (0.79)	0.025	12.85 (1.31)	13.90 (1.01)	11.81 (1.04)	0.060	6.15 (0.72)	5.90 (0.67)	6.37 (0.68)	0.020	3.36 (0.38)	1.98 (0.48)	4.07 (0.84)	0.150
Employment status (last month) (n)	833	421	412		703	347	356		935	385	550		454	125	329	
Employed but not working ^c (%)	2.56 (0.59)	1.72 (0.34)	3.39 (0.47)	0.128	3.47 (0.77)	4.36 (0.57)	2.59 (0.52)	0.087	3.11 (0.64)	3.64 (0.48)	2.63 (0.41)	0.054	2.44 (0.32)	3.01 (0.50)	2.14 (0.52)	0.051
Not in labor force (%)	59.15 (1.86)	60.36 (1.60)	57.93 (1.40)	0.050	57.67 (1.60)	53.66 (1.47)	61.65 (1.66)	0.160	57.88 (1.76)	52.67 (1.72)	62.56 (1.50)	0.198	57.95 (1.65)	48.65 (2.10)	62.78 (2.30)	0.283 ^b
Employed & working (%)	23.27 (1.62)	21.80 (1.30)	24.73 (1.12)	0.071	25.72 (1.81)	27.27 (1.22)	24.19 (1.35)	0.069	22.05 (1.39)	23.99 (1.33)	20.30 (0.74)	0.087	21.08 (1.00)	24.32 (1.65)	19.40 (1.35)	0.115
Unemployed & looking for work (%)	15.03 (1.31)	16.12 (1.06)	13.95 (0.94)	0.059	13.14 (1.52)	14.71 (1.09)	11.58 (0.78)	0.088	16.97 (1.30)	19.70 (1.16)	14.51 (0.93)	0.131	18.53 (1.13)	24.02 (1.66)	15.68 (1.57)	0.195
[Among those not working]: Main reason for not working last month (n)	610	318	292		494	239	255		697	284	413		337	93	244	
Looking for work (%)	20.92 (1.81)	22.09 (1.44)	19.72 (1.33)	0.057	19.14 (1.92)	21.59 (1.50)	16.76 (1.00)	0.117	22.86 (1.76)	27.07 (1.58)	19.16 (1.21)	0.178	24.86 (1.49)	33.00 (2.23)	20.68 (2.05)	0.262 ^b
Taking care of house/family (%)	10.25 (1.07)	7.78 (0.85)	12.79 (1.06)	0.187	12.05 (1.59)	11.35 (0.93)	12.73 (1.43)	0.044	9.70 (1.25)	12.02 (1.15)	7.66 (0.73)	0.134	9.51 (0.89)	14.46 (1.59)	6.97 (1.09)	0.213
Retired (%)	16.56 (1.65)	16.00 (1.24)	17.13 (1.12)	0.031	11.88 (1.44)	13.47 (1.13)	10.34 (0.94)	0.092	15.12 (1.30)	14.23 (1.06)	15.89 (0.87)	0.048	12.71 (0.77)	8.05 (1.03)	15.11 (1.18)	0.259 ^b
Unable to work for health reasons/ disabled (%)	48.70 (2.07)	51.11 (1.52)	46.21 (1.73)	0.098	50.77 (2.28)	46.94 (2.11)	54.51 (2.21)	0.152	48.65 (2.03)	44.58 (1.62)	52.22 (1.74)	0.154	47.39 (1.65)	40.37 (2.08)	51.00 (2.40)	0.217
Other (%)	3.58 (0.76)	3.02 (0.53)	4.15 (0.67)	0.066	6.15 (1.27)	6.65 (0.89)	5.67 (0.84)	0.039	3.68 (0.78)	2.09 (0.67)	5.08 (0.68)	0.208	5.52 (0.55)	4.12 (0.62)	6.23 (1.20)	0.107
Perceived health of overall diet (n)	833	421	412		703	347	356		935	385	550		454	125	329	
Very good/excellent (%)	18.19 (1.51)	17.73 (1.07)	18.66 (0.95)	0.024	21.23 (1.26)	23.22 (1.30)	19.26 (1.17)	0.094	14.05 (1.21)	14.32 (0.94)	13.81 (0.87)	0.014	12.54 (0.88)	9.72 (0.82)	14.01 (1.42)	0.145
Good (%)	39.71 (1.61)	36.18 (1.60)	43.23 (1.33)	0.147	37.81 (2.10)	35.04 (1.56)	40.55 (1.75)	0.115	33.81 (1.61)	31.77 (1.48)	35.65 (1.27)	0.083	31.13 (1.24)	25.64 (1.64)	33.98 (1.89)	0.191
Fair/poor (%)	42.11 (1.65)	46.09 (1.31)	38.11 (1.33)	0.160	40.96 (1.80)	41.74 (1.30)	40.18 (1.24)	0.032	52.14 (1.64)	53.91 (1.39)	50.54 (1.47)	0.068	56.33 (1.43)	64.63 (1.88)	52.01 (2.04)	0.264 ^b

Table 2-1. SNAP participant survey respondent and household characteristics at baseline (continued)

	Farmers market								Grocery store							
	General				Shoppers				General				Shoppers ^a			
	All	T	C	SMD	All	T	C	SMD	All	T	C	SMD	All	T	C	SMD
Your household's diet (n)	833	421	412		703	347	356		935	385	550		454	125	329	
Very good/excellent (%)	20.30 (1.59)	19.37 (1.21)	21.23 (1.04)	0.047	20.26 (1.30)	22.03 (1.23)	18.51 (1.18)	0.085	15.24 (1.24)	14.79 (0.93)	15.64 (0.86)	0.024	14.05 (0.92)	12.94 (1.14)	14.63 (1.48)	0.050
Good (%)	38.15 (1.86)	35.75 (1.33)	40.54 (1.54)	0.100	42.33 (2.02)	38.93 (1.36)	45.69 (1.87)	0.139	37.25 (1.54)	38.97 (1.29)	35.69 (1.22)	0.067	34.74 (1.30)	32.64 (1.79)	35.83 (2.02)	0.068
Fair/poor (%)	30.85 (1.83)	35.0 (1.38)	26.72 (1.46)	0.173	29.21 (1.70)	29.20 (1.09)	29.22 (1.47)	<0.001	38.70 (1.48)	38.21 (1.27)	39.14 (1.26)	0.019	42.90 (1.41)	48.31 (1.98)	40.08 (2.00)	0.165
How many people live in your household? (n)	833	421	412		703	347	356		935	385	550		454	125	329	
Mean	2.36 (0.06)	2.25 (0.08)	2.48 (0.09)	0.144	2.20 (0.06)	2.15 (0.08)	2.24 (0.09)	0.060	2.29 (0.05)	2.38 (0.09)	2.21 (0.07)	0.110	2.27 (0.07)	2.44 (0.12)	2.18 (0.09)	0.165
Children in household? (n)	833	421	412		703	347	356		935	385	550		454	125	329	
Yes (%)	41.95 (1.71)	37.86 (1.31)	46.03 (1.36)	0.168	39.50 (1.79)	39.83 (1.52)	39.18 (1.60)	0.013	40.95 (1.76)	43.56 (1.66)	38.61 (1.38)	0.100	43.56 (1.45)	51.25 (2.07)	39.56 (2.06)	0.234
No (%)	58.05 (1.71)	62.14 (1.33)	53.97 (1.49)	0.168	60.50 (1.79)	60.17 (1.48)	60.82 (1.40)	0.013	59.05 (1.76)	56.44 (1.58)	61.39 (1.49)	0.100	56.44 (1.68)	48.75 (1.99)	60.44 (2.07)	0.234
[Among households with children]: How many children in your household are 5-17 years old? (n)	326	151	175		251	131	120		351	158	193		180	60	120	
Mean	1.63 (0.07)	1.56 (0.12)	1.68 (0.10)	0.099	1.49 (0.08)	1.41 (0.12)	1.58 (0.13)	0.155	1.47 (0.06)	1.51 (0.08)	1.42 (0.07)	0.090	1.62 (0.09)	1.73 (0.13)	1.54 (0.12)	0.182
[Among households with children]: How many children in your household are under 5 years old? (n)	326	151	175		251	131	120		351	158	193		180	60	120	
Mean	0.59 (0.04)	0.58 (0.07)	0.60 (0.06)	0.028	0.62 (0.05)	0.62 (0.07)	0.62 (0.08)	0.005	0.60 (0.04)	0.58 (0.06)	0.61 (0.05)	0.037	0.47 (0.06)	0.37 (0.07)	0.54 (0.07)	0.299 ^b
Households with no seniors over 60 (%)	61.73 (1.77)	59.71 (1.61)	63.74 (1.49)	0.082	66.52 (1.49)	67.33 (1.80)	65.71 (2.03)	0.035	60.80 (1.79)	62.54 (1.72)	59.24 (1.55)	0.068	63.95 (1.59)	72.56 (2.19)	57.47 (2.13)	0.293 ^b
[Among households with seniors]: How many adults in your household are over 60? (n)	336	181	155		257	123	134		378	144	234		174	33	141	
Mean	1.16 (0.03)	1.18 (0.04)	1.15 (0.03)	0.070	1.14 (0.02)	1.13 (0.02)	1.16 (0.04)	0.085	1.22 (0.03)	1.24 (0.05)	1.20 (0.04)	0.081	1.19 (0.04)	1.14 (0.07)	1.20 (0.05)	0.146

Table 2-1. SNAP participant survey respondent and household characteristics at baseline (continued)

	Farmers market								Grocery store							
	General				Shoppers				General				Shoppers ^a			
	All	T	C	SMD	All	T	C	SMD	All	T	C	SMD	All	T	C	SMD
Change in the number of people living in your household in the past 12 months (n)	832	421	411		703	347	356		935	385	550		454	125	329	
No change (%)	89.87 (1.15)	90.70 (1.55)	89.04 (1.54)	0.057	91.61 (1.16)	91.69 (1.83)	91.53 (2.07)	0.006	91.25 (1.00)	91.70 (1.75)	90.85 (1.59)	0.031	91.11 (1.86)	92.51 (2.47)	90.38 (2.28)	0.081
Increase (%)	5.45 (0.84)	5.18 (0.61)	5.72 (0.61)	0.025	5.34 (0.84)	5.21 (0.61)	5.48 (0.61)	0.012	3.41 (0.61)	3.68 (0.49)	3.17 (0.42)	0.027	3.37 (0.44)	3.95 (0.74)	3.08 (0.60)	0.045
Decrease (%)	4.68 (0.73)	4.12 (0.53)	5.24 (0.59)	0.056	3.04 (0.63)	3.10 (0.45)	2.99 (0.48)	0.006	5.34 (0.83)	4.62 (0.67)	5.98 (0.48)	0.065	5.52 (0.53)	3.55 (0.86)	6.55 (0.80)	0.162
Household income sources (last 12 months) (n)	828	417	411		699	345	354		929	383	546		450	124	326	
Received wage/salary income (%)	30.91 (1.83)	26.69 (1.27)	35.11 (1.60)	0.190	35.10 (1.85)	36.12 (1.44)	34.09 (1.53)	0.042	28.77 (1.51)	29.30 (1.45)	28.30 (1.26)	0.022	26.12 (1.17)	26.03 (1.82)	26.17 (1.66)	0.003
Received self-employment income (%)	3.23 (0.71)	3.24 (0.50)	3.22 (0.47)	<0.001	5.82 (0.94)	7.86 (0.77)	3.79 (0.57)	0.151	3.60 (0.76)	3.36 (0.59)	3.82 (0.47)	0.025	4.20 (0.60)	5.99 (1.08)	3.29 (0.75)	0.114
Received Social Security or railroad retirement income (%)	25.62 (1.44)	25.00 (1.21)	26.25 (1.17)	0.029	25.94 (1.37)	28.30 (1.12)	23.60 (1.20)	0.104	24.77 (1.36)	22.50 (1.13)	26.79 (1.00)	0.103	23.71 (1.11)	19.77 (1.50)	25.73 (1.38)	0.150
Received SSI (%)	30.00 (1.48)	35.04 (1.13)	24.99 (1.26)	0.211	30.63 (1.68)	26.28 (1.18)	34.93 (1.44)	0.197	28.33 (1.48)	27.27 (1.14)	29.27 (1.07)	0.045	27.61 (1.20)	27.90 (1.54)	27.46 (1.41)	0.010
Received cash-welfare income (%)	9.33 (1.02)	9.68 (0.84)	9.00 (0.58)	0.023	9.48 (1.24)	10.99 (0.96)	7.97 (0.78)	0.097	13.86 (1.24)	10.89 (0.83)	16.52 (0.89)	0.181	15.35 (0.83)	13.52 (1.00)	16.30 (1.46)	0.081
Received retirement/survivor/disability pension income (%)	5.68 (0.94)	5.77 (0.61)	5.58 (0.70)	0.008	5.26 (0.96)	4.66 (0.65)	5.86 (0.66)	0.057	8.61 (0.98)	8.03 (0.72)	9.12 (0.73)	0.040	8.17 (0.64)	5.89 (0.77)	9.35 (1.12)	0.147
Received other income (%)	6.62 (1.00)	5.65 (0.61)	7.59 (0.76)	0.084	9.60 (1.25)	10.22 (0.77)	8.98 (0.91)	0.041	5.00 (0.71)	3.94 (0.53)	5.95 (0.54)	0.104	5.09 (0.43)	0.41 (0.14)	7.49 (0.90)	1.11 ^b
Total pre-tax income last month in your household (n)	833	421	412		703	347	356		935	385	550		454	125	329	
Mean	926.74 (22.40)	927.93 (33.90)	925.55 (29.83)	0.004	847.85 (26.48)	849.43 (33.82)	846.28 (36.90)	0.006	846.60 (18.78)	798.96 (31.43)	889.48 (27.99)	0.159	845.56 (32.46)	747.49 (60.92)	896.60 (38.12)	0.288 ^b
Annual household income (n)	833	421	412		703	347	356		935	385	550		454	125	329	
Under \$10,000 (%)	52.95 (1.95)	55.80 (1.74)	50.10 (1.42)	0.115	56.20 (2.19)	52.15 (2.00)	60.22 (2.08)	0.162	56.58 (1.62)	56.92 (1.49)	56.27 (1.46)	0.013	61.61 (1.71)	67.49 (2.26)	58.55 (2.57)	0.191
\$10,000 to \$19,999 (%)	32.19 (1.61)	30.96 (1.26)	33.42 (1.17)	0.053	30.91 (1.92)	36.87 (1.38)	25.01 (1.24)	0.246	31.36 (1.41)	33.09 (1.44)	29.80 (0.97)	0.070	28.84 (1.20)	28.04 (1.70)	29.26 (1.64)	0.027
\$20,000 to \$29,999 (%)	8.92 (1.06)	7.55 (0.64)	10.28 (0.69)	0.103	9.05 (1.33)	7.38 (0.82)	10.70 (1.12)	0.127	8.01 (1.07)	7.30 (0.68)	8.65 (0.83)	0.052	6.16 (0.64)	2.81 (0.49)	7.90 (1.27)	0.308 ^b
\$30,000 to \$39,999 (%)	3.76 (0.76)	3.38 (0.39)	4.14 (0.68)	0.042	2.07 (0.52)	2.14 (0.40)	2.00 (0.38)	0.009	2.13 (0.50)	1.16 (0.21)	3.01 (0.47)	0.173	2.41 (0.41)	1.13 (0.38)	3.08 (0.80)	0.184
\$40,000 or more (%)	2.18 (0.60)	2.31 (0.41)	2.06 (0.40)	0.016	1.76 (0.49)	1.46 (0.32)	2.07 (0.38)	0.051	1.92 (0.55)	1.53 (0.38)	2.26 (0.36)	0.060	0.97 (0.20)	0.52 (0.18)	1.21 (0.40)	0.097

Table 2-1. SNAP participant survey respondent and household characteristics at baseline (continued)

	Farmers market								Grocery store							
	General				Shoppers				General				Shoppers ^a			
	All	T	C	SMD	All	T	C	SMD	All	T	C	SMD	All	T	C	SMD
Household current financial condition (n)	833	421	412		703	347	356		935	385	550		454	125	329	
Very comfortable and secure (%)	4.00 (0.73)	3.47 (0.53)	4.53 (0.55)	0.058	2.26 (0.60)	1.80 (0.42)	2.71 (0.35)	0.069	4.33 (0.69)	4.11 (0.57)	4.53 (0.43)	0.021	4.18 (0.49)	3.98 (0.76)	4.29 (0.68)	0.016
Able to make ends meet without much difficulty (%)	14.31 (1.66)	16.43 (1.17)	12.20 (0.94)	0.114	12.27 (1.15)	11.27 (1.03)	13.26 (0.66)	0.063	14.74 (1.12)	14.90 (1.01)	14.59 (0.92)	0.009	12.89 (0.65)	11.29 (1.05)	13.72 (1.18)	0.077
Occasionally have some difficulty making ends meet (%)	33.94 (1.82)	26.72 (1.19)	41.15 (1.43)	0.326 ^b	26.79 (1.86)	24.91 (1.42)	28.64 (1.35)	0.086	27.83 (1.57)	26.26 (1.07)	29.24 (1.05)	0.068	26.91 (0.98)	20.95 (1.35)	30.01 (1.85)	0.223
Tough to make ends meet but keeping head above water (%)	35.74 (1.56)	40.43 (1.25)	31.04 (1.52)	0.191	44.57 (2.44)	47.56 (1.74)	41.61 (1.95)	0.119	40.68 (1.59)	43.89 (1.43)	37.80 (1.33)	0.123	39.29 (1.54)	45.43 (2.24)	36.09 (2.06)	0.188
In over your head (%)	12.01 (1.23)	12.94 (0.81)	11.08 (0.74)	0.056	14.11 (1.05)	14.46 (0.76)	13.77 (0.89)	0.020	12.41 (1.05)	10.83 (0.77)	13.84 (0.81)	0.097	16.73 (0.79)	18.34 (1.33)	15.89 (1.24)	0.063
Monthly Household Fruit and Vegetable Expenditures (n)	353	185	168		378	195	183		404	160	244		275	79	196	
Mean (\$)	68.32 (2.29)	59.33 (2.81)	77.14 (3.83)	0.515 ^b	94.24 (4.12)	106.83 (6.77)	80.41 (3.53)	0.353 ^b	74.79 (3.17)	69.57 (4.50)	79.01 (4.77)	0.197	72.03 (8.40)	66.30 (13.55)	75.31 (7.06)	0.192
Daily Cups of Fruits and Vegetables Consumed – Excluding Fried Potatoes – Individual Level (n)	767	389	378		642	324	318		861	354	507		441	121	320	
Mean (cups)	1.86 (0.05)	1.77 (0.06)	1.94 (0.06)	0.146	2.18 (0.04)	2.36 (0.09)	1.99 (0.05)	0.246	1.96 (0.06)	2.07 (0.10)	1.86 (0.05)	0.153	2.03 (0.08)	2.30 (0.18)	1.89 (0.06)	0.270 ^b
Daily Cups of Fruits Consumed – Individual Level (n)	733	372	361		609	310	299		820	331	489		431	114	317	
Mean (cups)	0.92 (0.03)	0.87 (0.04)	0.98 (0.04)	0.126	1.00 (0.03)	1.01 (0.05)	0.99 (0.04)	0.028	0.99 (0.04)	1.08 (0.08)	0.92 (0.04)	0.159	1.03 (0.06)	1.31 (0.15)	0.89 (0.04)	0.354 ^b
Daily Cups of Fruits Consumed – Excluding Juice – Individual Level (n)	656	337	319		544	277	267		753	302	451		410	110	300	
Mean (cups)	0.50 (0.02)	0.49 (0.03)	0.52 (0.03)	0.053	0.58 (0.02)	0.60 (0.04)	0.56 (0.03)	0.069	0.52 (0.02)	0.52 (0.04)	0.52 (0.03)	0.010	0.55 (0.04)	0.61 (0.07)	0.53 (0.03)	0.149
Daily Cups of Vegetables Consumed – Excluding Fried Potatoes – Individual Level (n)	764	387	377		641	324	317		858	353	505		441	121	320	
Mean (cups)	0.96 (0.03)	0.91 (0.03)	1.00 (0.04)	0.135	1.19 (0.03)	1.34 (0.05)	1.03 (0.04)	0.305 ^b	0.97 (0.03)	0.98 (0.05)	0.96 (0.02)	0.024	1.02 (0.03)	1.05 (0.08)	1.01 (0.04)	0.050
Sample size^d	833	421	212		703	347	356		935	385	550		454	125	329	

Source: SNAP Participant Baseline Survey.

Weighted means and percentages (unweighted n's).

Missing values for demographic variables were imputed (see Appendix I for imputation procedures).

SMD=Standardized Mean Difference; T=Treatment group; C=Comparison group; All=Treatment and Comparison groups combined.

^a Grocery Store Shoppers were a subgroup of the Grocery Store General group.^b Indicates SMD>0.25 (see Stuart et al., 2013; Garrido et al., 2014).^c Employment status is self-reported. Examples of employed but not working include on vacation, ill, experiencing child care problems, on maternity or paternity leave, taking care of some family or personal obligation, etc.^d Sample sizes differed from n's due to item nonresponse.

2.2.6 FNS Retailer EBT Transaction Data

FNS provided aggregate monthly transaction data for each FINI retailer.¹¹ These data contained the following variables: (1) total number of unique SNAP households that used their EBT card at the FINI retailer, (2) total number of SNAP transactions, and (3) total value of SNAP benefits redeemed. These data were aggregated at the quarterly level and descriptive statistics were generated to examine patterns by retailer type.

2.2.7 Secondary Data Describing FINI Operating Environments

The evaluation used secondary data to characterize the communities surrounding FINI retailers. Mapping the FINI retailers location (using geographic indicators) to community-level data provided information on the demographic and economic status of the communities the FINI retailers serve. Sources of community data included the U.S. Census Bureau's 2010 Decennial Census, the 2012-2016 ACS, and USDA's Food Environment Atlas. The ACS data included information such as urbanicity, unemployment, poverty, and SNAP participation. The Food Environment Atlas provided information on the overall food environment, such as whether the community was located in a limited food access area.

2.3 Analytic Approach

The process and outcome evaluations consisted of analyses drawing from several data sources. Content analysis was used to summarize the qualitative data collected from interviews with grantee program administrators, descriptive statistics were used to examine patterns in the quarterly Core Program Data and retailer transaction data, GIS analyses were used to mapped FINI locations to examine the characteristics of FINI retail environments, and multivariate regression analyses were used to assess the impact of FINI on SNAP participant outcomes.

¹¹ FNS retailer transactions were aggregated for each SNAP authorization number. While most SNAP retailers had unique SNAP authorization numbers, some farmers markets shared SNAP authorization numbers. This report discusses this issue and its impact on the analysis in greater detail in Chapter 6.

2.3.1 Process Evaluation

The process evaluation examined the characteristics and experiences of FINI grantees and retailers. These included grantee characteristics such as award amounts, program objectives, and target populations, as well as retailer characteristics such as location and sociodemographic characteristics and food environments of retailer communities. Incentive program characteristics, such as products eligible for earning and redeeming incentives and incentive values, were also summarized, as well as experiences with implementation for grantees and retailers, including training, rollout, and marketing and outreach.

The analyses drew from grantee level data (CPD and grantee administrator interviews) and retailer data (the retailer survey). The grantee data enabled summary of the program characteristics and implementation experiences from the grantees' perspective. The retailer data provided information for analysis of retailer experiences with implementation. The secondary data from FNS and community characteristics data from the U.S. Census were used to describe the sociodemographic characteristics and food environments around the FINI retailers and to examine EBT use at FINI retailers. The sections below describe the analytic approach for each data source.

2.3.1.1 CPD and Grantee Administrator Interviews

The analysis of the CPD consisted of descriptive statistics—percentages for dichotomous variables and means for continuous variables. Descriptive statistics were generated in the aggregate and by FINI retailer type, for each calendar quarter. While the CPD form listed 13 retailer types, these were reclassified by type and findings are reported for five retailer types. The retailer type and their classification is depicted in Table 2-2. All grocery stores were combined to create one grocery store category, different venues where direct marketing farmers sell their products were collapsed to create a direct marketing farmer category, and a general mobile market category was created to combine mobile markets at single or multiple locations. It should be noted that CSA programs may be operated by direct marketing farmers, but they are considered a separate retailer category for this report, as these direct marketing farmers did not offer incentives in other retail settings.

Table 2-2. Classification of retailer types

Retailer type specified in the CPD form	Retailer type included in the report
Large chain grocery store/supermarket	Grocery store
Discount superstore	
Convenience store	
Small store or corner store	
Farmers market	Farmers market
Direct farm	Direct marketing farmer
Farm stand	
Vendor at a single farmers market location	
Vendor at multiple farmers market locations	
Vendor at multiple outlet types	Mobile market
Mobile market at a single location	
Mobile market at multiple locations	
CSA	CSA

Interview transcripts were reviewed and a preliminary coding scheme was developed to facilitate the content analysis of the grantee administrator interviews. The coding scheme flagged successes and challenges by interview topic and provided an easily accessible way to group common experiences, procedures, issues, and actions taken. Transcripts were reviewed again with the preliminary coding scheme in place, leading to the iterative editing of the coding scheme to ensure capture of nuances from the interviews. Interview transcripts along with the coding scheme were loaded into NVivo 11 (qualitative coding software). Two experienced qualitative analysts coded the interviews according to the coding scheme. After data upload and coding, common themes were identified and used to assess the relationship between program contextual factors and implementation, providing insight into how and why particular implementation issues may have occurred.

2.3.1.2 Retailer Survey

The examination of the retailer surveys consisted of qualitative and quantitative analyses. The qualitative analyses focused on three open-ended survey questions, and followed the same approach used for the qualitative analyses of the grantee administrator interviews.¹² For the quantitative analysis of the retailer survey, survey responses were reviewed and recoded to reflect valid survey skip patterns. Most survey response options were categorical; one question (the number of staff that attended FINI trainings) was a continuous measure. Ten retailers submitted multiple completed

¹²“Briefly indicate the topics on which clarification was needed,” “Please describe the challenges of implementing <FINI> at your retailer outlet,” and “Please describe the successes of implementing <FINI> at your retailer outlet.”

surveys to Westat. The multiple responses from each of these retailers were combined into one set of completed survey answers and duplicate observations were deleted.¹³ Retailers that completed the survey include those who were open and offering FINI in calendar Quarter 3 of 2016 and retailers that were open and offering FINI in the month in which they completed the survey.

The quantitative analysis consisted of descriptive analyses of the weighted response rates/means of the retailer survey questions. In addition to reporting and discussing findings across all retailers, the analysis was stratified by retailer type.

2.3.1.3 Analysis of Secondary Data Sources

To identify characteristics of the communities around each retailer, geographic coordinates were assigned to each retailer using standard address geocoding methods.¹⁴ The resulting coordinates were used to determine the census tract and county for each retailer. Using the census tract information, FINI retailers were linked with data from the U.S. Census Bureau's 2010 Decennial Census and 2012-2016 ACS, which contained information on demographic and socioeconomic characteristics of the retailer's neighborhood. Characteristics of the area food environment from USDA's Food Environment Atlas were linked to FINI retailers using a county identifier. The geocoded coordinates were also used to assign an urbanicity category to each retailer. The categories corresponded to Census 2010 three-tier definitions: the urban city category corresponded to Census Urbanized Areas of 50,000 or more people, the urban town category corresponds to Census Urban Study groups of at least 2,500 people but fewer than 50,000 people, and the rural category included everything else. Descriptive statistics—percentages and means—were used to summarize the secondary data.

Retailer transaction data was analyzed using descriptive statistics in the aggregate to summarize EBT transactions at farmers markets during FINI implementation.

¹³For survey questions with open-ended answers (i.e., textual answers), research staff simply concatenated unique answers. For survey questions with the option to pick multiple answers (i.e., "Mark all that apply" questions), research staff used all unique answers across the multiple completed surveys. For survey questions with the option to select only one answer, research staff used the answer from the survey of the retailer which was the consolidated retailer in the later core program data files.

¹⁴The location address was either missing or incorrect for 30 retailers from 11 grantees; these retailers were not included in the analyses. Seven of these were farmers markets and the remaining were mobile markets. Research staff have requested updates to the address fields for these retailers.

2.3.2 Outcome Evaluation

The outcome evaluation analyses drew from the SNAP participant survey data. Outcome measures were constructed after defining the analytic sample and cleaning the data. The outcomes fell into four categories: (1) expenditures on fruits and vegetables; (2) fruit and vegetable consumption; (3) fruit and vegetable purchasing patterns; (4) fruit and vegetable preferences; and (5) food security. Due to the large number of outcomes, there was a potential for some impact estimates to have appeared significant despite the absence of an actual treatment effect (Schochet 2009). Outcomes evaluations typically follow one of two general approaches to address the multiple comparison issue: (1) correct for multiple comparisons using adjustments to the significance tests (e.g., Bland & Altman 1995); or (2) limit the number of outcomes defined as primary tests of program impact prior to conducting the study. This evaluation used the second approach and defined two outcomes as primary tests of program impact: consumption (measured as total daily fruit and vegetable cup-equivalent, excluding fried potatoes) and expenditure (measured as monthly fruit and vegetable expenditures). Analyses of all other outcomes were considered secondary.

The two primary outcome measures were as follows:

Monthly Fruit and Vegetable Expenditures. The survey asked respondents “Please estimate your household's usual monthly expense for fruits and vegetables (include fresh, frozen, canned, and dried fruits and vegetables).” The expenditures outcome used the response to this question. Item non-response was high for this outcome measure; nonresponse weights for analyses using this outcome measure were developed to control for the potential non-randomness in response versus nonresponse (see Appendix I). The analyses excluded outliers, which were defined as observations with values more than three times the interquartile range of expenditures for each study group (Millen et al., 2005).

Total Daily Fruit and Vegetable Cup-Equivalent Consumption, Excluding Fried Potatoes.

The baseline and follow-up surveys included the National Cancer Institute’s (NCI’s) 18-item Fruit and Vegetable Screener (FVS) (Thompson et al., 2002, USDA, 2016). The screener asked respondents to indicate the frequency of consumption in the last 30 days and the typical amount consumed for these nine components: 100 percent juices; non-juice fruits; lettuce or leafy green salads; fried potatoes; non-fried white potatoes; cooked dried beans; other vegetables (e.g., carrots); tomato sauce; and salsa.

Responses to FVS were used to derive fruit and vegetable consumption measures; scoring provided by NCI was applied to the screener responses to calculate daily cup equivalents of the fruit and vegetable components. Prior to constructing the outcome measures, responses to the screener items were cleaned using guidance from NCI (see Appendix I for a description of the procedures). The primary outcome measure—total number of daily cups of all fruits and vegetables consumed excluding fried potatoes—was created by the summation of the nine components on the NCI fruit and vegetable screener. The analyses excluded outliers, which were defined as observations with values more than three times the interquartile range of consumption for each study group (Millen et al., 2005).

The secondary outcomes were as follows:

Fruit and Vegetable Cup-Equivalent Consumption Measures. Using responses to the NCI screener, regression analyses examined three additional daily cup equivalent measures:

1. Fruits and fruit juice: This is the summation of 100 percent juices and non-juice fruit components.
2. Fruits, excluding fruit juice: This measure includes all fruits minus 100 percent juice.
3. Vegetables, excluding fried potatoes. This measure is the summation of lettuce or leafy green salads, non-fried white potatoes, cooked dried beans, other vegetables, tomato sauce, and salsa components.

Form and Types of Fruits and Vegetables Purchased. Responses to two survey questions were used to measure fruit and vegetable purchasing patterns. These questions asked, “In the past month, when you bought fruits [(vegetables)], what kind did you buy?” with the following purchase options: “Fresh,” “Frozen,” “Canned,” “Dried,” and “I did not buy it.” Respondents selected all options they purchased. Respondents also reported if they purchased the following types of fruits and vegetables: bananas, apples, berries, oranges, melons, grapes, peaches, pineapples, pears, other fruits, potatoes, lettuce/leafy salad greens, onions, tomatoes, carrots, green beans, peppers, legumes/shelled beans, broccoli, and other vegetables.¹⁵ Separate indicator variables were constructed for each form and type of fruit and vegetable purchased (1=purchased, 0=did not purchase). These indicator variables

¹⁵ Respondents had three response areas for other fruits and other vegetables each for a total of six possible other unlisted fruits and vegetables purchased.

were also summed to generate a respondent level score of the total number of fresh, frozen, canned, and dried fruits and vegetables purchased.

Frequency of Fruits and Vegetables Purchased. Survey questions asked respondents to list the frequency with which they purchased different types of fruits and vegetables. The question asked, “In the past month, how often did you buy the following types of fruits and vegetables?” with the following purchase options: “More than once a week,” “Once a week,” “Every other week,” “Once a month,” and “Never.” Respondents indicated if they purchased the following types of fruits and vegetables: fresh fruits, frozen fruits, canned fruits, dried fruits, 100 percent fruit juice, fresh vegetables, frozen vegetables, canned vegetables, and dried vegetables. Separate indicator variables were constructed for each fruit and vegetable purchased (1=purchased once a week or more, 0=did not purchase at least once a week). Summary indicator variables were also constructed for purchasing any type of fruit or vegetable, purchasing any type of fruit, and purchasing any type of vegetable (1=purchased once a week or more, 0=did not purchase at least once a week).

Usual Retailer Type for Purchase of Fruits and Vegetables. A survey question asked respondents to indicate their household’s usual location for buying fruits and vegetables. The question asked, “Where do you usually buy fruits and vegetables for your household?” with the following retailer type options: “Large chain grocery store or supermarket (such as Albertsons, Giant, Kroger, Publix, Safeway);” “Discount superstore (such as Kmart, Target, Walmart);” “Convenience store (such as 7-Eleven or a mini market);” “A Dollar Store”; “Warehouse club store (such as BJ’s, Costco, Sam’s Club);” “Ethnic market”; “Natural or organic supermarket/local market”; “Small local store or corner store”; “Farmers market/farm stand/co-op”; “Home delivery service (such as FreshDirect, Peapod);” and “Other, tell us where.” Respondents selected all retailer types to indicate where they usually purchased fruits and vegetables. Due to low response counts, “Convenience store,” “Warehouse club store,” “Ethnic market,” and “Home delivery service” were collapsed into “Other” retailer type. Separate indicator variables were constructed for each retailer type (1=usually purchase fruit and vegetables at this location type, 0=do not usually purchase fruit and vegetables at this location type).

Efforts to Purchase High-Quality Fruits and Vegetables. A survey question asked respondents about the frequency with which they made special efforts to go to a particular store to buy high-quality fruits or vegetables. The question asked, “How often do you make special efforts to go

to a particular store to buy high-quality fruits or vegetables?” with the following response options: “Always,” “Most of the time,” “Sometimes,” “Rarely,” and “Never.” Responses were collapsed to create a dichotomous variable to capture the level of effort to go to a particular store to buy high-quality fruits or vegetables (1=Always or most of the time effort, 0=Sometimes or less effort).

Fruit and Vegetable Preferences. The survey included a series of agree-disagree statements to assess fruit and vegetable preferences. The question asked, “For each statement listed, select the answer that best indicates how much you personally agree or disagree with that statement.” The statements listed were “I enjoy trying new foods,” “I enjoy trying new fruits,” “I enjoy trying new vegetables,” “I eat enough fruits to keep me healthy,” “I eat enough vegetables to keep me healthy,” “I encourage my family to eat fruits and vegetables,” and “I encourage my friends to eat fruits and vegetables.” Respondents chose from the following options: “Strongly Disagree,” “Somewhat Disagree,” “Neither Disagree or Agree,” “Somewhat Agree,” “Strongly Agree,” and “Does Not Apply.” Separate indicator variables were constructed for each statement (1=strongly agree or somewhat agree, 0=strongly disagree, somewhat disagree, or neither disagree or agree).

Adult Food Security. The survey included 30-day version of the 10 item Adult Food Security Survey Module (Nord et al., 2009), which includes questions about respondents’ household food situations and their ability to afford the food they needed in the last 30 days. For example, one question asked respondents, “In the last 30 days, ‘we worried whether our food would run out before we got money to buy more.’ Was that often, sometimes, or never true for your household?” Respondents could score between 0 and 10 with 0 indicating high food security, 1 to 2 indicating marginal food security, 3 to 5 indicating low food security, and 6 to 10 indicating very low food security. Respondents scoring between 0 and 2 were considered food secure, while respondents scoring between 3 and 10 were considered food insecure.

Receipt of Incentives. The treatment group follow-up survey included questions regarding receipt of incentives; questions were customized for each respondent with the local name for FINI. Respondents were asked, “Have you heard of <LOCAL NAME FOR FINI>?” Respondents who had heard of FINI were then asked, “Have you ever received <LOCAL NAME FOR FINI>?” with either “Yes,” “No,” or “Don’t Know.” A binary incentive receipt measure was developed by combining “Don’t Know” and “No” to reflect “did not receive incentive” and retaining the “yes” responses to reflect “incentive received.”

After constructing the primary and secondary outcome measures, distributions of the continuous outcome measures were assessed to check for non-normality; and in some cases transformations were applied to approximate normality prior to conducting regression analyses. Appendix I lists the variables that the research staff transformed and the transformation procedures. All primary and secondary outcome variables were analyzed using univariate descriptive and multivariate regression analyses for each study group (i.e., FMG, FMS, GRG, and GSS). The descriptive analyses consisted of the means, frequencies, and response rates of various survey questions while the regression analyses focused on determining the characteristics associated with receipt of the incentive as well as the impact of FINI program on the primary and secondary outcomes.

Intent-to-Treat and Treatment-on-the-Treated

Research staff used two approaches to estimate the impact of FINI: intent-to-treat (ITT) and treatment-on-the-treated (TOT). The ITT approach compared all treatment group observations with all comparison group observations and measures the average effect of FINI on all treatment group SNAP participants in the sample. The TOT approach compared only treatment group observations who reported receiving incentives in the follow-up period with all comparison group observations. In other words, the TOT approach measured the effects of receiving incentives, whereas the ITT approach measured the effects of offering incentives. Caution is warranted in interpreting TOT effects as evidence of program impact, as characteristics of those who received the treatment could partially or fully explain the impact estimates. The results in chapters 8 and 9 are from the ITT models; results from the TOT models should be interpreted as exploratory and are presented in Appendix K.

Regression Adjusted Impacts

Weighted mean values of outcomes measures were examined at baseline for the treatment and comparison groups within each study group (i.e., FMG, FMS, GSG, and GSS), and baseline equivalence using standardized mean differences were assessed. Appendix J shows the results of the baseline equivalence tests for the primary outcome measures. After weighting, the treatment and comparison groups were equivalent for most baseline values of outcome measures, but some showed unacceptable baseline equivalence despite weighting. To account for any differences in equivalence at baseline, a lagged dependent variable (LDV) model framework was used for the

primary and secondary outcomes. Regression models using the LDV model framework measured the outcome at follow-up as the dependent variable and the baseline outcome as a model covariate to control for any unbalance in baseline outcomes between treatment and comparison. For the receipt of incentives model, the outcome only applies to the follow-up survey and includes only treatment group respondents; therefore, no baseline measure of incentive receipt was included in the estimation strategy.

Ordinary least squares (OLS) regression models estimated the impact of FINI on daily fruit and vegetable consumption and monthly expenditures. For the number of types of fresh fruits and vegetables purchased, Poisson regression models were used. For the food security outcome and the participation models, logistic regression models were used.¹⁶ All regression models used survey weights and jackknife replicate weights for variance estimation. Marginal effects were estimated for each outcome to construct interpretable coefficients.

Each regression model included control variables to account for differences between the treatment and comparison groups that may lead to biased outcomes. An important control variable included in the models was prior receipt in SNAP-based incentives from a non-FINI SNAP-based incentive program (SBIP). Some SNAP participants in the treatment and comparison groups may have received incentives for fruits and vegetables from a SBIP prior to FINI.¹⁷ Retailers with known SBIPs were dropped from the comparison group sample frame, and FINI treatment group retailers were restricted to those that did not offer incentives during the baseline data collection period. However, it is possible that comparison group retailers operated SBIPs during the data collection period or that retailers with unconfirmed SBIPs were running a program. Further, SNAP participants in the treatment and comparison groups may have encountered non-local SBIPs during baseline survey data collection if they shopped outside of the catchment area selected for the study.

At baseline, the SNAP participant survey asked respondents if they received matching amounts (i.e., from SBIPs) to buy fruits and vegetables using their SNAP EBT card (see Table 2-3). In the FMG group, roughly 10 percent reported receiving incentives from SBIPs prior to FINI, with no

¹⁶OLS regression models can result in misleading estimates when used to analyze outcomes in the form of counts (i.e., number of fruits, number of vegetables, etc.). Poisson regression models are appropriate for outcomes in the form of counts. See Gardner et al., 1995. Logistic regression is appropriate for dichotomous outcomes.

¹⁷SBIPs may be operated by FINI grantees or other organizations using non-FINI funds. These SBIPs may also have the same program name as those operated through FINI, such as Double Up Food Bucks, Market Match, etc.

significant differences between the treatment and comparison groups. In the FMS group, 37 percent of the group overall reported receiving incentives from SBIPs prior to FINI, with significant differences between the treatment group (56 percent reported prior incentive receipt) and the comparison group (18 percent reported prior incentive receipt). In the GRG group, 13 percent overall reported receiving incentives from SBIPs prior to FINI, with no detectible differences between the treatment and comparison groups. And, in the GSS group, 14 percent overall reported prior receipt of incentives from SBIPs, with measurable differences between the treatment and comparison groups (20 percent and 10 percent, respectively, reported receiving incentives prior to FINI).

Differences between the treatment and comparison groups in receipt of incentives from SBIPs during the baseline data collection could affect the estimated impacts of FINI on outcomes. For the FMS and GSS groups, where a higher proportion of the treatment group received incentives from SBIPs prior to FINI implementation, impact estimates could be muted. To account for these baseline differences in the estimation of treatment effects, regression models controlled for receipt of incentives from SBIPs prior to FINI implementation. While regression may have improved the estimated impacts of FINI, the impacts could still be understated for the FMS and GSS groups because few SNAP participants in the treatment groups began receiving incentives during the follow-up survey data collection period. Among those in the FMS treatment group who *did not* receive incentives from SBIPs at baseline (n=151), 56 percent reported receiving incentives during the follow-up period. For those in the GSS treatment group who did not receive incentives from SBIPs at baseline (n=87), 15 percent reported receiving incentives during the follow-up period.

Table 2-3. Receipt of matching amounts among SNAP participants at baseline

Received matching amount at farmers market or grocery store	Farmers market								Grocery store							
	General				Shoppers				General				Shoppers ^a			
	All	T	C	SMD	All	T	C	SMD	All	T	C	SMD	All	T	C	SMD
(n)	806	407	399		686	340	346		912	373	539		445	121	324	
Yes (%)	10.43 (1.13)	11.50 (0.90)	9.36 (0.70)	0.067	37.20 (1.98)	56.19 (2.08)	18.31 (1.19)	0.763 ^b	13.41 (1.49)	16.60 (1.23)	10.58 (0.87)	0.162	13.65 (0.96)	19.96 (1.49)	10.41 (1.24)	0.239
No (%)	60.06 (1.83)	62.21 (1.53)	57.91 (1.71)	0.089	48.73 (1.80)	35.65 (1.34)	61.73 (1.85)	0.544 ^b	62.11 (1.69)	57.11 (1.78)	66.56 (1.52)	0.191	61.12 (1.63)	49.42 (1.70)	67.13 (2.22)	0.354 ^b
Unsure (%)	31.33 (1.76)	28.88 (1.38)	33.77 (1.53)	0.108	14.53 (1.65)	8.16 (0.80)	20.86 (1.14)	0.464 ^b	25.06 (1.15)	27.07 (1.05)	23.28 (0.90)	0.085	26.15 (1.05)	32.36 (1.62)	22.96 (1.35)	0.201
Sample Size ^c	833	421	412		703	347	356		935	385	550		454	125	329	

Weighted means and percentages (unweighted n's). Standard errors in parentheses.

SMD=Standardized Mean Difference; T=Treatment group; C=Comparison group; All=Treatment and Comparison groups combined.

Source: Pre-SNAP Participant Survey.

^a Grocery Store Shoppers were a subgroup of the Grocery Store General group.

^b Indicates SMD>0.25 (see Stuart et al., 2013; Garrido et al., 2014).

^c Sample sizes differed from n's due to item nonresponse.

Table 2-4 summarizes the full list of control variables and the rationale for including them in the models.

Table 2-4. Regression model covariates

Covariate(s)	Model		Rationale for inclusion
	Incentive receipt	Primary and secondary outcomes ^a	
Baseline outcome measure		✓	Accounted for differences in the outcome measure at baseline due to any remaining imbalances between the treatment and comparison groups.
Receipt of prior matching amounts	✓	✓	Controlled for potential contamination effects. Respondents may have received matching amounts for fruit and vegetables prior to exposure to FINI. Matching amounts acted as subsidies and thus influence consumption and expenditures.
Overall health	✓	✓	SNAP respondents with worse overall health may have had to divert food expenditures to other uses.
Demographic characteristics (gender, marital status, age, race, born outside of the United States, and education)	✓	✓	Controlled for unobservable heterogeneities.
Income	✓	✓	Respondents with higher income may have consumed and expended more.
Distance to catchment area retailer (miles)	✓	✓	Farther travel distances increased transaction costs.
Household composition: size, presence of children/elderly	✓	✓	Controlled for consumption and spending preferences.
Percentage of the local area population on SNAP	✓	✓	An area with more SNAP households may have had a higher probability of FINI participation and thus a potentially larger impact of FINI.
SNAP participant lives in an urban area (Y/N)	✓	✓	Proxy for the effect of local grocery availability.
FNS region	✓	✓	Controlled for price within region and any regional heterogeneities that would affect the outcomes. Analysts excluded region from outcomes analyses of the GSG study group because there was no variation in the treatment group.
Number of sources from which respondents heard about FINI	✓		The number of sources potentially indicated greater program awareness, expected to increase the likelihood of participation.
Maximum daily incentive amount	✓		A larger maximum daily incentive amount should have acted as a larger subsidy and thus incentivized greater participation.
Number of months respondents were exposed to FINI	✓		Respondents exposed to FINI for longer periods would have more time to participate in the program.
Respondent shopped at the catchment area FINI retailer (Y/N)	✓		A first step to using FINI was shopping at a FINI retailer. Participants may have simply shopped at other retailers even though they can receive FINI at one particular retailer.

Notes:

^a Primary outcomes included total fruit and vegetable expenditures and total fruit and vegetable consumption – excluding fried potatoes, and secondary outcomes included total fruit and fruit juice consumption, fruit consumption – excluding juice, total vegetable consumption – excluding fried potatoes, types and frequency of fruits and vegetables purchased, types of stores where they usually shop for groceries, fruit and vegetable preferences, and food security. “✓” means the regression model includes the covariate.

The tables summarizing regression models highlight results that are statistically significance at the $p < .05$ level, $p < .01$ level, or $p < .10$ level. The text discusses outcomes with p-values greater than .05 but lower than .10 in the context of other significant findings as potentially meaningful patterns. Full model results are presented in Appendix K.

3. Characteristics of the FINI Grant Projects

This chapter describes the characteristics of the 51 large-scale and community-based FINI grants projects awarded to 47 grantees in the 2015, 2016, and 2017 grant cycles.¹⁸ Most FINI grantees had prior SNAP-based incentive program experience at farmers markets and continued to implement FINI at farmers markets. Some grantees had expanded incentive programs into new retailer settings, such as grocery stores, mobile markets, direct marketing farmers, and community-supported agriculture (CSA) programs. FINI retailers are spread across the country, operating in 38 States and the District of Columbia. FINI retailers are largely located in urban settings with higher concentrations of economically disadvantaged residents. FINI grantee characteristics presented in this chapter are primarily based on analyses of the 2,600 retailers contained in the Core Program Data spanning 10 calendar quarters – Q2/2015 to Q3/2017 and interviews with 2015 and 2016 grantees.

3.1 FINI Award Amount and Duration

The national evaluation included 51 community-based and large-scale grants awarded in the 2015, 2016, and 2017 grant cycles to 47 grantees; 16 were large-scale grants, and 35 were community-based grants. Of these 51 grants, 15 were from the 2015 grant cycle, 15 were from the 2016 grant cycle, and 21 were from the 2017 grant cycle. Organizations that were eligible to receive FINI grant funding included government agencies and nonprofit organizations. Of the 47 FINI large-scale and community-based grantees, 41 were nonprofit organizations, three were State agencies, one was a county-level government agency, one was a regional organization, and one was a public university.

As of Q3/2017, NIFA awarded nearly \$62 million in FINI grants for large-scale and community-based grants (see Table 3-1). Community-based grantees could receive up to \$500,000, but there was no cap on the award amounts for large-scale grantees. At the individual grant level, there was significant variation in the Federal funding levels, which ranged from \$94,312 to \$5,859,307.

The maximum duration for the community-based and large-scale grants was four years. Of the 51 community-based and large-scale grants, 14 were funded for two years or less, one for two and

¹⁸Four grantees received FINI awards from two grant cycles.

half years, 17 for three years, and 19 for four years. NIFA approved no-cost extensions for several grant awards; others are still pending.

Table 3-1. Large-scale and community-based FINI program location, award duration, and award amount at time of award

Grantees	Number of states	Program location (State)	Award duration (months)	Award amount (\$)
2015 Grantees				
<u>Large-scale</u>				
Washington State Department of Health	2	ID, WA	59	5,859,307
Fair Food Network	2	MI, OH	48	5,171,779
Wholesome Wave Foundation Charitable Ventures, Inc.	19	AZ, CT, DC, GA, HI, LA, ME, MO, NE, NH, NJ, NV, OH, PA, RI, TN, VA, VT, WV	36	3,775,700
Ecology Center	1	CA	24	3,704,287
Massachusetts Department of Transitional Assistance	1	MA	36	3,401,384
AARP Foundation	3	KY, MS, TN	48	3,306,224
Florida Certified Organic Growers and Consumers	1	FL	45	1,937,179
International Rescue Committee, Inc.	4	AZ, MD, UT, VA	48	564,231
<u>Community-based</u>				
The Food Trust	1	PA	36	500,000
Farmers Market Fund	1	OR	36	499,172
Mandela Marketplace, Inc.	1	CA	36	422,500
Market Umbrella	1	LA	35	378,326
Opportunity Council	1	WA	36	301,658
Maine Farmland Trust	1	ME	34	249,816
Utahans Against Hunger	1	UT	36	247,038
2016 Grantees				
<u>Large-scale</u>				
University of California, San Diego	1	CA	48	3,384,909
New York Department of Health and Mental Hygiene	1	NY	48	3,378,965
Mid-America Regional Council Community Services Corporation	2	KS, MO	36	2,888,979
New Mexico Farmers' Marketing Association	1	NM	48	2,001,198
<u>Community-based</u>				
Harvest Home Farmers Market	1	NY	48	499,992
Youth Policy Institute	1	CA	24	499,923
Wholesome Wave, Bridgeport	2	CT, VT	36	499,720
LiveWell Colorado	1	CO	36	497,806
Community Service Council of Greater Tulsa, Inc.	1	OK	24	481,191
Pinnacle Prevention Corp.	1	AZ	24	400,000
Field and Fork Network Inc.	1	NY	36	393,813
Experimental Station	1	IL	24	313,499
San Francisco Planning and Urban Research Association	1	CA	24	308,131
Interfaith Sustainable Food Collaborative	1	CA	24	155,200
Community Food and Agriculture Coalition, Inc.	1	MT	24	94,312

Table 3-1. Large-scale and community-based FINI program location, award duration, and award amount at time of award (continued)

Grantees	Number of states	Program location (State)	Award duration (months)	Award amount (\$)
2017 Grantees				
<u>Large-scale</u>				
California Department of Food and Agriculture	1	CA	36	3,944,573
The Food Trust	2	PA, NJ	36	1,975,000
Community Food Alliance	1	KY	48	1,221,872
Fair Food Network	3	CO, MI, NY	36	602,159
<u>Community-based</u>				
Community Services Unlimited	1	CA	48	500,000
Heritage Ranch	1	HI	36	500,000
The Food Basket	1	HI	48	500,000
Together We Can	1	NV	24	500,000
Yolo County Health and Human Services Agency	1	CA	48	500,000
Youngstown Neighborhood Development Corporation	1	OH	48	498,880
The Fortune Society, Inc.	1	NY	36	498,000
Grow Food d/b/a Viva Farms	1	WA	48	488,758
VNA Health Care	1	IL	36	488,090
The Experimental Station	1	IL	24	487,197
Reinvestment Partners	1	NC	48	398,960
Mountain Comprehensive Health Corporation	1	KY	48	307,916
Rhode Island Public Health Institute	1	RI	48	299,844
Nature Nurture Center	1	PA	48	267,394
Atlanta Community Food Bank	1	GA	24	250,000
FreshFarm Markets	1	Washington, DC	36	250,000
Crossroads Community Food Network	1	MD	30	112,403
TOTAL				61,997,913

3.2 Match Funding

Grantees were required to provide a 100 percent funding match to their Federal FINI award. Match funds could include monetary or in-kind contributions. In-kind matches took many forms, such as volunteer hours, paid staff hours, free placement of incentive advertising in grocery store circulars, donation of the parking lot space to operate a farmers market, printing bilingual marketing materials, or donation of a refrigerator to stock refrigerated produce in stores. Interviews with the 30 community-based and large-scale 2015 and 2016 grantees indicated that match funds were primarily monetary for five grantees, in-kind for two grantees, and both in-kind and monetary for 23.

3.3 Grantees' Objectives

Although all grantees fully embraced the primary objective of FINI, which is to “increase the purchase of fruits and vegetables by low-income consumers participating in [SNAP] by providing incentives at the point of purchase,” many grantees had additional objectives. The grant applications and interviews revealed three common additional objectives:

- **Improving Food Access and Nutrition.** All FINI grantees noted the importance of improving access to healthy food in their target geographic areas. About one-fourth (12 of the 47) of the grantees focused their efforts on serving populations located in food deserts or census tracts with low access to healthy food. One grantee had a specific objective of reducing childhood obesity. Most grantees have included FINI program activities designed to encourage dietary behavior change among the SNAP population—hoping not only to increase the purchase of fruits and vegetables but also their consumption. To this end, about 40 percent of grantees were offering nutrition education and/or cooking demonstrations at FINI retailers.
- **Supporting Local Farmers.** Five grantees highlighted the direct benefits of FINI to local farmers from SNAP shoppers’ increased purchase of fruits and vegetables. Besides supporting the economic viability of local farmers directly at farmers markets, mobile markets, farm stands, and CSA programs, many FINI projects sought to support farmers by increasing the capacity of brick-and-mortar retailers to sell locally sourced produce.
- **Identifying Innovative Approaches to Providing Incentives.** A required objective for grantees was to test innovative strategies to increase the purchase of fruits and vegetables by SNAP participants. New strategies included testing new retail locations, incentive amounts, redemption technologies, outreach techniques, and fruit and vegetable prescription programs to SNAP participants enrolled in targeted health care settings. Examples of new technologies undergoing testing included altering the grocery store point-of-sale (POS) systems for automated identification of products eligible to earn and redeem incentives, or including the value of incentives earned or redeemed on the receipt; an app SNAP participants used to calculate the value of the FINI incentive; incentive systems that linked to grocery store loyalty cards; and incentive delivery formats (tokens or electronic systems) wherein incentives could be earned and redeemed at both farmers markets and grocery stores.

“It's sort of a win-win-win. It's really good for consumers who have better access to local food, fresh vegetables, and fruit. It's really good for the farmers to get an extended consumer base and increase sales. That's also good for the community overall because it creates these connections that bring people together.”

– 2015 FINI Grantee

3.4 Target Populations

FINI projects are limited to SNAP participants, with all grantees stating that they purposefully included retailers in locations that served high-need and underserved communities. Several FINI grantee projects chose to focus on vulnerable SNAP participants such as the elderly. While these programs targeted specific populations, in all but one case (which provided incentives to seniors), they provided incentives to any SNAP participant making an eligible purchase.

Other FINI grantees focused on limited populations by targeting health care settings. Five FINI grantees were implementing fruit and vegetable prescription programs, and four grantees planned to launch a FINI-funded prescription program in 2018. These programs recruited and enrolled SNAP participants through specific health care settings, such as a hospital or health clinic, and provided them prescription vouchers that were redeemable at grocery stores, farmers markets, and direct marketing farm locations (such as farm stands and CSA programs). Unlike other FINI programs that were open to all SNAP participants, only SNAP participants enrolled in the targeted health care settings could use prescription programs.

3.5 Participating Retailers

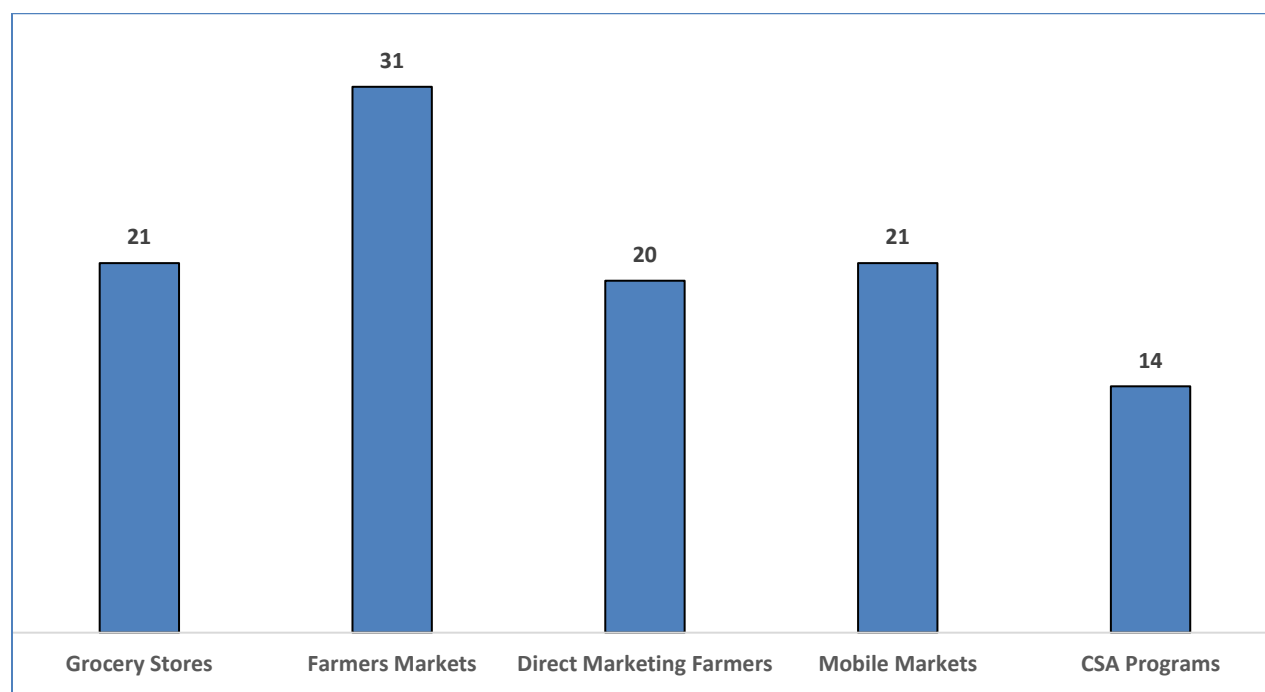
FINI is available at participating SNAP-authorized retailers. Thirty-nine¹⁹ grantees from the 2015, 2016, and 2017 grant cycles were operating FINI at grocery stores, farmers markets, direct marketing farmers, mobile markets, and CSA programs. Most grantees (31) operated at farmers markets; about half operated at grocery stores (21), mobile markets (21), and direct marketing farmers (20); about one-third (14) operated FINI at CSA programs (see Figure 3-1). Nearly 75 percent of grantees (29) operated FINI at multiple retailer types; 15 grantees offered FINI at both farmers markets and grocery stores. Of the 10 grantees who operated FINI at one retailer type, six operated FINI only at farmers markets, two operated FINI only at grocery stores, one operated at a CSA program, and one operated at a mobile market.

Grantees implementing prescription programs provided prescription vouchers to SNAP participants enrolled in targeted health centers; these prescription vouchers were redeemable at participating FINI retailers. FINI-funded prescription programs began in Q3/2016 with 180 participating

¹⁹ Eight of the 47 grantees had not begun implementing FINI as of Q3/2017.

retailers—150 grocery stores, 27 farmers markets, and three direct marketing farmer. Of these, five farmers markets accepted FINI prescriptions only, whereas all other retailers participated in FINI as well as FINI prescription program.

Figure 3-1. Number of grantees^a operating FINI at various retail locations



Source: Core Program Data, Calendar Q2/2015–Q3/2017.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated for at least one quarter across 2,600 SNAP retailers between Q2/2015 and Q3/2017.

^a The sum of all grantees exceeded 47 because some grantees operated in multiple retail settings.

3.5.1 Types and Numbers of FINI Retailers

The 2015, 2016, and 2017 grantees began implementing FINI at participating SNAP retailers in Q2 each year.²⁰ Over the course of 10 quarters (Q2/2015 through Q3/2017), the 39 FINI grantees collectively offered incentives at 2,600 retailer locations^{21,22} for one or more quarters. Farmers markets accounted for the majority—62 percent (1,619)—of FINI retailers, followed by grocery

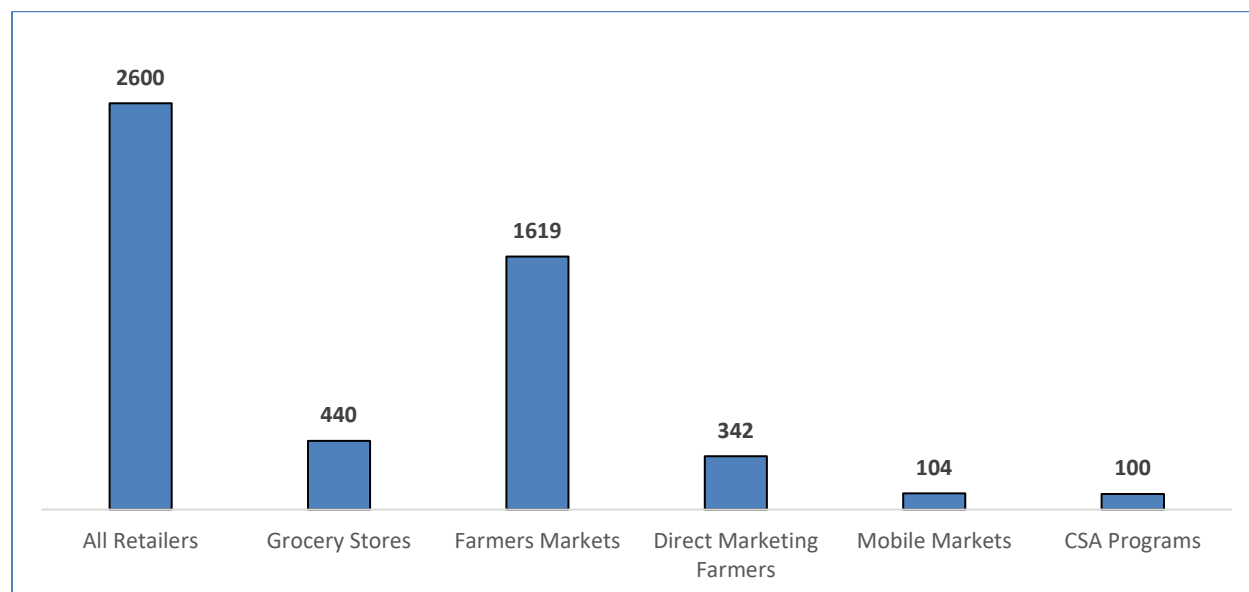
²⁰Two 2017 grantees began implementation before the FINI award date, using their match funds. Six 2017 grantees had not begun FINI implementation as of Q3/2017.

²¹Five retailers did not offer incentives but accepted FINI prescriptions.

²²Overall, 223 retailers discontinued FINI participation; 19 discontinued after implementing FINI for one quarter.

stores (440), direct marketing farmers (342), mobile markets (104), and CSA programs (100) (see Figure 3-2).

Figure 3-2. Number of retailers operating FINI between Q2/2015 and Q3/2017, by retailer type



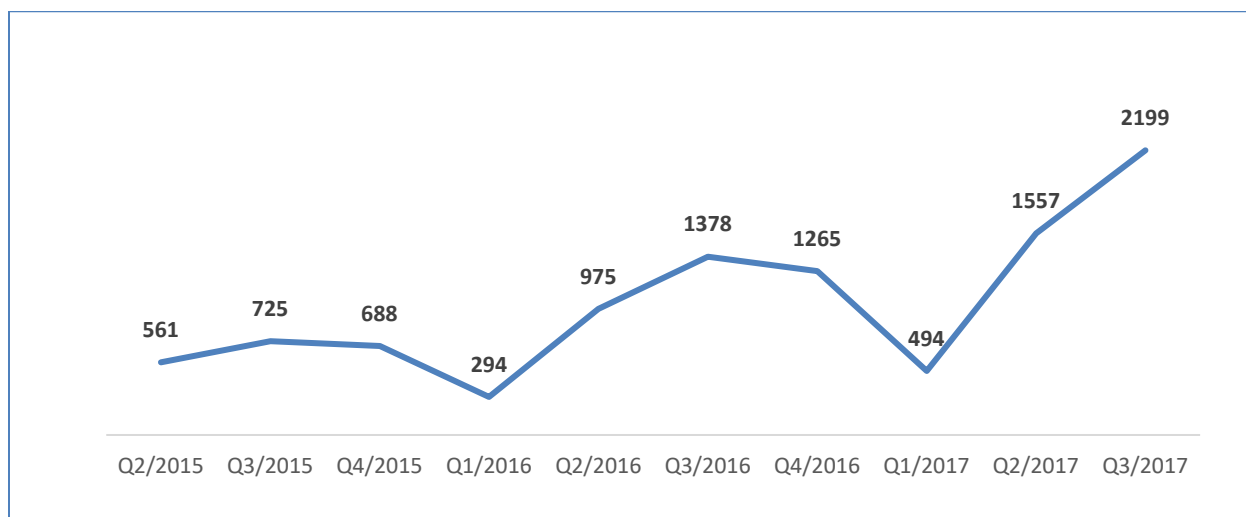
Source: Core Program Data, Calendar Q2/2015–Q3/2017.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated for at least one quarter across 2,600 SNAP retailers between Q2/2015 and Q3/2017.

The 10 calendar quarters for which there was Core Program Data suggest a cyclical operating pattern for most non-grocery store FINI retailers. New retailers began operating in the second and third quarters of the year, and many farmers markets, direct marketing farmers, and direct marketing farmers, mobile markets, and CSA programs suspended operations during the winter (the first calendar quarter). The highest number of FINI retailers operated in Q3/2017 (2,195) and the lowest number operated in Q1/2016 (294) (see Figure 3-3). Grantees rolled out the FINI prescription programs in Q3/2016 with additional retailers accepting prescription programs over time. The factors contributing to the considerable variation in the number of SNAP retailers operating each quarter included the seasonality in operating farmers markets, direct marketing farms, mobile markets, and CSA programs; planning needed to onboard grocery stores; setup systems for distribution and redemption of FINI prescription program; and the staggered rollout of FINI over time. Both 2015 and 2016 grantees brought on a small number of retailers as late as Q3/2017. During the course of 10 calendar quarters, 223 retailers (8.6%) stopped participating in FINI, with a small number (19) discontinuing within one quarter of launch.

Figure 3-3. Number of SNAP retailers offering FINI, by quarter



Source: Core Program Data, Calendar Q2/2015–Q3/2017.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

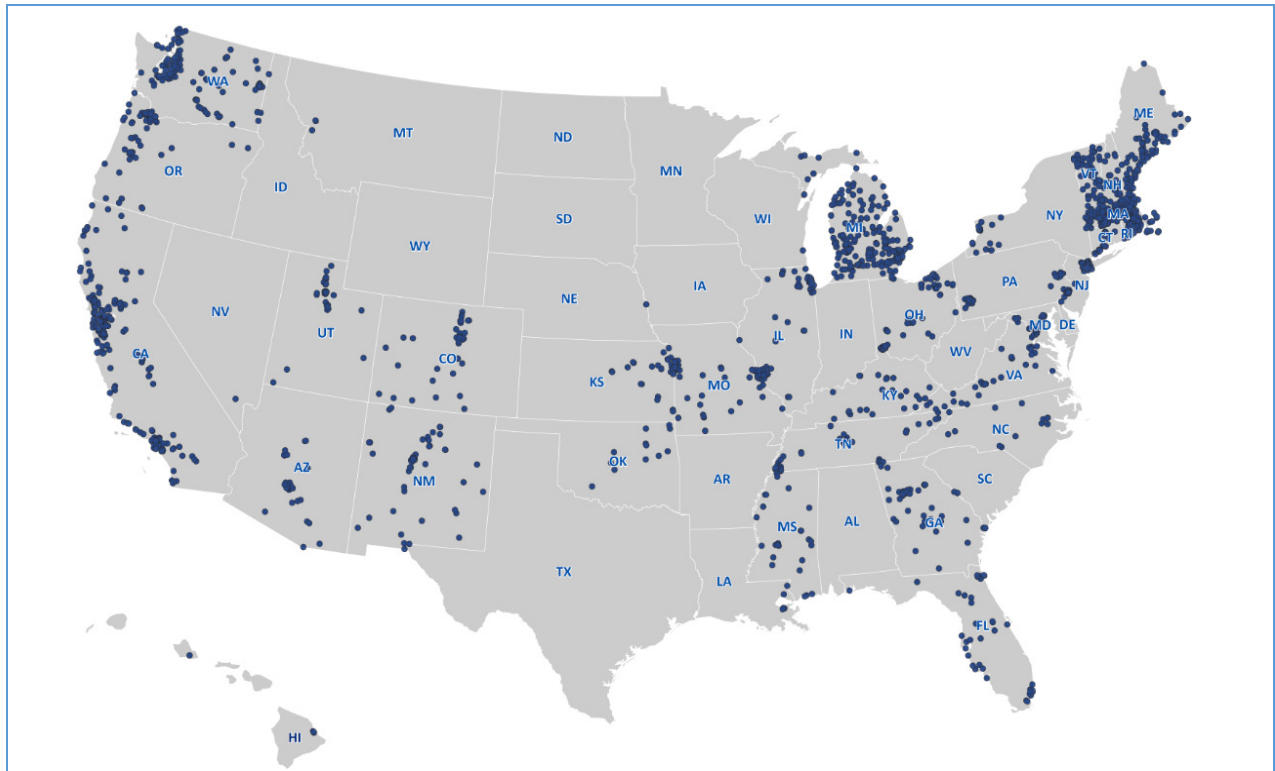
FINI operated for at least one quarter across 2,600 SNAP retailers between Q2/2015 and Q3/2017.

Among the 1,560 retailers that began FINI implementation before Q3/2016, 35 percent operated year-round, 55 percent were seasonal.

3.5.2 Location of FINI Retailers

FINI retailers are operating in most regions of the country, with the exception of the upper Midwest and Texas (see Figure 3-4). Between Q2/2015 and Q3/2017, the 39 large-scale and community-based grantees operated FINI for at least one quarter, at retailers in 38 States and the District of Columbia, with the largest concentrations in California (336), Massachusetts (291), and Michigan (288) (see Table 3-2). In contrast, Nebraska and Nevada had only one retailer operating in each State. As grantees often have a State or regional presence, FINI retailers tend to cluster within States and regions.

Figure 3-4. Locations of retailers operating FINI in the United States



Source: Core Program Data, Calendar Q2/2015–Q3/2017.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated for at least one quarter across 2,600 SNAP retailers between Q2/2015 and Q3/2017. The following States did not have any FINI retailers operating during that time period: Alabama, Alaska, Arkansas, Colorado, Delaware, Indiana, Iowa, Minnesota, South Carolina, South Dakota, Texas, and Wyoming.

Between Q2/2015 and Q3/2017, farmers markets operated in 38 States and the District of Columbia, with the largest numbers in California (247) and Michigan (158) (see Table 3-2). Grocery stores, the second most common type of FINI retailer, operated in 20 States, with the largest numbers of retailers in Washington (152) and Michigan (103). Direct marketing farmers, mobile markets, and CSA programs operated in 25, 24, and 19 States respectively.

Table 3-2. Numbers and types of FINI retailers by State

State	All retailers	Grocery stores	Farmers markets	Direct marketing farmers	Mobile markets	CSA programs
Arizona	37	5	20	7	3	2
California	334	21	247	8	40	18
Colorado	43	7	30	5	0	1
Connecticut	28	1	19	5	3	0
Washington, DC	20	0	16	1	1	2
Florida	41	0	35	1	2	3
Georgia	54	0	43	10	1	0
Hawaii	6	2	2	0	1	1
Idaho	3	0	3	0	0	0
Illinois	65	0	57	7	1	0
Kansas	35	8	27	0	0	0
Kentucky	29	2	25	0	0	2
Louisiana	7	1	6	0	0	0
Massachusetts	291	0	66	200	6	19
Maryland	7	0	4	0	3	0
Maine	96	20	47	11	5	13
Michigan	288	103	158	23	3	1
Missouri	119	69	45	3	2	0
Mississippi	37	7	30	0	0	0
Montana	5	1	2	1	0	1
North Carolina	12	0	10	0	2	0
Nebraska	1	0	0	0	0	1
New Hampshire	48	0	34	7	2	5
New Jersey	10	0	7	2	1	0
New Mexico	57	10	37	8	2	0
Nevada	1	0	1	0	0	0
New York	186	2	177	4	2	1
Ohio	95	0	77	12	3	3
Oklahoma	12	0	11	0	1	0
Oregon	76	0	51	2	0	23
Pennsylvania	93	9	55	15	14	0
Rhode Island	35	0	31	1	1	2
Tennessee	48	14	34	0	0	0
Utah	36	0	32	2	2	0
Virginia	47	1	40	2	3	1
Vermont	55	5	50	0	0	0
Washington	237	152	80	4	0	1
Wisconsin	2	0	1	1	0	0
West Virginia	4	0	4	0	0	0
Grand Total	2,600	440	1,614	342	104	100

Source: Core Program Data, Calendar Q2/2015–Q3/2017.

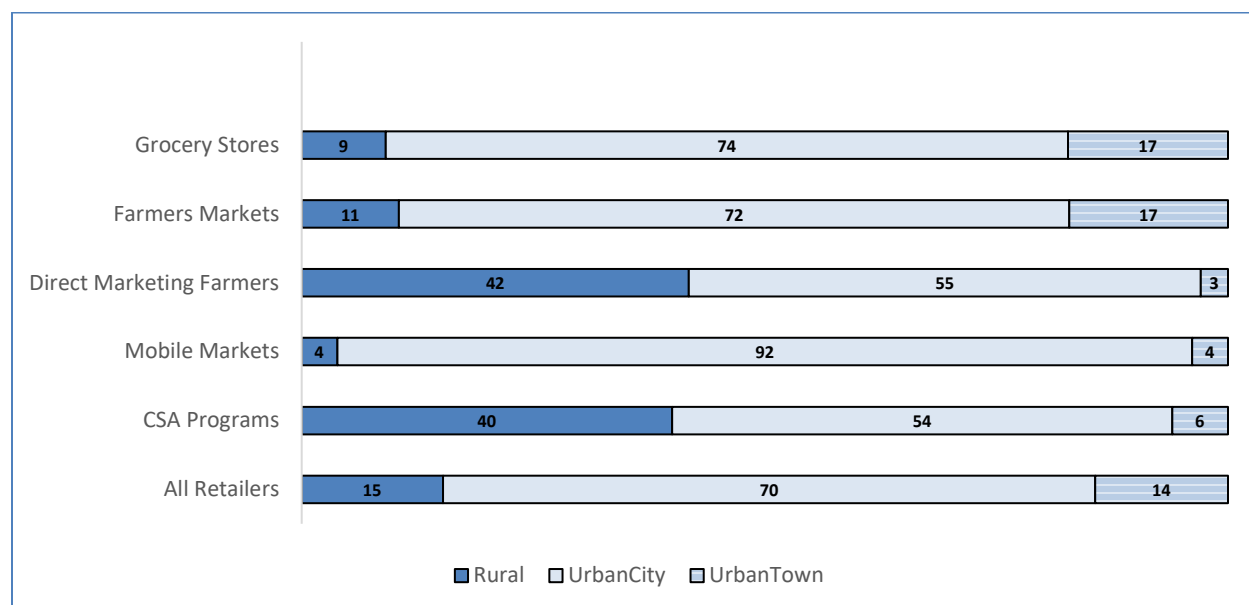
Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated for at least one quarter across 2,600 SNAP retailers between Q2/2015 and Q3/2017.

The following States did not have any FINI retailers operating during that time period: Alabama, Alaska, Arkansas, Colorado, Delaware, Indiana, Iowa, Minnesota, South Carolina, South Dakota, Texas, and Wyoming.

The majority of FINI retailers (70 percent) were in urban cities (see Figure 3-5).²³ Of the remaining retailers, 14 percent were in urban towns and 15 percent were in rural areas. A greater percentage of farmers markets and grocery stores operated in urban areas (89% and 91%, respectively) while a greater percentage of direct marketing farmers and CSA programs operated in rural areas (42% and 40%, respectively) than other retailer types.²⁴

Figure 3-5. Percentage of FINI retailers in rural areas, urban cities, and urban towns,^a by retailer type



Source: Core Program Data, Calendar Q2/2015–Q4/2016 and 2010 Census.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated for at least one quarter across 2,600 SNAP retailers between Q2/2015 and Q3/2017.

^a The categories correspond to Census 2010 definitions: The urban city category corresponds to Census Urbanized Areas of 50,000 or more people, the urban town category corresponds to Census Urban Clusters of at least 2,500 people but fewer than 50,000 people, and the rural category includes everything else.

²³The categories correspond to Census 2010 definitions: The urban city category corresponds to Census Urbanized Areas of 50,000 or more people, the urban town category corresponds to Census Urban Clusters of at least 2,500 people but fewer than 50,000 people, and the rural category includes everything else.

²⁴A limitation of the urbanicity categorization used in this analysis is that it reflects the location of the retailer but not necessarily the urbanicity characteristics of the shoppers at the retail location. In particular, retailers in urban towns may have served a mix of urban and rural shoppers. In addition, the Census Bureau's method of classifying urban and rural areas identified densely developed territory and encompass residential, commercial, and other non-residential urban land use. It did not represent access to urban services or socioeconomic characteristics. Rural areas identified using the Census Bureau method may have included high socioeconomic, ex-urban areas within easy reach of large urban areas. Finally, the Census Bureau's characterization was done in conjunction with the decennial census, and the most recent definitions were from 2010. Some rural retailers may have been in the newly developed areas.

3.5.3 Sociodemographic Characteristics of FINI Retailer Neighborhoods

In awarding grants, USDA gave priority to projects located in underserved communities, particularly Promise Zone²⁵ and StrikeForce²⁶ communities. FINI retailers were located in low-income neighborhoods with high percentages of unemployed people and SNAP participants²⁷ (see Table 3-3). In the neighborhoods where FINI was operating, one in five households (20.3%) had income levels below the poverty level. Approximately 2.6 million households participating in SNAP lived near²⁸ participating FINI retailers. Neighborhoods with FINI retailers also had high unemployment—approximately nine percent overall. While all retail types were, on average, located in economically disadvantaged neighborhoods, FINI mobile markets operated in the highest poverty areas (27.1%) and direct marketing farmers were located in areas with lower poverty (16.2%). Though operating in areas with higher levels of disadvantaged households than the national average, fewer than five percent of FINI retailers are located in Promise Zone or StrikeForce communities; 64 FINI retailers operated in StrikeForce areas and 38 operated in Promise Zones (see Figure 3-6).

Table 3-3. Sociodemographic characteristics of households in FINI retailer neighborhoods, by retailer type (%)

Sociodemographic characteristics	National estimate	All retailers	Grocery stores	Farmers markets	Direct marketing farmers	Mobile markets	CSA programs
Percentage minority	38.0	39.0	37.7	40.4	28.6	64.5	31.4
Unemployment rate	7.4	9.0	8.9	9.0	8.5	11.4	7.8
Percentage ≤ 100% Federal poverty level	15.1	20.3	19.2	21.3	16.2	27.1	16.7
Percentage ≤ 200% Federal poverty level	33.6	39.8	39.8	41.3	31.5	49.4	33.9
Percentage receiving SNAP	13.0	18.4	18.8	18.8	15.9	23.7	14.9

Source: American Community Survey, 2012-2016.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated for at least one quarter across 2,600 SNAP retailers between Q2/2015 and Q3/2017.

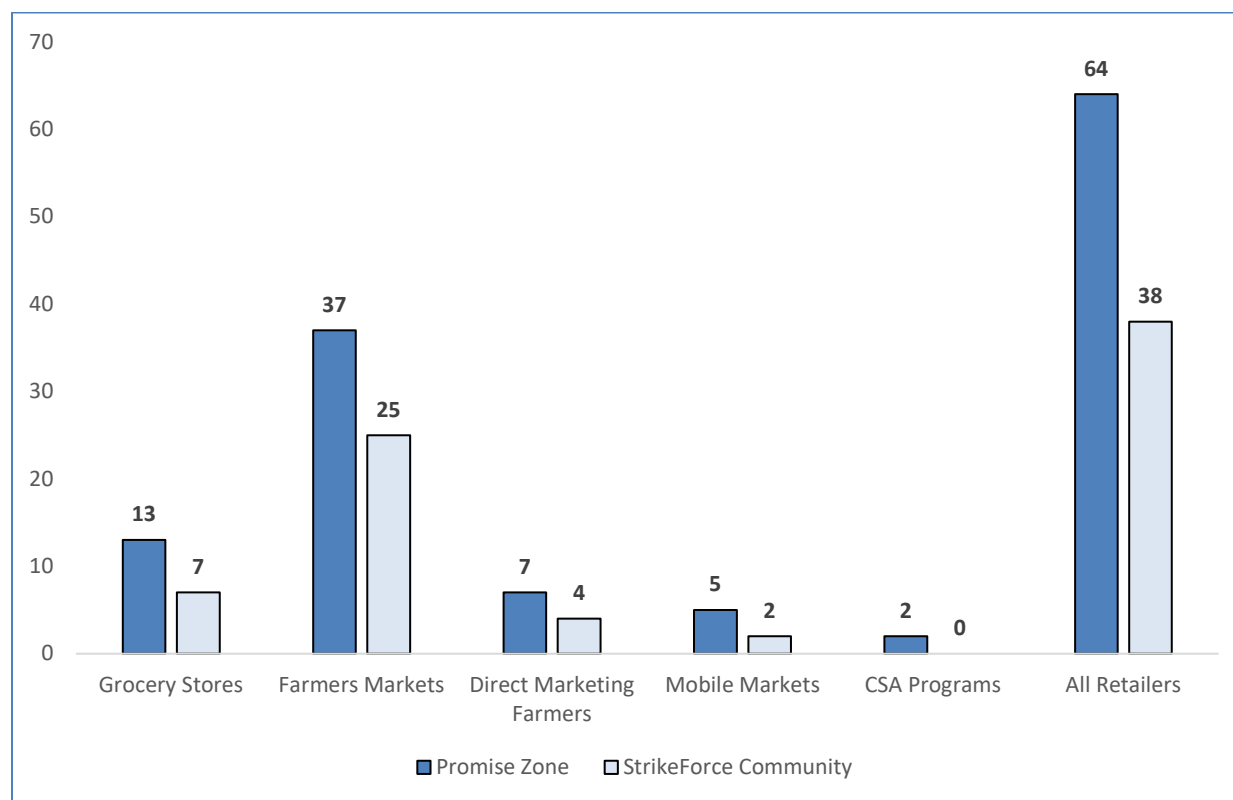
²⁵ Promise Zone refers to designated high-poverty communities “where the federal government will partner with and invest in communities to create jobs, leverage private investment, increase economic activity, expand educational opportunities, and improve public safety.” See <https://www.hudexchange.info/programs/promise-zones/> for more information.

²⁶ StrikeForce means the “USDA’s StrikeForce for Rural Growth and Opportunity Initiative,” which works to address the unique set of challenges faced by many of America’s rural communities. See <https://nifa.usda.gov/topic/strikeforce> for more information.

²⁷ American Community Survey, 2012-2016.

²⁸ Within one mile in an urban area and within 10 miles in a rural area.

Figure 3-6. Number of FINI retailers in StrikeForce communities and Promise Zones,^a by retailer type



Source: Core Program Data, Calendar Q2/2015–Q4/2016 and 2010 Census.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated for at least one quarter across 2,600 SNAP retailers between Q2/2015 and Q3/2017.

^a The spatial boundary file of StrikeForce communities was built using the list of counties posted on the NIFA website: <https://nifa.usda.gov/nifa-strikeforce-map-fy-2010-fy-2016-county-summary>, and the spatial boundary file of Promise Zones was built using the promise zone information posted on the ArcGIS Hub: <http://hub.arcgis.com/datasets/HUD::promise-zones>.

3.5.4 Food Environment of FINI Retailer Neighborhoods

Overall, FINI retailers were located in areas where, on average, 18 percent of residents had low access²⁹ to food stores (see Table 3-4). The food environments³⁰ were similar across FINI retail types. FINI operating areas had 0.9 SNAP-authorized retailers per 1,000 people, with slightly more

²⁹The Economic Research Service, USDA defines low access as areas where a significant number (at least 33%) of people in a county live more than one mile from a supermarket, supercenter, or large grocery store if in an urban area or more than 10 miles from a supermarket or large grocery store if in a rural area. <https://www.ers.usda.gov/data-products/food-access-research-atlas/documentation/>.

³⁰These data were from the USDA Food Environment Atlas and reflected county-level counts of restaurants from 2012; results of 2007 were similar.

convenience stores than grocery stores. These areas had slightly more full-service restaurants than fast food restaurants.³¹ The higher count of full-service restaurants was in keeping with the general trend in U.S. counties; overall, 58 percent of all U.S. counties had more full-service than fast food restaurants. It was important to note that restaurants were not eligible to accept SNAP benefits as a form of payment unless a State had allowed a restaurant to participate as part of the State-option Restaurant Meals Program for homeless, elderly, and/or disabled SNAP recipients (USDA, 2018b).

Table 3-4. Food environment of FINI retailer neighborhoods, by retailer type

Food environment where FINI retailers are located	National estimate	All retailers	Grocery stores	Farmers markets	Direct marketing farmers	Mobile markets	CSA programs
Low access to food stores (%)	19.5	18.0	19.2	17.8	17.6	18.7	18.0
Number of grocery stores/1,000 people (mean)	0.2	0.3	0.2	0.3	0.2	0.2	0.2
Number of convenience stores/1,000 people (mean)	0.4	0.4	0.5	0.4	0.3	0.5	0.4
Number of SNAP-authorized stores/1,000 people (mean)	0.8	0.9	1.0	0.9	0.8	1.0	0.9
Number of fast food restaurants/1,000 people (mean)	0.7	0.8	0.6	0.8	0.8	0.7	0.8
Number of full-service restaurants/1,000 people (mean)	0.7	0.9	1.0	0.9	0.9	0.9	0.9

Source: Food Environment Atlas, USDA Economic Research Service.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated for at least one quarter across 2,600 SNAP retailers between Q2/2015 and Q3/2017.

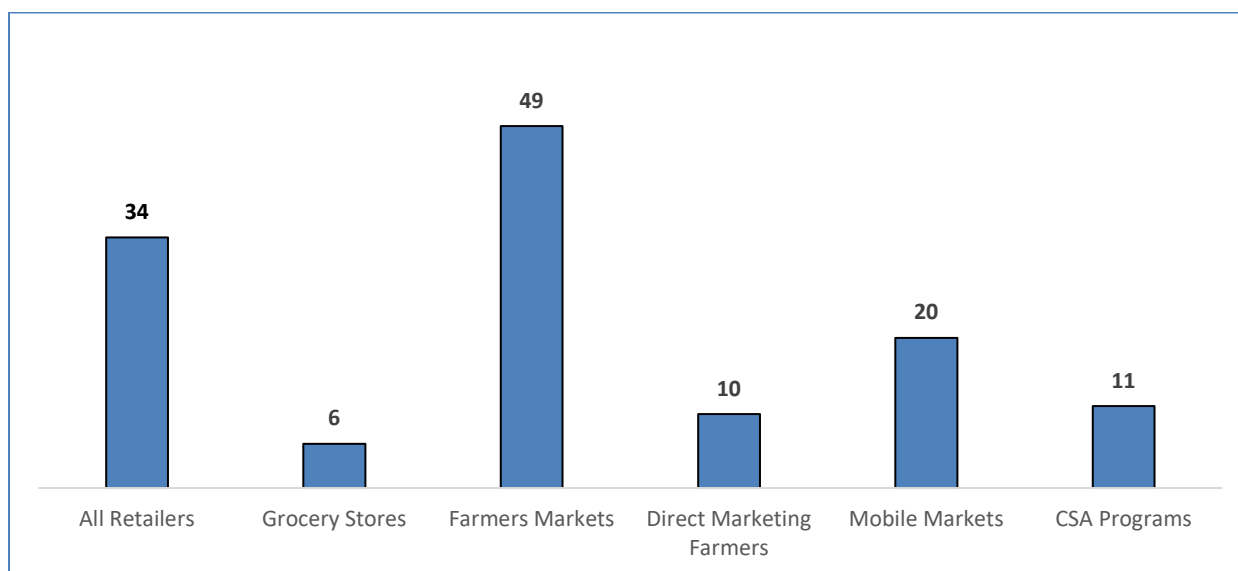
3.6 Prior SNAP-Based Incentive Experience of FINI Grantees and Retailers

At the grantee level, over 75 percent (33 of 39) of grantees who had implemented FINI as of Q3/2017 had previous incentive program experience. Slightly more than one-third of all FINI retailers (34%) offered financial incentives to SNAP participants prior to FINI (see Figure 3-7). A greater proportion of farmers markets than other retailer types had prior SNAP-based incentive

³¹ Full-service restaurants included establishments primarily engaged in providing food services to patrons who ordered and were served while seated (i.e., waiter/waitress staff), and fast food restaurants included establishments primarily engaged in providing food services where patrons generally ordered or selected items and paid before eating.

experience. About one-half of farmers markets offering FINI had previous incentive implementation experience, compared with 20 percent of mobile markets, 11 percent of CSA programs, ten percent of direct marketing farmers, and six percent of grocery stores.

Figure 3-7. Percentage of FINI retailers with prior financial incentives experience, by retailer type



Source: Core Program Data, Calendar Q2/2015–Q3/2017.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated for at least one quarter across 2,600 SNAP retailers between Q2/2015 and Q3/2017.

This figure excludes five retailers with missing data and five farmers markets that participated in FINI prescription programs only.

3.7 FINI Project Expansions

As stated in the FINI RFAs, to qualify for a FINI grant, organizations are “required to expand the breadth, scope or reach of these programs, rather than supplant current program resources.” The 33 grantees with prior incentive experience were subject to this requirement. Their proposed expansions typically involved bringing SNAP-based incentives to a new type of retailer and/or increasing incentive values. Historically, most SNAP-based incentive programs operated at farmers markets, and many of the FINI grantees were the national leaders in farmers market implementation of SNAP-based incentives. With FINI funds, 29 grantees expanded their programs into other types of retail locations, such as corner stores, convenience stores, and medium or large grocery stores; 27 increased the amount of incentives; and 21 increased the maximum amount of incentives offered to SNAP customers. While 18 grantees made all three changes—expanded the program into other

types of retail locations, increased the amount of incentives, and increased the maximum amount of incentives offered to SNAP participants—19 increased the amount of incentives and increased the maximum amount of incentives offered at existing retail locations (data not shown).

3.8 Summary of Key Findings

This chapter describes the characteristics of the 2015, 2016, and 2017 FINI grantees and the settings in which FINI programs operated. Of the 47 FINI grantees, eight had not begun FINI implementation as of Q3/2017. Results presented in this chapter were based on grant application review, core program data, and interviews with grantees.

- Through the 2015, 2016, and 2017 grant cycles, NIFA awarded \$65.1 million in grants to implement pilot, community-based, and large-scale FINI projects.
- Grantees implemented FINI to support local farmers, improve food access, and test innovative systems and strategies.
- In accordance with program regulations, FINI recipients are SNAP participants. Ten grantees targeted subgroups of SNAP participants such as those receiving services in health care settings and seniors.
- Eighty percent of grantees implemented FINI at farmers markets (31 of 39) and about half (21 of 39) implemented FINI at grocery stores. Almost two-thirds (29) of FINI grantees implemented FINI at two or more retailer types.
- Between Q2/2015 and Q3/2017, 39 of the 47 grantees implemented FINI at 2,600 retail locations in 38 States and Washington, DC. Overall, 180 retailers accepted FINI prescription programs. A total of 223 retailers discontinued FINI participation with 19 retailers doing so after one quarter of FINI implementation.
- Most (85%) FINI retailers were located in urban areas where one in five households lived below the Federal poverty line and 18 percent of households had low access to food. There were 2.6 million SNAP households that lived near a FINI retailer.
- Over 75 percent of grantees had experience operating SNAP-based incentive programs prior to FINI. One-third of retailers operating FINI had prior incentive experience.

4. Incentive Program Characteristics

This chapter describes the incentive programs operated by grantees and SNAP retailers participating in FINI. FINI grantees and retailers focused primarily on promoting the purchase of fresh fruits and vegetables. The majority of FINI retailers offered double-your-dollar incentives, where FINI participants spent \$1 of SNAP EBT benefits to earn \$1 in incentives. SNAP participants typically earned these incentives with an eligible EBT purchase and could redeem them at a subsequent transaction. Most retailers offered incentives daily or weekly and placed caps of \$20 or less on the amount of incentives SNAP participants could earn on a given shopping trip. The Core Program Data submitted by the 2015, 2016, and 2017 FINI grantees and interviews with 2015 and 2016 grantees describing the characteristics of the programs formed the basis of the FINI program descriptions presented in this chapter.

4.1 Incentive Models

FINI grantees were using one of three models to offer incentives to SNAP participants: rebates, discounts, and prescription programs. In interviews, all of the 2015 and 2016 grantees reported that rebates were the most common FINI model. Some grantees, including half of the 2016 grantees, used a blend of rebate and discount models across participating retailers. For instance, one grantee had farmers markets that offered incentives in the form of a rebate while their other markets offered incentives in the form of a direct discount at the point of sale.

Rebates

SNAP participants earned rebates when they purchased specific, eligible products; rebates were redeemable in a subsequent transaction that could happen in the same shopping trip or a later shopping trip. The rebate was often in the form of a token, paper scrip, or coupon. SNAP participants were required to turn in the tokens, scrips, or coupons to redeem the incentive.

Because the rebate system required the SNAP shopper to use the incentive at a subsequent transaction, some incentives may have gone unspent. This posed an administrative challenge in that systems must be in place to track incentives issued and incentives redeemed. Most grantees reimbursed retailers only for incentives redeemed. Two grantees reimbursed retailers for incentives

distributed to allow retailers to have the funds in advance of incentive redemption; later they reconciled any unspent incentives with retailers returning unspent funds. To encourage shoppers to redeem their incentives, some grantees instituted incentive expiration dates. These dates ranged from two weeks to the end of the market season or calendar year. One 2015 grantee explained the reason for incorporating an expiration date: *“The reason [for the expiration date] was because on other programs we’ve had, we see the people hold on to their coupons, or whatever it is, until the last possible minute. During that time, they might lose them, and then you get a lower redemption rate. We want to see them do some behavior change.”*

Discounts

Although less common than rebates, another way that FINI grantees offered incentives was through discounts. Seven of the 2016 grantees offered discounts but never at all of their retailers. In this incentive model, SNAP participants purchasing eligible products received the FINI incentive as a discount at the point of purchase, effectively lowering the purchase price. This was the form of incentive typically used at CSA programs as well as at some grocery stores. CSA programs typically provide a weekly produce basket. While some CSA programs provided a voucher for future use – in the form of buy one basket get one free, others provided a point of sale discount on each week’s CSA basket.

Prescription Programs

Five out of 47 FINI grantees implemented prescription programs. Prescription programs incentivized purchases of fruits and vegetables for SNAP participants enrolled in health care programs. In these programs, a health care professional wrote a “prescription” for fruits and vegetables that was typically in the form of a voucher. The SNAP participant could then use the voucher to purchase fruits and vegetables at a participating SNAP-authorized retailer. Similar to other types of incentives, grantees limited the amount of prescription incentives that customers could redeem. For example, one grantee allowed customers to redeem up to \$25 per month in prescription incentives, while another set a cap of \$14 per week.

4.2 Products Eligible for Earning and Redeeming Incentives

FINI program rules allowed grantees the flexibility to make four different combinations of products eligible for incentive earning and redemption. Factors such as product availability, type of benefit redemption technology, types and quantities of purchases typically made, and the incentive budget for that retailer determine the incentive redemption mechanism used at a particular retailer. FINI program rules defined qualifying fruits and vegetables as “any variety of fresh, canned, dried, or frozen whole or cut fruits and vegetables without added sugars, fats, or oils, and salt (i.e., sodium).”

The four allowable mechanisms for incentive redemption were as follows:

1. Participating SNAP households received incentives ONLY through the purchase of a FINI-qualifying fruit or vegetable, and incentives were redeemable for the purchase of ANY SNAP-eligible food product.
2. Participating SNAP households received incentives through the purchase of ANY SNAP-eligible food product, and incentives were redeemable ONLY for the purchase of a FINI-qualifying fruit or vegetable.
3. Participating SNAP households received incentives ONLY through the purchase of a FINI-qualifying fruit or vegetable, and incentives were redeemable ONLY for the purchase of a FINI-qualifying fruit or vegetable.
4. No purchase was required for participating SNAP households to receive incentives,³² and incentives were redeemable ONLY for the purchase of a FINI-qualifying fruit or vegetable.

Twenty-four of the 47 grantees followed the second rule and allowed SNAP participants to earn incentives from the purchase of any SNAP-eligible item at participating retailers, but the incentive could only be redeemed on a qualifying fruit or vegetable purchase (see Table 4-1). Note that most of these grantees operated FINI at farmers markets, where SNAP-eligible products were limited and mostly include fruits and vegetables. Seventeen grantees followed the third rule and required that SNAP participants earn and redeem incentives only by purchasing qualifying fruits and vegetables at participating retailers. Five grantees operated prescription programs at one or more FINI retail locations; these programs used the fourth rule, where no purchase was necessary, but SNAP participants could only redeem their incentives on qualifying fruits and vegetables. One grantee followed the first rule and required the purchase of qualifying fruits and vegetables but allowed the

³² Grantees following this rule were implementing prescription programs. Verification of SNAP certification was required when the SNAP participant received the incentives.

redemption of incentives on any SNAP-eligible item. Note that these counts were not mutually exclusive, because some grantees employed different approaches at different retailers.

Table 4-1. Products eligible for earning and redeeming incentives

How Incentive must be earned		How Incentive must be redeemed	# of grantees using mechanism	# of retailers using mechanism
1.	Purchase qualifying fruits and vegetables	⇒ On any SNAP-eligible item	1	299
2.	Purchase any SNAP-eligible item	⇒ On qualifying fruits and vegetables	24	1946
3.	Purchase qualifying fruits and vegetables	⇒ On qualifying fruits and vegetables	17	317
4.	No purchase necessary	Qualifying fruits and vegetables	5	38 ^a

Source: Core Program Data, Calendar Q2/2015–Q3/2017.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

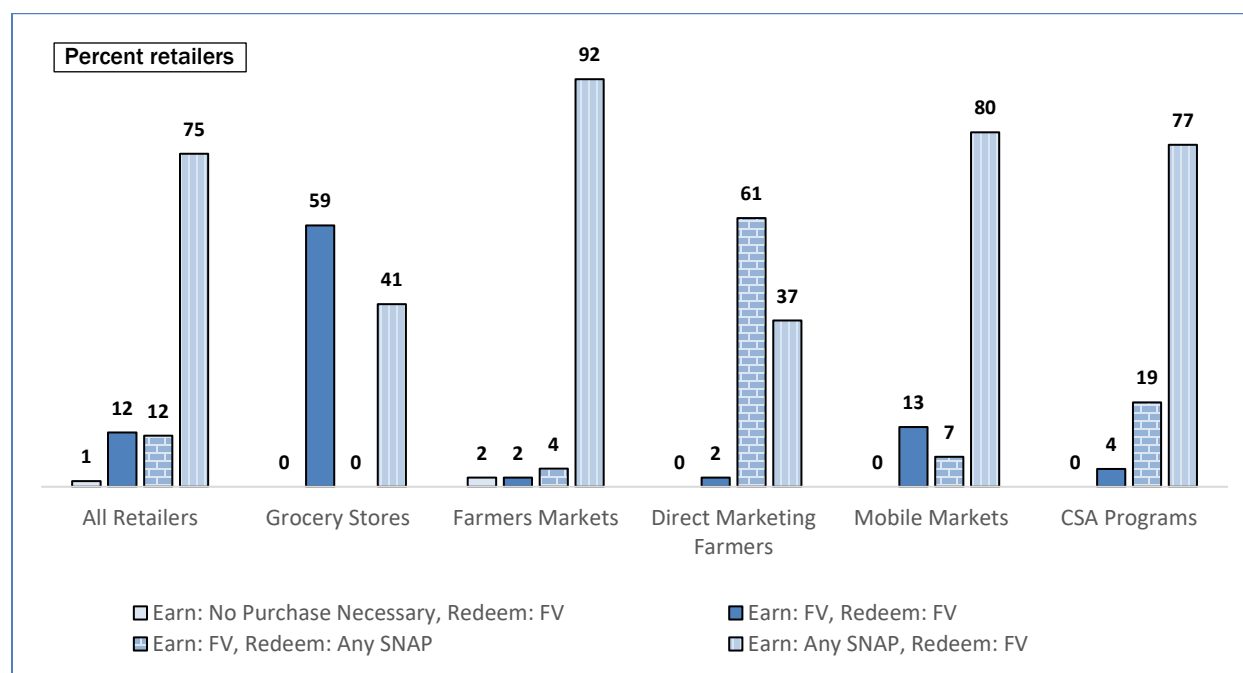
FINI operated across 2,600 SNAP retailers between Q2/2015 and Q3/2017.

^a This includes five farmers markets that participated in FINI prescription programs only and 33 farmers markets that provided vouchers to SNAP participant subgroups such as seniors.

Consistent with the product eligibility rules, most retailers (75%) allowed the purchase of any eligible SNAP item to earn incentives, and 24 percent of retailers required the purchase of qualifying fruits and vegetables to earn incentives. The majority of farmers markets, direct marketing farmers, mobile markets, and CSA programs allowed the purchase of any SNAP-eligible item to earn incentives, while the majority of grocery stores required a purchase of fruits and vegetables to earn incentives.³³ All participating grocery stores limited incentive redemptions to fruits and vegetables (see Figure 4-1), whereas 61 percent of direct marketing farmers, 19 percent of CSA programs, and four percent of farmers markets allowed FINI incentives to be used for the purchase of any SNAP-eligible products. All retailers implementing prescription programs limited incentive redemption to fresh fruits and vegetables.

³³ These were grantee reports of program requirements and not necessarily typical program operations. Farmers markets, farm stands, mobile markets, and CSA programs likely had fewer non-fruit and vegetable items for SNAP participants to purchase than grocery stores. By default, purchases at farmers markets and similar retailer types were more likely to be fruits and vegetables than other eligible SNAP items.

Figure 4-1. Products eligible to earn and redeem incentives, by retailer type^a



^a **FV** = fruits and vegetables

Source: Core Program Data, Calendar Q2/2015–Q3/2017.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated across 2,600 SNAP retailers between Q2/2015 and Q3/2017.

This figure excludes five farmers markets that participated in FINI prescription programs only.

There were 160 retailers that implemented a rebate/discount FINI program and a prescription program (150 grocery stores, nine farmers markets, and three direct marketing farmers). This figure does not reflect their prescription program model (no purchase necessary).

4.3 Fruits and Vegetables That Qualified for Incentive Redemption

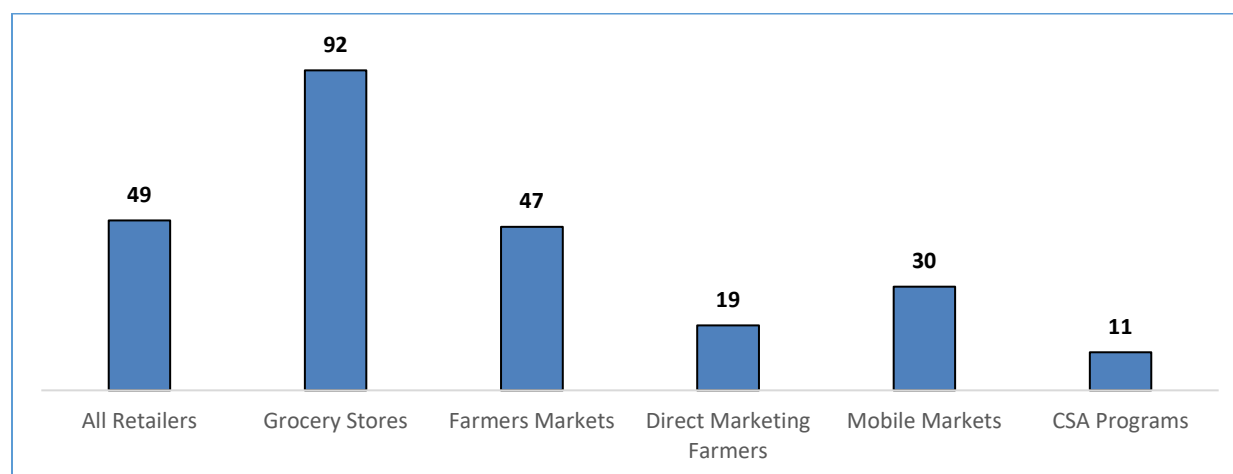
Fruits and vegetables that qualified for incentives included any variety of fresh, canned, dried, or frozen whole or cut fruits and vegetables without added sugars, fats, or oils, and salt (i.e., sodium).

All 39 grantees operating FINI by Q3/2017 provided further restrictions at some of their participating retailers. For instance, many grantees operated FINI at retailers that limited purchases on which incentives could be earned (35 grantees) or redeemed (31 grantees) to fresh produce.

Nearly two-thirds of grantees (25) operated FINI at retailers that limit qualifying fruits and vegetables to local produce. Three grantees operated FINI at retailers that limited qualifying purchases to organic produce. While 23 grantees limited qualifying purchase to both local and fresh produce, 14 grantees limited purchases to fresh produce only, and two grantees limited purchases to local produce only.

At the retailer level, half of FINI retailers (49%) required that SNAP participants redeem incentives on fresh produce. As Figure 4-2 shows, the requirement was most common among grocery stores (92%). While the *requirement* for fresh produce was less common at non-grocery retailer types, these other retailer types often offered fresh produce along with other farm grown or raised products. As one 2015 grantee relayed, “*A lot of our farmers markets are actually one vendor markets. We have markets that have mostly fresh, locally grown produce.*”

Figure 4-2. Percentage of retailers limiting FINI incentive redemption to fresh produce, by retailer type



Source: Core Program Data, Calendar Q2/2015–Q3/2017.

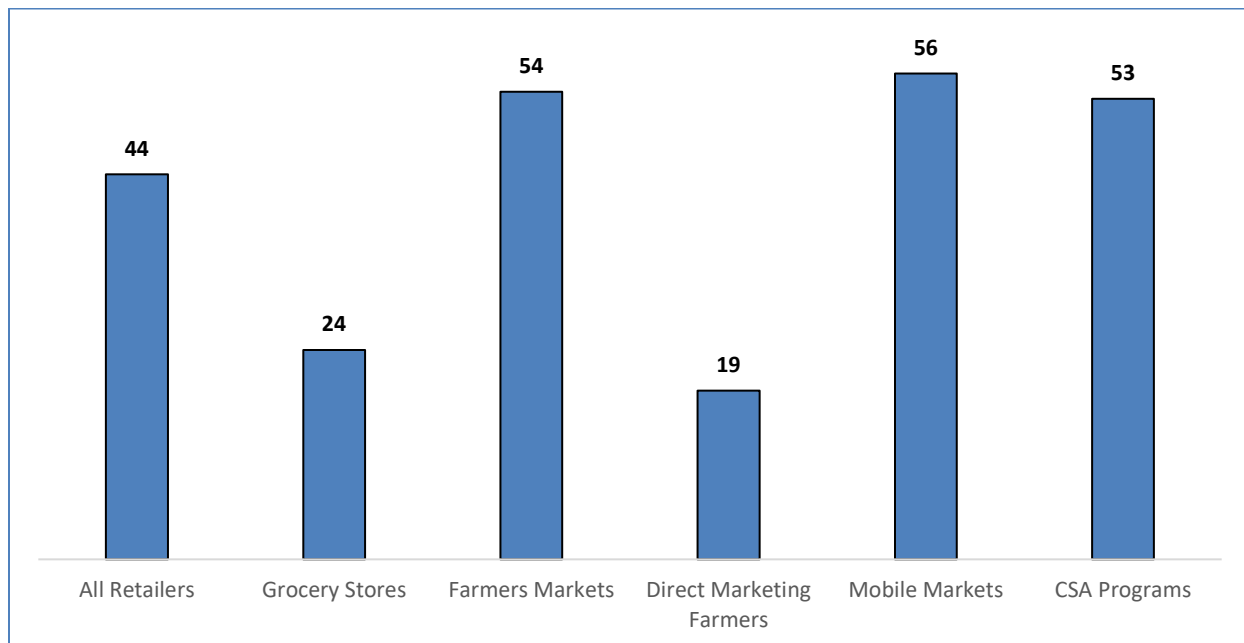
Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated across 2,600 SNAP retailers between Q2/2015 and Q3/2017.

This figure excludes five farmers markets that participated in FINI prescription programs only.

About four in ten retailers offering FINI *required* that SNAP participants redeem incentives only for local produce (ranging from 56% of mobile markets and 19% of direct marketing farmers (see Figure 4-3). The actual percentage of retailers redeeming incentives for local produce only could have been higher, as these data indicated only the percentage of retailers that had specific local purchase requirements. The lower proportion of farmers markets limiting incentive redemption to local produce may have been due to hosting vendors from adjacent counties or States.

Figure 4-3. Percentage of retailers limiting incentive redemption to local produce, by retailer type



Source: Core Program Data, Calendar Q2/2015–Q3/2017.

Notes: FINI operated in 2,600 SNAP-authorized retailers between Q2/2015 and Q3/2017.

This figure excludes 21 retailers with missing information, and five farmers markets that participated in FINI prescription programs only.

The survey did not provide a definition for local produce, and grantees may differ in their interpretation of this term.

4.4 Value of Incentives

Three factors drove the value of incentives offered to SNAP participants: (1) the amount of the rebate, discount, or prescription; (2) the frequency with which SNAP participants could earn or redeem the incentive; and (3) whether there was a maximum amount of incentives that SNAP participants could earn and redeem.

Amount of the Rebate, Discount, or Prescription

Grantees typically described the value of FINI rebates and discounts in terms of a match rate. Using the rebate model as an example, a SNAP participant spent \$10 on a qualifying food item and earned \$10 in incentives to use at a subsequent transaction. This was a \$1:\$1 match. Using the discount model, a SNAP participant purchased \$10 worth of qualifying fruits and vegetables but spent only \$5 at the point of sale. This was also a \$1:\$1 match.

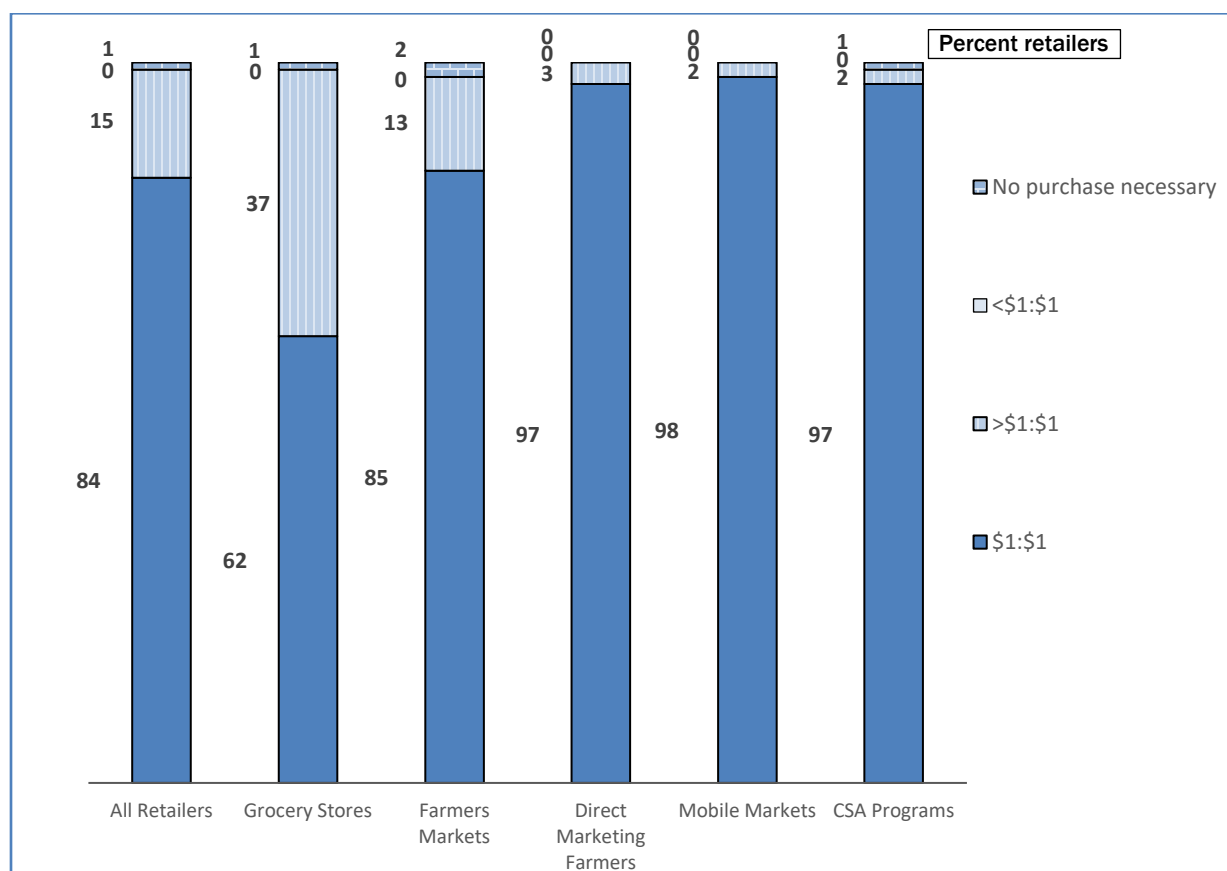
Most grantees (36 grantees) offered incentives at retailers with a \$1:\$1 match; seven grantees operated FINI at retailers offering less than a \$1:\$1 match; two grantees implemented a randomized control trial (RCT) and operated FINI at retailers with more than a \$1:\$1 match. Some grantees offered different match rates at different retailers. Three grantees offered FINI as a prescription program in addition to their normal incentive program. The prescription programs did not use a match rate but rather provided a dollar value amount for SNAP participants to use to purchase fruits and vegetables. Two grantees implemented FINI exclusively as a prescription program. One of those grantees allowed customers to redeem up to \$14 per week in prescription incentives while the other allowed customers to redeem up to \$500 per farmers market season.

Among retailers offering FINI, most (84%) offered \$1:\$1 matches—ranging from 62 percent of grocery stores to 97 percent of direct marketing farmers and mobile markets (see Figure 4-4). Only 15 percent of all retailers offered <\$1:\$1 match. One percent of retailers (grocery stores and farmers markets) offered incentives with no purchase necessary through prescriptions, and less than one percent offered match rates >\$1:\$1. Two grantees changed their incentive match rate during FINI implementation: one grantee began FINI with a match rate of \$1:\$0.50 and the other had a match rate of \$5:\$2; both grantees changed the match rate to \$1:\$1.

During interviews with 2015 and 2016 FINI grantee administrators, many indicated that simplicity and continuity were the most important factors used to establish the incentive match rate. The match rate needed to be simple and easy to understand and consistent with the pre-FINI match rate (where applicable). Several grantees noted that they also incorporated recommendations from retailers in their decisions about setting the match rate.

Simplicity. Grantees said that it was easy for consumers and incentive operators to understand and track a \$1:\$1 match rate. One grantee who began its program with a less than \$1:\$1 match rate reported changing the match rate to something simpler because both SNAP shoppers and retail staff found the match rate math to be confusing.

Figure 4-4. Incentive match rate, by retailer type



Source: Core Program Data, Calendar Q2/2015–Q3/2017.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated across 2,600 SNAP retailers between Q2/2015 and Q3/2017.

This figure excludes five farmers markets that participated in FINI prescription programs only.

There were 160 retailers that implemented mainstream and prescription programs (150 grocery stores, nine farmers markets, and three direct marketing farmers). This figure does not reflect their prescription program model (no purchase necessary).

Consistency. Since most FINI programs are expansions of previously established incentive programs, four grantees indicated that they had previously offered a \$1:\$1 match rate and that customers were familiar with it. Grantees said that at retailers that offered incentives prior to FINI, changes to existing match rates could confuse customers and reduce interest in the program. One grantee recalled that, in the past, it changed the match rate and this caused confusion among customers.

Grantee perspective on the need for simplicity and consistency:

“Well, one of the primary drivers for the one-to-one match is it’s simple to explain to consumers and to partners. With the program, it’s a scale that we’re running. It’s really helpful to be able to easily explain to people how it works, even though the exact mechanism for the incentive disbursement in any location might be a little bit different, like a token or a coupon or something like that, in all cases, it’s a dollar-for-dollar match.”

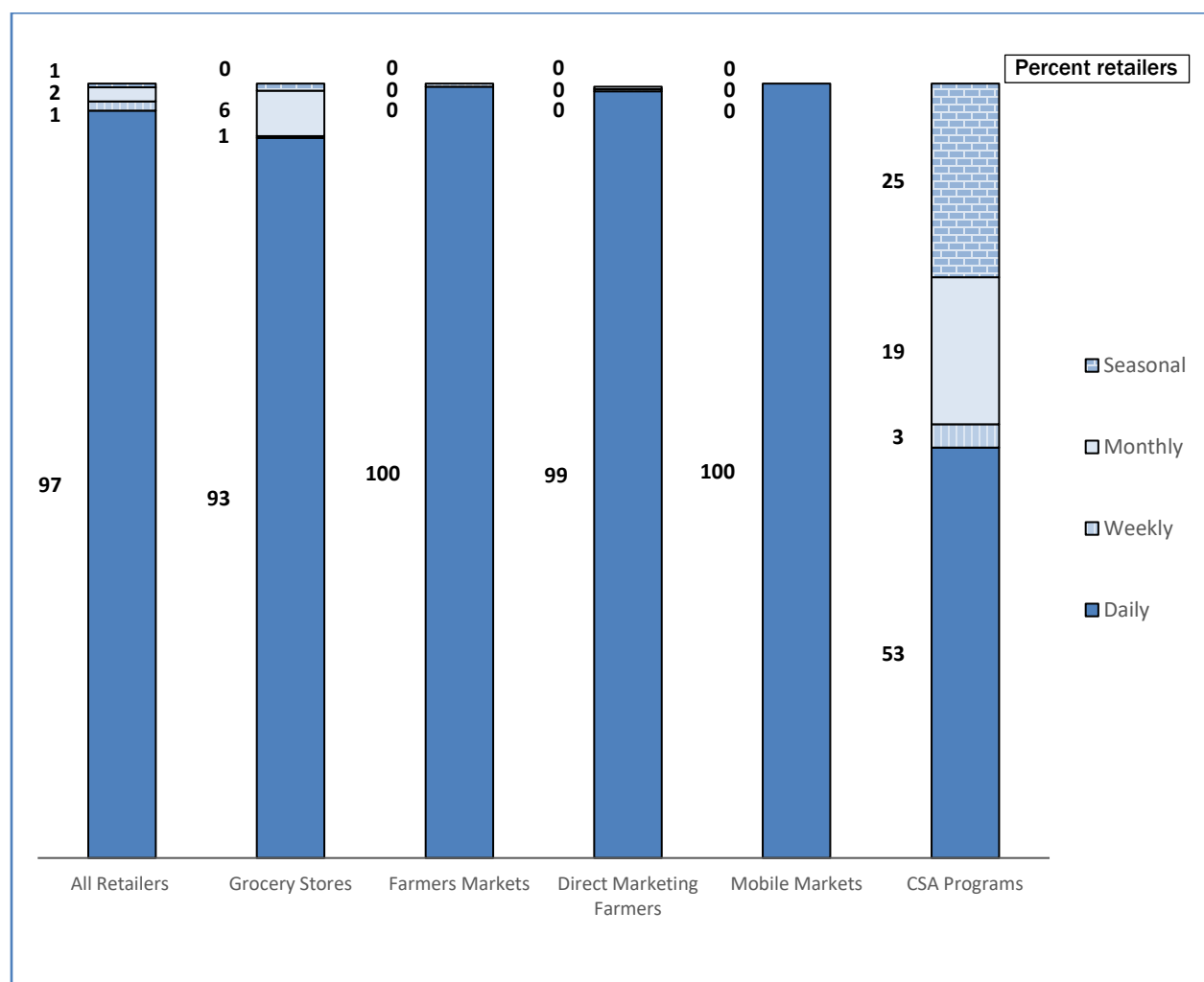
Recommendations from Retailers. Three grantees indicated that they supported the match rate proposed by retail managers, including some that had previously offered incentives and others for which incentives were new. Grantees believed that giving the retailers this flexibility was likely to both increase use of the program and strengthen the relationship with retailers because they knew their communities best.

Frequency at Which the Incentive Is Distributed

SNAP participants could generally earn and redeem incentives on a daily, weekly, monthly, or seasonal basis. Grantees varied in how frequently they offered incentives at participating retailers; grantees operating at multiple retail types also varied in the frequency of incentives offered across retailer types. All grantees (39 grantee organizations that offered FINI incentives as of Q3/2017) operated FINI at retailers offering a daily or weekly incentive, four offered a monthly incentive, and three offered a seasonal incentive. Three grantees had retailers that distributed incentives on alternative schedules: One grantee limited incentive distribution at grocery stores to two incentive coupons per SNAP participants, another limited incentive distribution at grocery stores to seven days each month, and another offered incentives twice a week at farmers markets, between July and September.

Nearly all FINI retailers (96%) distributed incentives to SNAP participants on all operating days (i.e., daily) and the remaining four percent distributed incentives on a weekly, monthly, or seasonal basis (i.e., on some operating days) (see Figure 4-5). About six percent of grocery stores offered a monthly incentive (i.e., SNAP participant received the incentive one time each month). Grocery stores and retailers that operated every day of the week may have had electronic or paper-based tracking systems so they could offer the incentive to each customer once a month. Grantees working at grocery stores indicated that offering incentives to each customer once a month allowed them to stretch the incentives over a longer period of time and reached more SNAP participants. Finally, about 10 percent of CSA programs offered a monthly incentive, and 25 percent offered a seasonal incentive (i.e., SNAP participants bought the CSA share for one month or the entire season and received the produce each week for the month or the season).

Figure 4-5. Frequency of incentive offered to SNAP participants by retailer type



Source: Core Program Data, Calendar Q2/2015–Q3/2017.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated across 2,600 SNAP retailers between Q2/2015 and Q3/2017.

This table excludes five retailers that accepted prescription benefits only.

Percentages may not add up to 100 because of rounding.

Maximum Incentive Value

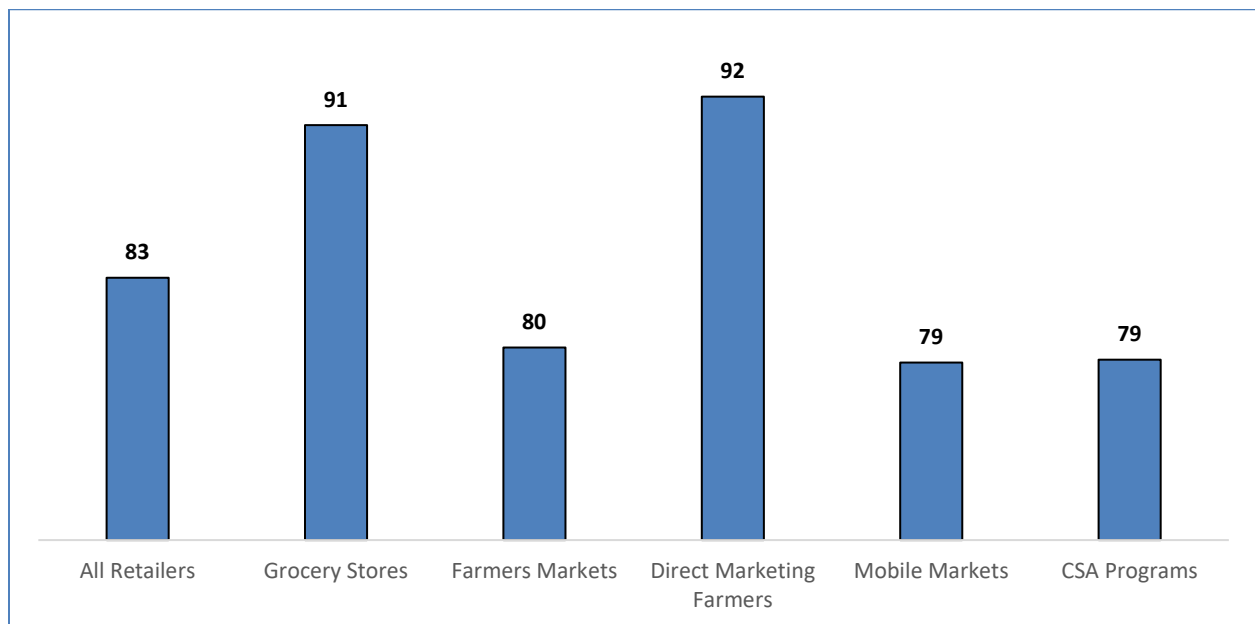
Most grantees (33 of 47 grantees) set maximum limits on the amount of incentives that retailers could issue to SNAP shoppers on a given distribution schedule (e.g., daily/weekly, monthly, and seasonally). According to the 2015 grantee administrators, setting maximums was one way that grantees and their retailers could plan their incentive budgets, knowing that unlimited matching could lead to the spending down of incentive funds at a very rapid rate. Maximums were also a way to further incentivize SNAP participants to shop at farmers markets. As one 2015 grantee explained,

it chose a higher maximum for its farmers markets than its grocery stores to encourage purchases at its markets:

“We differed [the maximum] at a site between the grocery store and [farmers markets], because we recognized that grocery stores are more convenient places to shop than farmers markets. We thought that a farmers market would need a little bit more of an additional incentive as a place to spend it than the grocery store, and because the store is open more frequently, somebody could conceivably spend more money there anyway. We wanted to make sure that we were giving people a little bit extra for coming to the market on the day that they chose to shop.”

Among retailers offering FINI incentives, 83 percent placed maximums on incentives issued to SNAP participants (see Figure 4-6). More grocery stores and direct marketing farmers than farmers markets, mobile markets, and CSA programs placed maximums on incentives issued to SNAP participants.

Figure 4-6. Percentage of retailers with incentive maximums, by retailer type



Source: Core Program Data, Calendar Q2/2015–Q3/2017.

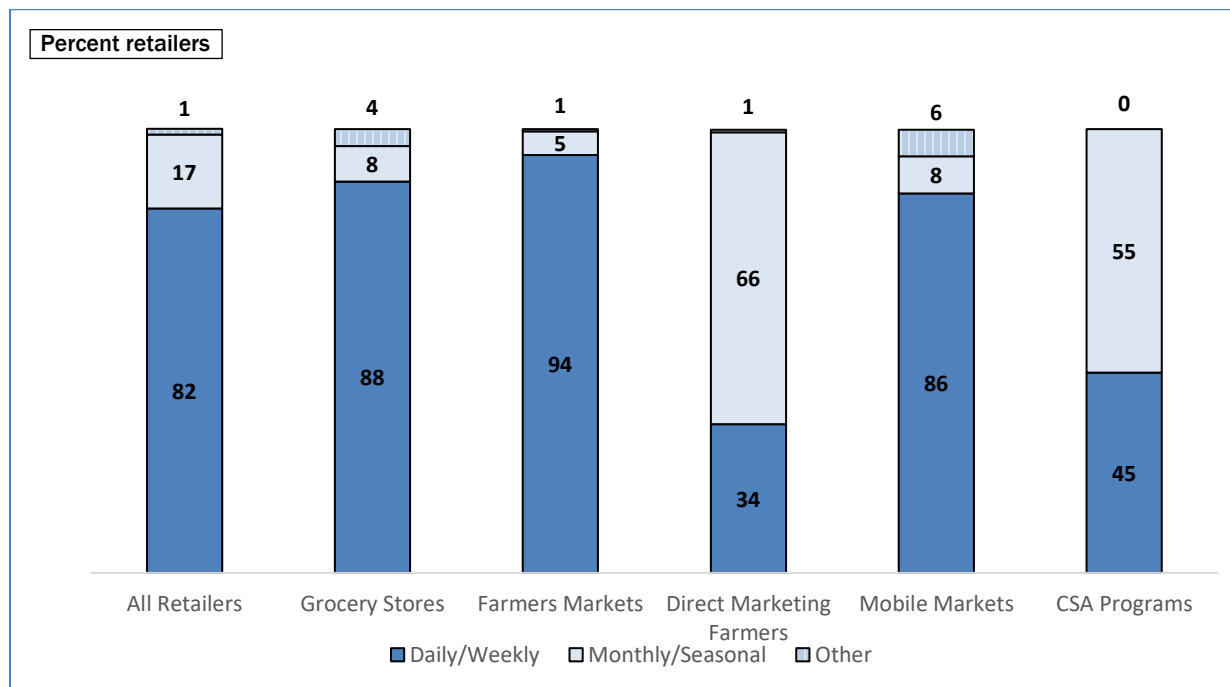
Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated across 2,600 SNAP retailers between Q2/2015 and Q3/2017.

This figure excludes one retailer with missing data, and five farmers markets that participated in FINI prescription programs only.

Among those retailers that set maximums on incentives, most (83%) had a daily or weekly maximum (see Figure 4-7). This was most common for grocery stores and direct marketing farmers.

Figure 4-7. How retailers with incentive maximums apply incentive caps, by retailer type



Source: Core Program Data, Calendar Q2/2015–Q3/2017.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated across 2,600 SNAP retailers between Q2/2015 and Q3/2017; 2,155 retailers applied incentive caps. This excludes five farmers markets that participated in FINI prescription programs only.

Among the retailers that set daily or weekly maximums on incentives, 45 percent set the maximum at \$10 or less, 37 percent set the maximum between \$11 and \$20, and the remainder set the maximum above \$20 (see Table 4-2). Among retailers that set monthly or seasonal maximums on incentives, six percent set the maximum between \$11 and \$20, and 94 percent set the maximum above \$20. There was variation by retail type in the level of the maximum, with CSA programs setting higher values. This was because, more often than other retailer types, CSA programs used a seasonal maximum, whereas grocery stores, farmers markets, direct marketing farmers, and mobile markets most frequently used daily/weekly maximums.

Table 4-2. Incentive maximum based on incentive frequency among retailers with incentive caps, by retailer type

Incentive frequency	Incentive maximum	Store type					
		All retailers	Grocery stores	Farmers markets	Farm stands	Mobile markets	CSA programs
Daily or weekly (%)	Sample size	1,799	367	1,214	1078	75	36
	\$10 or less	45	48	46	38	21	22
	\$11 to \$20	37	31	37	44	72	33
	>\$20 ^a	18	22	17	18	7	44
Monthly or seasonal (%)	Sample size	359	32	67	208	7	45
	\$10 or less	0	0	1	0	0	0
	\$11 to \$20	0	66	0	0	0	2
	>\$20 ^b	94	34	99	100	100	98

Source: Core Program Data, Calendar Q2/2015–Q3/2017.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated in 2,600 SNAP-authorized retailers between Q2/2015 and Q3/2017; 2,155 retailers applied incentive caps.

^a The highest daily or weekly incentive maximums were \$25 for grocery stores, \$50 for farmers markets and farm stands, and \$100 for mobile markets and CSA programs.

^b The highest monthly or seasonal incentive maximums were \$50 for grocery stores, \$80 for farmers markets and mobile markets, \$200 for farm stands and CSA programs.

4.5 Summary of Key Findings

This chapter describes the FINI programs implemented by the 2015, 2016, and 2017 grantees. This chapter presented results based on core program data and interviews with grantees.

Key findings:

- Grantees used one of three models to offer incentives to SNAP participants: rebates, discounts, and fruit and vegetable prescriptions. Rebate programs were the most common incentive model, followed by discount programs. Few grantees offer incentives through a prescription program.
- Most grantees and retailers allowed SNAP participants to earn incentives when they purchase any SNAP-eligible product but restricted incentive redemption to the purchase of qualifying fruits and vegetables. Only one grantee provided incentives on the purchase of qualifying fruits and vegetables that SNAP participants could redeem on any SNAP-eligible product.
- The majority of grocery stores restricted incentive redemption to fresh fruits and vegetables, and 25 percent restricted incentive redemption to local produce. Compared to grocery stores, fewer farmers markets, direct marketing farmers, mobile markets, and CSA programs restricted incentive redemption to fresh fruits and vegetables or local produce; however, these retailers primarily sold fresh produce.

- The most common incentive match rate was \$1:\$1, whereby SNAP participants could earn an incentive amount equal to their qualifying purchase amount.
- The majority of FINI retailers offered a daily or weekly incentive capped at a certain value—consumers could earn an incentive every day they shopped and purchased FINI-eligible products, but a not-to-exceed amount limits the purchase. About 80 percent of retailers that set daily or weekly maximums capped incentives at \$20; retailers that set monthly or seasonal limits capped incentives at slightly higher amounts.
- To encourage incentive redemption and avoid instances of customers losing tokens or coupons, some grantees instituted incentive expiration dates ranging from two weeks to end of market season or calendar year.

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5. FINI Implementation

This chapter examines FINI grantees' and retailer's implementation experiences. Grantees implemented FINI by collaborating with partner organizations or working directly with retailers. Grantees reported initial challenges that impacted the launch schedule and SNAP participants use of FINI early in implementation. Factors influencing launch schedule included obtaining match funding, recruiting partner organizations and retailers, developing and testing point of sale and incentive tracking systems, and training retailer staff. Grantees also encountered challenges reaching SNAP participants. To improve SNAP shoppers use of FINI, grantees used the following strategies: increased the match rate from <\$1:\$1 to \$1:\$1, increased the marketing and outreach budget (at the expense of reducing the incentive budget), developed marketing materials in several languages, and identified new channels to reach SNAP participants. Participating FINI retailers reported modest increases in customer volume and produce sales, and expressed willingness to participate in FINI again in the future. This chapter reports on the implementation experiences drawn from analyses of interviews with 2015 and 2016 grantees, a retailer survey, and Core Program Data.

5.1 Procurement and Monitoring of Match Funding

FINI required grantees to fully match their Federal grant award. The match could be satisfied with monetary and in-kind contributions. Most of the 2015 and 2016 grantees (26 of 29³⁴) had a mixture of both cash and in-kind funding; two grantees had all cash matches and two had all in-kind matches. For the 26 grantees with both types of funding, about half had mostly cash and the other half had mostly in-kind.

In interviews, both 2015 and 2016 grantees reported difficulty with securing funding commitments before the awarding of FINI grants, as well as multi-year match funding. Even when drawing upon funds from multiple foundations, grantees struggled to raise the required amount in match funding. According to five grantees, the difficulty in finding multi-year funding stemmed from the small number of foundations with an interest in long-term funding of nutrition programs in their communities. Further complicating the task of obtaining match funding was the requirement to

³⁴There were 30 FINI grants awarded—one grantee received a grant in both rounds.

secure it before the awarding of FINI grants. Three grantees discussed funders' reticence to commit to funding a project without knowing whether the project would receive a FINI grant or whether NIFA would accept their funding as an appropriate match. However, four grantees also said that finding match funding itself was easier when they could show positive results from pilot programs or early implementation activities. Grantees also pointed to results from their own internal evaluations to help make the case to foundations to invest in their program.

Over half of the 2015 and 2016 grantees brought up the challenge of complying with the match funding reporting requirements, which include tracking and verifying both the source of funding and how different sources of match funding are spent. Tracking cash and in-kind match funding at volunteer-run FINI retailers posed the greatest challenge, because these are often lower-capacity farmers markets and the volunteers typically had less time available for training on how to track and account for how their site spends match funding. Grantees mentioned that having prior experience with tracking sources of grant funding was been helpful in meeting the reporting requirements. The majority of grantees reported that the administrative burden of tracking match funding decreased over time as they instituted systems that allowed them to more efficiently and effectively track the funding, thus reducing the time needed for reporting. Furthermore, grantees said that keeping electronic records reduced the administrative burden, by making it easier to access records and compare expenditures and other measures across time.

5.2 Management Structure

5.2.1 Collaborating Organizations

Roughly one-third of the 2015 and 2016 grantees worked with partner organizations to implement FINI. These partner organizations included universities, State university extension service offices, food banks, health departments, local community development organizations, churches, farmers market associations, and other nonprofit organizations. Grantees implementing FINI across 100 or more retailers and grantees seeking to widen their program's scope (geographically, in a number of retailers, or both) were more likely than those

Grantee's perspectives on raising match funding:

"It's really hard to raise a one-for-one match. It's been a very challenging struggle for our organization to maintain cash flow while we're raising that match. First year in, we did really, really well. Second year, it's a little bit harder. Third year, you're starting to tap into some of that donor fatigue."

"We don't have as many, I think, community foundations, or just funding sources that are willing to fund something like this, year, after year, after year."

working with fewer retailers and limited geographic focus to seek out partnerships to support and supervise retailers.

Partner organizations connected directly with retailers to provide administrative and management support and were often responsible for collecting the Quarterly Core Program Data from retailers. A primary benefit of this model was that the responsibility of retailer data collection fell to the partners. By extension, the grantees needed to collect data from a relatively small number of partner organizations. However, the additional degree of separation from retailers came at a cost when grantees had less control over the data collection process. It also added a step to the data collection and transmission process, which lengthened the time between requests for data and delivery of data. In the second year of its 2015 grant, one grantee addressed that issue by reducing the number of partner organizations it worked with—while still maintaining the same number of retailers—and found that helped to streamline communications and data collection.

Two-thirds of 2015 and 2016 grantees worked directly with retailers, providing all supervision and administrative support to retailers and collecting data directly from them. Grantees reported that these direct connections foster strong relationships and communication with retailers. These grantees also noted that their close relationship with retailers meant that retailers immediately brought any problems to their attention and they could swiftly address concerns.

Some grantees working directly with retailers experienced capacity challenges to support their retailers—specifically, a lack of staff at the grantee level whose sole job it was to interface with retailers. This was especially true for grantees with a growing number of retailers, and grantees that have retailers with more limited capacity or experience with incentive programs. One grantee noted that the direct relationship and regular communication with retailers was an asset, but one that was hard to maintain as they expanded to additional retailers without a similar expansion in the number of grantee staff to provide support. Three grantees also noted that the burden on the grantee differed by retailer capacity. The smaller and less experienced retailers sometimes lacked the staff to shoulder IT issues, staff training, outreach and marketing, and data collection, and require more guidance and assistance from grantees for those aspects of implementation.

Among grantees who were directly connected to retailers, six (five community-based and one large-scale grantee) operated their own retail sites, typically farmers markets. One grantee operated all of

its sites and the other five operated a subset of their retail sites. Grantees said that implementing FINI at their own sites provided useful insight into their retailers' experiences and helped them identify emerging challenges rather than hearing about them secondhand.

Five grantees blended their management approach by working directly with some retailers, and going through a partner organization to connect with others. In the case of two grantees, each managed one farmers market and worked with partner organizations who managed other farmers markets within their program. Another grantee worked directly with retailers under its 2016 grant, and utilized regional partners to support the additional retailers that joined FINI under its 2017 grant. That allowed their FINI program to continue to expand without overextending the grantee staff, and the partners provided the new cohort of retailers with local support.

5.2.2 Retailer/Partner Recruitment

Most grantees began recruiting partner organizations and retailers prior to submission of their FINI grant application, with retailer recruitment continuing post-award. Grantees discussed their selection criteria for recruiting retailers; the two most common selection criteria highlighted by grantees were (1) increasing access to incentives for more SNAP customers and (2) retailer administrative capability to handle the grant requirements. Increasing participant access was the most important criterion for all grantees.

In their proposal, grantees proposed targets for the number of retailers in their program. After their first year of operation, most of the 2015 grantees had met this goal, with the four remaining planning on meeting the target through additional retailer recruitment in the next year. By 2017, all 2015 retailers had met their retailer recruitment goals. Similarly, after the first year of operation most of the 2016 grantees had met their targets, with three anticipating hitting their targets in the following year. Generally, grantees found retailers receptive to their recruitment; this was particularly true of farmers markets. Grantees recruiting grocery stores faced more resistance, particularly if they sought to recruit large chains that had no prior incentive experience.

5.2.2.1 Partner/Retailer Selection Criteria

Grantees sought partner organizations that had pre-existing relationships with their communities and/or retailers. They also sought/identified organizations that would help extend the incentive program to underserved, sometimes remote areas, which would otherwise be challenging to reach.

Grantees cited three major reasons for selecting particular retailers: (1) meeting program geographical goals (including serving particular geographic areas—specific states or urban/rural locations), (2) building on existing relationships, and (3) finding retailers with necessary administrative capacity to manage program administration.

Meeting Program Geographical Goals

Nearly all 2015 and 2016 grantees (25 of 29) indicated in their grant applications that they intended to serve communities with food deserts or other areas with high levels of food insecurity. Thirteen grantees specifically targeted StrikeForce communities or Promise Zones. Large-scale grantees often targeted areas that did not have prior experience with SNAP-based incentives. Some grantees also focused on reaching specific demographic subgroups, such as the elderly, and specifically targeted retailers that serve those subgroups.

Building on Existing Relationships

Eleven grantees cited prior relationships as a reason they selected particular retailers. These grantees felt that having an existing relationship with a retailer makes implementing a new program easier; they had established communications with the retailer and both sides were comfortable working together. Four grantees said a strong relationship between grantee and retailer, helped by prior collaboration, was key to the success of the project. For grantees operating in grocery stores, the relationship between the grantee and the store manager or owner was particularly important. Four grantees said the buy-in of the grocery store manager or owner is critical for program success, and that having a proven relationship between the grantee and the retailer could help secure this buy-in.

Retailer Administrative Capability

Roughly half of the 2015 and 2016 grantees (14 of 29) cited retailer administrative capability as another important selection criterion. Grantees looked for participation in other Federal grants,

Federal programs, or other incentive programs as a demonstration of such capacity, showing that the retailer can handle FINI requirements. They looked for retailers that can comply with the program regulations and meet reporting requirements.

All retailers had to be SNAP-authorized before they could implement FINI. Several grantees, particularly community-based grantees, intentionally selected retailers with prior SNAP authorization. Some large-scale grantees—generally those with more staff and resources—were more willing to work with markets that were not yet SNAP-authorized, but even they expressed a preference for those already equipped with SNAP electronic benefit transfer (EBT) licenses and equipment.

5.2.2.2 Retailer Recruitment Process

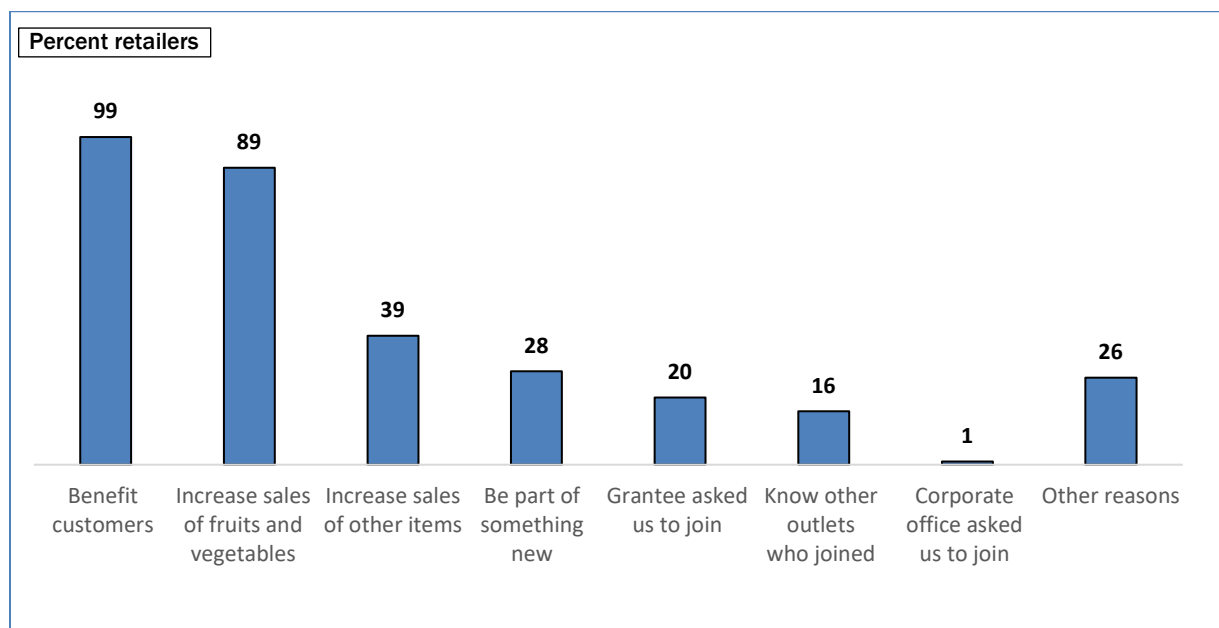
FINI grantees used both direct and indirect strategies to recruit retailers, including formal calls for applications, direct recruitment of known retailers, and recruiting through other umbrella organizations or partners.

- **Call for Applications.** Eight grantees used a formal process to select retailers, wherein interested retailers submitted an application and provided details on their operational scale, capacity for fulfilling data requirements, and other characteristics.
- **Direct Recruitment.** Twelve grantees used an informal process to select retailers, wherein they reached out directly to known retailers and asked whether they would be interested in participating. Because the organizations were familiar with one another, recruitment and selection was relatively swift and completed without a formal application process.
- **Recruitment Through Umbrella Organizations or Partners.** Nine grantees recruited through umbrella organizations such as farmers market associations or farmers market conferences. Grantees reached out through these umbrella organizations or made presentations at conferences to describe the grant and the opportunity it presented.

5.2.2.3 Reasons for Retailer Participation

Almost all retailers said they joined FINI to benefit customers (99 percent) (see Figure 5-1). Other important factors for offering incentives included wanting to increase fruit and vegetable sales (89 percent), increase sales of other items (39 percent), and to be part of something new (28 percent).

Figure 5-1. Reasons for retailer participation in FINI



Source: Survey of 2015 FINI Grantee Retailers

Notes: There were 595 retailers that completed the survey. Estimates are weighted. Those responding “other reasons” were asked to provide an open-ended response; some examples of open-ended responses include “advances mission” and “help farmers.”

5.3 Retailer Training

Both the form and frequency of retailer trainings varied by grantee. One-third of the 2015 and 2016 grantees (10 of 29) offered both remote and in-person trainings for retailers; seven grantees only offered in-person trainings; and three grantees only offered trainings by phone or Internet, rather than in-person. Recognizing the need for continuous training, eight grantees scheduled refresher trainings for retailer staff, either periodically or as needed. Some grantees provided ongoing support through monthly or biweekly calls with retailers, typically as a group, so that retailers can ask questions and discuss any new issues that arise. Grantees also encouraged retailers to reach out to them with any questions or concerns.

At the training sessions, grantee staff (or, in a few cases, partner staff) explained the FINI program, protocols for implementation, and the ongoing management approach. Specifically, trainers walked retailers through the structure of the incentive programs, invoicing and reimbursement processes, data collection and reporting, marketing and outreach, and technology issues. For retailers with little or no experience with SNAP, the trainings reviewed the process to become a SNAP-authorized retailer and acquire and use an EBT machine. One grantee also included cultural competency in its trainings to educate retailers about the SNAP population and the food access barriers that SNAP customers face. Four grantees reported that they borrowed training materials from two other grantees and customized the materials to fit their own programs. Training sessions included written materials that could be referred to later as needed or used to train new staff.

Content of Retailer Trainings:

- Data collection and reporting
- Invoicing and reimbursement
- Marketing and outreach
- Technology (e.g., point-of-sale system, EBT machines)
- Structure of the incentive program (e.g., match ratios, which customers are eligible for the program, which products can be used to earn/redeem the incentive)

Four 2016 grantees and four 2015 grantees adjusted the content of the trainings by retailer type. These grantees created separate training materials for grocery stores, CSA programs, corner stores, farmers markets, and mobile markets (as applicable) because the specific operational components differed by retailer type. For example, one grantee's corner stores captured data differently than its farmers markets, with farmers markets submitting data via email to their grantee contact and corner stores submitting data through an online portal.

Grantees indicated that it helped to develop variations of a training agenda that took into account the differences in staff experience and program characteristics—some retailer staff had previous incentive experience, some did not; some ran year-round programs, while others ran seasonally; and some retailers employed paid staff while others relied on volunteers. Grantees employed several strategies to overcome these challenges, such as conducting group trainings and trainings in multiple modes at multiple times to accommodate the different needs and schedules of retailers. Group training sessions often took a train-the-trainer approach, where the grantees trained senior retailer staff, who they expected to later train front-line retailer staff. In general, grocery stores and farmers markets had similar training and support needs: staff required extensive training on how the program worked and points of contact to answer questions as they arose.

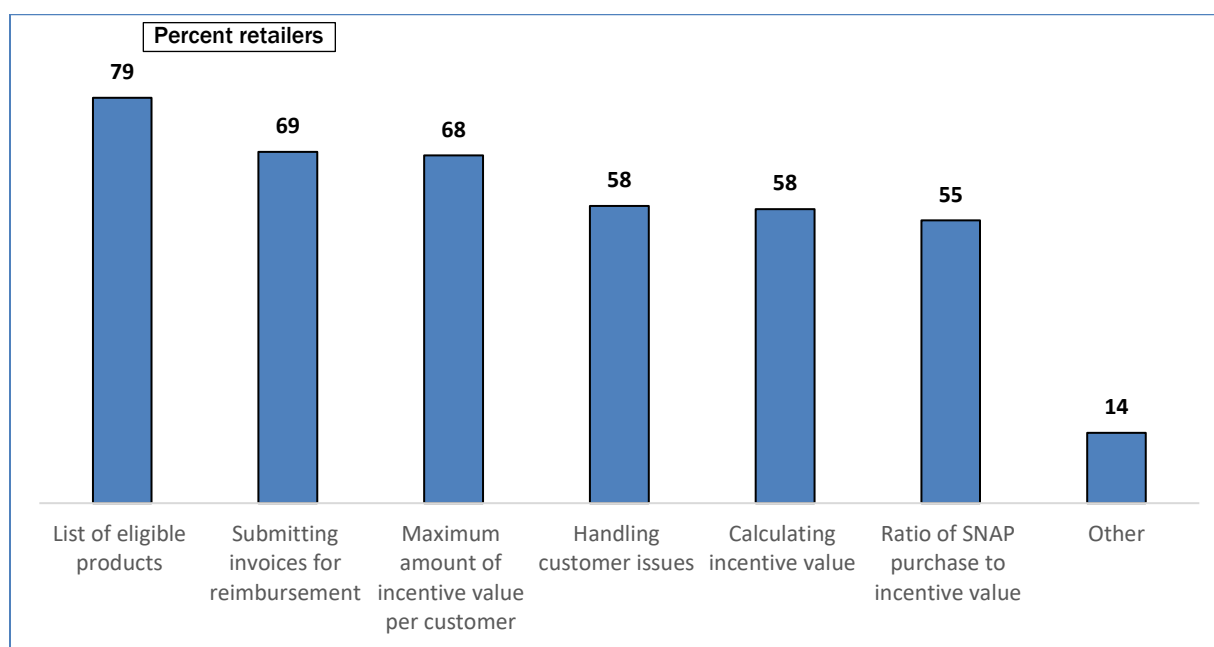
Cashiers at grocery stores were interacting with SNAP shoppers, distributing incentives, and processing incentive redemptions—and it could be a struggle to accommodate the continuous need for training that arose from cashier turnover. Grantees reported a relatively high turnover of cashiers, particularly at grocery stores, which led to new cashiers who may not understand FINI protocols. This challenge required continuous upfront staff training as new cashiers were hired. Some grantees met this challenge by introducing frequent trainings at grocery stores, and providing instructional materials for grocery store chains to weave into their regular cashier training programs. Others created refresher materials to re-train cashiers as needed.

A handful of both 2015 and 2016 grantees reported making changes to their training approach over time. One grantee made training mandatory for retailer managers, whereas before it had been optional, and another made it mandatory for staff operating the EBT machines as well, after initially having such training as optional. Another grantee conducted webinar trainings in their pilot year, and switched to in-person with their implementation grant because they found it to be more effective—they found that retailers seemed to understand the systems better when they had a chance to ask questions in-person. Conversely, another grantee decreased the number of in-person trainings due to limited staff capacity to travel and conduct trainings on a rolling basis as retailers joined the FINI program. As a result, they began holding more webinar trainings and changed their intake process to two application “seasons” per year rather than rolling admission of new retailers.

Grantees reported making other changes to trainings to clarify points of confusion for retailers, and mitigate the challenges of staff turnover. In the first year of implementation, one grantee reported that it initially had a contract that it encouraged farmers market managers to sign. The contract outlined the responsibilities of being a FINI retailer. By the end of the year, the grantee abandoned this approach, as it became clear the contract did not provide farmers markets with sufficient information in a useful format. The grantee began creating documents for retailers in multiple languages that illustrated what the different tokens look like and which food items were eligible for purchase with each token. Two other grantees developed similar one-page “cheat sheets” to provide new cashiers with a quick understanding of the program. One grantee focused more on cashier training in its second year of implementation as well. They developed a monthly webinar training for cashiers that helped them train both new cashiers and experienced cashiers in need of a refresher.

FINI retailers indicated that on average 2.8 staff members attended a training that grantees provided. While CSA programs and direct marketing farmers had 1.2 and 1.5 staff members at a training respectively, farmers markets had 2.6, grocery stores had 4.1, and mobile markets had 5.7 staff. More than 75 percent of retailers indicated that grantees discussed FINI-eligible products at the training; between one-half and two-thirds of the retailers also indicated that the training covered calculations for providing the incentive, the ratio of SNAP purchase to incentive, the maximum amount of incentive value per customer, invoicing for reimbursement, and handling customer issues (see Figure 5-2).

Figure 5-2. Retailer report of topics covered in FINI training



Source: Survey of 2015 FINI Grantee Retailers.

Notes: There were 595 retailers that completed the survey (30 retailers were grocery stores, 499 were farmers markets, 17 were direct marketing farmers, 38 were mobile markets, and 11 were community supported agriculture). Estimates are weighted. Examples of open-ended responses to the “other” category include “Outreach” and “Fraud protection.”

5.4 FINI Rollout Schedule

For all grantees, the rollout schedule was driven by the time required to finalize contracts, acquire needed licenses and equipment (e.g., EBT machines), ensure that all data and technology systems are in place, and train staff. Most grantees indicated that it generally took between three and six months following the award announcement to begin implementing FINI, assuming retailers had no prior incentive program experience.

The primary challenge with rolling out FINI quickly at farmers markets was the seasonality of their operating schedule and the timing of the grant cycle. FINI grants were awarded in late spring or early summer, which marked the beginning of farmers market season in much of the country. Because grantees and retailers required a few months to prepare before launching their FINI programs, peak farmers market season may be ending by the time some grantees were ready to launch. When grantees could not launch the program at the beginning of farmers market season, grantees either implemented the program for the remainder of the time in the season or waited to launch the program at those retailers when the season began the following year. As a 2015 grantee explained, “...the grant started off when the farmers market season had already kicked off and we needed several months to establish all of our systems. There’s not really a way around that, I think. If the grant had started in the winter, then that would have been a different story. We would have time to prepare for the front of the market season.” Seasonality did not impact grocery stores and other retailers that operated year-round.

The rollout period may also be lengthened by the time needed to put the necessary technology in place. All grantees worked through some technological hurdles with their retailers. The two most commonly cited technology issues that delayed full implementation were setting up the point-of-sale (POS) systems (6 of 29 grantees) and EBT systems (5 of 29 grantees). One grantee attributed a delay in rollout to the 12 weeks it took farmers markets to receive SNAP authorization and EBT equipment.

Four community-based grantees piloted the technology and data systems before rolling them out. One grantee worked out the kinks of retailers’ POS systems by creating a “scenario document” that ran the systems through a series of normal and abnormal transactions with varying combinations of food items. The tests verified whether the POS systems operated as they should, and the grantee worked with retailers to make any adjustments. Another grantee tested its retailers’ data collection and reporting systems prior to launch. They tested that all necessary data points were transmitted accurately from retailers to the grantee, regardless of whether the data were collected manually or electronically via POS system. All four grantees indicated that this testing period facilitated a smoother launch. However, the grantee staff time needed to run these tests suggested that this may be more feasible for grantees working with a smaller number of retail sites, unless all retail sites were already linked and operating on one system, such as chain grocery stores.

5.5 Staff Involved with FINI

Grantees identified staffing at both the grantee and the retailer levels as a crucial concern for implementation. Two grantees said they needed a dedicated staff person for grant management—without such staff, these grantees felt that successful implementation of the program was not possible. Meanwhile, seven grantees identified their grant staff as key to the success of their programs. At the grantee level, staff were responsible for meeting grant reporting requirements (including reporting on grant match funding and implementation and outcomes to the evaluation team), establishing contracts with retailers, training retailers or partners about the program, reimbursing retailers for incentives, and maintaining communication with retailers and partners throughout the course of the grant. These tasks were quite time-intensive, and grantees commented on staff demands. Having dedicated staff helped to ensure that they met all the grant needs and the program ran smoothly.

At the retailer level, responsibilities included marketing the program to customers, tracking incentives issued and redeemed, and monitoring for fraud (most commonly by tracking incentives issues and redeemed and ensuring that regulations about product eligibility are followed). At the retailer level, grantees expressed a desire for more paid staff to implement the program rather than volunteers. Some grantees thought that responsibilities of implementing FINI were too much for volunteers to shoulder. Volunteers may not be able to adequately administer the program and all of the tasks. Of course, paying staff may not be enough for smooth implementation. At grocery stores, where all or almost all staff are paid, grantees mentioned that cashiers often lacked sufficient training (two grantees), typically due to difficulties in coordinating staff-wide trainings or having frequent turnover (three grantees), reducing their effectiveness as recruiters and administrators of the program.

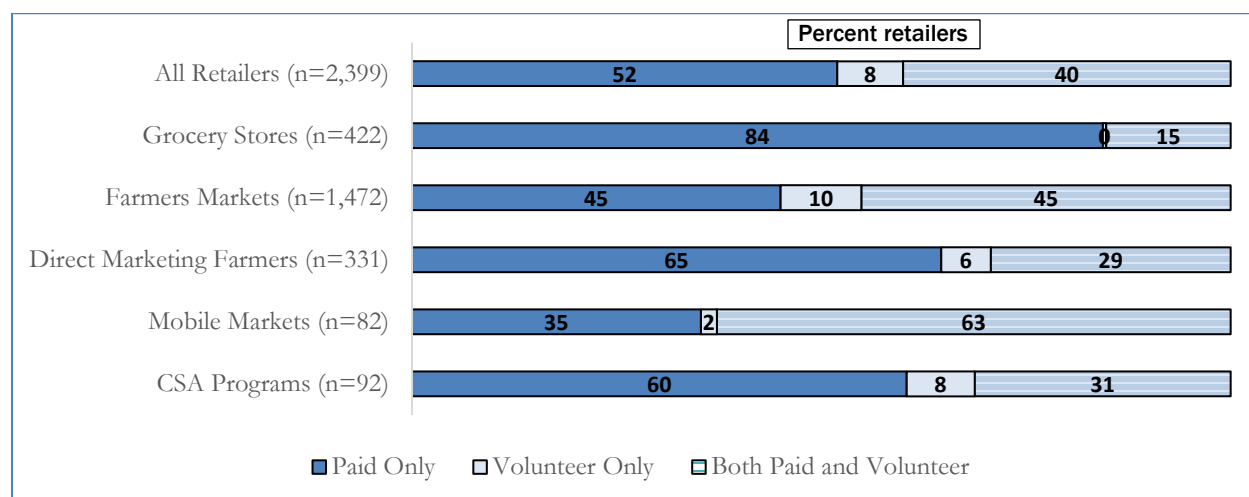
5.5.1 Staff Involved with FINI Implementation

In Quarter 3 of 2017, 85 percent of all retailers implemented FINI with the help of retailer staff. Grantee or partner staff implemented the incentive program at other retailers.

For those retailers with retail staff implementing FINI, less than half (40 percent) relied on both paid and volunteer staff, more than half (52 percent) relied on paid staff only, and eight percent relied on volunteer staff only (see Figure 5-3). Grocery stores used paid staff more often, while other

retailer types relied more heavily on a mix of paid and volunteer staff. On average, retailers used six staff to implement FINI, ranging from three staff at CSA programs and direct marketing farmers to 10 staff at grocery stores (data not shown). In interviews, the grantees indicated that implementation included communication between the retailer and grantee, creation of advertising materials, staff training, and acquisition of tokens or other incentives.

Figure 5-3. Type of staff involved in implementing FINI in Q3/2017, by retailer type



Source: Core Program Data, Calendar Q3/2017.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated for at least one quarter at 2,600 retailers between Q2/2015 and Q3/2017.

This figure excludes 201 retailers who were not operating in Q3/2017, 150 retailers with missing data, and five retailers that implemented prescription program only.

5.6 Marketing and Outreach

All grantees agreed that FINI programs do not succeed without strong marketing and outreach,³⁵ but such marketing presented a particular challenge for grantees and retailers. Grantees said they invested significant time and resources into marketing and customer education because most SNAP customers were unfamiliar with the concept of

Types of marketing and outreach employed by grantees:

- Program website and social media presence
- Billboards, bus/rail/newspaper ads, television/radio
- Outreach through social service agencies
- Direct mailings to SNAP participants
- Promotion in neighborhood schools
- Neighborhood canvassing

³⁵Prior to November 1, 2016, FINI grantees were prohibited from promoting or advertising their FINI grant projects using Federal and/or match funds using any media, including television, radio, and billboards.

incentive programs. Grantees and retailers tried numerous approaches, and many adjusted their marketing strategy over time to better target SNAP customers.

Grantees highlighted the difficulty in balancing spending on marketing with spending on incentives. Increased marketing leads to higher redemptions, but also reduces the pool of money available for incentives. As a result, five grantees recalibrated their marketing in the second year of the program, armed with better data on marketing needs after one year of experience. Such recalibration involved changing the amount spent on marketing and/or the frequency of the incentive.

Most grantees provided marketing materials, including in-store/market signs, flyers, and handouts, to retailers—twenty grantees supplied materials to retailers, while 11 grantees reported that retailers also produce their own outreach materials. Nine grantees’ partner organizations conducted marketing—by working with social service agencies, creating signs and handouts, sending out fliers, etc.—reducing the burden of marketing from grantees and retailers. Typically, the grantees would provide guidance on marketing such as logos or language on the program, but gave the partner organizations wide latitude on designing particular materials for different marketing channels.

Most grantees employed a host of outreach approaches. The most common strategy, used by 22 grantees, was reaching SNAP customers through local social service agencies. In some cases this meant putting up flyers in SNAP offices and food pantries; alternatively, grantees trained local social service agency staff to refer SNAP customers to the participating FINI retailers. Ten grantees worked with SNAP offices to send out direct mailings to SNAP customers; eight of these grantees said this strategy was the most effective outreach technique—they reported increases in FINI redemptions after the direct mailings went out. Four grantees said outreach through community partners such as food banks, SNAP offices, churches, and other organizations, was the most effective outreach mechanism. Twelve grantees also cited relationships with community organizations as key for project success. These relationships helped to lend legitimacy to the program, and through partnerships, grantees learned how to better serve SNAP customers, market to them, and explain the program to them. An ongoing relationship with community organizations allowed grantees to perform outreach and receive feedback on the program and how it was perceived and received by customers. Other common marketing strategies included advertisements in local television, radio, and newspapers (used by 11 grantees), and social media marketing, including program websites and Facebook pages (used by 11 grantees).

Four grantees highlighted the importance of on-site marketing. All grantees did some type of in-market or in-store marketing and emphasized that this POS advertising was crucial to helping customers understand the program. For example, one grantee operating in a grocery store said, *“one of the biggest things that we think motivates customers to use it (FINI) is when the cashiers are talking to regular [SNAP] customers that they know about the program.”* Three grantees also used so-called program ambassadors to conduct

2015 grantee’s perspective on in-store marketing:

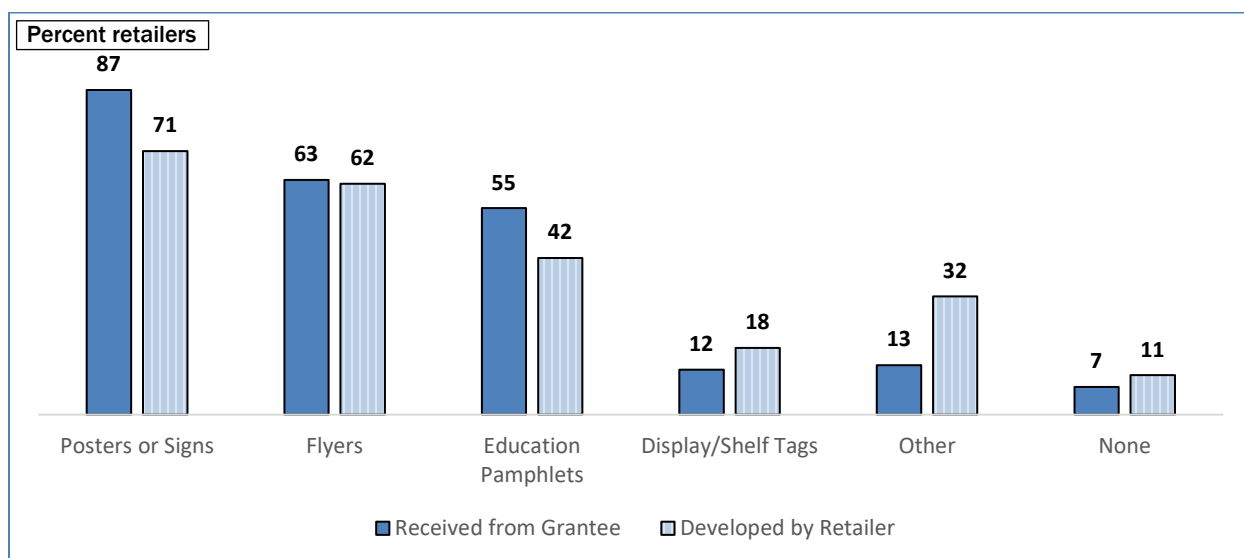
“If there's no signage, if the communication to the customer is not clear and obvious, then they don't really have a chance to even understanding how to use the program.”

direct outreach—either in the market itself, explaining the program to customers (usually by manning a booth or table at the market), or through neighborhood canvassing. This was a labor-intensive approach, but one that these grantees found effective.

While some marketing strategies were the same across retailer types, some were unique to specific retailer types. For instance, grocery stores had access to a marketing technique that farmers markets did not: store circulars. Two grantees implementing FINI in grocery stores used the weekly store circular to advertise the program. Some grocery stores paid for this advertising on their own, as a way to promote the store as well as the FINI program. Grantees operating in grocery stores were also more likely to work with in-store produce managers and produce stockers to ensure that they were aware of the program and marketed it to customers when asked questions about produce.

FINI retailers indicated that they received marketing materials from grantees and developed their own marketing materials to reach SNAP participants. Posters and signs were the most common marketing materials, and display/shelf tags were the least common grantee provided/retailer developed marketing materials (see Figure 5-4). While the overall use of display/shelf tags was low, over half of the grocery stores received these from the grantees or developed their own tags to promote FINI-eligible products. Retailers who indicated that they developed “other” marketing materials noted electronic advertising, including use of social media, email, blogs, and website ads.

Figure 5-4. Marketing materials that grantees provided or FINI retailers developed to inform SNAP participants about FINI



Source: Survey of 2015 FINI Grantee Retailers.

Notes: There were 595 retailers that completed the survey. Estimates are weighted.

Examples of “other” include online and local paper advertisements, email scripts, press release, updates to websites, etc.

5.7 Use of Non-Monetary Strategies to Promote FINI

All grantees used some type of non-monetary strategy, which varied by retailer type, to increase SNAP customer uptake and awareness of the FINI programs. Cooking demonstrations (14 grantees) were the most frequently offered at grocery stores, and tours (four grantees) were most frequently offered at farmers markets. Other strategies used to promote FINI included grocery store tours, group cooking classes, group nutrition classes, nutrition education, and nutrition resources (including recipes) posted online.

Nine grantees used FINI funds to implement strategies for promoting FINI, and 14 grantees used SNAP education grant funding (which provides funding for organizations doing nutrition education and outreach to SNAP populations) to cover costs. Grantees with SNAP-Ed grants, or grantees whose partner organizations have SNAP-Ed grants, typically used those funds rather than FINI funds to pay for these activities.

Grantees who offered cooking demonstrations believed that showing customers how to prepare healthy foods (including fruits and vegetables) and allowing shoppers to taste new foods will lead to increased program participation. They offered recipe cards to interested customers for the foods prepared during cooking demonstrations, making it easier for them to try the recipes at home. One 2015 grantee said that participating retailers bundled all ingredients used in the cooking demonstration and sold them for \$5 to facilitate purchases. One grantee said data showed that sales at a farmers market increased on days when the market held cooking demonstrations.

2016 grantee perspectives on cooking demonstrations to promote FINI:

"You're giving them the incentive to purchase more fresh produce, but if they don't know how to cook it or what to do with it, you're only half way there."

Several grantees operating FINI at farmers markets chose to offer market tours to customers. Tours directly connected SNAP shoppers with market vendors and raised awareness of the types of products available at the market. Tours also demystified farmers markets to populations that may not have previously shopped there.

2015 grantees perspective on market tours to promote FINI:

"...The tours are about introducing [customers] to the producers in the market, talking about the kinds of things that are sold there, and the importance and joy of shopping local with local farmers and eating in season."

5.8 Redemption of Other Nutrition Program Benefits

About 90 percent of farmers markets offering FINI incentives also participated in the WIC farmers market nutrition program (WIC FMNP) and the Senior Farmers Market Nutrition Program (SFMNP) and about 50 percent participated in the WIC cash value vouchers program (WIC CVV). Slightly more than 75 percent of grocery stores and direct marketing farmers participating in FINI also accepted WIC CVVs whereas 21 percent of mobile markets, and 14 percent of CSA programs did so (data not shown).

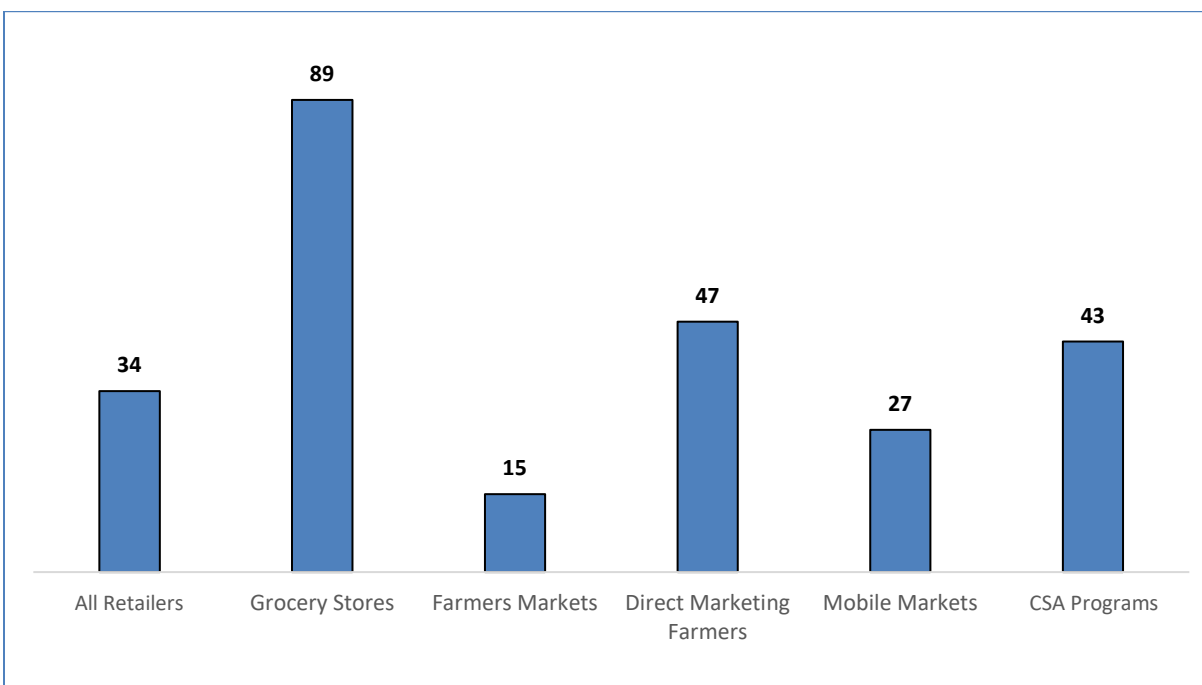
5.9 FINI Implementation at Retail Locations

5.9.1 FINI Retailer Operating Schedule

Overall, FINI retailers operated for an average of 2.86 months each quarter. In Q3/2017, grocery stores operated for slightly more months (2.98) than other retailers, followed by farmers markets and direct marketing farmers (2.84 months), mobile markets (2.82 months), and CSA programs (2.72 months) (data not shown).

Across all quarters, grocery stores operated on more days than other retailer types; in Q3/2017, grocery stores operated on an average of 89 days followed by direct marketing farmers (47 days) and CSA programs (44 days), mobile markets (27 days), and farmers markets (15 days) (see Figure 5-5). Similarly, across all quarters, grocery stores operated for longer hours than other retailer types; in Q3/2017, grocery stores operated for an average of 18 hours each day while other retailer types operated for five hours or less each day (data not shown).

Figure 5-5. Mean number of operating days in Q3/2017 (July through September), overall and by retailer type



Source: Core Program Data, Calendar Q3/2017.

Notes: FINI operated for at least one quarter at 2,600 retailers between Q2/2015 and Q3/2017. This figure excludes five farmers markets that did not issue FINI but accepted FINI prescriptions.

A greater proportion of farmers markets, mobile markets, and CSA programs than grocery stores and direct marketing farmers offered incentives on all operating days (data not shown). Some grocery stores did not offer the incentive every operating day as a way to stretch incentive dollars over a longer period, or to reduce the number of staff who needed to be trained in the incentive system. In any given quarter, fewer grocery stores than farmers markets offered incentives on all operating days (see Figure 5-6).

5.9.2 Retailer Experiences

A total of 595 retailers offering incentives through the 2015 grant cycle completed a survey about their experiences implementing FINI. Their responses provided valuable insights into the benefits and challenges in implementing FINI.

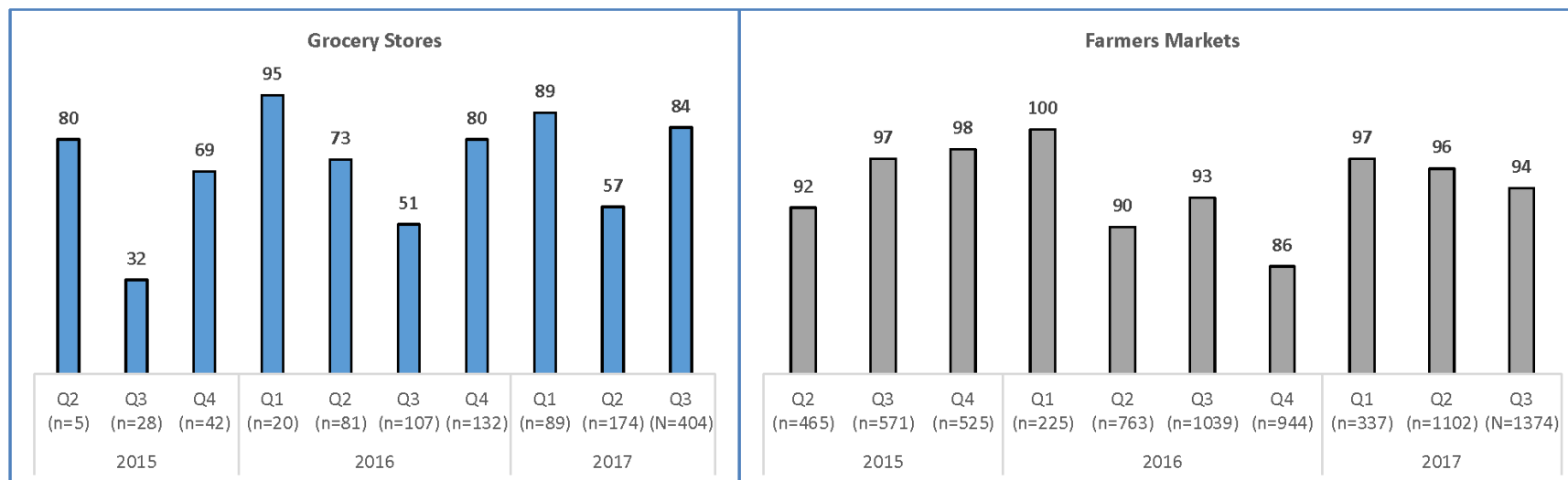
Challenges of FINI Participation

Retailers encountered numerous challenges when implementing FINI, some of which diminish over time, and most fall into one of four areas: (1) educating staff and customers about the FINI program, (2) tracking and reporting data, (3) marketing the FINI program, and (4) technology.

For some retailers, FINI was their first introduction to nutrition incentive programs, and occasionally to SNAP as well. A lack of experience did not preclude a retailer from participating in FINI, but some grantees felt that retailers have an easier time implementing the program if they have prior experience with SNAP and/or incentive programs. One grantee incorporated a SNAP overview into its trainings to educate retailer staff about SNAP and the barriers to food access faced by SNAP customers.

Only 10 percent of retailers said that they did not experience any implementation challenges. A lack of familiarity with incentive programs more generally may explain why some retailer staff struggled to understand the FINI program. Retailers indicated that staff typically asked questions about FINI-eligible items, processing sales with incentives, and calculating incentive values. All the farmers market managers contacted grantees for clarification on FINI implementation, while only 21 percent of grocery stores and approximately half of the direct marketing farmers, CSA programs, and mobile market managers did. These retailers indicated they contacted the grantee and received a response in a timely manner, either via phone or email.

Figure 5-6. Percentage of grocery stores and farmers markets offering incentives on all operating days by quarter, Q2/2015 to Q3/2017



Source: Core Program Data, Calendar Q2/2015 - Q3/2017.

Notes: FINI operated at 2,600 retailers between Q2/2015 and Q3/2017. This figure excludes 207 retailers with missing data in one or more quarters and five retailers that did not offer incentives but accepted only prescription benefits. Quarter specific retailer counts exclude those with missing data.

Half of retailers reported that they needed clarity on some aspect of the general program structure, including:

- Which food items are eligible for purchase and/or redemption under FINI;
- Which customers are eligible to receive FINI incentives;
- How and when customers can redeem their FINI incentives; and
- The maximum incentive that a customer can receive per transaction.

Over 70 percent of those retailers had been implementing FINI for more than one year as of April 1, 2017, which suggests that retailers' questions about the FINI program structure persisted beyond the start-up phase. By extension, retailer staff found it difficult to explain FINI to customers. One in five retailers indicated that they struggled to explain the program in plain language to customers. Part of the challenge may have been due to language barriers between retail staff and customers. Retailers struggled to explain the FINI program to non-English speakers. To assist those retailers, some grantees identified multilingual volunteers or staff to assist customers in their native languages, but none of those staff were available on all days the retailers operated. One grantee even established a toll-free customer hotline, staffed with English and Spanish speakers, to help answer customers' questions and resolve problems.

Given retailers' difficulties with explaining the FINI program to customers, it was not surprising that they also struggled to market it. Over one-quarter of retailers identified marketing and outreach to SNAP customers as a challenge, and the majority (84 percent) of those retailers had implemented FINI for over one year. This was largely driven by responses from farmers markets. Few grocery store respondents mentioned marketing and outreach in their response, suggesting that marketing was easier for grocery stores, likely because they may have a pre-existing marketing strategy as part of their normal business (e.g., weekly circulars, paid advertisements) that they used to market FINI.

Data collection and reporting presented another challenge for retailers both because of the amount of time it took and the detailed nature of the work. Over one-third of retailers listed a data tracking and reporting issue, making it the most commonly cited challenge to FINI implementation. Retailers collected and reported data for the evaluation of the FINI programs as well as for invoicing and reimbursement purposes. One retailer elaborated on the challenge of data tracking for reimbursement, and said, *"turning in itemized receipts in order to receive a reimbursement is hard because a*

receipt may rip, misprint, get lost or be mislabeled, all of which cause us to lose money by not getting reimbursed.” The other aspect of this challenge was that retail managers often needed to train their staff to accurately collect, and possibly report, transaction-level data. That was made more difficult during moments of heavy customer traffic, as one grantee noted: *“The person we hired to do the SNAP swiping occasionally had trouble reporting to us because he did it on paper and sometimes made mistakes during heavy shopper traffic or at end of market when many vendors were turning in tokens.”*

Retailers noted an array of technology challenges that emerged both before and after launching FINI at a retail site. The challenges retailers faced were as simple as Internet connectivity issues in rural areas or coupons not printing out correctly at a cash register, to more complicated and costly issues such as updating an entire POS system. Retailers indicated that some technology challenges occurred more at the start of implementation; once they updated their existing POS system or acquired a new system, the technology issues largely disappeared. However, not all retailers were able to shoulder the costs of updating or replacing a POS system; one grantee said that some retailers declined to participate in FINI altogether because they could not afford to make those changes.

Once a retailer applied and was authorized to participate in SNAP a retailer must obtain an EBT POS device to be able to redeem SNAP benefits. Two grantees said that the cost to obtain EBT machines was prohibitive, particularly so for retailers with limited financial resources. Both grantees encouraged their retailers to apply for FNS equipment grants to help to cover the cost of the EBT machines.³⁶ Some retailers also reported difficulties in the SNAP authorization process. Many grantees assisted retailers to become SNAP-authorized, but even they struggled with that process. One grantee put it this way: *“It was very difficult to figure out what type of license will some of these outlets hold, because they're not necessarily a traditional produce stand; we're trying to fit the federal definition of 'farmers market.' The licensing process in general for a handful of our projects is very tumultuous. It took longer than it should have, [roughly three months].”*

Small retailers faced different technology challenges than larger retailers. Large chain grocery stores may have direct contacts with the manufacturers of POS systems, and were able readily obtain

³⁶Most authorized retailers must pay for their own EBT equipment and services, but there were some exceptions: eligible farmers' markets, direct-marketing farmers, military commissaries, non-profit food buying cooperatives, group living arrangements, treatment centers, and prepared meal services (other than for-profit restaurants participating in State-option restaurant programs).

assistance and equipment. Smaller retailers, however, often interacted with the dealers that sell and service POS equipment on behalf of the manufacturers. Being one degree further removed from the manufacturer can make it more challenging to obtain timely assistance with POS equipment.

Similarly, the grocery stores faced challenges that smaller retailers can often avoid. Grocery stores needed to assess entire departments of food to identify which items were eligible or ineligible for FINI, and then program their POS systems to make the correct determinations and calculations. Retailers with a smaller inventory, and retailers that sold mostly eligible items (i.e., CSA programs, direct marketing farmers, farmers markets, farm stands), did not encounter this issue to the same degree. Additionally, large grocery store chains faced hurdles with linking a customer's incentives to their store loyalty card, which small retailers often did not have. Over one-quarter of the grocery store respondents (27 percent) cited a technology and/or equipment challenge.

Benefits of FINI Participation

The vast majority (89 percent) of FINI retailers self-reported an increase in fruit and vegetable sales; more mobile markets than other retailer types indicated that they saw a large increase in produce sales; grocery stores, farmers markets, direct marketing farmers, and CSA programs saw a small increase in produce sales. Overall, about 75 percent of retailers noted an increase in store revenue with all farmers markets and two-thirds or more of grocery stores, mobile markets, and CSA programs indicating that there was an increase in revenue.³⁷

Not only did retailers report selling greater quantities of produce, but also a greater *variety* of produce. Some retailers said that benefit trickled down when they purchase more food from local suppliers. The increased sales were significant for some retailers, as described in their survey responses:³⁸

- *“SNAP sales have increased 1,300% over 2015!”* (Farmers market)
- *“Banana sales doubled. All juice/smoothies sales are huge. General increase in sales like canned veg/fruits.”* (Grocery store)

³⁷This was asked on a gradient scale from large increase to large decrease. This is self-reported data and the definition of “large” is not provided.

³⁸Some retailers provided responses to open ended survey questions and described their success in implementing FINI. Among those who responded to this question, many mentioned significant increase in revenue.

- *“We have increased our sales and also benefitted our community. We purchase more from our local suppliers and sell a larger amount of produce to our customers.”* (Mobile market)
- *“We have seen an additional \$16,520 in [SNAP] sales since implementing the program in 2015.”* (Farmers market)

Over half of the retailers (55 percent) who reported that FINI benefited their business indicated that their site experienced increased traffic from new customers, repeat customers, or both. One mobile market reported that *“[the FINI incentive] has grown our customer base greatly; we sell fruits and vegetables to a more diverse group of customers than ever before.”* According to these FINI retailers, many of these first-time customers became repeat customers. One farmers market said that they saw *“SNAP customers that still shopped the market even when they were out of benefit and/or incentive dollars at the end of the month.”* Another farmers market said that participating in FINI gave them a competitive edge: *“We find that we have more customers, even some who come a distance because the market in their area does not have [the FINI incentive].”*

Roughly one-third of the survey respondents (36 percent) perceived that the FINI programs benefit their SNAP customers. Eighty-one (nearly 40 percent) of those retailers who ascribed a customer-level benefit perceived that their customers are happier with their shopping experience. One farmers market retailer said, *“One customer teared up when she found out about the program – she was going to be able to feed her family vegetables instead of just rice.”*

Half of the retailers who perceived customer-level benefits said that FINI increased customers’ access to healthy foods, and accomplished that largely by increasing their spending power. Retailers took note of how FINI increased access by making healthy food more affordable, saying:

- *“[Customers] are able to buy fresh produce on an on-going basis versus only at select times during the month when they have an abundance of food dollars.”* (Grocery store)
- *“This really helps our [SNAP] customers – it stretches their budget!”* (Mobile market)
- *“[FINI] made it affordable to families with low income to buy produce.”* (Grocery store)

Retailers also understood that access to healthy foods requires proximity. Almost half (47 percent) of mobile market survey respondents believed that FINI increased access to healthy foods. This was not surprising given that mobile markets could resolve the proximity barrier by transporting produce to multiple locations each week, moving fresh food closer to the customers who needed it.

Willingness to Implement FINI in the Future

The majority (96 percent) of retailers said they would join a FINI project again. While all direct marketing farmers, mobile markets, and CSA programs said they would join another FINI project again, about 11 percent of grocery store managers and three percent of farmers market managers were not sure if they would join another FINI project.

Retailers' willingness to continue implementing FINI in the future may relate to whether staff bought into the program. For seven community-based grantees, staff buy-in—at both managerial and cashier levels—facilitates smooth implementation and steady participation. Four of those grantees noted that the retailer managers' investment in the program influences the buy-in of the cashiers, which suggests that staff buy-in has a trickle-down effect. One grantee said that the key to fostering buy-in was helping both managers and cashiers understand that the program will help their business, and sharing data that illustrate how sales could increase. Also critical to fostering staff buy-in, especially among cashiers, was ensuring they understood the program and how to process the transactions; staff cannot invest in the program if they do not understand how it works. Training staff to implement FINI and using data to illustrate the benefits of the program may help all staff invest in the program long-term.

A retailer's willingness to continue may also be influenced by the use of paid versus volunteer staff. Three grantees felt that implementing the program, particularly the collection and submission of data for reporting and invoicing, is a lot to ask of volunteers. Paid staff may feel more willing to consistently implement the incentive program because they receive compensation for their efforts.

Finally, willingness to continue the program may change over time. Four 2015 grantees, who were interviewed after Year 2 of implementation, felt that retailers became more adept at implementing the program over time. As one grantee said, *"I think going into the last year of our original grant, for our partners who had already been on board for the first year it was business as usual. Things, if anything, just got easier because they had already had a year of experience under their belt."* As retailers weave the FINI program into their normal business processes, they may express greater willingness to continue the program.

5.10 Monitoring Implementation

Grantees are responsible for monitoring program compliance and ensuring that no fraud had occurred—that SNAP customers were the only recipients of the incentives, SNAP customers earned and redeemed incentives only on eligible products, and incentives were not converted to cash. Two grantees reported no formal monitoring process—they review monthly data reports but not with an eye to fraud prevention. Most of the remaining grantees saw data review as sufficient monitoring, and only a few grantees reported any concern about fraud possibly occurring. Grantees reported two primary mechanisms for monitoring program compliance—retailer reports and site visits.

Retailers transmitted data to grantees on different schedules. Just over half of the grantees (17 of 29) required retailers to submit data monthly, though some grantees received data biweekly, or quarterly. Two large-scale grantees had access to retailers' records via a shared database (e.g., FMTracks), that could be retrieved at any time. Some grantees offered somewhat flexible timelines to retailers out of recognition for the time burden to compile and submit data. Six grantees had a fluid schedule, allowing retailers to submit either weekly or monthly, depending on what was easiest for the retailer at the time. Furthermore, given the volume of data collected at grocery stores in terms of detailed transaction information on all SNAP transactions, some grantees allowed these retailers to submit data quarterly because more frequent submissions would be too burdensome.

Grantees relied heavily on retailers' data reporting to monitor program compliance. All grantees accepted electronic data records from retailers, whether by email or through a shared online data portal, and five grantees allowed retailers to submit paper data records if they wished. Data records typically included the number of incentives issued and redeemed, and grantees reviewed these documents in detail to look for irregular patterns. As one 2015 grantee explained,

“They’re entering their SNAP transaction, [incentive] transaction data to me monthly. Sometimes depending on what these numbers look like, it’ll send up a little red flag of, ‘You say you distributed more [incentives] than you did SNAP. That doesn’t make sense. What happened here? Where was the error? What can we do to improve that?’ It lets me have a sneak peek at what’s happening, and then I can go to them with any issues that seem to pop up.”

Six grantees, including both community-based and large-scale grantees, conducted formal audits, requesting back-up documentation in the form of receipts and other hardcopy transaction data from retailers to support their records. Grantees indicated that they followed up on any suspected errors

or irregularities with a phone call or email to the retailer manager, and worked with the manager to make any needed corrections.

5.10.1 Grantee Support

Grantees supported their retailers primarily through regular calls and annual visits. All grantees held at least monthly calls with retailers to discuss redemption rates, data collection and reporting, plans for the future, marketing, and any challenges

encountered. Fourteen grantees also conducted at least one annual site visit to their retailers. Large-scale grantees were more likely to comment that being physically present to support and monitor the retailers

2016 grantee's perspective on site visits:

"I think that probably the biggest challenge is the inability to have an ongoing presence at the markets, to see execution on a more regular basis."

poses a challenge; many had retailers across large geographic areas and found it difficult to visit all of them. However, having a physical presence helped to facilitate successful program implementation and administration by allowing grantees to monitor transactions and address problems immediately as they occurred.

Grantees supported the retailers in other ways as well. Seven grantees provided technical assistance to retailers, most often in the area of technology support—helping to solve problems with EBT machines. Six grantees helped forge connections between retailers by setting up websites through which their retailers could discuss challenges and share best practices with each other.

5.10.2 Monitoring Incentive Budgets

Grantees closely monitored spending levels by tracking program uptake and making adjustments as needed to stay within budget. Retailers' data records and invoices provided the basis for grantees' assessments of spending and uptake. For two 2015 grantees and two 2016 grantees, SNAP customers participated in the incentive program at such a high rate that the grantees changed their plans to accommodate the demand. Two of these grantees implemented FINI at farmers markets, one implemented FINI at a corner store, and one did so at farmers markets and CSA. Despite basing their budget on research and data from a pre-existing pilot, one grantee reported that SNAP customers earned \$1.5 million in incentives at farmers markets in the first six months of the program, which surpassed their total estimate for the entire 3-year implementation period. The

grantee could not accommodate the steep demand and ended the FINI program early. Another grantee chose not to expand into additional locations because customer demand is already so high at its current retail sites that the spending projections indicate that it cannot support additional retailers. Going forward, that grantee may decrease the maximum incentive limit from \$20 to \$10 per customer per day to stretch its funding.

Conversely, seven grantees reported that they had underspent what they expected to, and were developing strategies to boost uptake. Part of the struggle was building customers' awareness of the program and how to take advantage of it, and grantees hoped that increased outreach and marketing will boost program uptake. Grantees must also reassess their targets for customer uptake when legislative changes impact SNAP enrollment. Changes to any State's SNAP participants will likely impact the number of customers in that State who were eligible to take advantage of FINI incentives.

Grantees not only requested data from retailers on the value of incentives issued and redeemed in order to monitor the program, but also to reimburse retailers. The majority of 2015 grantees (13 of 15) and all 2016 grantees, reimbursed retailers based on the value of the incentives that customers redeem; two 2015 grantees reimbursed retailers based on the value of incentives distributed to customers and made a later adjustment (as needed) based on incentives redeemed.

Roughly one-third of grantees used "starter banks" to provide retailers with a set amount of funds up front—typically about half of the funds that the grantee expected the retailer would need for the season (if a farmers market) or quarter (if a grocery store). This allowed retailers to defray up-front costs—as otherwise incentives may be redeemed before the retailer had received any payment. As customers redeemed incentives at a retail site depleted the incentive funds, retailers submitted invoices and transaction records to prove spending of incentive funds and requested the provision of additional funds. Grantees used this system to reduce the up-front administrative and financial burden of the program on smaller retailers. The other two-thirds of grantees requested invoices and transaction records from retailers *before* providing reimbursement.

Overall, two-thirds of the retailers indicated that it was somewhat easy or very easy to track and manage incentive funds with about 13 percent noting that it was somewhat difficult or very difficult. Overall, almost 90 percent of retailers indicated that they receive FINI reimbursements from

grantees in a reasonable amount of time; almost 80 percent of the retailers said it was somewhat easy or very easy to receive FINI reimbursements from grantees; about nine percent said it was somewhat or very difficult. None of the direct marketing farmers and CSA programs experienced difficulties receiving FINI reimbursements from grantees, whereas nine percent of grocery stores, farmers markets, and mobile markets had some difficulty.

5.11 Summary of Key Findings

This chapter described the approach, challenges, and solutions grantees and retailers used to launch and implement FINI. This chapter included results based on interviews with 2015 and 2016 grantees (n=30), a 2015 grantee retailer survey (n=595) and quarterly Core Program Data (n=2600 retailers).

Key Findings:

- The first year of FINI implementation was a source of tremendous learning for both grantees and retailers, particularly with regard to setting up electronic POS systems, marketing FINI to SNAP participants, and tracking incentive distribution and redemption. To ensure smooth implementation, selecting retailers with prior incentive experience was particularly common among community-based grantees; these grantees stated that they did not have the capacity for the complex on-boarding of retailers without equipment or experience. Some grantees also assisted retailers to receive SNAP authorization and secure EBT equipment.
- Working with partners was an effective approach used by many grantees to ensure the program ran smoothly and they could meet all grant program requirements. This approach allowed them a broader geographic reach for their program, reduced their burden for recruitment and retailer monitoring. Nine grantees worked with partners or umbrella organizations such as farmers market associations to recruit retailers. Working with partners reduced the amount of outreach that grantees had to do for retailer recruitment and training. Partner organizations also assisted grantees in creating materials to market FINI to SNAP customers, including developing translations of marketing materials in multiple languages.
- After the initial challenges, 2015 grantees indicated that they and their retailers became more adept and savvy at implementing FINI. They adjusted their marketing strategies, built their training curricula, and adapted it to a greater variety of staff training needs, adapted more strategic approaches to retailer recruitment, and standardized more of their data reporting.
- Grantees discussed the importance of a slow launch and pilot testing, particularly if customization of electronic systems is entailed. Grantees also stressed the importance of training and retraining retailer staff, especially when retailer staff have no prior incentive

experience and/or have a high turnover (such as in grocery store settings). Four grantees adapted and customized training materials developed by other FINI grantees. Grantees relied on refresher trainings and flexible training approaches and building in time to test the incentive program. Because staff turnover was common, particularly in grocery stores, eight grantees offered repeat trainings, either regularly or as needed. These trainings served to reinforce best practices and protocols for existing staff and introduce the program to new staff. Some grantees expressed a desire for paid staff to implement the program as they thought that the responsibilities of implementing FINI was too much for volunteer staff to shoulder.

- To reach SNAP participants, grantees highlighted the importance of developing multilingual marketing materials, connecting with social service organizations, and using multiple marketing channels. Marketing FINI to SNAP participants was one of the greatest challenges for grantees, many of whom had limited experience with outreach in the past. Six grantees mentioned the challenge of reaching SNAP participants who spoke different languages. Other grantees spoke of the difficulty of reaching low-income customers in general in order to reach SNAP participants.
- Grantees developed several promising practices to improve customer participation in FINI. For instance, grantees worked to translate all materials into different languages, with one grantee translating materials into seven languages one grantee also included illustrations of different tokens and listed items that could be purchased with the token. Twenty-two grantees worked with social service agencies to conduct outreach. These agencies included governmental organizations like local SNAP offices as well as food pantries, local churches, and other groups with close ties to low-income customers. Four grantees cited their work with social service agencies as their most effective outreach. All grantees used multiple channels of outreach, such as advertising on TV or radio, direct mailings to SNAP participants, program websites, and even neighborhood canvassing. This multi-pronged approach was cited as an important practice; as one grantee stated, “The sort of wrap-around promo strategy is helpful and important too, because it reinforces the message.”
- To streamline FINI reporting requirements, grantees stressed the importance of working with retailers that have the capacity to shoulder the data and reporting requirements, and implement electronic data submission systems. All grantees mentioned the challenge of reporting for the grant. Even grantees with significant experience in Federal grant reporting found it difficult, generally because of the coordination involved with retailers. Retailers themselves had little experience tracking all transactions and staff time with the detail needed for the grant. Two practices helped alleviate the burden. Electronic data submission reduced the need to track every receipt and paper. Electronic data submission was previously discussed as a facilitator for working with partners. Even for grantees without partners, however, streamlining the data collection process through electronic submission was seen as a great help to grantees. Grantees who worked with retailers in setting up reporting systems reported a smoother process than those with less contact with retailers and less cooperation. In particular, grantees cited the need for retailer reporting capacity—they needed contact staff with the time available to dedicate to data collection at the retailer level. This

reduced the burden on grantees to track down data and helped ensure more accurate and efficient data processes.

- At the retailer level, FINI was implemented by paid as well as volunteer staff. The majority of grocery stores used paid staff whereas mobile markets used both, paid and volunteer staff. Only ten percent of farmers markets relied on volunteers alone to implement FINI; about 45 percent of the markets engaged paid staff only and 45 percent engaged both paid and volunteer staff to implement FINI.
- In a given quarter, grocery stores operated for an average of 89 days, whereas farmers markets operated for an average of 15 days; slightly fewer grocery stores than farmers markets offered incentives on all operating days.
- Retailers noted changes in produce sales and stocked more and different types of fruits and vegetables since FINI implementation. More than half of the retailers who reported that FINI benefited their business indicated an increase in traffic from new and/or repeat customers. All farmers markets, two-thirds or more of grocery stores mobile markets and CSA programs reported an increase in store revenue. More than two-thirds of the retailers indicated that it is somewhat easy or very easy to track and manage incentive funds, and almost all retailers received timely FINI reimbursements from grantees. The majority of participating FINI retailers indicated that they would consider joining another FINI project in the future.

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6. Patterns of FINI Issuance and Redemption and SNAP Transactions at FINI Retailers

This chapter examines two interim outcomes of the FINI Grant Program: (1) incentives issued and redeemed at all FINI retailers and (2) SNAP transactions at farmers markets. FINI grantees (n=39) issued \$17.3 million in incentives and redeemed \$14.2 million as of September 2017. Most FINI retailers (n=2,457) issued incentives; fewer than ten percent of retailers (n=143) did not issue incentives.³⁹ While total SNAP EBT transactions and households increased over time due to the additional of new FINI retailers each quarter, quarterly SNAP transactions at farmers markets remained relatively steady. This chapter presents findings based on retailer-level Core Program Data spanning 10 calendar quarters, reported by grantees, SNAP transactions from data provided by USDA, and interviews with grantee administrators.

6.1 Incentives Issued and Redeemed

6.1.1 Value of Incentives Issued and Redeemed

FINI retailers provided SNAP participants with the incentive at the POS—and this is defined as incentive issuance. When the SNAP participant uses the incentive to make purchase, it is considered a redemption. FINI grantees reimburse retailers for incentives redeemed by SNAP participants.

In the first ten calendar quarters of FINI implementation, participating retailers issued a total of \$17,375,444 in incentives and grantees reimbursed retailers \$14,208,546 for incentives redeemed by SNAP participants—an 82 percent redemption rate (see Table 6-1).^{40,41} As most FINI

³⁹These retailers were funded by two grantees. One grantee implemented FINI only through direct marketing farmers starting in 2017 and did not have any transactions at these locations during the observation period. The second grantee on-boarded additional farmers markets in 2017 and reported slower incentive issuance and redemption at the beginning of their programs, but noted that issuance and redemption improved as they overcame implementation challenges.

⁴⁰Incentive redemption was not limited to the week or season of issuance, allowing redemption to exceed issuance in a given quarter. All but two grantees reimbursed retailers after redemption of incentives; two grantees reimbursed retailers based on the value of incentives distributed to customers and made later adjustments based on incentives redeemed.

⁴¹Incentive issuance and redemption represented the total for all 2,595 retailers that participated in FINI at least one-quarter in the ten-quarter observation window. One hundred retailers reported zero redemptions (excludes pilot retailers).

Table 6-1. Incentives issued and redeemed, by quarter/year and retailer type

	Q2/ 2015	Q3/ 2015	Q4/ 2015	Q1/ 2016	Q2/ 2016	Q3/ 2016	Q4/ 2016	Q1/ 2017	Q2/ 2017	Q3/ 2017	Total
Grocery stores											
Sample size (N)	6	28	43	19	72	92	113	81	163	386	418
Missing data (N)	0	0	0	1	9	16	19	8	11	18	^a
Issued (\$)	13,480	154,737	186,717	31,024	78,458	207,468	168,370	363,939	614,144	947,585	2,765,923
Redeemed (\$)	10,205	82,158	93,154	27,961	57,482	159,993	186,114	289,695	497,830	641,661	2,046,253
Redeemed (%)	76	53	50	90	73	77	111	80	81	68	74
Farmers markets											
Sample size (N)	440	586	530	219	710	1,058	907	326	1,017	1,264	1,537
Missing data (N)	44	23	33	9	58	39	58	11	85	90	^a
Issued (\$)	565,245	1,315,019	770,708	448,838	885,116	2,366,469	1,223,871	577,133	1,327,243	2,866,715	12,346,357
Redeemed (\$)	422,013	1,247,730	859,733	407,836	785,829	2,140,485	1,254,479	493,127	1,115,833	2,346,016	11,073,078
Redeemed (%)	75	95	112	91	89	90	103	85	84	82	90
Direct marketing farmers											
Sample size (N)	15	28	24	6	31	50	54	10	94	268	301
Missing data (N)	11	6	5	4	13	18	14	4	59	40	^a
Issued (\$)	2,974	25,979	5,323	968	3,718	93,790	68,237	2,069	100,914	1,403,347	1,707,319
Redeemed (\$)	1,591	21,892	5,669	709	3,351	94,025	60,810	609	32,200	382,300	603,157
Redeemed (%)	54	84	107	73	90	100	89	29	32	27	35
Mobile markets											
Sample size (N)	11	21	24	14	27	49	54	29	51	56	102
Missing data (N)	11	8	5	4	9	8	2	6	4	5	^a
Issued (\$)	4,712	14,966	12,111	3,296	6,118	30,677	48,901	23,325	45,904	139,206	329,215
Redeemed (\$)	4,280	20,089	14,893	3,353	8,546	30,851	54,508	22,807	34,329	84,919	278,575
Redeemed (%)	91	134	123	102	140	101	111	98	75	61	85
CSA programs											
Sample size (N)	13	19	17	10	38	39	37	12	57	62	94
Missing data (N)	10	6	7	8	8	9	7	7	15	6	^a
Issued (\$)	4,796	16,599	7,935	6,872	14,340	41,969	21,145	1,888	31,240	79,842	226,626
Redeemed (\$)	4,427	13,314	11,768	7,248	19,540	41,251	30,494	2,013	25,911	51,518	207,483
Redeemed (%)	92	80	148	105	136	98	144	107	83	65	92
All retailers											
Sample size (N)	485	682	638	268	878	1,288	1,165	458	1,382	2,036	2,452
Missing data (N)	76	43	50	26	97	90	100	36	174	159	^a
Issued (\$)	591,207	1,527,300	982,794	490,998	987,750	2,740,374	1,530,523	968,353	2,119,446	5,436,695	17,375,440
Redeemed (\$)	442,515	1,385,183	985,217	447,107	874,748	2,466,605	1,586,405	808,250	1,706,103	3,506,414	14,208,546
Redeemed (%)	75	91	100	91	89	90	104	83	80	64	82

Source: Core Program Data, Calendar Q2/2015–Q3/2017.

Notes: Thirty-nine of 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated in 2,600 SNAP-authorized retailers between Q2/2015 and Q3/2017; 2,495 retailers reported issuance and redemption for one or more quarters; 143 retailers reported zero issuance.

This table excludes five farmers markets that participated in FINI prescription programs only.

The redemption rates shown in Figure 6-2 do not include incentive redemptions made at non-FINI retailers, as the study has data only for FINI retailers and these redemptions may occur at any SNAP authorized retailer in the State.

^a The data are limited to retailers who operated FINI in one or more quarters; reports of missing values are at the quarterly level.

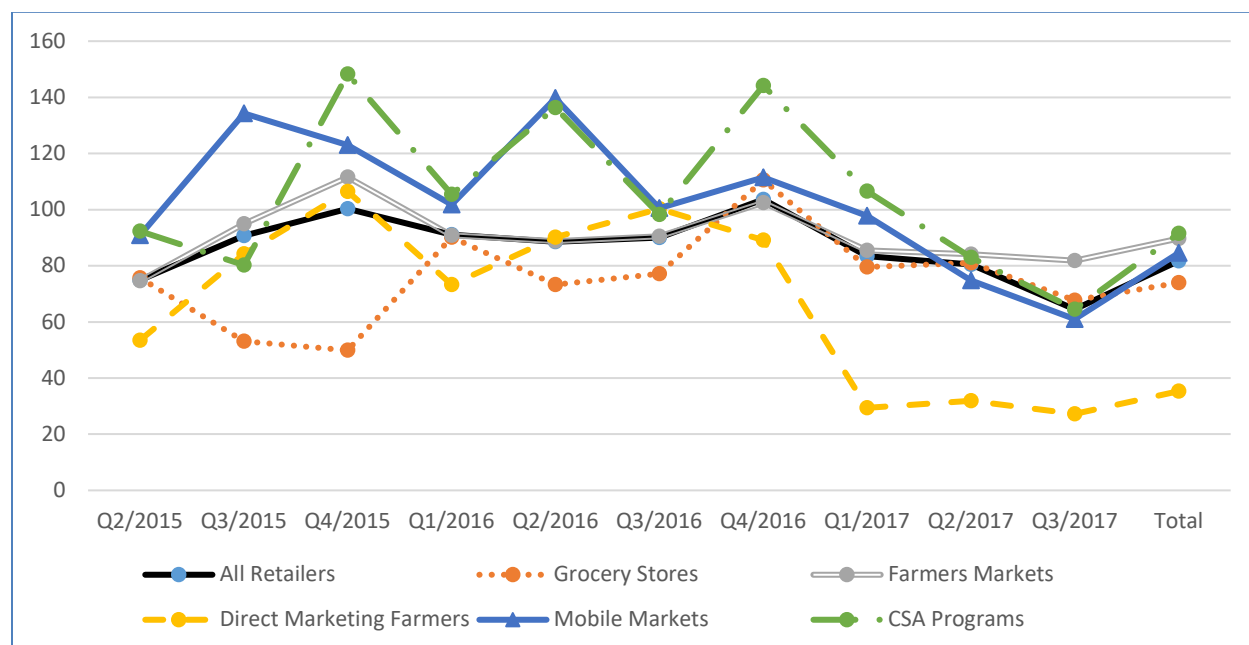
retailers are farmers markets, this group issued and redeemed the majority of incentives, despite their seasonal operating schedule. Incentive issuance and redemption followed a cyclical cycle mirroring the farmers market operating schedule, where issuance and redemption were lowest in quarters 1 and 4 of the year, and highest in quarters 2 and 3.

As more retailers came on board, the incentive issuance and redemption levels increased over the ten-quarter observation window. For example, incentives *issued* across all FINI retailers in Q3 of 2015, 2016, and 2017 were \$1,527,300, \$2,740,374, and \$5,436,695, respectively. Incentives *redeemed* across all FINI retailers in Q3 of 2015, 2016, and 2017 were \$1,385,183, \$2,466,605, and \$3,506,414, respectively.

Over ten-quarters, redemption rates ranged from 64 percent to 104 percent,⁴² with redemption above 80 percent in most quarters (see Figure 6-2). Redemption rates ranged from 75 percent to 112 percent at farmers markets and 53 percent to 111 percent at grocery stores. Because of the seasonality of incentive programs in many farmers markets, the value of incentives issued and redeemed followed a cyclical pattern—values are highest in Q3, when farmers markets were at their peak operation. Low redemption rates in 2017 for direct marketing farmers were likely due to the implementation of the Healthy Incentive Pilot FINI program in Massachusetts. Under this model, SNAP participants *earned* FINI dollars at *FINI-approved* SNAP retailers but were able to *redeem them at any SNAP authorized retailers*. The redemption rates shown in Figure 6-1 do not include incentive redemptions made at non-FINI retailers, as the study has data only for FINI retailers and these redemptions may occur at any SNAP authorized retailer in the State.

⁴² Incentive redemption is not limited to the week or season of issuance, allowing for redemption to exceed issuance in a given quarter.

Figure 6-1. Incentive redemption rate between Q2/2015 and Q3/2017, by quarter/year and retailer type (%)



Source: Core Program Data, Calendar Q2/2015–Q3/2017.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated in 2,600 SNAP-authorized retailers between Q2/2015 and Q3/2017; 2,452 retailers reported issuance and redemption for one or more quarters.

This table excludes five farmers markets that participated in FINI prescription programs only.

Incentive redemption is not limited to the week or season of issuance, allowing for redemption to exceed issuance in a given quarter.

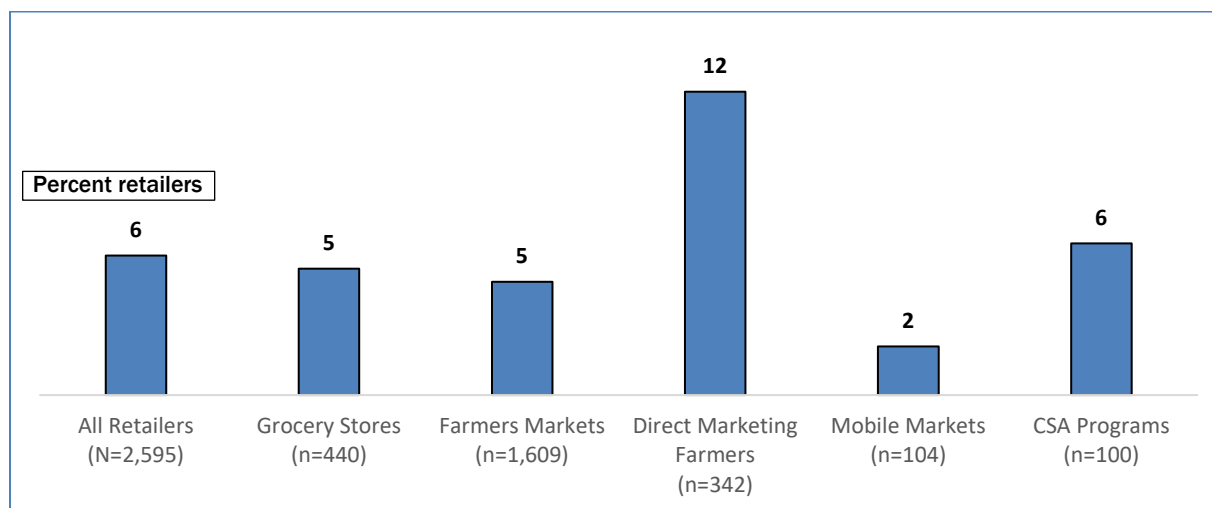
Between Q3/2016 and Q3/2017, FINI prescription programs collectively distributed incentives worth \$344,910 and FINI retailers redeemed FINI prescription incentives worth \$262,968.⁴³ FINI prescription incentive distribution ranged from \$22,440 in Q3/2016 to \$204,200 in Q3/2017, and redemption ranged from \$12,340 in Q3/2016 to \$171,083 in Q3/2017. FINI prescription program redemption rates ranged from 55 percent in Q3/2016 to 84 percent in Q3/2017. The mean redemption per retailer ranged from \$181 in Q3/2016 to \$950 in Q3/2017 (data not shown).

Although the majority of FINI retailers issued incentives to SNAP participants during FINI implementation, 143 (5.5 percent) of FINI retailers did not issue any incentives. Over the 10 calendar quarters, about two percent of mobile markets, five percent of grocery stores, farmers markets, and CSA programs, and 12 percent of direct marketing farmers did not issue any incentives

⁴³ As stated in Chapter 4, prescription incentives were distributed through participating health care facilities and redeemed at 180 retail locations including 150 grocery stores, 27 farmers markets, and one direct marketing farmer location.

(see Figure 6-2). This may be an underestimate; most grantees started providing CPD after the retailers first issued incentives.

Figure 6-2. Percentage of FINI retailers issuing no incentives between Q2/2015 and Q3/2017, overall and by retailer type



Source: Core Program Data, Calendar Q2/2015 - Q3/2017.

Notes: Thirty-nine of the 47 large-scale and community-based grantees implemented FINI projects between Q2/2015 and Q3/2017.

FINI operated at 2,600 retailers between Q2/2015 and Q3/2017. Over the 10 calendar quarters, 143 retailers did not issue any incentives. This figure excludes five retailers that operated prescription programs only.

6.1.2 Grantees' Perspectives on Incentive Issuance and Redemption

During telephone interviews, 14 of the 29 grantees from 2015 and 2016 reported that incentive issuance was on track with expectations. Five grantees had greater than expected redemption levels and were reallocating funds to better meet demand. Eleven of the FINI grantees reported lower than expected incentive issuance.

Grantees offered several reasons for lower than expected incentive issuance (either across the board or only in some locations). Several 2015 grantees and some 2016 grantees noted that there were currently fewer people on SNAP than when they made their initial projections for the proposal. This shortfall could be due to several factors—expiration of the time limit waivers for able-bodied adults

without dependents (ABAWDs)⁴⁴ and improvements in the economy that have likely reduced the number of SNAP-eligible households. One grantee reported a seven percent to eight percent decline in the number of people on SNAP in their State between 2015 and 2016.

A second reason for low incentive issuance noted by grantees was outreach. Four grantees identified deficiencies in their marketing and outreach campaigns and were planning to adjust their marketing and outreach to alleviate them. Problems identified included incorrect assumptions that everyone identifies with the term “SNAP,” direct marketing not done early enough or not localized enough, and outreach not done at a high enough volume.

A third challenge mentioned by the grantees was the late award of FINI—occurring right at the onset of the farmers market season. This left little lead time for grantees to undertake extensive marketing campaigns prior to the start of their programs.

To address these reasons for low participation in FINI, grantees made plans to improve, or had already improved their marketing and outreach strategies. Additionally, many plan to increase the number of retailers offering incentives. Most grantees included in their grant applications a plan to continuously expand to new retailers each year. FINI participation rates have not changed these plans, and grantees affirmed in their interviews that bringing on new retailers was a key tactic to “get money out the door.”

Grocery store redemptions were lower than redemptions at farmers markets in most of the ten quarters since FINI began. Several grantees thought that this was due in part to how grocery stores redeem incentives, with many using coupon systems. Grantees highlighted two challenges with the coupon system: (1) the customer was required to return to the store, and (2) the customer had to remember to bring the coupon, which could be easily lost or misplaced, to redeem the incentive.

This slower issuance and redemption was more common for grantees in their first year of operation, and several grantees attributed the lower redemptions to delayed rollout of the program at retailers.

⁴⁴ ABAWDs are 18 to 49 years old, not disabled, and, in addition to the criteria listed above, do not reside in a household with a minor. Since the passage of Federal welfare reform legislation in 1996, ABAWDs may only receive SNAP benefits for three of every 36 months unless they are employed at least 20 hours a week or are participating in a qualifying workfare or employment and training activity. States may seek waivers from FNS from the three-month time limit for ABAWDs in counties with high unemployment. Beginning in 2016, widespread waivers for ABAWDs granted during the Great Recession began to expire, placing large numbers of unemployed ABAWDs at risk of losing SNAP eligibility after three months.

Grantees in their second year of operation were generally on track with their forecasts, and noted that their redemption rates had increased as they learned how to better market the program.

6.2 SNAP Transactions and Redemptions

6.2.1 SNAP Households Using EBT, EBT Transactions, and SNAP EBT Redemptions at Farmers Markets Offering FINI

Analyses summarized the quarterly SNAP EBT transaction patterns at farmers markets that offer FINI using data provided by FNS. There were 1,194 unique SNAP authorization numbers for the 1,566 farmers markets implementing FINI.⁴⁵ Analyses also summarized EBT transactions (total EBT swipes), the number of unique SNAP households shopping at farmers markets, and total SNAP reimbursements made to farmers markets after the implementation of FINI. Table 6-2 summarizes SNAP transactions at farmers markets offering FINI, showing quarterly patterns in the number and amount of SNAP transactions made to farmers markets by quarter. Although these data did not measure the impact of FINI, they provided an overview of patterns in transactions at FINI farmers markets that may suggest uptake of FINI. The data included in Table 6-2 include only farmers markets because farmers markets SNAP purchases were primarily fruits and vegetables (i.e., FINI-eligible products), whereas purchases at grocery stores included many other food items beyond fruits and vegetables.

When FINI implementation began in Q2/2015, there were 461 farmers markets operating FINI, and in Q3/2017, there were 1,272 farmers markets operating FINI (see Table 6-2). Since program implementation at FINI farmers markets, the total number of households using SNAP EBT benefits to shop at farmers markets had increased steadily. For instance, the total number of SNAP households shopping at FINI farmers markets rose from 80,554 in Q3/2015 to 147,817 in Q3/2016, and 175,114 in Q3/2017 (see Table 6-2). In parallel, SNAP EBT transactions and SNAP redemptions had increased over the same period.

⁴⁵Data was not available for 147 FINI retailers as they were missing SNAP authorization numbers. There were 2,453 retailers that corresponded to 1,988 unique SNAP authorization numbers due to EBT terminal sharing across FINI retailers (primarily farmers markets).

Table 6-2. SNAP transactions at farmers markets offering incentives; Q2/2015 to Q3/2017

Quarter/ year	# of SNAP authorization numbers ^a	# of FINI farmers markets ^b	Percentage of farmers markets with zero SNAP transactions ^c	# of unique SNAP households using EBT benefits at farmers markets	# of SNAP EBT transactions at farmers markets	Dollar Amount of SNAP reimburse- ments made to farmers markets
Q2/2015	354	461	6.1	46,856	72,630	1,764,334
Q3/2015	458	578	2.4	80,554	128,834	2,484,467
Q4/2015	432	542	5.4	49,202	82,491	1,761,223
Q1/2016	195	238	8.0	22,228	38,965	584,374
Q2/2016	619	743	7.5	70,644	117,101	2,455,148
Q3/2016	814	1,044	6.0	147,817	233,593	4,196,067
Q4/2016	701	920	10.5	80,352	136,533	2,655,835
Q1/2017	279	341	12.3	40,156	69,110	1,507,538
Q2/2017	866	1,069	7.5	88,774	146,159	2,628,527
Q3/2017	1,020	1,272	5.8	175,114	279,631	4,616,787

Source: FNS data provided the details of SNAP transactions at farmers markets.

Notes: FINI operated in 1,614 farmers markets between Q2/2015 and Q3/2017; of these, 29 were not matched to ALERT because the unique identifier needed for matching was missing, and ALERT data were not available for 64 farmers markets. SNAP transactions are presented for 1,521 farmers markets (1,154 SNAP authorization numbers).

^a SNAP authorization numbers are issued to SNAP retailers (i.e., retailers with a SNAP permit authorizing them to accept SNAP payments). The number of farmers markets is higher than the number of SNAP authorization numbers because some farmers markets share SNAP authorization numbers.

^b Farmers markets operating FINI were located in the District of Columbia as well as Arizona, California, Colorado, Connecticut, Florida, Georgia, Hawaii, Idaho, Illinois, Kansas, Kentucky, Louisiana, Massachusetts, Maine, Maryland, Michigan, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, Tennessee, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and West Virginia.

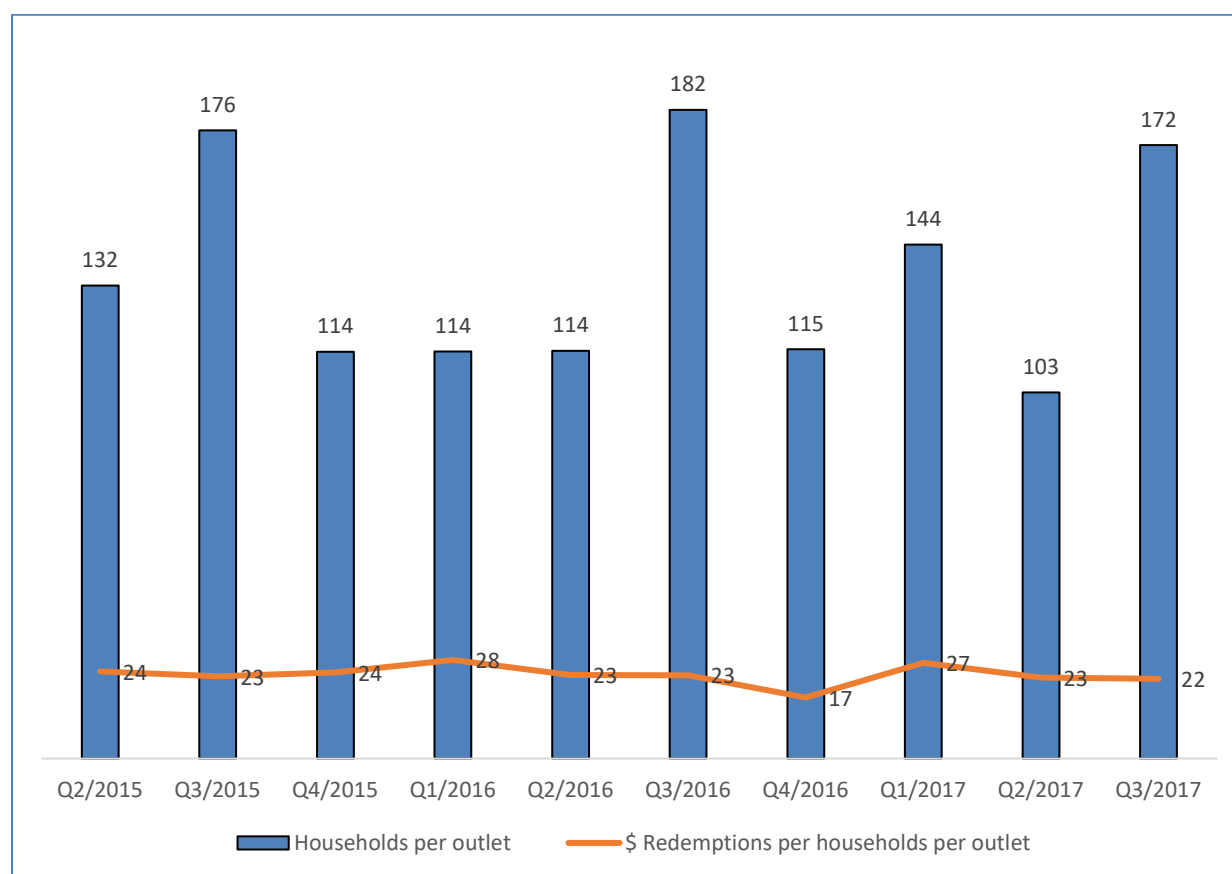
^c Farmers markets may operate on a year-round or seasonal basis or they may not be SNAP authorized, resulting in zero transactions.

Most of this growth in SNAP redemptions was due to the higher number of SNAP-authorized farmers markets offering FINI incentives. The average number of unique households using SNAP benefits at farmers markets and the number of EBT transactions had remained fairly steady. For example, an average of 176, 182, and 172 SNAP participants shopped per FINI market in Q3/2015, Q3/2016, and Q3/2017 respectively⁴⁶ (see Figure 6-3). The average SNAP redemption per transaction per market also remained relatively steady from \$24 in Q3/2015 to \$22 in Q3/2017 (see Figure 6-3).

⁴⁶ Seasonal farmers markets operate for less than the entire quarter in all but the third quarter of calendar year.

Consistent peaks in the number of households may be due to the seasonal nature of farmers market operations; seasonal farmers markets typically begin operations in the middle to end of second quarter and end towards the middle to end of the fourth quarter; and are open for the entire quarter only in the third quarter – between July to September.

Figure 6-3. Average number of unique households shopping per FINI^a farmers market^b and average SNAP redemptions (\$) per household per market each quarter, Q2/2015 to Q3/2017



Source: FNS data provided the details of SNAP transactions at farmers markets.

Notes: FINI operated in 1,614 farmers markets between Q2/2015 and Q3/2017; of these, 29 were not matched to FNS retailer transaction data because the unique identifier needed for matching was missing, and these data were therefore not available for 64 farmers markets. SNAP transactions are presented for 1,521 farmers markets (1,154 SNAP authorization numbers). The average redemptions per household per outlet reflects SNAP redemptions and excludes incentive redemptions.

^a Farmers markets operating FINI were located in the District of Columbia, Arizona, California, Colorado, Connecticut, Florida, Georgia, Hawaii, Idaho, Illinois, Kansas, Kentucky, Louisiana, Massachusetts, Maine, Maryland, Michigan, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, Tennessee, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and West Virginia.

^b Farmers markets may operate on a year-round or seasonal basis or they may not be SNAP-authorized, resulting in zero transactions.

This analysis has two notable limitations. First, the analysis may have underestimated SNAP participants' shopping patterns at farmers markets because it did not capture transactions using cash, credit, or other forms of payment. Second, a substantial number of farmers markets shared an EBT

terminal.⁴⁷ Transaction data provided by FNS are at the FNS authorization number level. This means that the FNS data aggregated some FINI farmers markets in the analysis. The effect of sharing an EBT terminal was that the data may overstate the number of SNAP transactions and redemptions at FINI markets, as there were non-FINI markets sharing a SNAP EBT terminal with FINI markets.

6.3 Summary of Key Findings

This chapter summarized (1) incentive issuance and redemption patterns for all FINI retailers, and (2) SNAP EBT transactions at farmers markets, in the first ten quarters of FINI implementation. This chapter presented results based on analysis of grantee data, transaction data provided by USDA, and interviews with grantees.

Key findings:

- Between Q2/2015 and Q3/2017, FINI retailers issued \$17,357,444 and redeemed \$14,208,546 in incentives—an 82 percent redemption rate.
- In most quarters, incentive issuance, redemption, and redemption rates were the highest at farmers markets. About eight percent of all participating retailers did not issue any incentives.
- Grantees primarily attributed lower redemption rates at the onset of program to declines in the SNAP caseload and their ability to market FINI successfully. Grantees noted that they altered their approach to reaching SNAP participants by expanding the program to additional retail locations and changing their marketing approach.
- SNAP transactions, SNAP redemptions, and numbers of SNAP shoppers increased at FINI farmers markets between Q2/2015 and Q3/2017, largely due to increases in the number of farmers markets offering FINI during that period. The average number of households shopping at farmers markets, the average number of EBT transactions per household, and the average SNAP redemptions per household remained fairly steady across the ten quarters.

⁴⁷ FINI operated in 1,614 farmers markets between Q2/2015 and Q3/2017; of these, 29 were not matched to FNS transaction data because the unique identifier needed for matching was missing, and these data were not available for 64 farmers markets. SNAP transactions are presented for 1,521 farmers markets (1,154 SNAP authorization numbers).

7. Awareness of the FINI Program and Receipt and Use of Incentives

The FINI grant program is intended to increase fruit and vegetable purchases of SNAP participants by offering financial incentives at the time of purchase. This chapter examines awareness of the FINI⁴⁸ program as well as receipt and use of incentives among SNAP participants in four treatment groups: (1) SNAP participants living near a sampled farmers market offering incentives (Farmers Market General – FMG); (2) SNAP participants living near a sampled farmers market offering incentives *and* who had shopped there within the last year (Farmers Market Shoppers – FMS);⁴⁹ (3) SNAP participants living near a sampled grocery store offering incentives (Grocery Store General – GSG); and, (4) SNAP participants living near a sampled grocery store offering incentives *and* who had shopped there within the last year (Grocery Store Shoppers – GSS).⁵⁰ The analyses discussed below make selected statistical comparisons between these four study groups.

Analyses included descriptive statistics—percentages and means—to summarize SNAP participants’ awareness of the FINI program and multivariate regression to examine the associations between characteristics of FINI grantees, demographic characteristics of SNAP participants, and receipt and use of incentives. Results revealed that awareness of FINI and receipt and use of incentives was relatively low across the three of the four study groups. Only in the FMS group did the majority of SNAP participants report awareness of FINI and use of incentives. Direct individual advertising and word of mouth were the most commonly cited ways that SNAP participants heard of the FINI program. The primary driver of receiving incentives was learning about the program from multiple sources. Robust marketing strategies were an important component of successful program implementation.

The analyses presented in this chapter drew from SNAP participants’ responses to baseline and follow-up surveys and were limited to treatment group respondents who completed both surveys

⁴⁸The SNAP Participant Survey was customized to inquire about FINI and questions were tailored using the grantee assigned name for FINI (e.g., Double Up Food Bucks, Market Match, etc.). In this chapter, the term FINI is used to describe all incentive programs funded through FINI grants.

⁴⁹The FMS group was sampled separately from the FMG group.

⁵⁰The GSS group is a subset of the GSG group.

(n=1,153).⁵¹ SNAP participants completed the baseline survey between February and May 2017 when incentives were not offered at sampled FINI retailers. About six months after the baseline survey, SNAP participants completed the follow-up survey between August and November 2017 after retailers offered incentives for at least one month.⁵²

7.1 Awareness of the FINI Program

The FINI program operated under different names in different locations. Some retailers were already implementing SNAP-based incentive programs (SBIPs) prior to receiving funding from FINI grants; these retailers typically did not change the name of the SBIP program, only the funding source. In all surveys, the local name for the FINI program was inserted into questions in place of FINI, <LOCAL NAME FOR FINI>.

In most cases, SNAP participants had to be aware of the FINI program to use the incentives. Among SNAP participants in the treatment group, nearly three in ten in the FMG group, nearly seven in ten in the FMS group, nearly four in ten in the GSG group, and nearly five in ten in the GSS group were aware of FINI (see Table 7-1).

Table 7-1. Awareness of FINI among treatment group SNAP participants

	Farmers market		Grocery store	
	General (SE) ^b	Shoppers (SE)	General (SE)	Shoppers ^a (SE)
Have you heard of <LOCAL NAME FOR FINI>? (n)	416	345	377	123
Yes (%)	30.53 (1.88)	67.96 (2.43)	39.02 (3.28)	49.91 (2.17)
No (%)	69.47 (1.88)	33.04 (2.43)	60.98 (3.28)	50.09 (2.17)
[Among those who have heard of <LOCAL NAME FOR FINI>]: How did you hear about <LOCAL NAME FOR FINI>? (n)	109	226	130	53
Via direct individual advertising (%)	54.08 (4.83)	39.14 (3.39)	45.50 (5.31)	38.73 (3.10)
Via billboard/banner/signage at outlet (%)	9.61 (3.45)	41.60 (3.18)	25.74 (5.39)	41.87 (4.69)

⁵¹This study drew the comparison groups of SNAP participants from areas without incentive program retailers. The comparison group participant survey did not include questions about FINI program awareness or incentive use.

⁵²Most FINI grant programs were seasonal and began in May or June 2017. To ensure that the baseline survey captured SNAP participants who had not been exposed to FINI, seasonal markets that had a break and year round markets that had not yet started implementing FINI were selected.

Table 7-1. Awareness of FINI among treatment group SNAP participants (continued)

	Farmers market		Grocery store	
	General (SE) ^b	Shoppers (SE)	General (SE)	Shoppers ^a (SE)
[Among those who have heard of <LOCAL NAME FOR FINI>]: How did you hear about <LOCAL NAME FOR FINI>? (n) (continued)	109	226	130	53
Via word of mouth (%)	34.56 (5.27)	51.24 (2.74)	41.72 (5.27)	43.40 (3.53)
Via internet (%)	10.68 (3.23)	5.52 (1.67)	9.57 (3.94)	8.72 (2.49)
Other ^c (%)	14.66 (3.29)	15.58 (2.52)	15.00 (3.70)	12.33 (1.85)
[Among those who have heard of <LOCAL NAME FOR FINI>]: How easy is it to understand how <LOCAL NAME FOR FINI> works? (n)	109	226	131	54
Very easy (%)	48.08 (5.85)	72.79 (3.40)	50.51 (4.94)	48.59 (3.21)
Somewhat easy (%)	19.86 (3.84)	18.41 (3.38)	24.82 (4.51)	25.38 (3.09)
A little easy (%)	13.63 (3.21)	4.53 (1.53)	14.81 (3.47)	15.49 (2.28)
Not at all easy (%)	18.43 (3.72)	4.26 (1.53)	9.86 (2.52)	10.54 (1.86)
Sample Size^d	421	347	385	125

Source: Post-SNAP Participant Survey (Treatment Group).

Weighted percentages (unweighted n's). Standard errors in parentheses.

^a Grocery Store Shoppers are a subset of the Grocery Store General sample.

^b SE = standard error.

^c Those who heard of FINI had the option to indicate that they heard of FINI through "other" if the source did not fit into one of the existing categories. Examples of some of the responses included the "local Chamber of Commerce," "DFS Office," and from a "senior center."

^d n's differ from sample size due to item nonresponse and/or skip patterns.

Among SNAP participants who had heard of the FINI program and who had previously shopped at FINI retailers—the FMS and GSS groups—the most common source of FINI program awareness was word of mouth. For SNAP participants who had not shopped previously at FINI retailers—those in the FMG and GSG groups—direct individual advertising (i.e., printed material such as letters or handouts, or e-mail) was the primary way they learned about FINI. Specifically, in the FMS group, about half (51 percent) heard of FINI through word of mouth, 42 percent from billboards and signage at participating retailers, and 39 percent from direct individual advertising. Similar to the FMS group, 43 percent of GSS group heard of the FINI program through word of mouth; 42 percent learned about it from billboards and signage at participating retailers; and 39 percent learned about it from direct individual advertising. Among those who had heard of the FINI program in the FMG group, more than half (54 percent) heard of the FINI program through direct advertising; and about one-third (35 percent) heard by word of mouth. In the GSG group, SNAP

participants who heard of the FINI program most commonly learned about it from direct advertising (46 percent) or word of mouth (42 percent).

SNAP participants in the treatment group who were aware of the FINI program also indicated how easy it was to understand how the program worked—the majority of respondents found FINI to be very easy or somewhat easy to understand. Of those SNAP participants aware of FINI, 48 percent, 73 percent, 51 percent, and 49 percent of the FMG, FMS, GSG, and GSS groups, respectively, felt that FINI was very easy to understand. Fewer participants, 18 percent, four percent, 10 percent, and 11 percent of the FMG, FMS, GSG, and GSS groups, respectively, felt that FINI was not at all easy to understand.

7.2 Receipt and Use of Incentives

SNAP participants in the treatment group self-reported their receipt and use of incentives (see Table 7-2). In the FMG and GSG groups, 15 percent and 18 percent, respectively, reported receiving FINI. Among those in the shopper groups—the FMS and the GSS groups—58 percent and 24 percent, respectively, reported receiving incentives.

On average, SNAP participants lived less than 3.5 miles from the nearest FINI retailer. Those in the shopper groups who received incentives lived less than two miles away from FINI retailers and those in the non-shopper group who received incentives lived more than two miles away.⁵³ To put these distances into context, SNAP participants travel an average of 3.3 miles to their primary food store. These average distances were in line with or were slightly lower than the typical distance SNAP participants travel to their primary food store.

SNAP participants indicated from which store type they received the incentives. The highest percentage of respondents from the FMG, GSG, and GSS groups indicated that they typically received incentives at grocery stores. Those in the FMS group predominately received incentives at farmers markets.

⁵³Using a Rao-Scott chi-square test that corrects for survey design, the differences between the shoppers and non-shoppers groups were statistically significant with p-values less than 0.05.

Table 7-2. Self-reported receipt and use of incentives among SNAP participants in the treatment group

	Farmers market		Grocery store	
	General	Shoppers	General	Shoppers ^a
Have you ever received <LOCAL NAME FOR FINI>? (n)	410	343	369	119
Yes (%)	14.62 (1.82)	57.52 (2.94)	18.35 (2.19)	23.83 (1.78)
No (%)	12.95 (1.56)	5.73 (1.36)	15.86 (2.38)	16.22 (1.39)
Don't know (%)	2.11 (0.76)	3.55 (0.98)	2.61 (0.87)	6.84 (0.83)
[Skipped question – have not heard of FINI] (%)	70.33 (1.95)	33.20 (2.42)	63.18 (3.09)	53.11 (2.45)
[Among those who received FINI]: Distance to closest participating FINI retailer (n)	62	199	61	28
Miles (mean)	2.21 (0.24)	1.69 (0.13)	3.11 (1.02)	1.60 (0.29)
[Among those who did not receive FINI]: Distance to closest participating FINI retailer (n)	348	144	308	91
Miles (mean)	2.68 (0.12)	1.96 (0.13)	3.01 (0.14)	2.46 (0.18)
[Among those who received FINI]: Did you shop at <name of FINI retailer> (n)	57	198	59	27
Yes, shopped at retailer (%)	53.63 (6.64)	85.95 (2.71)	62.76 (8.88)	84.89 (7.22)
[Among those who did not receive FINI]: Did you shop at <name of FINI retailer> (n)	344	143	308	91
Yes, shopped at retailer (%)	25.79 (2.44)	72.33 (5.06)	39.51 (3.02)	61.72 (6.25)
[Among those who received FINI]: Where did you receive <LOCAL NAME FOR FINI>? (n)	44	190	49	26
Grocery store and farmers market (%)	12.82 (6.09)	3.60 (1.28)	7.24 (4.13)	11.77 (3.02)
Grocery store only (%)	47.00 (9.33)	3.18 (1.54)	46.62 (7.75)	53.29 (6.57)
Farmers market only (%)	36.23 (8.66)	93.22 (1.98)	41.04 (7.22)	31.94 (7.83)
Only at another location (%)	3.95 (2.75)	-	5.10 (2.93)	3.00 (1.43)
[Among those who received FINI]: Did you receive <LOCAL NAME FOR FINI> at <name of FINI retailer>? (n)	53	195	55	26
Yes (%)	29.33 (6.33)	88.07 (2.95)	23.68 (7.09)	35.82 (6.03)
[Among those who received FINI]: Amount of money saved last time <LOCAL NAME FOR FINI> was received (n)	23	146	34	18
Mean (\$)	23.19 (4.1)	14.96 (0.5)	14.19 (1.4)	14.52 (2.23)

Table 7-2. Self-reported receipt and use of incentives among SNAP participants in the treatment group (continued)

	Farmers market		Grocery store	
	General	Shoppers	General	Shoppers ^a
[Among those who received FINI]: How was your last <LOCAL NAME FOR FINI> amount relative to past FINI amounts? (n)	30	184	43	24
About the same as usual (%)	61.88 (10.14)	69.68 (3.02)	61.69 (11.08)	40.83 (6.01)
Not the same as usual ^b (%)	38.11 (10.14)	30.32 (3.02)	38.31 (11.08)	59.17 (11.04)
[Among those who received FINI]: How much of your <LOCAL NAME FOR FINI> amount did you spend last month? (n)	34	174	42	20
All of it (%)	43.28 (9.74)	55.04 (4.15)	51.16 (9.16)	50.03 (7.00)
Some of it (%)	23.37 (8.10)	19.29 (2.57)	12.43 (5.56)	18.16 (4.22)
Unsure (%)	33.35 (8.41)	25.67 (3.84)	36.41 (7.76)	31.81 (7.06)
[Among those who received FINI]: What proportion of your <LOCAL NAME FOR FINI> amount do you spend on the day you receive it? (n)	39	191	49	25
All of it (%)	13.09 (5.40)	24.38 (3.43)	25.33 (8.89)	34.07 (8.25)
Some of it (%)	39.55 (9.09)	55.94 (3.57)	32.89 (6.70)	29.22 (6.48)
Not sure (%)	47.36 (9.02)	19.69 (3.06)	41.78 (10.59)	36.70 (5.71)
[Among those who currently have FINI left to spend]: When do you plan to spend <LOCAL NAME FOR FINI>? (n)	19	78	24	13
Spend all of it at the next shopping trip or over multiple trips (%)	91.02 (6.13)	90.93 (3.50)	95.28 (3.27)	96.42 (13.81)
Possibly won't use it at all (%)	8.98 (6.13)	9.07 (3.50)	4.72 (3.27)	3.58 (2.07)
Sample Size^c	421	347	385	125

Source: SNAP Participant Follow-up Survey (Treatment Group).

Weighted percentages (unweighted n's). Standard errors in parentheses.

^a Grocery Store Shoppers are a subset of the Grocery Store General sample.

^b The survey included three options – more, less, or the same. The more/less responses were combined to “not the same” as there were fewer than 10 responses for some groups.

^c n's differ from sample size due to item nonresponse and/or skip patterns.

SNAP participants in the FMG, FMS, GSG, and GSS groups reported saving an average of \$23, \$15, \$14, and \$15, respectively because of the FINI program.⁵⁴ In each group, about half of the respondents indicated that they had already spent all of their incentives that month, and more than 90 percent of those who had unspent incentives indicated that they planned to use the remaining incentives that month (data not shown).

Regression analysis was used to identify characteristics associated with incentives receipt among SNAP participants in the treatment group. The regression models included characteristics of the FINI programs and of the individual SNAP participants in each study group. Table 7-3 displays marginal effects from selected components of the exploratory logistic regression models. The marginal effect was the impact of the treatment on the outcome (in this case, receipt of incentives) holding constant other respondent characteristics that may be related to the outcome. The marginal effect estimated for each characteristic represents the percentage point increase (if positive) or decrease (if negative) in the probability of receiving incentives due to the characteristic.

In each study group, the number of information sources (e.g., direct advertising, word of mouth, banners/signs, etc.) from which the SNAP participant heard of FINI had the most consistent positive impact on the likelihood of receiving incentives. An additional source of information increased the likelihood of receiving the incentives by 16.4 percentage points, 30.6 percentage points, 13.8 percentage points, and 18.7 percentage points in the FMG, FMS, GSG, and GSS groups, respectively.

The models also tested for the influence of the maximum daily incentive available from FINI in the two farmers market groups, but found no detectable impacts on the likelihood of receiving incentives. There was no variation in maximum daily incentives offered in the GSG and GSS groups.

⁵⁴The survey asked respondents to report the average amount of money saved because of <LOCAL NAME FOR FINI> the last time they used incentives. Among those SNAP participants receiving incentives whose closest participating retailer offering incentives had a maximum incentive limit per customer, daily maximum incentives were \$11 and \$16 for the FMG (n=19) and FMS (n=118), respectively. All grocery store retailers within the analytic sample offered a maximum daily incentive of \$20 (GSG, n=34; GSS, n=18).

Table 7-3. Characteristics associated with incentive receipt among treatment group SNAP participants

Variable	Farmers market general		Farmers market shoppers		Grocery store general		Grocery store shoppers	
	Impact		Impact	P-value	Impact		Impact	
	β (%)	P-value	β (%)	P-value	β (%)	P-value	β (%)	P-value
Number of sources heard about FINI	16.40** (7.61)	0.04	30.62*** (3.12)	<0.01	13.80*** (1.83)	<0.01	18.68*** (4.22)	<0.01
Max daily incentive amount [$< \$20$, reference]								
\$20	14.32 (16.14)	0.38	0.41 (82.62)	1.00	-	-	-	-
> \$20	1.10 (7.46)	0.88	6.32 (12.40)	0.61	-	-	-	-
Months of FINI exposure	0.65 (0.77)	0.40	0.20 (0.58)	0.73	0.51 (0.50)	0.31	0.70 (1.17)	0.55
Received prior fruit or vegetable matching amount	4.02 (7.05)	0.57	0.20 (3.70)	0.96	13.54*** (3.89)	<0.01	18.63** (7.29)	0.01
Distance to closest participating FINI retailer	0.97 (0.96)	0.32	-0.49 (1.12)	0.66	-1.26 (0.99)	0.21	<0.01 (4.14)	1.00
Participant shopped at FINI-assigned retailer	7.80 (5.43)	0.16	10.68 (5.64)	0.06	5.99 (3.86)	0.13	26.32*** (9.50)	0.01
Observations used	339		311		348		125	
Sample Size	421		347		385		112	

Source: SNAP Participant Follow-up Survey (Treatment Group), 2016 State SNAP administrative data, 2013 and 2014 U.S. Census Bureau data, and 2015 to 2017 USDA administrative data.

Notes: β coefficients represent the percentage difference in probability of incentive receipt, calculated using a multivariate logistic regression. Standard errors in parentheses. The Grocery Store Shoppers group is simply a subset of the Grocery Store General group. Westat included the following controls in each model: overall health, gender, marital status, age, race, born outside of the U.S., education, income, household size, indicators for children and elderly present in the household, percentage of the local area population on SNAP, the 2013 county-level adult obesity rate, an indicator for whether or not the household lived in an urban area, and the FNS region. FNS region was omitted from the Grocery Store General and Grocery Store Shoppers group models due to a lack of variation. Due to the small sample and limited statistical power, the following controls were omitted from the Grocery Store Shoppers model: gender, marital status, age, race, born outside of the U.S., education, income, household size, indicators for children and elderly present in the household, and an indicator for whether or not the household lived in an urban area. The size of the groups (e.g., Farmers Market General) are only those respondents assigned to the treatment group. Westat ran models replacing the number of sources from which respondents heard about FINI with dummy variables for the particular types of sources. Across sampling clusters, all forms of advertising had positive and significant effects generally. Given this, Westat decided to use the number of sources to model the effect of advertising saturation rather than type. Cells with a “-” represent variables with no variation and thus omitted from the model. Model observations (n) differ from sample sizes (N) due to item nonresponse.

***p<0.01

**p<0.05

Exploratory analyses were used to examine other FINI program characteristics that could predict incentive receipt, including the form of the incentive (e.g., electronic, scrip/coupon, token); the match rate (e.g., whether the retailer offered \$1:\$1 matching or less than \$1:\$1); and the average number of days per month that the retailer offered incentives. However, there was not enough variation among retailers on these characteristics to estimate their impact on receipt of incentives.

The models predicting the likelihood of receiving incentives also controlled for SNAP participants' potential exposure to FINI, including the number of months the SNAP participant could have received incentives (based on the timing of the survey and the date incentives became available), the distance between the SNAP participant's home address and FINI retailer, and whether the SNAP participant previously shopped at the retailer offering FINI. Neither the number of months exposed to FINI nor the distance to the outlet showed detectable impacts on the receipt of incentives. Those in the GSS group who reported recently shopping at the retailer offering incentives were more likely to receive incentives. Those who reported receiving other incentives for fruits and vegetables at baseline (i.e., prior to FINI implementation) in the GSG and GSS groups were more likely to receive incentives at the follow-up survey. Appendix K presents the full regression analysis results.

7.3 Summary of Key Findings

This chapter described SNAP participants' awareness of the FINI program, as well as their reported receipt and use of incentives. Results presented in this chapter were based on analyses using SNAP participants' responses to the baseline and 6-month follow-up surveys.

Key findings:

- Approximately 31 percent of the FMG group, 68 percent of the FMS group, 39 percent of the GSG group, and 50 percent of the GSS group reported awareness of FINI.
- Direct advertising and word of mouth were the most common ways that SNAP participants in all four study groups learned about the FINI program. Signage advertising for the FINI program at the retailer was also a primary source of information for those in the FMS, GSG, and GSS groups.
- Approximately 15 percent of the FMG group, 58 percent of the FMS groups, 18 percent of the GSG group, and 24 percent of the GSS group reported receiving incentives.

- The primary driver of incentive receipt among all four study groups was advertising. Each additional source of information about FINI increased the probability of incentive receipt.
- Among those who received incentives, the average amount saved the last time they received incentives was \$23, \$15, \$14, and \$15 in the FMG, FMS, GSG, and GSS groups, respectively. Among those who spent some of the incentives in the month of receipt, the majority planned to spend all of it in the next shopping trip or over multiple trips.

8. Impact of FINI on Fruit and Vegetable Expenditures, Shopping Patterns, and Types, Variety and Frequency of Fruits and Vegetables Purchased

The FINI grant program is intended to increase the fruit and vegetable purchases of SNAP participants by offering financial incentives at the time of purchase. This chapter summarizes the impact of FINI on one primary outcome of interest—monthly fruit and vegetable expenditures—as well as several secondary outcomes, including shopping patterns and types, variety, and frequency of fruits and vegetables purchased. When many impacts are estimated, some are likely to appear significant due to chance alone, even when there is no treatment effect (Schochet, 2009). To account for this challenge, our approach was to limit the number of primary outcomes examined in this evaluation to monthly fruit and vegetable expenditures and daily cup equivalents of fruit and vegetable consumption and to consider all other outcomes as secondary, or exploratory. The tables in this chapter present separate impact estimates for four groups: (1) SNAP participants living near a sampled farmers market offering incentives (Farmers Market General – FMG); (2) SNAP participants living near a sampled farmers market offering incentives *and* who had shopped there within the last year (Farmers Market Shoppers – FMS);⁵⁵ (3) SNAP participants living near a sampled grocery store offering incentives (Grocery Store General – GSG); and, (4) SNAP participants living near a sampled grocery store offering incentives *and* who had shopped there within the last year (Grocery Store Shoppers – GSS).⁵⁶

Results indicated that the FINI program increased average monthly fruit and vegetable expenditures of SNAP participants by \$15.32 for the FMS group, by \$9.37 for the GSG group, and by \$9.90 for the GSS group. As a percentage of baseline monthly fruit and vegetable expenditures, incentives increased average monthly fruit and vegetable expenditures by 16.30 percent for the FMS group, 12.49 percent for the GSG group, and 14.45 percent for the GSS group. The FINI program did not have a detectable impact on fruit and vegetable expenditures in the FMG group. As previously noted

⁵⁵The FMS group was sampled separately from the FMG group.

⁵⁶The GSS group is a subset of the respondents in the GSG group.

in Chapter 7, the FMG group had very low awareness of FINI and receipt of incentives, which may in part explained the lack of detectable impact findings.

Multivariate regression models were used to estimate the impact of the FINI program on monthly fruit and vegetable expenditures and the secondary outcomes. The outcome models accounted for baseline outcome measures, SNAP participant demographic characteristics, and characteristics of the FINI grant programs. The models also controlled for receipt of incentives from other non-FINI SNAP-based incentive programs (SBIPs) prior to FINI implementation.⁵⁷

The outcomes tables presented in the sections below display two mean outcome values for each analysis: the regression-adjusted treatment group mean and the regression-adjusted comparison group mean. Appendix J presents tests of baseline equivalence for the primary outcome and the weighted means and standard errors of the outcomes for both treatment and comparison groups, by study group (FMG, FMS, GSG, and GSS), and for both the baseline and follow-up surveys. The tables in this chapter show average impact estimates in which all SNAP participants in the treatment groups (i.e., those living nearby FINI retailers) were used in the analysis, regardless of whether they reported that they received the incentive.⁵⁸ Appendix K presents the full model results and primary outcome results using an alternative approach which considers only those who reported that they received incentives as part of the treatment group.

The analyses presented in this chapter used data from the SNAP participants' baseline and follow-up surveys. SNAP participants completed the baseline survey between February and May 2017 when sampled SNAP retailers were not operating incentive programs. SNAP participants completed the follow-up survey between August and November 2017, after retailers implemented the incentive programs for at least one month; most incentive programs were seasonal, beginning in May or June 2017.

⁵⁷ While accounting for receipt of incentives at baseline from non-FINI SBIPs may have improved the estimated impacts of FINI, impact estimates for the FMS and GSS groups may still be understated because of the higher proportion of the treatment group participants relative to the comparison group participants in the FMS and GSS groups receiving other incentives prior to FINI implementation. See Chapter 2 for additional details.

⁵⁸ This is commonly referred to as the Intent to Treat (ITT) approach.

8.1 Monthly Fruit and Vegetable Expenditures

Economic theory suggests that SNAP participants should increase fruit and vegetable expenditures upon receipt of incentives received through the FINI program. Multivariate regression analyses were used to estimate the impact of FINI on monthly fruit and vegetable expenditures, controlling for baseline expenditures, characteristics of SNAP participants, and FINI program features. Monthly fruit and vegetable expenditures were derived from SNAP participants' responses to the SNAP Participant Survey where they were asked to estimate their household's usual monthly expenses on all forms (e.g., fresh, frozen, canned, and dried) and types of fruits and vegetables. There was a high percentage of missing data for monthly fruit and vegetable expenditures. The regression analyses were weighted using a weight designed specifically to correct for potential biases resulting from cases that were removed from the analysis due to missing fruit and vegetable expenditures.

The FINI program had a positive impact on monthly spending on fruits and vegetables for the FMS, GSG, and GSS groups. The evaluation did not find a measurable impact of FINI on monthly fruit and vegetable expenditures for the FMG group. FMS group respondents increased fruit and vegetable expenditures by \$15.32 a month, GSG group respondents increased expenditures by \$9.37, and GSS group respondents increased expenditures by \$9.90 a month. As a percentage of average baseline monthly fruit and vegetable expenditures of both the treatment and comparison groups, the incentives increased average monthly fruit and vegetable expenditures by 16.3 percent for the FMS group, 12.5 percent for the GSG group, and 14.4 percent for the GSS group. Average non regression-adjusted baseline monthly expenditures on fruits and vegetables for the FMG, FMS, GSG, and GSS treatment groups were \$59, \$107, \$70, and \$60, respectively (see Table J-2 in Appendix J). Table 8-1 shows the impact of FINI on monthly fruit and vegetable expenditures based on the model results.

Table 8-1. Impact of incentives on monthly fruit and vegetable expenditures, by study group

Study group	n	Treatment group Regression-adjusted mean (\$)	Comparison group regression-adjusted mean (\$)	Incentive impact	
				β (\$)	P-value
Farmers market general (N=833)	346	69.01 (2.93)	65.18 (2.60)	3.83 (3.68)	0.30
Farmers market shoppers (N=703)	376	96.29 (2.74)	80.97 (3.82)	15.32*** (4.65)	<0.01
Grocery store general (N=935)	400	71.13 (2.79)	61.77 (2.34)	9.37** (3.80)	0.02
Grocery store shoppers (N=454)	212	69.83 (4.15)	59.93 (2.60)	9.90** (4.88)	0.05

Source: SNAP Participant Baseline and Follow-up Surveys, SNAP Participant Baseline and Follow-up Surveys, 2016 State SNAP administrative data, 2013 and 2014 U.S. Census Bureau data, and 2015 to 2017 USDA administrative data.

Notes: β Coefficient represents the dollar difference in dollars of fruit and vegetable expenditures, calculated using a multivariate ordinary least squares (OLS) regression. Standard errors in parentheses. The Grocery Store Shoppers group is simply a subset of the Grocery Store General group. Westat included the following controls in each model: baseline outcome, whether or not the respondent received any prior matching amounts for fruit and vegetable purchases (not necessarily from the FINI grant program), overall health, gender, marital status, age, race, born outside of the U.S., education, income, distance to assigned outlet, household size, indicators for children and elderly present in the household, percentage of the local area population on SNAP, an indicator for whether or not the household lived in an urban area, and the FNS region. FNS region was omitted from the Grocery Store General and Grocery Store Shoppers group models due to a lack of variation. A smearing estimate based on Duan (1983) and Abrevaya (2002) is used for correct interpretation of coefficients from the Box-Cox transformations of the expenditure outcome. Per Millen et al. (2005), expenditure variables were set to missing (i.e., trimmed) if above three times the interquartile range of the variable. Model observations (n) differ from sample sizes (N) due to item nonresponse.

***p<0.01

**p<0.05

Results suggest that many SNAP participants used incentives to offset their spending on other SNAP-eligible food purchases, thus not fully utilizing the incentives to purchase fruits and vegetables (see Table 8-2). Roughly one in five respondents from the FMG, FMS, GSG, and GSS groups reported spending more on other food products because of the FINI program. And, between about one-quarter to one-half of SNAP participants in the four study groups reported spending less of their own money on fruits and vegetables as a result of FINI. Across the FMG, FMS, GSG, and GSS groups, 26 percent, 49 percent, 52 percent, and 49 percent, respectively, said they spent less of their own money on fruits because of the FINI program.⁵⁹ Similar percentages in the FMG, FMS, GSG, and GSS groups reported spending less of their own money on vegetables—35 percent, 49 percent, 53 percent, and 47 percent, respectively. Because a high percentage of SNAP

⁵⁹ Among these participants, all had at least two months to take-up incentives prior to completing the follow-up survey.

participants reported that they were “not sure” of the impact of the FINI program on monthly fruit and vegetable expenditures, these results should be interpreted with caution.

Table 8-2. SNAP participants’ perceptions of the impact of the FINI program on monthly fruit and vegetable expenditures among those who received incentives, by study group

	Farmers market		Grocery stores	
	General	Shoppers	General	Shoppers ^a
Because of <LOCAL NAME FOR FINI> is your household spending ...? (n)	42	197	50	24
More of your own money on fruits (%)	16.93 (5.66)	7.58 (2.29)	5.34 (3.23)	6.82 (2.33)
About the same of your own money on fruits (%)	17.27 (6.46)	25.30 (3.13)	19.23 (7.82)	24.85 (6.88)
Less of your own money on fruits (%)	25.91 (7.50)	49.33 (4.17)	52.23 (10.33)	48.91 (6.70)
Not sure (%)	39.90 (9.21)	17.79 (2.86)	23.21 (6.63)	19.43 (4.32)
Because of <LOCAL NAME FOR FINI> is your household spending ...? (n)	40	194	49	23
More of your own money on vegetables (%)	8.48 (4.18)	6.84 (2.20)	4.95 (3.01)	3.66 (1.55)
About the same of your own money on vegetables (%)	10.90 (5.35)	23.87 (3.10)	16.47 (5.64)	17.86 (3.72)
Less of your own money on vegetables (%)	34.74 (7.89)	48.98 (4.29)	53.08 (9.17)	46.69 (5.90)
Not sure (%)	45.88 (9.75)	20.30 (3.17)	25.49 (8.16)	31.79 (6.70)
Compared to BEFORE receiving <LOCAL NAME FOR FINI>, would you say you NOW spend more, less, or about the same on food products other than fruits and vegetables? (n)	44	193	51	24
More on other food products (%)	21.44 (6.55)	21.79 (3.19)	23.51 (6.22)	19.11 (5.44)
About the same on other food products (%)	29.14 (7.22)	42.78 (3.84)	42.52 (7.62)	36.87 (7.71)
Less on other food products (%)	12.18 (5.55)	18.55 (3.27)	18.50 (6.21)	30.96 (4.92)
Not sure (%)	37.24 (8.57)	16.89 (3.10)	15.46 (5.99)	13.06 (3.65)
Sample Size^b	62	199	61	28

Source: SNAP Participant Follow-up Survey (Treatment Group).

Notes: The survey protocol substitutes the name of the FINI grant program in the participants’ area for the word “FINI” in each survey question.

Includes only treatment group participants.

Weighted percentages (unweighted n's). Standard errors in parentheses.

^a Grocery Store Shoppers are a subset of the Grocery Store General sample.

^b Sample size differs from n's due to item nonresponse.

8.2 Secondary Outcomes

The next section examines results for secondary outcomes related to fruit and vegetable purchasing patterns. These analyses examined fruit and vegetable shopping patterns – measured by the types of stores where SNAP participants shopped for fruits and vegetables – as well as form and type,

variety, and frequency of fruit and vegetable purchases. These outcomes are exploratory and results are not intended to be indicative of causality.

8.2.1 Types of Stores Where SNAP Participants Shopped for Fruits and Vegetables

FINI could influence SNAP participants' shopping patterns by drawing SNAP participants to retailers that they had not used previously. The SNAP Participant Survey asked respondents where they usually shopped for groceries, and allowed them to pick from multiple store type options (see Table 8-3). Across all treatment groups, a majority of respondents (64 percent) said they usually shop for groceries at chain grocery stores, making it the most common place SNAP participants shopped for groceries. About one in five SNAP participants in the FMG, GSG, and GSS groups, and half in the FMS group, said that they usually shopped for fruits and vegetables at farmers markets. About four in ten of the FMG, GSG, and GSS respondents, and five in ten of the FMS respondents agreed with the statement: "I make special efforts to go to a retailer that offers high-quality fruits and vegetables."

Overall, the FINI program had several detectable impacts on SNAP participant shopping patterns across three of the four study groups (see Table 8-3). There were no detectable impacts of FINI on shopping patterns among SNAP participants in the FMG treatment group. Among those in the FMS study group, the treatment group was 11 percentage points more likely to shop at a chain grocery store and 10 percentage points more likely to shop at a farmers market than the comparison group. In the GSG group, those in the treatment group were six percentage points more likely to shop at a natural or organic supermarket/local market than the comparison group. Finally, in the GSS group, those in the treatment group were six percentage points less likely to shop at a small local store/corner store than the comparison group. While not analyzed in this evaluation, FINI may have shifted shopping behaviors because the incentives likely freed up funds that allowed treatment group participants to shop at other retailer types with greater and/or better selections of groceries.

Table 8-3. Impact of incentives on retailers that SNAP participants usually shop at for fruits and vegetables, by study group

Outcome	n	Treatment group regression-adjusted mean (%)	Comparison group regression-adjusted mean (%)	Incentive Impact	
				β (%)	P-value
Farmers market general (N=833)					
Chain grocery store	792	65.03 (1.90)	64.98 (2.09)	0.05 (2.99)	0.99
Discount superstore	792	34.53 (2.13)	37.36 (2.85)	-2.83 (3.63)	0.44
Dollar store	-	-	-	-	-
Natural or organic supermarket/local market	792	11.76 (1.79)	10.47 (1.37)	1.29 (2.49)	0.61
Small local store/corner store	792	7.78 (1.24)	9.00 (1.42)	-1.22 (2.06)	0.56
Farmers market/co-op	792	27.96 (2.15)	27.37 (2.47)	0.59 (3.11)	0.85
Make special effort to go to a particular store to buy high-quality fruits or vegetables (always or most of the time)	805	45.02 (2.69)	43.22 (2.08)	1.80 (3.62)	0.62
Farmers market shoppers (N=703)					
Chain grocery store	677	70.47 (2.43)	59.77 (2.39)	10.70** * (3.33)	<0.01
Discount superstore	677	32.14 (2.05)	31.65 (2.32)	0.49 (3.34)	0.88
Dollar store	-	-	-	-	-
Natural or organic supermarket/local market	677	18.58 (2.05)	14.45 (1.98)	4.13 (3.20)	0.20
Small local store/corner store	677	7.76 (1.50)	9.67 (1.65)	-1.91 (2.26)	0.40
Farmers market/co-op	677	64.94 (2.48)	55.30 (2.78)	9.65** (3.79)	0.01
Make special effort to go to a particular store to buy high-quality fruits or vegetables (always or most of the time)	686	53.26 (2.35)	53.24 (2.33)	0.03 (3.03)	0.99
Grocery store general (N=935)					
Chain grocery store	894	60.93 (2.86)	60.89 (1.85)	0.04 (3.96)	0.99
Discount superstore	894	38.34 (2.64)	40.72 (2.21)	-2.38 (3.93)	0.55
Dollar store	894	2.15 (0.61)	3.64 (0.96)	-1.49 (1.15)	0.20
Natural or organic supermarket/local market	894	12.49 (2.15)	6.39 (1.30)	6.10** (2.35)	0.01
Small local store/corner store	894	8.20 (1.44)	7.98 (1.17)	0.22 (2.01)	0.91
Farmers market/co-op	894	25.93 (2.56)	23.82 (1.79)	2.11 (3.29)	0.52
Make special effort to go to a particular store to buy high-quality fruits or vegetables (always or most of the time)	911	45.88 (2.60)	41.16 (2.11)	4.72 (3.23)	0.15

Table 8-3. Impact of incentives on retailers that SNAP participants usually shop at for fruits and vegetables, by study group (continued)

Outcome	n	Treatment group regression-adjusted mean (%)	Comparison group regression-adjusted mean (%)	Incentive Impact	
				β (%)	P-value
Grocery store shoppers (N=454)					
Chain grocery store	439	56.72 (4.52)	57.71 (2.40)	-0.99 (5.10)	0.85
Discount superstore	439	36.92 (4.20)	41.58 (2.41)	-4.66 (5.31)	0.38
Dollar store	-	-	-	-	-
Natural or organic supermarket/local market	439	11.85 (4.49)	7.25 (2.63)	4.60 (4.34)	0.29
Small local store/corner store	439	4.61 (1.87)	10.12 (1.72)	-5.51** (2.21)	0.02
Farmers market/co-op	439	25.70 (4.77)	27.47 (2.19)	-1.77 (5.61)	0.75
Make special effort to go to a particular store to buy high-quality fruits or vegetables (always or most of the time)	445	47.40 (4.10)	43.14 (2.37)	4.26 (4.76)	0.37

Source: SNAP Participant Baseline and Follow-up Surveys, 2016 State SNAP administrative data, 2013 and 2014 U.S. Census Bureau data, and 2015 to 2017 USDA administrative data.

Notes: β coefficients represent the percentage difference in probability of usually shopping for fruits and vegetables at that particular retailer type, calculated using a multivariate logit regression. Standard errors in parentheses. The Grocery Store Shoppers group is simply a subset of the Grocery Store General group. Westat included the following controls in each model: baseline outcome, whether or not the respondent received any prior matching amounts for fruit and vegetable purchases (not necessarily from the FINI grant program), overall health, gender, marital status, age, race, born outside of the U.S., education, income, distance to assigned outlet, household size, indicators for children and elderly present in the household, percentage of the local area population on SNAP, an indicator for whether or not the household lived in an urban area, and the FNS region. FNS region was omitted from the Grocery Store General and Grocery Store Shoppers group models due to a lack of variation. Some models were inestimable because there was either too little variation in the outcome, too little variation in some of the covariates, or too much collinearity between model covariates. These are rows where all cells contain a “-”. Model observations (n) differ from sample sizes (N) due to item nonresponse.

***p<0.01

**p<0.05

The SNAP Participant Survey also asked those who received incentives about changes to their shopping habits because of incentives (see Table 8-4). In the FMS treatment group, 60 percent said that because of incentives, they purchased more fruits and vegetables from the retailer offering incentives closest to their home.⁶⁰ Less than half of those in the FMG, GSG, and GSS treatment groups (40 percent, 36 percent, and 39 percent, respectively) said the same. However, more than half of SNAP participants in all three groups said incentives were a very important factor in determining where to buy fruits and vegetables.

⁶⁰ The retailer offering incentives that SNAP participants were asked about was the one closest in proximity to their home.

Table 8-4. Perception of program impact on where SNAP participants shop, among those who reported receiving incentives

	Farmers market		Grocery stores	
	General	Shoppers	General	Shoppers ^a
Because of <LOCAL NAME FOR FINI>, is your household buying...? (n)	41	189	49	24
More fruits and vegetables at <NAME OF OUTLET> than at other stores or markets (%)	39.46 (9.36)	59.71 (3.96)	36.45 (10.75)	38.84 (8.54)
Less, about the same, or unsure of amount of fruits and vegetables purchased at <NAME OF OUTLET> than at other stores or markets (%)	60.54 (9.36)	40.29 (3.96)	63.56 (10.75)	61.16 (8.54)
In deciding where to buy fruits and vegetables, how important is it to you that the store or farmers market offers <LOCAL NAME FOR FINI>? (n)	56	200	63	28
Very important (%)	57.12 (7.74)	59.52 (4.01)	67.76 (5.80)	71.38 (8.04)
Somewhat important (%)	21.26 (5.59)	28.73 (3.19)	22.68 (5.71)	21.61 (3.64)
Not at all important (%)	21.62 (6.25)	11.75 (2.63)	9.56 (2.81)	7.02 (1.00)
Sample Size^b	62	199	61	28

Source: SNAP Participant Follow-up Survey (Treatment Group).

Notes: The survey protocol substitutes the name of the FINI program in the participants' area for the word "FINI" in each survey question. Includes only treatment group participants.

Weighted percentages (unweighted n's). Standard errors in parentheses.

^a Grocery Store Shoppers are a subset of the Grocery Store General sample.

^b Sample sizes differ from n's due to item nonresponse.

8.2.2 Types of Fruits and Vegetables Purchased

By providing SNAP participants with increased purchasing power, FINI could change the types of fruits and vegetables purchased. The SNAP Participant Survey asked respondents to report the form of the fruits and vegetables they purchased (i.e., fresh, frozen, canned, or dried) in the last month. Respondents could choose up to nine types of fruits and nine types of vegetables and add up to three additional fruits and three additional vegetables. Across the four treatment groups, bananas, apples, and oranges were the types of fruits most often purchased at baseline; potatoes, lettuce/leafy green vegetables, and onions were the most commonly purchased types of vegetables at baseline.⁶¹ Approximately 71 percent or more of SNAP participants in the treatment groups reported purchasing these items.

Multivariate regression analysis was used to examine the impact of FINI on types and forms of fruit and vegetable purchases. Because there were four study groups and there were 18 types and four

⁶¹ This includes all SNAP participants in the four treatment groups at baseline, regardless of whether they eventually were included in the multivariate regression models for the forms and types of fruits and vegetables.

forms of fruits and vegetables, 288 separate models were estimated—one for each type and form of fruit and vegetable purchased by each study group. Findings from the analyses suggest that incentives had no detectable impact on most types and forms of fruit and vegetable purchases: 273 of the 288 models (95 percent) had no detectable impacts. The 15 models (5 percent) that appear to show measurable impacts did not show clear patterns and should be interpreted with caution. Given that 288 models were tested, it is likely that some measurable impacts of changes in the types and forms of fruits and vegetables purchased by SNAP participants in treatment groups may be detected purely by chance. Appendix K provides the results of multivariate logistic regressions examining the impact of the FINI program on purchases of each form and type of fruit and vegetable.⁶²

8.2.3 Variety of Fruits and Vegetables Purchased

With additional financial resources available to purchase fruits and vegetables, FINI could impact the variety of fruits and vegetables that SNAP participants purchased. Responses to the SNAP Participant Survey about types of fresh, frozen, canned, and dried fruits and vegetables purchased were summed to generate a respondent-level score ranging from 0 to 96. This score was used to proxy for variety of fruits and vegetables purchased. On average, the treatment groups reported purchasing about 14 types of fresh fruits and vegetables each month at baseline. Incentives had no detectable impact on the total number of fresh, frozen, canned, and dried fruits and vegetables purchased for by SNAP participants in any of the four study groups (see Table 8-5).

⁶²The unadjusted treatment and comparison purchasing means for each form and type of fruit and vegetable are available in Appendix J.

Table 8-5. Number of types of fresh, frozen, canned, and dried fruits and vegetables purchased monthly

Study group	n	Treatment group regression-adjusted mean (#)	Comparison group regression-adjusted mean (#)	Incentive Impact	
				β (#)	P-value
Farmers market general (N=833)	764	15.05 (0.27)	14.87 (0.30)	0.19 (0.36)	0.60
Farmers market shoppers (N=703)	665	15.83 (0.27)	15.18 (0.30)	0.65 (0.48)	0.18
Grocery store group (N=935)	855	14.22 (0.31)	14.85 (0.25)	-0.64 (0.41)	0.13
Grocery store shoppers group (N=454)	420	15.05 (0.52)	14.77 (0.30)	0.28 (0.60)	0.64

Source: SNAP Participant Baseline and Follow-up Surveys, 2016 State SNAP administrative data, 2013 and 2014 U.S. Census Bureau data, and 2015 to 2017 USDA administrative data.

Notes: β coefficients represent the difference in the number of types of fresh, frozen, canned, and dried fruits and vegetables purchased, calculated using a multivariate Poisson regression. Standard errors in parentheses. The Grocery Store Shoppers group is simply a subset of the Grocery Store General group. Westat included the following controls in each model: baseline outcome, whether or not the respondent received any prior matching amounts for fruit and vegetable purchases (not necessarily from the FINI grant program), overall health, gender, marital status, age, race, born outside of the U.S., education, income, distance to assigned outlet, household size, indicators for children and elderly present in the household, percentage of the local area population on SNAP, an indicator for whether or not the household lived in an urban area, and the FNS region. FNS region was omitted from the Grocery Store General and Grocery Store Shoppers group models due to a lack of variation. Model observations (n) differ from sample sizes (N) due to item nonresponse.

***p<0.01

**p<0.05

8.2.4 Frequency of Fruit and Vegetable Purchases

By offering incentives at SNAP authorized retailers, FINI could have had an impact on the frequency with which SNAP participants shop for fruits and vegetables. Table 8-6 presents the results examining the impact of the FINI program on the frequency of fruits and vegetables purchased by SNAP participants. This includes the purchases of fresh, frozen, canned, and dried fruits and vegetables, and 100 percent fruit juice. Before the FINI program, 64 percent, 71 percent, 56 percent, and 56 percent of SNAP participants in the FMG, FMS, GSG, and GSS groups, respectively, shopped for fruits or vegetables once a week or more (see Table J-13, Appendix J). There was no detectable impact of the FINI program on the change in the percentage of SNAP participants shopping for fruits and vegetables once a week or more for any of the four study groups.

Table 8-6. Impact of incentives on SNAP participants' self-reported purchasing of fruits and vegetables once a week or more in the past month, by study group

Outcome	n	Treatment group regression-adjusted mean (%)	Comparison group regression-adjusted mean (%)	Incentive impact	
				β (%)	P-value
Farmers market general (N=833)	787	67.93 (2.27)	63.58 (2.18)	4.35 (3.16)	0.17
Farmers market shoppers (N=703)	674	75.64 (2.45)	74.61 (2.43)	1.03 (3.86)	0.79
Grocery store general (N=935)	896	60.60 (2.69)	59.68 (1.91)	0.92 (3.83)	0.81
Grocery store shoppers (N=454)	438	59.91 (4.74)	59.83 (2.25)	0.09 (5.85)	0.99

Source: SNAP Participant Baseline and Follow-up Surveys, 2016 State SNAP administrative data, 2013 and 2014 U.S. Census Bureau data, and 2015 to 2017 USDA administrative data.

Notes: β coefficients represent the percentage difference in probability of purchasing fruits or vegetables once a week or more, calculated using a multivariate logit regression. Standard errors in parentheses. The Grocery Store Shoppers group is simply a subset of the Grocery Store General group. Westat included the following controls in each model: baseline outcome, whether or not the respondent received any prior matching amounts for fruit and vegetable purchases (not necessarily from the FINI grant program), overall health, gender, marital status, age, race, born outside of the U.S., education, income, distance to assigned outlet, household size, indicators for children and elderly present in the household, percentage of the local area population on SNAP, an indicator for whether or not the household lived in an urban area, and the FNS region. FNS region was omitted from the Grocery Store General and Grocery Store Shoppers group models due to a lack of variation. Model observations (n) differ from sample sizes (N) due to item nonresponse.

***p<0.01

**p<0.05

8.3 Key Findings

This chapter assessed the impact of the FINI program on monthly fruit and vegetable expenditures and several secondary outcomes. Results presented in this chapter were based on analyses using SNAP participants' responses to the baseline and 6-month follow-up surveys.

Key findings for the impact of FINI on fruit and vegetable expenditures:

- The FINI program increased average monthly fruit and vegetable expenditures by \$15.32 for the FMS group, by \$9.37 for the GSG group, and by \$9.90 for the GSS group. The program did not have a detectible impact on fruit and vegetable expenditures for the FMG group.
- The majority of SNAP participants who reported that they received incentives indicated that they spent less of their own money on fruits and vegetables or that they were not sure how receipt of incentives affected their spending.

Key findings for secondary outcomes:

- The FINI program had modest impacts on where treatment group members shopped for fruits and vegetables. In the FMS group, those in the treatment group were 11 percentage points and 10 percentage points more likely to shop at a chain grocery store and a farmers market, respectively, than those in the comparison

group; those in the GSG treatment group were six percentage points more likely to shop at a natural or organic supermarket/local market than those in the comparison group; and those in the GSS treatment group were six percentage points less likely to shop at a small local store/corner store than the comparison groups. There was no detectable impact of FINI on where SNAP participants in the FMG group shopped. While not analyzed in this evaluation, FINI may have shifted shopping behaviors because the incentives likely freed up funds that allowed treatment group participants to shop at other retailer types with greater and/or better selections of groceries.

- The FINI program had no detectable impacts on the types, variety, or frequency of fruits and vegetables purchased.

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9. Impact of FINI on Fruit and Vegetable Consumption, Preferences, and Adult Food Security

The FINI grant program is intended to increase the fruit and vegetable purchases of SNAP participants by offering financial at the point of purchase. A key research question for the evaluation was to assess the impact of FINI on fruit and vegetable consumption. This chapter summarizes impacts of the FINI program on a primary outcome of interest—fruit and vegetable consumption as well as secondary outcomes, including other measures of fruit and vegetable consumption, fruit and vegetable preferences and adult food security. When many impacts are estimated, some are likely to appear significant due to chance alone, even when there is no treatment effect (Schochet, 2009). To account for this challenge, our approach was to limit the number of primary outcomes examined in this evaluation to monthly fruit and vegetable expenditures and daily cup equivalents of fruit and vegetable consumption and to consider all other outcomes as secondary, or exploratory. Results are presented separately for four groups: (1) SNAP participants living near a sampled farmers market offering incentives (Farmers Market General – FMG); (2) SNAP participants living near a sampled farmers market offering incentives *and* who had shopped there within the last year (Farmers Market Shoppers – FMS);⁶³ (3) SNAP participants living near a sampled grocery store offering incentives (Grocery Store General – GSG); and, (4) SNAP participants living near a sampled grocery store offering incentives *and* who had shopped there within the last year (Grocery Store Shoppers – GSS).⁶⁴

Findings indicate that the FINI program did not have a detectible impact on total daily cup equivalents of fruits and vegetables consumed for any treatment group. Finding no detectible impact of FINI on fruit and vegetable consumption is consistent with other findings presented in this report. The majority of SNAP participants in three of the four study groups were unaware of the FINI program and relatively few received incentives. Further, while FINI was found to have small impacts on monthly fruit and vegetable expenditures for three of the four study groups, these

⁶³The FMS group was sampled separately from the FMG group.

⁶⁴The GSS group is a subset of the respondents in the GSG group.

impacts were at the *household* level. These household level impacts were likely further diluted when examining fruit and vegetable consumption at the *individual* level.

Multivariate regression models were used to estimate the impact of the FINI program on one primary outcome—total daily cup equivalents of fruit and vegetable consumption (excluding fried potatoes)—and five secondary outcomes: (1) total daily cup equivalents of fruit consumption (including juice), (2) total daily cup equivalents of fruit consumption (excluding juice), (3) total daily cup equivalents of vegetable consumption (excluding fried potatoes), (4) fruit and vegetable preferences; and (5) adult food security. The models accounted for baseline outcome measures, SNAP participant demographic characteristics, and characteristics of the FINI grant programs. The models also controlled for receipt of incentives from other non-FINI SNAP-based incentive programs (SBIPs) prior to FINI implementation.⁶⁵

The outcomes tables presented in the sections below display two mean outcome values for each analysis: the regression-adjusted treatment group mean and the regression-adjusted comparison group mean. Appendix J presents tests of baseline equivalence for the primary outcome and the weighted means and standard errors of the outcomes for both treatment and comparison groups, by study group (FMG, FMS, GSG, and GSS), and for both the baseline and follow-up surveys. The tables in this chapter show average impact estimates in which all SNAP participants in the treatment groups (i.e., those living nearby FINI retailers) were used in the analysis, regardless of whether they reported that they received the incentive.⁶⁶ Appendix K presents the full model results and primary outcome results using an alternative approach which considers only those who reported that they received incentives as part of the treatment group.⁶⁷

The analyses presented in this chapter used data from the SNAP participants' baseline and follow-up surveys. SNAP participants completed the baseline survey between February and May 2017 when sampled SNAP retailers were not operating incentive programs. SNAP participants completed the follow-up survey between August and November 2017, after retailers implemented the incentive

⁶⁵While accounting for receipt of incentives at baseline from non-FINI SBIPs may have improved the estimated impacts of FINI, impact estimates for the FMS and GSS groups may still be understated because of the higher proportion of the treatment group participants relative to the comparison group participants in the FMS and GSS groups receiving other incentives prior to FINI implementation. See Chapter 2 for additional details.

⁶⁶This is commonly referred to as the Intent to Treat (ITT) approach.

⁶⁷Commonly referred to as the Treatment on the Treated (TOT) approach. See Appendix K for TOT analysis results.

programs for at least one month; most incentive programs were seasonal, beginning in May or June 2017.

9.1 Impact of the FINI Program on Daily Cup Equivalents of Fruit and Vegetable Consumption

The SNAP Participant Survey included the Eating at America's Table Study (EATS) All-Day Fruit and Vegetable Screener (Millen et al., 2005). The screener asked respondents how frequently they ate the item in the last month, and the average portion size of the item when eaten. Respondents estimated consumption for all forms (e.g., raw, cooked, mixed with other foods, etc.) and types of fruits and vegetables. Procedures provided by the National Cancer Institute (NCI) were used to calculate the average daily cup equivalents of fruit and vegetable consumption (USDA, 2016a).

The *Dietary Guidelines for Americans* recommend that moderately active women consume 4.5 to 5 cups of fruits and vegetables each day, and that moderately active men consume 5.5 to 6 cups each day (USDA and DHHS, 2015). On average, SNAP participants in the four study groups did not consume daily recommended amounts of fruits and vegetables. At baseline, daily mean total fruit and vegetable (excluding fried potatoes) consumption of SNAP participants in the four study treatment groups were half of this recommendation; the FMG, FMS, GSG, and GSS groups consumed 1.9, 2.2, 2.0, and 2.0 cups per day, respectively (see Table J-1 in Appendix J).⁶⁸

The FINI program did not have a detectable impact on daily cup equivalents of fruit and vegetable consumption (see Table 9-1).

⁶⁸Similarly, using 24 hour dietary recall methodology, Nguyen et al (2014) estimated that SNAP participants consume about 1.8 to 2.7 servings of fruits and vegetables per day (including fried potatoes) and Condon et al. (2015) found that SNAP participants consumed approximately 1.7 cups of fruits and vegetables per day.

Table 9-1. Impact of the FINI program on fruit and vegetable consumption – excluding fried potatoes, by study group

Outcome	n	Treatment group regression-adjusted mean (cups)	Comparison group regression- adjusted mean (cups)	Incentive Impact	
				β (cups)	P-value
Farmers Market General (N=833)	753	1.81 (0.05)	1.88 (0.05)	-0.07 (0.08)	0.35
Farmers Market Shoppers (N=703)	635	2.05 (0.08)	1.98 (0.06)	0.07 (0.11)	0.51
Grocery Store General (N=935)	850	1.90 (0.08)	1.80 (0.05)	0.09 (0.10)	0.37
Grocery Store Shoppers (N=454)	419	1.97 (0.11)	1.86 (0.07)	0.11 (0.14)	0.44

Source: SNAP Participant Baseline and Follow-up Surveys, 2016 State SNAP administrative data, 2013 and 2014 U.S. Census Bureau data, and 2015 to 2017 USDA administrative data.

Notes: β coefficients represent the cup difference in cups of fruit and vegetable consumption, excluding fried potatoes, calculated using a multivariate ordinary least squares (OLS) regression. Standard errors in parentheses. The Grocery Store Shoppers group is simply a subset of the Grocery Store General group. Westat included the following controls in each model: baseline outcome, whether or not the respondent received any prior matching amounts for fruit and vegetable purchases (not necessarily from the FINI grant program), overall health, gender, marital status, age, race, born outside of the U.S., education, income, distance to assigned outlet, household size, indicators for children and elderly present in the household, percentage of the local area population on SNAP, an indicator for whether or not the household lived in an urban area, and the FNS region. FNS region was omitted from the Grocery Store General and Grocery Store Shoppers group models due to a lack of variation. A smearing estimate based on Duan (1983) and Abrevaya (2002) is used for correct interpretation of coefficients from the Box-Cox transformations of the consumption and expenditure outcomes. Per the USDHHS National Cancer Institute (2016), consumption measures were set to missing if a respondent did not answer the frequency of consumption question for fruits or other vegetables. Per Millen et al. (2005), consumption variables were set to missing (i.e., trimmed) if above three times the interquartile range of the variable. For consumption measures, this involved trimming at each component of consumption. Model observations (n) differ from sample sizes (N) due to item nonresponse.

***p<0.01

**p<0.05

9.2 Secondary Outcomes

The next section examines results for secondary outcomes related to other measures of fruit and vegetable consumption, fruit and vegetable preferences and adult food security. Analyses of other measures of fruit and vegetable consumption were (1) total daily cup equivalents of fruit consumption (including juice), (2) total daily cup equivalents of fruit consumption (excluding juice), and (3) total daily cup equivalents of vegetable consumption (excluding fried potatoes). These outcomes are exploratory and model results are not indicative of causality.

9.2.1 Secondary Fruit and Vegetable Consumption Outcomes

Regression analyses were undertaken to examine the impact of the FINI program on three secondary measures of fruit and vegetable consumption using the EATS All-day Fruit and Vegetable

Screeners. These measures included fruit and fruit juice consumption, fruit consumption (excluding juice), and vegetable consumption (excluding fried potatoes). These analyses were conducted for each of the four study groups separately, resulting in 12 separate models.

Table 9-2 shows the impact of the FINI program on these three secondary outcomes. Of the 12 models examined, only two revealed detectable impacts, of which only one was in the expected positive direction – the GSS group increased consumption of vegetables – excluding fried potatoes – by 0.33 cups per day, on average. The FMG group decreased consumption of fruits (excluding juices) by 0.08 cups, which is contrary to expectations. It is unclear why the results for this group were negative; however, the magnitude of the negative impact was very small. Results for secondary outcomes should be treated with caution because it is possible that their significance and direction exist by chance, simply from conducting many statistical tests.

Table 9-2. Impact of the incentives on secondary measures of fruit and vegetable consumption, by study group

Outcome	n	Treatment group regression- adjusted mean (cups)	Comparison group regression- adjusted mean (cups)	Incentive impact	
				β (cups)	P-value
Farmers market general (N=833)					
Fruit consumption	701	0.95 (0.05)	0.97 (0.04)	-0.02 (0.06)	0.79
Fruit consumption – excluding juice	630	0.51 (0.03)	0.60 (0.03)	-0.08** (0.04)	0.05
Vegetable consumption – excluding fried potatoes	746	0.90 (0.04)	0.97 (0.03)	-0.07 (0.04)	0.09
Farmers market shoppers (N=703)					
Fruit consumption	588	0.93 (0.06)	0.91 (0.04)	0.02 (0.08)	0.81
Fruit consumption – excluding juice	531	0.58 (0.04)	0.56 (0.03)	0.02 (0.06)	0.77
Vegetable consumption – excluding fried potatoes	633	1.15 (0.05)	1.11 (0.05)	0.03 (0.08)	0.67
Grocery store general (N=935)					
Fruit consumption	795	0.91 (0.05)	0.92 (0.04)	-0.01 (0.06)	0.84
Fruit consumption – excluding juice	728	0.51 (0.03)	0.49 (0.02)	0.02 (0.04)	0.67
Vegetable consumption – excluding fried potatoes	842	1.03 (0.06)	0.92 (0.03)	0.11 (0.07)	0.12

Table 9-2. Impact of the incentives on secondary measures of fruit and vegetable consumption, by study group (continued)

Outcome	n	Treatment group regression- adjusted mean (cups)	Comparison group regression- adjusted mean (cups)	Incentive Impact	
				β (cups)	P-value
Grocery store shoppers (N=454)					
Fruit consumption	386	0.83 (0.08)	0.97 (0.05)	-0.13 (0.10)	0.20
Fruit consumption – excluding juice	355	0.48 (0.05)	0.49 (0.03)	-0.01 (0.06)	0.84
Vegetable consumption – excluding fried potatoes	418	1.25 (0.08)	0.92 (0.04)	0.33*** (0.09)	<0.01

Source: SNAP Participant Baseline and Follow-up Surveys, 2016 State SNAP administrative data, 2013 and 2014 U.S. Census Bureau data, and 2015 to 2017 USDA administrative data.

Notes: β coefficients represent the cup difference in cups of fruit and vegetable consumption, excluding fried potatoes, calculated using a multivariate ordinary least squares (OLS) regression. Standard errors in parentheses. The Grocery Store Shoppers group is simply a subset of the Grocery Store General group. Westat included the following controls in each model: baseline outcome, whether or not the respondent received any prior matching amounts for fruit and vegetable purchases (not necessarily from the FINI grant program), overall health, gender, marital status, age, race, born outside of the U.S., education, income, distance to assigned outlet, household size, indicators for children and elderly present in the household, percentage of the local area population on SNAP, an indicator for whether or not the household lived in an urban area, and the FNS region. FNS region was omitted from the Grocery Store General and Grocery Store Shoppers group models due to a lack of variation. A smearing estimate based on Duan (1983) and Abrevaya (2002) is used for correct interpretation of coefficients from the Box-Cox transformations of the consumption and expenditure outcomes. Per the USDHHS National Cancer Institute (2016), consumption measures were set to missing if a respondent did not answer the frequency of consumption question for fruits or other vegetables. Per Millen et al. (2005), consumption variables were set to missing (i.e., trimmed) if above three times the interquartile range of the variable. For consumption measures, this involved trimming at each component of consumption. Model observations (n) differ from sample sizes (N) due to item nonresponse.

***p<0.01

**p<0.05

9.2.2 Impact of The FINI Program on Fruit and Vegetable Preferences

SNAP participant survey respondents indicated the extent to which they agreed or disagreed with several statements designed to measure their fruit and vegetable preferences. Table 9-3 displays the results of the analyses of the impact of FINI on fruit and vegetable preferences from the follow-up survey. The majority of SNAP participants in the treatment group—about 60 percent or more—across the four study groups said they enjoyed trying new fruits and vegetables, ate enough fruits and vegetables to keep them healthy, and encouraged family and friends to eat fruits and vegetables.

FINI did not have any detectable impacts on fruit and vegetable preferences across the study groups. In Table 9-3, there are 28 models of fruit and vegetable preferences with only one showing a detectable impact of FINI – for those in the GSG group. More SNAP participants in the GSG treatment group than the comparison group agreed with the statement “I encourage my friends to

eat fruits and vegetables.” It is possible that this significant finding exists by chance, simply from conducting many statistical tests.

Table 9-3. Impact of the FINI program on fruit and vegetable preferences, by study group

Outcome	n	Treatment group regression-adjusted mean (%)	Comparison group regression-adjusted mean (%)	Incentive Impact	
				β (%)	P-value
Farmers market general (N=833)					
I enjoy trying new foods (% agree)	805	72.08 (2.19)	70.18 (2.06)	1.90 (3.24)	0.56
I enjoy trying new fruits (% agree)	805	72.47 (2.28)	66.62 (2.43)	5.85 (3.49)	0.10
I enjoy trying new vegetables (% agree)	805	67.86 (2.59)	61.81 (2.24)	6.05 (3.57)	0.10
I eat enough fruits to keep me healthy (% agree)	805	67.76 (1.98)	67.24 (2.03)	0.52 (2.85)	0.86
I eat enough vegetables to keep me healthy (% agree)	805	66.45 (2.00)	70.63 (2.08)	-4.18 (3.03)	0.17
I encourage my family to eat fruits and vegetables (% agree)	805	74.23 (1.79)	72.07 (2.00)	2.16 (2.45)	0.38
I encourage my friends to eat fruits and vegetables (% agree)	805	64.40 (2.27)	59.94 (2.55)	4.46 (3.54)	0.21
Farmers market shoppers (N=703)					
I enjoy trying new foods (% agree)	686	76.94 (2.25)	74.74 (2.11)	2.20 (3.32)	0.51
I enjoy trying new fruits (% agree)	686	76.49 (2.81)	77.30 (2.21)	-0.81 (3.73)	0.83
I enjoy trying new vegetables (% agree)	686	74.37 (2.59)	69.33 (3.09)	5.03 (4.45)	0.26
I eat enough fruits to keep me healthy (% agree)	686	69.59 (2.51)	68.59 (2.51)	0.99 (3.66)	0.79
I eat enough vegetables to keep me healthy (% agree)	686	70.55 (2.55)	68.55 (2.57)	2.00 (3.73)	0.59
I encourage my family to eat fruits and vegetables (% agree)	686	71.86 (2.49)	73.75 (2.35)	-1.90 (3.72)	0.61
I encourage my friends to eat fruits and vegetables (% agree)	686	62.22 (2.50)	61.61 (2.75)	0.61 (3.88)	0.88
Grocery store general (N=935)					
I enjoy trying new foods (% agree)	911	69.47 (2.27)	70.84 (2.02)	-1.38 (3.06)	0.65
I enjoy trying new fruits (% agree)	911	70.37 (2.16)	71.08 (1.78)	-0.71 (2.87)	0.81
I enjoy trying new vegetables (% agree)	911	64.32 (2.42)	66.33 (2.00)	-2.01 (3.15)	0.53
I eat enough fruits to keep me healthy (% agree)	911	64.65 (2.99)	66.44 (1.81)	-1.79 (3.76)	0.64
I eat enough vegetables to keep me healthy (% agree)	911	68.87 (3.02)	66.45 (1.67)	2.43 (3.53)	0.50
I encourage my family to eat fruits and vegetables (% agree)	911	71.29 (2.60)	69.20 (1.71)	2.10 (3.43)	0.54
I encourage my friends to eat fruits and vegetables (% agree)	911	63.19 (2.63)	55.97 (1.56)	7.22** (3.23)	0.03

Table 9-3. Impact of the FINI program on fruit and vegetable preferences, by study group (continued)

Outcome	n	Treatment group regression- adjusted mean (%)	Comparison group regression- adjusted mean (%)	Incentive Impact	
				β (%)	P-value
Grocery store shoppers (N=454)					
I enjoy trying new foods (% agree)	445	68.93 (3.47)	70.24 (2.87)	-1.31 (4.76)	0.78
I enjoy trying new fruits (% agree)	445	70.03 (3.24)	71.24 (2.36)	-1.21 (3.84)	0.75
I enjoy trying new vegetables (% agree)	445	68.28 (3.19)	66.53 (2.90)	1.75 (4.16)	0.68
I eat enough fruits to keep me healthy (% agree)	445	62.10 (4.31)	66.99 (2.44)	-4.89 (5.12)	0.34
I eat enough vegetables to keep me healthy (% agree)	445	63.39 (5.09)	67.56 (2.60)	-4.17 (5.91)	0.48
I encourage my family to eat fruits and vegetables (% agree)	445	69.53 (4.95)	70.09 (2.57)	-0.56 (6.09)	0.93
I encourage my friends to eat fruits and vegetables (% agree)	445	59.92 (4.52)	57.18 (2.42)	2.74 (5.32)	0.61

Source: SNAP Participant Baseline and Follow-up Surveys, 2016 State SNAP administrative data, 2013 and 2014 U.S. Census Bureau data, and 2015 to 2017 USDA administrative data.

Notes: β coefficients represent the percentage difference in probability of agreeing with the particular preference statement, calculated using a multivariate logit regression. Standard errors in parentheses. The Grocery Store Shoppers group is simply a subset of the Grocery Store General group. Westat included the following controls in each model: baseline outcome, whether or not the respondent received any prior matching amounts for fruit and vegetable purchases (not necessarily from the FINI grant program), overall health, gender, marital status, age, race, born outside of the U.S., education, income, distance to assigned outlet, household size, indicators for children and elderly present in the household, percentage of the local area population on SNAP, an indicator for whether or not the household lived in an urban area, and the FNS region. FNS region was omitted from the Grocery Store General and Grocery Store Shoppers group models due to a lack of variation. Model observations (n) differ from sample sizes (N) due to item nonresponse.

***p<0.01

**p<0.05

9.2.3 Perceived Changes in Fruit and Vegetable Consumption Due to The FINI Program

The SNAP Participant Survey asked respondents who received incentives to indicate changes in their consumption of fruits, vegetables, and organic fruits and vegetables that they attributed to their receipt of incentives.⁶⁹ In all fruit and vegetable categories, a majority of respondents said that because of the FINI program, they ate more fruits and vegetables or ate more types of fruits and vegetables. Among those who received incentives, the majority of respondents in each group perceived incentives led to a change in their fruit and vegetable consumption for most consumption

⁶⁹There is high item non-response for these questions related to the perception of program impact. Thus, it is possible the results contained in Table 9-3 are biased or otherwise non-representative as the results are not weighted for non-response of these particular survey questions.

behaviors (see Table 9-4).⁷⁰ Across all groups, 56 to 76 percent of respondents who received incentives said that because of incentives they and their households ate more fruits; 56 to 73 percent said they and their households ate more vegetables. Between 50 and 75 percent of respondents in the FMG, FMS, GSG, and GSS groups reported eating more locally grown produce as a result of the FINI program.

Table 9-4. Perception of program impact on fruit and vegetable consumption, among those who reported receiving incentives

	Farmers market		Grocery stores	
	General	Shoppers	General	Shoppers ^a
Because of <LOCAL NAME FOR FINI>, do you and your household now... (n)	43	182	47	24
Eat more fruits (%)	59.00 (6.17)	64.64 (3.82)	76.13 (7.97)	55.89 (6.90)
Eat more vegetables (%)	61.16 (6.44)	68.48 (3.77)	72.69 (8.37)	55.89 (6.84)
Eat different types of fruits (%)	62.51 (6.88)	55.83 (3.53)	72.82 (8.36)	52.37 (6.60)
Eat different types of vegetables (%)	65.33 (7.21)	59.12 (3.43)	75.06 (8.77)	55.27 (7.18)
Eat more organic fruits and vegetables (%)	56.78 (7.04)	56.01 (3.97)	55.14 (11.41)	20.54 (4.13)
Eat more locally grown food (%)	65.26 (6.89)	76.18 (3.51)	75.15 (8.48)	50.02 (6.67)
Sample Size^b	62	199	61	28

Source: SNAP Participant Follow-up Survey (Treatment Group only).

Notes: The survey protocol substitutes the name of the FINI grant program in the participants' area for the word "FINI" in each survey question.

Includes only treatment group participants

Weighted percentages (unweighted n's). Standard errors in parentheses.

^a Grocery Store Shoppers are a subset of the Grocery Store General sample.

^b Sample sizes differ from n's due to item nonresponse.

9.2.4 Impact of The FINI Program on Adult Food Security

The SNAP participant survey included the 10-item U.S. Adult Food Security Survey Module to measure food security during the 30 days prior to the survey. Respondents scoring between 0 and 2 were classified as food secure, and respondents scoring between 3 and 10 as food insecure. Across the four study treatment groups, food security was low, with only about one-third of respondents reporting that adults in the household were food secure. Logistic regression models were used to

⁷⁰These findings differ from the results of the consumption regression models in Table 9-1 for two reasons. First, the results in Table 9-1 are the average treatment effects of incentives on all members of the treatment group. The results in Table 9-3 are only on those treatment group participants who received incentives and answered these survey questions. Second, these survey questions ask about participants' perceptions of their eating habits whereas the results of Table 9-1 are based on actual consumption of fruits and vegetables.

estimate the impact of the incentives on adult food security status, controlling for baseline adult food security status and several SNAP participant and program-related characteristics.⁷¹

The FINI program did not have a detectable impact on adult food security in three of the four study groups; the FMG group had a counterintuitive result, suggesting that FINI reduced food security by 7.7 percentage points (see Table 9-5). This negative result may be due to unexplained/unobserved differences between the treatment and comparison group that were not accounted for in the model.

Table 9-5. The impact of incentives on adult food security status, by study group

Study group	n	Treatment group regression- adjusted mean (%)	Comparison group regression- adjusted mean (%)	Incentive impact	
				β (%)	P-value
Farmers market general (N=833)	790	36.15 (2.14)	43.90 (2.52)	-7.74** (3.47)	0.03
Farmers market shoppers (N=703)	680	37.76 (2.37)	34.39 (2.11)	3.37 (3.44)	0.33
Grocery store group (N=935)	896	36.13 (2.28)	39.35 (1.76)	-3.22 (3.07)	0.30
Grocery store shoppers group (N=454)	439	29.91 (4.10)	38.61 (2.14)	-8.70 (5.01)	0.09

Source: SNAP Participant Baseline and Follow-up Surveys, 2016 State SNAP administrative data, 2013 and 2014 U.S. Census Bureau data, and 2015 to 2017 USDA administrative data.

Notes: β Coefficients represent the percentage difference in the probability of being food secure, calculated using a multivariate logit regression. Standard errors in parentheses. The Grocery Store Shoppers group is simply a subset of the Grocery Store General group. Westat included the following controls in each model: baseline outcome, whether or not the respondent received any prior matching amounts for fruit and vegetable purchases (not necessarily from the FINI grant program), overall health, gender, marital status, age, race, born outside of the U.S., education, income, distance to assigned outlet, household size, indicators for children and elderly present in the household, percentage of the local area population on SNAP, an indicator for whether or not the household lived in an urban area, and the FNS region. FNS region was omitted from the Grocery Store General and Grocery Store Shoppers group models due to a lack of variation. Model observations (n) differ from sample sizes (N) due to item nonresponse.

***p<0.01

**p<0.05

9.3 Summary of Key Findings

This section summarizes key findings of the impact of the FINI program on fruit and vegetable consumption, preferences, and adult food security. Results presented in this chapter were based on analyses using SNAP participants' responses to the baseline and 6-month follow-up surveys.

⁷¹ It is possible that SNAP participants first received incentives in the same period covered by the food security module. However, only 0.2 percent of treatment group SNAP participants had their closest participating retailers offering incentives providing incentives for only one month prior to completing the follow-up survey. For those SNAP participants who received incentives and provided the month and year in which they first received incentives, only six percent said they first received incentives within a month of completing the follow-up survey.

Key finding for the impact of FINI on daily cup equivalents of fruit and vegetable consumption:

- The FINI program did not have a measurable impact on daily fruit and vegetable consumption (excluding fried potatoes), as measured in cup equivalents for any study group.
- On average, SNAP participants in the four study groups did not consume daily recommended amounts of fruits and vegetables. At baseline, daily mean total fruit and vegetable consumption of SNAP participants in the four study treatment groups were half of recommendations; the FMG, FMS, GSG, and GSS groups consumed 1.9, 2.2, 2.0, and 2.0 cup equivalents (excluding fried potatoes) per day, respectively

Key findings for secondary outcomes:

- The FINI program had little to no measurable impact on daily consumption of (1) fruit and fruit juice, (2) fruit – excluding juice, and (3) vegetables – excluding fried potatoes, as measured in cup equivalents.
- The FINI program had little to no measurable impact on fruit and vegetable preferences for any study group.
- The FINI program did not measurably improve adult food security status for any study group. The increase the food insecurity among those in the FMG group may be due to unexplained/unobserved differences between the treatment and comparison group that were not accounted for in the model or due to a statistical artifact.

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10. Conclusions and Next Steps

The intent of the FINI grant program is to increase fruit and vegetable purchases of SNAP participants by offering financial and non-financial incentives at the time of purchase. Financial incentives directly reduced the effective price of fruits and vegetables, thereby enabling SNAP participants to increase fruit and vegetable purchases and consumption. Through a process evaluation, this report summarized FINI implementation through September 2017. Results from an outcome evaluation provided the estimated impact of FINI on SNAP participant fruit and vegetable expenditures and consumption. The process and outcome evaluation results were based on data collected from FINI grantees, retailers offering incentives, and SNAP participants. Results presented in this report include data collected from the first three rounds of FINI grantees awarded in 2015, 2016 and 2017; results that include FINI grants awarded in 2018 will be included in the final report.

Process Evaluation Findings

As of September 2017, 39 large-scale and community-based grantees from the 2015, 2016, and 2017 grant cycles collectively implemented FINI at 2,600 SNAP-authorized retailers located in 38 States and the District of Columbia. Farmers markets, grocery stores, and mobile markets accounted for 62 percent, 17 percent, and 13 percent of all retailers respectively; the remaining were direct marketing farmers and CSA programs. More than three-quarters of grantees and one-third of FINI retailers had prior SNAP-based incentive program (SBIP) experience. The majority of retailers offered incentive amounts equal in value to the purchase amount (i.e., \$1:\$1 match rate). Most retailers allowed SNAP participants to earn incentives on the purchase of any SNAP-eligible product, but restricted incentive redemption to the purchase of qualifying fruits and vegetables. Most of the grantees operated at farmers markets, where SNAP-eligible products were limited and mostly include fruits and vegetables.

Over half of the participating retailers reported that FINI benefited their business by increasing traffic from new and repeat customers. All farmers markets and two-thirds or more of grocery stores, mobile markets, and CSA programs reported an increase in store revenue and most noted changes in the produce sales that required them to stock more and different types of produce. Over

the course of the 10 calendar quarters (Q2/2015 to Q3/2017), FINI retailers issued incentives worth \$17.9 million and redeemed incentives worth \$14.2 million—an 82 percent redemption rate.

Outcome Evaluation Findings

Data gathered from baseline and follow-up surveys with SNAP participants were used to assess awareness of FINI and receipt of incentives as well as two primary outcomes—(1) total monthly household fruit and vegetable expenditures and (2) daily total cup equivalents of fruit and vegetable consumption (excluding fried potatoes). Results were examined for four study groups: (1) **Farmers Market General (FMG)**: SNAP participants who lived near a sampled farmers market that offered FINI; (2) **Farmers Market Shoppers (FMS)**: SNAP participants who lived near a sampled farmers market that offered FINI *and* who had shopped there within the last year; (3) **Grocery Store Group (GSG)**: SNAP participants who lived near a sampled grocery store that offered FINI; and (4) **Grocery Store Shoppers (GSS)**: SNAP participants who lived near a sampled grocery store that offered FINI *and* who had shopped there in the last year. The analysis included 2,471 SNAP participants who responded to the baseline and 6-month follow-up surveys.

Awareness of the FINI Program and Receipt of Incentives

Awareness of FINI was relatively low across the four study groups: 31 percent of the FMG group, 67 percent of the FMS group, 39 percent of the GSG group, and 50 percent of the GSS group reported awareness of the FINI program. Receipt of incentives was also low across the four study groups: 15 percent of the FMG group, 58 percent of the FMS groups, 17 percent of the GSG group, and 24 percent of the GSS group received incentives. Only in the FMS group did the majority of SNAP participants report awareness of FINI and receipt of incentives. The primary driver of incentive receipt among all four study groups was advertising. Each additional source of information about FINI increased the probability of incentive receipt.

The level of program awareness demonstrated by SNAP participants in the four study groups was generally not as high as that noted for SBIPs in other studies. Awareness of the Healthy Incentive Pilot (HIP) among the treatment group was about 62 percent four to six months after implementation (Bartlett et al., 2014). This is generally in line with the FMS group, but higher than awareness for the other three study groups. Availability of incentives at a variety of retailer types in

Hampden County, MA and program outreach before the launch of HIP may account for higher awareness and use of incentives offered through HIP than through FINI. Karakus et al. (2014) found that nearly 77 percent of FMS were aware of the SBIPs offered at their local farmers markets, 10 percentage points higher than the FINI FMS treatment group. The lower level of awareness of FINI could be due in part to new farmers markets offering incentives through FINI. These markets may have been used less by SNAP participants in the past and had yet to establish a SNAP customer base.

The low levels awareness of the FINI program in this evaluation may also have been due to challenges experienced by grantees with program launch and reach. While farmers markets were able to start offering incentives soon after a grant award, they operated seasonally and on a limited schedule (i.e., average of 15 days per quarter). Staffing may also have played a role. Implementation at farmers markets was challenging for many grantees that relied on volunteers to run the program. Some grantees thought that responsibilities of implementing FINI were too much for volunteers to shoulder. Volunteers may not have been able to adequately administer the program and all of the data tracking tasks. Grocery stores participating in FINI lagged behind farmers markets with roll-out because of the upfront time required to setup electronic database and point of sale registers. Training retailer staff was also challenging due to the frequent staff turnover at grocery stores. Turnover led to new cashiers who may not have understood FINI protocols. This challenge required continuous upfront staff training as new cashiers were hired.

Low awareness of the FINI program may also have be attributable to insufficient marketing and outreach, both – to the community at large and in-store. Low intensity messages and limited channels to promote the FINI program were noted as concerns by grantees in the early stages of FINI implementation. Findings from this evaluation indicate that the greater the number of information sources for FINI, the greater the likelihood of receiving incentives at FINI retailers.

Grantees indicated that in the early stages of FINI, reaching SNAP participants was far by the greatest challenge they encountered. To improve customer participation, grantees developed promotional multi-lingual materials and flyers with illustrations of incentive tokens and lists of items that could be purchased with incentives. To increase program reach, grantees disseminated marketing materials through several channels such as billboards, television and radio advertisements, program websites, direct mailings, and flyers at community and social service agencies. Networking

with social service agencies was considered to be an effective strategy as the agency staff were verbally able to inform the SNAP participants of the incentive program at participating FINI retailers. To create awareness among in-store SNAP shoppers, some retailers developed and strategically placed shelf-tags, conducted cooking demonstrations on-site to demonstrate recipes using produce available in their stores (or sold by vendors at the market), and provided cashiers with “cheat sheets” containing lists of eligible products. These marketing strategies demonstrate efforts to increase program awareness among SNAP participants who already shopped at FINI retailers – through in-store marketing, and among those who don’t – through deployment of messages using several external channels.

While awareness was a challenge, so was receipt of incentives. In all four treatment groups, not all SNAP participants who were aware of the FINI program received incentives. Factors associated with low take-up were not studied in this evaluation. It is possible that take-up was low because SNAP participants did not want to change their shopping routine to shop at a FINI retailer. This could be relevant if the FINI retailer was a farmers market and the SNAP participant preferred the convenience of one-stop shopping at a grocery store. It is also possible that SNAP participants who were near FINI grocery stores received the incentives, but did not realize it. These SNAP participants received incentives in the form of coupons printed at the end of their grocery store receipts. It is likely they were not able to distinguish incentives from other cash-register tape coupons offered by grocery stores.

Impact of the FINI Program on Fruit and Vegetable Expenditures and Consumption

The evaluation found a measurable impact of FINI on monthly household fruit and vegetable expenditures in three of four study groups (FMS, GSG, and GSS), but found no measurable impact on fruit and vegetable consumption. The FINI program increased average monthly fruit and vegetable expenditures of SNAP households: those in FMS, GSS, and GSG groups increased spending by an average of \$15.32, \$9.37, and \$9.90, respectively.

Although FINI had a modest impact on monthly fruit and vegetable expenditures, it had no measurable impact on daily fruit and vegetable consumption. Low program awareness and receipt of incentives may have muted program impacts. The impact estimates reflected the average impact of

FINI among *all* SNAP participants in the treatment group. The high percentage of SNAP participants who did not receive incentives likely reduced the overall impact of FINI. Additionally, because the study measured food purchases for *households* and consumption for *individuals*, it is likely that consumption changes at an individual level were small as the food was shared with other household members. Limitations of the evaluation may have also contributed to the findings.

Evaluation Limitations

There are three key limitations to this evaluation that the reader should note when interpreting the estimated outcomes. First, SNAP participants were not randomized into treatment and control study groups. Rather than randomizing participants, the evaluation involved identifying treatment group SNAP participants living in close proximity to the FINI retailers and matching them to a comparison group of SNAP participants who did not live near a FINI treatment retailer. Propensity score weighting and regression models that included demographic characteristics of SNAP participants (including race/ethnicity) were included as control variables to account for observed imbalances between the treatment and comparison groups. It is possible that treatment and comparison group participants remained different on unobserved characteristics that could have resulted in biased-impact estimates.

Second, a non-trivial percentage of SNAP participants in the treatment and comparison groups reported at baseline that they had received incentives from SBIPs in the prior month. This was a particular problem for the FMS group, where 56 percent of the treatment group and 18 percent of the comparison group reported receiving incentives at baseline. If SNAP participants were already receiving incentives, they may have reached a saturation point, where additional incentives did not lead to an equal increase in fruit and vegetable purchases and consumption. Further, in each of the four study groups, a higher percentage of the treatment group than the control group reported prior SBIP incentive receipt. This may have further dampened treatment impacts. All outcome analyses included prior SBIP incentive receipt as a control in the model; however, impact estimates may have been underestimated.

Finally, fruit and vegetable consumption was measured using a the NCI fruit and vegetable screener. While NCI suggests that a single 24-hour recall may be sufficient to assess the mean difference in usual intake between two or more groups due to intervention, they also consider it acceptable to use

a short screener if the focus of the intervention is limited to one or a few specific dietary components. To improve accuracy of usual intake estimates, NCI recommends internal calibration with a 24-hour recall to reduce bias. This evaluation did not collect 24-hour dietary recall data and undertake internal calibration. This may have led to less precise measures of fruit and vegetable consumption, which may have made it more difficult to assess an increase in fruit and vegetable consumption between baseline and follow-up. As a result, the impact of FINI on fruit and vegetable consumption may have been downwardly biased.

FINI did not measurably improve adult food security status for any study group. The increase in food security among those in the FMG group may be due to unexplained/unobserved differences between the treatment and comparison group that were not accounted for in the model or due to a statistical artifact. Further research is needed to understand the reasons for the increase in food security in this group.

Next Steps

This report presents findings from interim data collection and analyses. FINI is an ongoing grant program and grantees are continuing to provide data for the process study. The final report for FINI will include additional data and analysis that contribute to the process study, including information collected from 2018 FINI grantees, which were awarded during the writing of this report. In addition, the final report will draw on in-depth interviews with 40 SNAP participants, who reported receiving FINI, to describe participants' experiences and satisfaction with the program.

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