

Exploring Barriers and Facilitators of Food Insecurity Nutrition Incentive (FINI) Program
Adoption in Washington State Farmers Markets: A Mixed-Methods Analysis

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Abstract

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Existing research has illustrated the economic, social, and health impacts of farmers market Supplemental Nutrition Assistance Program (SNAP) match incentive programs and identified key barriers and facilitators of both shopper and market incentive program participation. Few studies have quantified longitudinal patterns in program participation while exploring the impact of markets' economic, geographic, and organizational characteristics on program adoption and implementation. This project couples analyses of transaction data associated with the Food Insecurity Nutrition Incentive Program (FINI) farmers market SNAP match incentive programs and interviews with FINI program partners in Washington State. We identify factors influencing

farmers markets' adoption and implementation of FINI SNAP match incentive programs and explore how shopper use (as measured by incentives redeemed and unique SNAP transactions) might vary by market characteristics (i.e. urban/rural classification, markets in high-/low-SNAP locations, and experienced/recent adopter classification). In our four-year study period from 2015 to 2018, market participation and geographic coverage expanded, particularly in rural areas and areas with high rates of SNAP participation. Urban markets and markets with greater experience offering SNAP had higher incentives redeemed and unique SNAP transactions per market. Interviews with FINI program partners contextualized our quantitative findings, and highlighted the significance of barriers (e.g. geographic obstacles and staffing limitations) and the significance of facilitators (e.g. inter-agency collaboration, educational programming, and funding) related to FINI program adoption and implementation. Further longitudinal assessment of existing farmers market outreach strategies to encourage both market and shopper participation in incentive programs may help to expand program reach in the future.

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Key Terms

Experienced/recent adopter classification: in this report, farmers markets are categorized based on when they began offering electronic benefits transmission (EBT) to accept Supplemental Nutrition Assistance Program (SNAP) benefits:

- **Experienced adopter markets:** farmers markets that began accepting SNAP benefits in 2013 or earlier.
- **Recent adopter markets:** farmers markets that began accepting SNAP benefits after 2013.

Market characteristics: refers to a set of economic, geographic, and organizational characteristics that describe FINI farmers markets. These were selected as key characteristics in this report because of their common utilization in reports submitted to the Washington State Department of Health by regional intermediary agencies contracted with participating farmers markets, as well as data from the US Census Bureau, Federal Office of Rural Health Policy, and Office of Management and Budget:

- Urban/rural classification
- Markets in high-/low-SNAP locations
- Experienced/recent adopter classification
- Staffing
- Educational program-offerings

Markets in high-/low-SNAP locations: in this report, U.S. Census data were used to determine the percentage of households participating in SNAP in the ZIP codes of FINI farmers markets:

- **Markets in high-SNAP locations:** farmers markets located in ZIP codes with household SNAP participation >13.4

- **Markets in low-SNAP locations:** farmers markets located in ZIP codes with household SNAP participation <13.4%.

Transaction variables: refers to two farmers market incentive program transaction data points made available through reports submitted to the Washington State Department of Health by regional intermediary agencies contracted with participating farmers markets. These data points are utilized to measure shopper use of FINI farmers market incentive programs, and include:

- **Incentives redeemed:** the dollar value of incentives for which individual farmers markets were reimbursed.
- **Unique SNAP transactions:** the number of unique SNAP transactions that took place at an individual market.

Urban/rural classification: FINI farmers markets are classified as “urban” or “rural” based on the Federal Office of Rural Health Policy (FORHP) 2018 ZIP code designation, which combines US Census Bureau and Office of Management and Budget definitions of “urban” and “rural.”¹

Executive Summary

In 2015, Washington State was awarded a \$5.86 million dollar Food Insecurity Nutrition Incentive (FINI) grant from the United States Department of Agriculture (USDA). The grant helped to fund the expansion of **Supplemental Nutrition Assistance Program (SNAP) match incentive programs** in Washington State farmers markets. From 2015 to 2018, nearly \$2.7 million dollars of combined SNAP and incentives were spent in participating markets.²

The aim of this study was to identify factors influencing Washington State farmers markets' adoption and implementation of FINI farmers market incentive programs, and to understand how shopper use (as measured by **incentives redeemed** and **unique SNAP transactions**) might vary by key **market characteristics** (i.e. **urban/rural classification, markets in high-/low-SNAP locations, and experienced/recent adopter classification**). We address the following research questions:

- 1) How did the number and characteristics of farmers markets participating in FINI in Washington State change over the time period from 2015 to 2018?
- 2) How did incentives redeemed and unique SNAP transactions at FINI farmers markets change over the time period from 2015 to 2018?
- 3) How do incentives redeemed and unique SNAP transactions differ by key market characteristics (i.e. urban/rural classification, markets in high-/low-SNAP locations, and experienced/recent adopter classification) over the time period from 2015 to 2018?
- 4) Which resources, geographic conditions, and community relationships likely impacted FINI program adoption and implementation, and patterns in incentives redeemed and unique SNAP transactions?

To achieve this study’s aims, we used a mixed methods approach. We first conducted quantitative analyses and data visualizations of existing programmatic data from 2015 to 2018 to illustrate patterns of FINI program adoption and transaction variables (i.e. **incentives redeemed** and **unique SNAP transactions**). We then explored transaction variable patterns by key market characteristics (i.e. **urban/rural classification, markets in high-/low-SNAP locations, and experienced/recent adopter classification**). We compared results both including and excluding a subset of highly active urban markets where the incentive program was administered through the Seattle Office of Sustainability and Environment (Seattle OSE Markets). Finally, we conducted interviews with FINI program partners to aid in the interpretation of our quantitative findings and qualitatively explore aspects of FINI adoption and implementation as guided by the Diffusion of Innovations (DOI) framework.³ Key qualitative findings are organized by constructs articulated in the DOI framework. Our quantitative analyses serve to address research questions #1-3, while our qualitative analyses serve to address research question #4.

Key Findings: Programmatic Data

1. How did the number and characteristics of farmers markets participating in FINI in Washington State change over the time period from 2015 to 2018?

- Total market participation increased from 47 to 88 farmers markets.
- The number of ZIP codes with ≥ 1 farmers markets increased from 41 to 75.
- The number of rural markets increased by 14, from 5 to 19 markets (11% to 22% of all FINI markets).
- The number of urban markets increased by 27, from 42 to 69 markets (89% to 78% of all FINI markets).
- The number of markets in high-SNAP locations increased by 26, from 20 to 46 markets (43% to 52% of all FINI markets).
- Staffing per market decreased on average from ~5 personnel to ~4 personnel.
- The percentage of markets offering ≥ 1 educational program increased from 56% to 73%.

2. How did incentives redeemed and unique SNAP transactions at FINI farmers markets change over the time period from 2015 to 2018?

- **Incentives redeemed** per market were largely steady from 2015 to 2017 and increased from 2017 to 2018. The latter increase appeared to be driven by the Seattle OSE Markets.
- **Unique SNAP transactions** per market decreased from 2015 to 2016 and then largely held steady.

3. How do incentives redeemed and unique SNAP transactions differ by key market characteristics (i.e. urban/rural classification, markets in high-/low-SNAP locations, and experienced/recent adopter classification) over the time period from 2015 to 2018?

Transactions stratified by urban/rural classification

- **Incentives redeemed** per market were greater in urban markets compared to rural markets from 2016 to 2018.
- **Incentives redeemed** per market over time increased in urban markets from 2016 to 2018 and decreased slightly in rural markets all four years.
- **Unique SNAP transactions** per market were greater in urban markets compared to rural markets all four years.
- **Unique SNAP transactions** per market over time decreased in both urban and rural markets from 2015 to 2016, and then largely held steady.

Transactions stratified by markets in high-/low-SNAP locations

- **Incentives redeemed** per market increased from 2017 to 2018 in both markets in high- and low-SNAP locations. This trend appeared to be driven by the Seattle OSE Markets.
- **Unique SNAP transactions** per market were greater in markets in high-SNAP than low-SNAP locations all four years when excluding Seattle OSE markets.

Transactions stratified by experienced/recent adopter classification

- **Incentives redeemed** and **unique SNAP transactions** per market were greater in experienced adopter markets compared to recent adopter markets all four years.
- **Unique SNAP transactions** per market over time decreased slightly in experienced adopter markets and increased slightly in recent adopter markets from 2015 to 2016; patterns then remained largely steady in both experienced and recent adopter markets.

Key Findings: Interviews with FINI Partners

4. Which resources, geographic conditions, and community relationships likely impacted FINI program adoption and implementation, and patterns in incentives redeemed and unique SNAP transactions?

Seattle OSE Markets and Incentives Redeemed Over Time

<ul style="list-style-type: none"> ● The unlimited matching structure employed by Seattle OSE markets beginning in 2017 was perceived to have been the reason for the dramatic increase in incentives redeemed per market in urban markets from 2017 to 2018.
<p>Compatibility</p> <ul style="list-style-type: none"> ● The FINI program was perceived to be particularly compatible with markets that were experienced in local food access improvement, markets with consistent staffing, and markets with access to technology (i.e. to support the use of a point-of-sale terminal).
<p>Advantage</p> <ul style="list-style-type: none"> ● Adoption of the FINI program was perceived to attract additional shoppers, provide local farmers with increased economic opportunity, and improve markets’ inclusivity for low-income shoppers. ● Adoption of the FINI program was perceived to foster new or stronger relationships with other organizations and businesses, and improve markets’ access to key organizational supports.
<p>Investment/Risk</p> <ul style="list-style-type: none"> ● The FINI program was perceived to be less compatible with markets that lack staff capacity and sustainable funding.
<p>Intervention Clusters</p> <ul style="list-style-type: none"> ● The FINI program was perceived to be particularly compatible with markets with experience offering complementary educational programs and programs related to food access (i.e. SNAP-Ed, cooking demos, the KERNAL program, WIC, and the Farmers’ Market Nutrition Program for Seniors). Inter-agency collaboration supported the administration of these complementary programs.
<p>Outreach Strategies</p> <ul style="list-style-type: none"> ● Adoption of the FINI program was particularly encouraged in rural areas, especially in the later years of the FINI program. ● Adoption of the FINI program was encouraged through information-sharing between farmers market staff, volunteers, and regional leadership.
<p>Contextual Conditions</p> <ul style="list-style-type: none"> ● The FINI program was perceived to be compatible with markets that are conveniently located for use by low-income shoppers. ● The FINI program was perceived to be more challenging to implement in rural areas due to ideological barriers surrounding the use of SNAP benefits.
<p>Opinion Leadership and Relationships</p> <ul style="list-style-type: none"> ● Adoption and administration of the FINI program was supported by inter-agency collaboration and formal and informal farmers market networks that share best practices.
<p>Program Adaptability</p>

- Broad alignment of incentive program elements through the new statewide SNAP Market Match program is predicted to improve market and shopper experience.

Discussion and Conclusion

Findings show that FINI farmers market participation and geographic coverage expanded from 2015 to 2018. As the number of farmers markets participating in FINI increased, so did the percentage of rural markets and markets in high-SNAP locations. While the average market did not experience dramatic increases in incentives redeemed or unique SNAP transactions during our study period, patterns of year-to-year changes in incentives redeemed were notable when comparing markets offering unlimited match (i.e. Seattle OSE markets) vs. match caps. Urban markets and markets with more experience offering SNAP had greater incentives redeemed and unique SNAP transactions per market. Interviews with FINI program partners contextualized our quantitative findings, and highlighted the significance of barriers (e.g. geographic obstacles and staffing limitations) and the significance of facilitators (e.g. inter-agency collaboration and funding) related to FINI program adoption and implementation.

There were several strengths of this study. Importantly, this study utilized four years worth of data from over one hundred Washington State farmers markets, as well as interviews with FINI partners at the state, regional, and individual market-levels. A notable limitation of this study was the small sample size of participants included in the qualitative portion of this study.

Nonetheless, quantitative and qualitative data add to existing literature related to farmers market nutrition incentive programs. Results from this study point to several recommendations that can help to expand incentive program reach, including:

- **Consider farmers market locations based on the needs and recommendations of both shoppers and market managers.** Utilizing both shopper and market manager perspectives can help to optimize farmers market locations, and address community-specific geographic barriers that limit incentive program reach.
- **Destigmatize and encourage the use of SNAP through tailored informational campaigns, educational programming, and community outreach.** In order to foster environments conducive to the successful implementation of farmers market incentive programs, it is crucial that tailored information regarding the use of SNAP is disseminated, particularly in regions where entitlement programs may be looked upon unfavorably.
- **Continue to support inter-agency collaboration and opportunities for markets to engage in complementary programs.** Dedicating additional funding to organizations that facilitate inter-agency collaboration between markets and community partners can help to improve incentive program participation, expand complementary program offerings, and grow markets' access to administrative support.
- **Channel resources toward organizations and programs that fund market staffing, operations, and acquisition of EBT machinery.** Providing markets with funding, technology, and administrative support may help to encourage participation in incentive programs, especially for less established or lower capacity markets.

Building on existing programs and resources that have been effective in supporting market adoption and participation in FINI will help to expand the positive economic, social, and health impacts of incentive programs across Washington State. Further qualitative research capturing the importance of inter-agency collaboration and outreach could be helpful to inform assistance for market managers and guide future investment in incentive programs. Future research efforts

and resources should explore regions and markets that have experienced comparatively low market participation, incentives redeemed, and unique SNAP transactions.

Introduction

In 2015, the Washington State Department of Health was awarded a \$5.86 million dollar Food Insecurity Nutrition Incentive (FINI) grant from the United States Department of Agriculture (USDA) to expand and monitor three fruit and vegetable incentive programs. An additional \$5.91 million dollars was allocated by partnering state and local entities to support FINI incentive programs over the four-year grant period (2015 to 2019). A key objective of the FINI grant program was to test the effectiveness of incentive programs which were designed to “encourage low-income families to put more healthy food in their grocery baskets,” and are “part of USDA’s ongoing commitment to improving the diet and health of all Americans.”⁴ This report will focus on the **farmers market SNAP match incentive program** portion of the Washington FINI grant. SNAP match programs in farmers markets provide a range of matches to SNAP participants when using SNAP benefits at participating farmers markets to purchase eligible food items, from dollar-for-dollar matches to match values such as \$2.00, \$5.00, or \$10.00. From 2015 to 2018, nearly \$2.7 million dollars of combined SNAP and incentive were spent at participating markets.²

Over the past decade, research and grantee reports have illustrated the broad economic, social, and health impacts of FINI’s farmers market incentive programs. The USDA estimates that for every SNAP dollar spent in FINI farmers markets, \$1.54 is generated in the local economy.² Nationwide, the FINI farmers market incentive program helped stimulate the purchase of over 8 million dollars in fruit and vegetables, benefiting over one thousand farms in 2015 alone.⁵ A Washington State study found that FINI farmers markets offer comfortable, friendly shopping environments for 91% (n = 181) of SNAP-enrolled shoppers.⁶ Research also suggests

that SNAP match programs in farmers markets have helped to increase fruit and vegetable consumption, food security, and improve perceived diet quality and health among participating shoppers.^{2,5,7-9}

Research of FINI farmers market customer characteristics as well as barriers and facilitators of customer participation have helped to illustrate program reach.¹⁰ For example, recent studies suggest that SNAP-based farmers market incentive program participants prior to and in the early stages of the FINI grant in Washington State were more likely to be white, female, older, low-income, with some college education when compared with all SNAP participants in Washington State.^{7,11} Research also suggests that incentive program participation is associated with utilization of other food assistance programs, such as food banks and Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).^{7,12} Studies exploring the characteristics of farmers market incentive programs outside of Washington State suggest that incentive program participation is associated with lack of employment, and inversely correlated with driving distance from market.^{10,13,14} Notable factors impacting shopper participation include hours of operation, perceived convenience, produce selection, affordability, and availability of transportation.^{6,13-15}

For farmers markets offering SNAP match programs, research shows that key challenges related to program administration include lack of ongoing, reliable donor and funder support, lack of vendor buy-in and availability, and barriers related to data collection requirements.^{14,16-18} Perceived facilitators of markets' participation include the availability of technology to efficiently collect transaction data and support EBT transactions, support from administrative organizations, reliable program funding, and "local program champions."^{14,16}

While evidence gleaned from the past decade of research can be used to inform practices and create sustainable farmers market SNAP match programs tailored to individual communities, the majority of research focused on the administration of these programs has taken a cross-sectional approach and focused on customer characteristics, experiences, and outcomes; fewer studies have considered factors influencing shopper participation over time or examined the impact of economic, geographic, and organizational factors on adoption and implementation. This study uses mixed methods to identify factors influencing farmers markets' adoption and implementation of the FINI SNAP match incentive program, and to understand how shopper use (as measured by **incentives redeemed** and **unique SNAP transactions**) might vary by **market characteristics** (i.e. urban/rural classification, markets in high-/low-SNAP locations, and experienced/recent adopter classification) over multiple years in Washington State. We address the following research questions:

- 1) How did the number and characteristics of farmers markets participating in FINI in Washington State change over the time period from 2015 to 2018?
- 2) How did incentives redeemed and unique SNAP transactions at FINI farmers markets change over the time period from 2015 to 2018?
- 3) How do incentives redeemed and unique SNAP transactions differ by key market characteristics (i.e. urban/rural classification, markets in high-/low-SNAP locations, and experienced/recent adopter classification) over the time period from 2015 to 2018?
- 4) Which resources, geographic conditions, and community relationships likely impacted FINI program adoption and implementation, and patterns in incentives redeemed and unique SNAP transactions?

Methodology

To achieve the study's aims, we used a mixed methods approach. We first conducted quantitative analyses and data visualizations of existing programmatic data from 2015 to 2018 in order to illustrate patterns of FINI program adoption, and two transaction variables which are used to measure shoppers' use of FINI farmers markets (incentives redeemed and unique SNAP transaction). We explored patterns in incentives redeemed and unique SNAP transactions by three market characteristics: urban/rural classification, markets in high-/low-SNAP locations, and experienced/recent adopter classification. We then conducted interviews with FINI program partners to aid in the interpretation of our quantitative findings and qualitatively explore key aspects of program adoption and implementation as guided by the Diffusion of Innovations framework.³

I. Programmatic Data

Sample

This study draws on a sample of annual and quarterly programmatic reports submitted to the Washington State Department of Health for all farmers markets participating in FINI between 2015 and 2018. Reports from the **July 1 - September 30 quarter** of each year were used for this study because the summer months are the most active months for the market season. A total of 108 active FINI markets were included in our analysis. Markets that reported transaction variables for **at least one** July - September quarter between 2015-2018 were included in the study.

Data source and variables

Reports were submitted by regional intermediary agencies that contracted with participating FINI farmers markets. Agencies reported on FINI customer transaction variables and market characteristics. Two transaction variables were included for this analysis: incentives redeemed and unique SNAP transactions. Additionally, the following variables related to market characteristics were analyzed: urban/rural classification, markets in high-/low-SNAP locations, experienced/recent adopter classification, staffing, and educational program-offerings. In addition to the programmatic data, we utilized U.S. Census household SNAP-participation data, collected through the American Community Survey. We further operationalized market characteristic data in the following ways:

Urban/rural classification: Farmers markets were classified as urban or rural based on the Federal Office of Rural Health Policy (FORHP) 2018 ZIP code designation, which combines US Census Bureau and Office of Management and Budget definitions of urban and rural.¹

Markets in high-/low-SNAP locations: Markets located in ZIP codes with household SNAP-participation >13.4% were classified as markets in high-SNAP locations, while markets located in ZIP codes with household SNAP participation <13.4% were classified as markets in low-SNAP locations. (The 108-market **median** household SNAP-participation was 13.4%.) (See **Appendix B: Methods and Analyses**)

Experienced/recent adopter classification: Farmers markets accepting SNAP benefits in 2013 or earlier were classified as experienced adopter markets, while those that began accepting SNAP after 2013 were classified as recent adopter markets. (2013 was the **median** year for beginning to accept SNAP among the 108 analyzed markets.)

Data analysis

For each active market, quarterly totals for each of the two transaction variables (incentives redeemed and unique SNAP transactions) were calculated for: July - September 2015, July - September 2016, July - September 2017, and July - September 2018. Because the 2015 transaction variables were only available as annual total, we had to impute the proportion of each transaction variable that took place during July - September of 2015. (See **Appendix B: Methods and Analyses**)

We examined trends in market characteristics and transaction variables over time. We also stratified transaction variables over time by urban and rural classification, markets in high-/low-SNAP locations, and experienced/recent adopter classification.

We compared results both including and excluding a subset of highly active markets where the incentive program was administered through the Seattle Office of Sustainability and Environment (n= 41 Seattle OSE markets). Seattle OSE markets are all urban markets, and the majority of the Seattle OSE markets are also classified as markets in low-SNAP locations and as experienced adopter markets. Seattle OSE markets began offering an unlimited SNAP match in 2017 which differed from other Washington State markets that had matching limits. Comparing

the data in this way allowed us to better examine transaction variable trends that might be driven by the Seattle OSE markets' unlimited SNAP match structure.

Finally, we used linear regression tests to analyze the relationship between: 1) SNAP participation by location and average annual change in each of the two transaction variables, and 2) experience accepting SNAP and average annual change in each of the two transaction variables. For these analyses, SNAP participation by location and experience accepting SNAP were explored as **continuous** variables, rather than categorical variables. (See **Appendix C: Exploratory Analyses**)

II. Interviews with FINI Program Partners

Recruitment and sample

Initially, six interviewees were recruited for participation in this study, including two FINI program administrators at the Washington State Department of Health and four Regional FINI Leads, technical assistants, and market managers. Participants were identified based on experience with FINI farmers market SNAP match incentive programs in Washington State, and were recruited from distinct geographic regions to ensure that perspectives from across the state were included in the study. Two of the initial six interviewees were unable to interview due to the COVID-19 pandemic. Thus, two additional market managers were recruited for the project. A total of six individuals were interviewed, including two farmers market managers located in Northwest Washington State, two Regional FINI Leads representing Northwest and Eastern Washington, and two FINI program administrators at the Washington State Department of Health.

Data collection

Semi-structured interviews were conducted using an interview guide. Interviews lasted from 60-90 minutes and were conducted by one interviewer. The interview guide instructed the interviewer to first present the interviewee with results from programmatic data analyses and solicit reactions and interpretations, and then proceed with a set of interview questions developed using a Diffusion of Innovations (DOI) framework. The framework was adapted from James W. Dearing's 2009 paper, "Applying Diffusion of Innovation Theory to Intervention Development."³ Interview questions emphasize seven constructs which impact the adoption of new innovations and programs by social service organizations.

Diffusion of Innovation Framework

Dearing's DOI framework was adapted to fit the context of FINI program adoption among Washington State farmers markets. The following constructs helped to guide interviews with FINI program partners: intervention attributes (compatibility, advantage, and investment/risk), intervention clusters (related programs and interventions), demonstration projects, societal sectors (i.e. "focal organizations operating in the same domain"), contextual conditions (i.e. social and geographic factors), opinion leadership, and program adaptability. According to Dearing, these constructs have the "potential for accelerating the spread of evidence-based practices, programs, and policies."³

The interview guide included questions pertaining to each of the seven constructs. These constructs are fleshed-out here, and interview questions addressing the impacts of each are described:

Construct	Definition	Application to Interview	Interview Questions
<p>Intervention attributes</p>	<p>An intervention’s attribute refers to “the perceived characteristics of an innovation...which affect rates of diffusion-spread.”</p>	<p>Interviews with FINI partners were used to explore variation in the compatibility, advantage and investment/risk associated with the adoption and implementation of the FINI program across markets in Washington State.</p>	<p>In what ways is the FINI program more compatible with specific markets than others, if at all? For which markets is FINI most compatible? Least compatible?</p> <p>To what extent does the data in the slides I shared reflect what you believe to be true about the compatibility of FINI with certain types of markets?</p> <p>In what ways does adoption of FINI offer greater advantage to some markets in WA State, if at all? What are the characteristic of those markets? What are the advantages of adoption?</p> <p>How, if at all, does the level of investment and risk vary amongst former and future FINI farmers markets? (What are those investments and risks? Why do they vary among markets?)</p>

<p>Intervention Cluster</p>	<p>An intervention cluster refers to a “logically-related set of interventions...whose grouping increases adoption.”</p>	<p>SNAP-Ed, Expanded Food and Nutrition Education Programming (EFNEP), cooking demonstrations, and other complementary educational programs have been offered at many FINI markets across Washington State. Programs related to food access (such as the Farmers’ Market Nutrition Program for Seniors and the Special Supplemental Nutrition Program for Women, Infants and Children [WIC] programs) have been offered at many FINI markets across Washington State as well. Interviewees were prompted to share their perspectives on the impact of concurrent programs on the spread of FINI.</p>	<p>Which other related programs (SNAP-ed, other community efforts) helped to grow market interest in FINI? How did those programs help? Which markets had access to those programs (e.g., all or some)?</p>
<p>Outreach Strategies</p>	<p>The construct, “outreach strategies” considers two of Dearing’s DOI constructs: “demonstration projects” and “societal sectors.” A demonstration project is an “experiment of a promising intervention, or a</p>	<p>Interview questions were developed to understand how outreach has been organized to encourage FINI participation and explore if and how demonstration projects and/or societal sectors were considered in strategizing to</p>	<p>What information, evidence, and arguments have been utilized to encourage participation in FINI? Which messages have been most effective or important? How were those messages delivered?</p> <p>Were successes of early FINI</p>

	<p>showcase of a proven intervention.” Outcomes of successful demonstration projects are used by governmental, nonprofit, and commercial entities to garner support and accelerate diffusion of a desired program.</p> <p>The construct, “societal sectors” is defined as a “collection of focal organizations operating in the same domain.” Dearing asserts that, “where a social network exists, an intervention developer or change organization can learn of it and tap into it.”</p>	<p>increase interest in FINI participation.</p>	<p>participants used to advertise FINI to other potential participants? If so, how was this information shared? Was it effective in encouraging adoption by farmers markets?</p> <p>Which regional and/or farmers market characteristics were considered in prioritizing outreach and support efforts?</p> <p>What has the process been for developing, monitoring, and evaluating outreach efforts (at the state level)?</p> <p>What conclusions have so far been drawn about the effectiveness of these outreach efforts?</p>
<p>Contextual Conditions</p>	<p>Reinforcing contextual conditions refers to the notion that “mutually-reinforcing messages, opportunities, regulations, incentives, and social pressure for normative, attitude, and behavior change” contribute to the diffusion of interventions.</p>	<p>Interviewees were asked to share their perspectives on any existing, external factors which may have contributed to the spread of FINI among farmers markets in Washington State.</p>	<p>What socio-environmental conditions and factors have contributed to the spread of FINI? What conditions have hindered FINI’s growth?</p>

<p>Opinion Leadership and Relationships</p>	<p>Dearing asserts that “the diffusion of consequential innovations always has been understood to be a social process,” and described the profound impact of developing relationships with community leadership to effectively disseminate information and support the spread of innovation.</p>	<p>Interviewees were asked to describe how community leadership and relationships have impacted, and will continue to impact, the spread of incentive programs in Washington State.</p>	<p>Which relationships have been most essential in spreading awareness of FINI to farmers markets?</p> <p>What other organizations (additional LIAs, or other community leadership) would you like to see brought to the table?</p>
<p>Program Adaptability</p>	<p>According to Dearing, “The choosers of innovations are often not users. What it is that organizational implementers do with innovations has been viewed as a dichotomy. Either they put the innovation into practice as is, or they change it in the belief that the new iteration will better fit their current workplace or client conditions.”</p>	<p>Between 2014-2018, WA State farmers market followed a variety of incentive structures (for example, incentive program name, incentive currency, and match rate). In 2020, markets will follow a statewide, common incentive program. While the impetus to use region and market-specific incentive structures (in the early stages of FINI implementation) will not be explored in this paper, the perceived impact of aligning incentive program elements in the coming year is addressed. Interview questions were developed to understand the</p>	<p>Did regions with consistent FINI incentive program elements (e.g. name of incentives, currency, match rate), experience greater success in adoption?</p> <p>Do you think shopper participation will change in any way as elements of the incentive program align?</p>

		perceived impact of shifting to a statewide, unified incentive program.	
Open Ended Questions		In addition to the construct-based questions, open-ended questions pertaining to our initial quantitative results were posed to interviewees. The goal of the open-ended question was to both capture interviewees' interpretation of the quantitative data analysis and perceived factors impacting adoption, implementation, and use in specific regions and markets.	To what extent does the data I shared with you make sense to you or surprise you? Why is that? Why do you think certain farmers markets opted to participate in FINI, while others did not? Why do you think certain farmers markets experienced greater success in adopting FINI?

Data analysis

Interview transcripts were coded and analyzed based on the DOI constructs using ATLAS.ti 8 Windows software. All interviews were read through twice. In analyzing the transcripts, the following codes were used to organize key excerpts from partner interviews: compatibility, advantage, investment/risk, intervention clusters, outreach strategies, contextual conditions, opinion leadership and relationships, and program adaptability. Additional codes were added to the code list as new themes emerged during the first transcript reading. New codes included “incentive structures,” (to capture partner perceptions regarding the impact of incentive structures and spending caps on transaction variables), and a catch-all code, “parking lot,” (to capture key quotes that did not fit with any other existing codes). Phrases were exported into

excel spreadsheets organized by code. Spreadsheets were reviewed twice to identify recurrent themes and key quotes that exemplified those themes.

Results

Study results are organized into two sections. **Section I (Programmatic Data)** presents data on market characteristics and patterns in incentives redeemed and unique SNAP transactions to address the following research questions:

- 1) How did the number and characteristics of farmers markets participating in FINI in Washington State change over the time period from 2015 to 2018?
- 2) How did incentives redeemed and unique SNAP transactions at FINI farmers markets change over the time period from 2015 to 2018?
- 3) How do incentives redeemed and unique SNAP transactions differ by key market characteristics (i.e. urban/rural classification, markets in high-/low-SNAP locations, and experienced/recent adopter classification) over the time period from 2015 to 2018?

Section II (Interviews with FINI Program Partners) describes key takeaways from interviews with FINI partners, and addresses the following research question:

- 4) Which resources, geographic conditions, and community relationships likely impacted FINI program adoption and implementation, and patterns in incentives redeemed and unique SNAP transactions?

I. Programmatic Data

How did the number and characteristics of farmers markets participating in FINI in Washington State change over the time period from 2015 to 2018?

- Total market participation increased from 47 to 88 farmers markets.
- The number of ZIP codes with ≥ 1 participating farmers markets increased from 41 to 75.

- The number of rural markets increased by 14, from 5 to 19 markets (11% to 22% of all FINI markets). (See figure 1)
- The number of urban markets increased by 27, from 42 to 69 markets (89% to 78% of all FINI markets). (See figure 1)
- The number of markets in high-SNAP locations increased by 26, from 20 to 46 markets (43% to 52% of all FINI markets). (See figure 2)
- Staffing per market decreased on average from ~5 personnel to ~4 personnel. (See Appendix A)
- The percentage of markets offering ≥ 1 educational program increased from 56% to 73%. (See Appendix A)

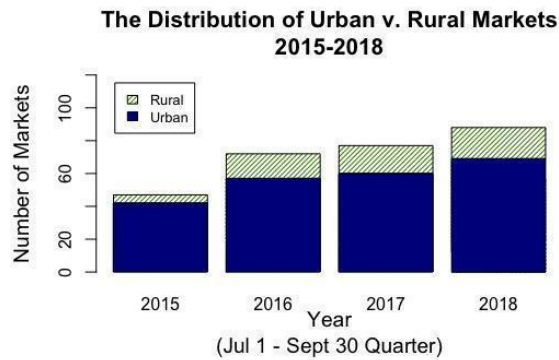


Fig. 1. The number of rural markets increased from 5 markets in 2015 to 19 markets in 2018. The number of urban markets increased from 42 markets in 2015 to 69 markets in 2018. The **percentage** of rural markets increased from 11% in 2015 to 22% in 2018.

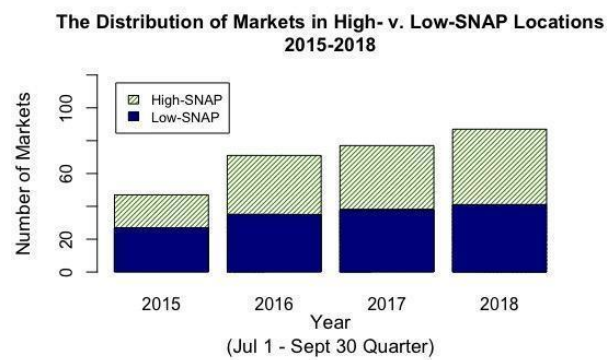


Fig. 2. The number of markets in high-SNAP locations increased from 20 markets in 2015 to 46 markets in 2018. The number of markets in low-SNAP locations increased from 27 markets in 2015 to 41 markets in 2018. The **percentage** of markets in high-SNAP locations increased from 43% in 2015 to 52% in 2018.

How did incentives redeemed and unique SNAP transactions at FINI farmers markets change over the time period from 2015 to 2018?

All market transaction variables by year

- **Incentives redeemed** per market were largely steady from 2015 to 2017 and increased from 2017 to 2018. The latter increase appeared to be driven by the Seattle OSE Markets. (See figure 3)
- **Unique SNAP transactions** per market decreased from 2015 to 2016 and then largely held steady. (See figure 4)

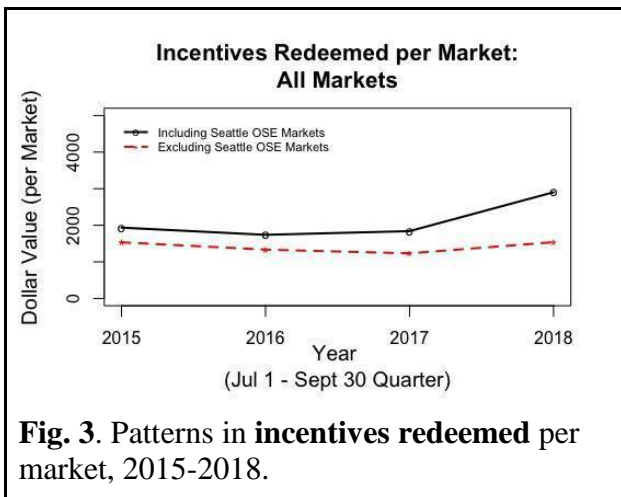


Fig. 3. Patterns in **incentives redeemed** per market, 2015-2018.

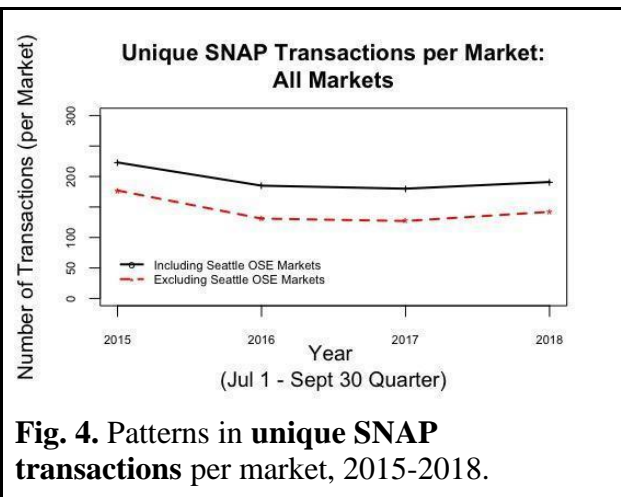


Fig. 4. Patterns in **unique SNAP transactions** per market, 2015-2018.

(See **Appendix A** for detailed Jul 1 - Sept 30 quarterly data.)

How do incentives redeemed and unique SNAP transactions differ by key market characteristics (i.e. urban/rural classification, markets in high-/low-SNAP locations, and experienced/recent adopter classification) over the time period from 2015 to 2018?

Transactions variables stratified by urban/rural classification

- **Incentives redeemed** per market were greater in urban markets compared to rural markets from 2016 to 2018. (See figures 5 and 6)
- **Incentives redeemed** per market over time increased in urban markets from 2016 to 2018 and decreased slightly in rural markets all four years. (See figures 5 and 6)
- **Unique SNAP transactions** per market were greater in urban markets compared to rural markets all four years. (See figures 7 and 8)
- **Unique SNAP transactions** per market over time decreased in both urban and rural markets from 2015 to 2016, and then largely held steady. (See figures 7 and 8)

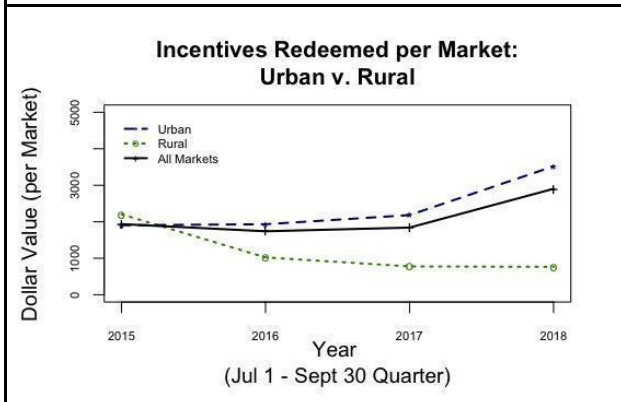
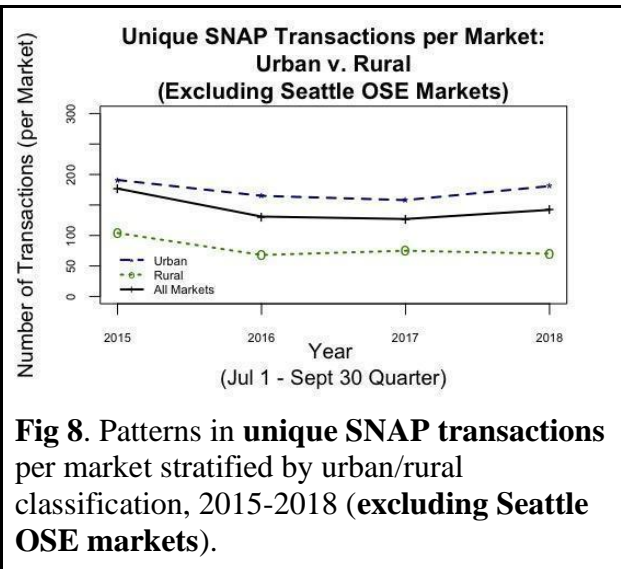
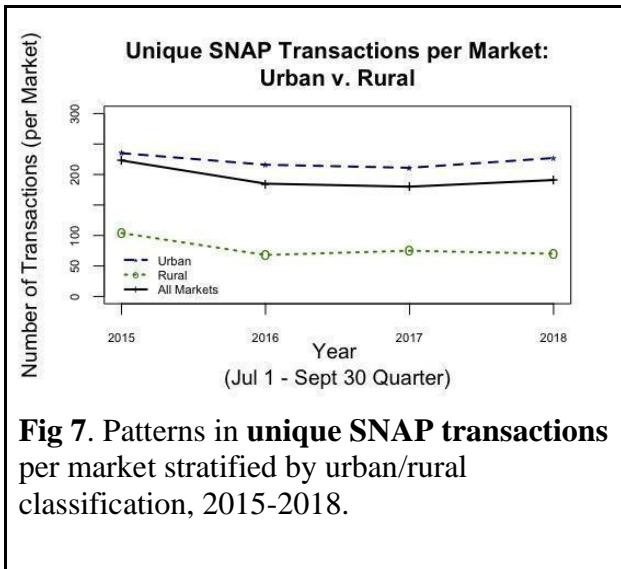


Fig 5. Patterns in **incentives redeemed** per market stratified by urban/rural classification, 2015-2018.



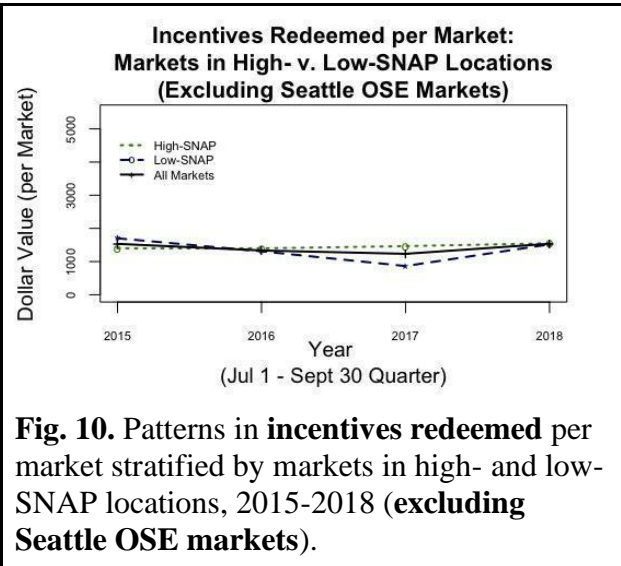
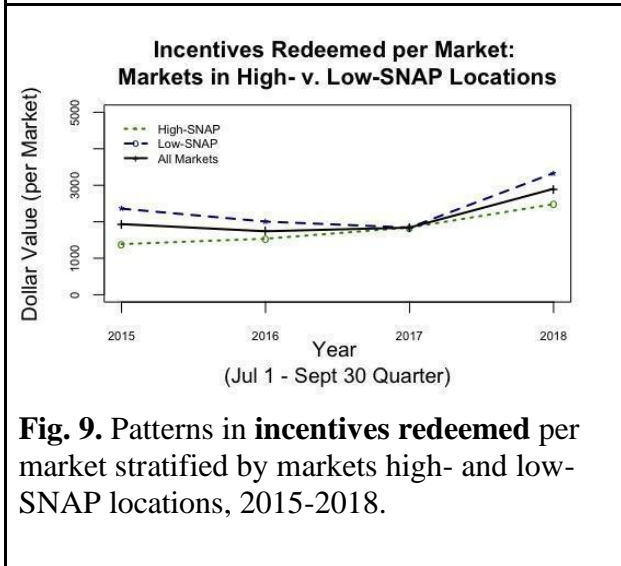
Fig 6. Patterns in **incentives redeemed** per market stratified by urban/rural classification, 2015-2018 (**excluding Seattle OSE markets**).



(See **Appendix A** for detailed Jul 1 - Sept 30 quarterly data.)

Transaction variables stratified by markets in high-/low-SNAP locations

- **Incentives redeemed** per market over time increased from 2017 to 2018 in both markets in high- and low-SNAP locations. This trend appeared to be driven by the Seattle OSE Markets. (See figures 9 and 10)
- **Unique SNAP transactions** per market were greater in markets in high-SNAP than low-SNAP locations all four years when excluding Seattle OSE markets. (See figures 11 and 12)



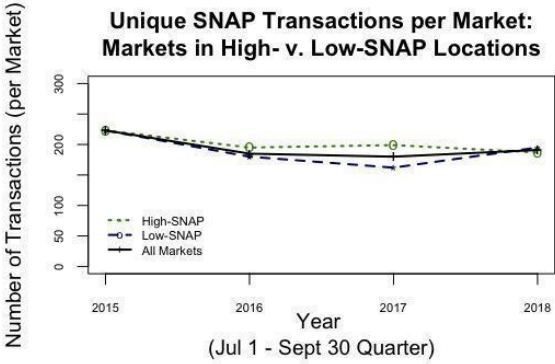


Fig 11. Patterns in **unique SNAP transactions** per market stratified by markets in high- and low-SNAP locations, 2015-2018.

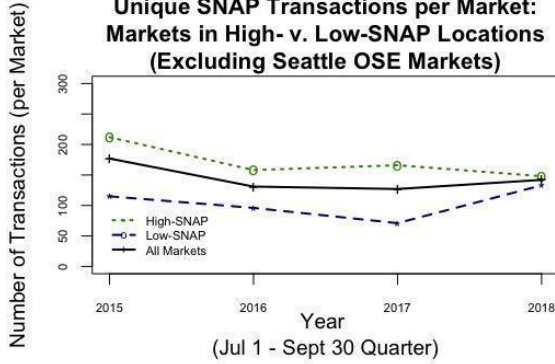


Fig 12. Patterns in **unique SNAP transactions** per market stratified by markets in high- and low-SNAP locations, 2015-2018 (excluding Seattle OSE markets).

(See **Appendix A** for detailed Jul 1 - Sept 30 quarterly data.)

Transactions variables stratified by experienced/recent adopter classification

- **Incentives redeemed** and **unique SNAP transactions** per market were greater in experienced adopter markets compared to recent adopter markets all four years. (See figures 13-16)
- **Unique SNAP transactions** per market over time decreased slightly in experienced adopter markets and increased slightly in recent adopter markets from 2015 to 2016; patterns then remained largely steady in both experienced and recent adopter markets. (See figures 15 and 16)

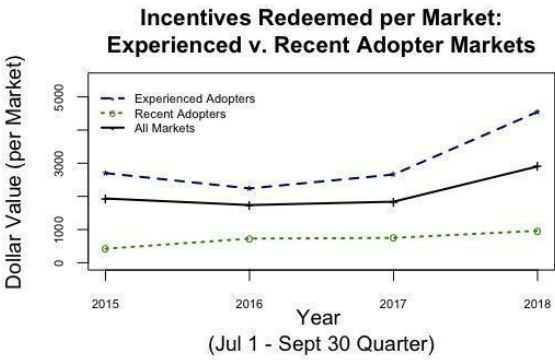


Fig 13. Patterns in **incentives redeemed** per market stratified by experienced/recent adopter classification, 2015-2018.

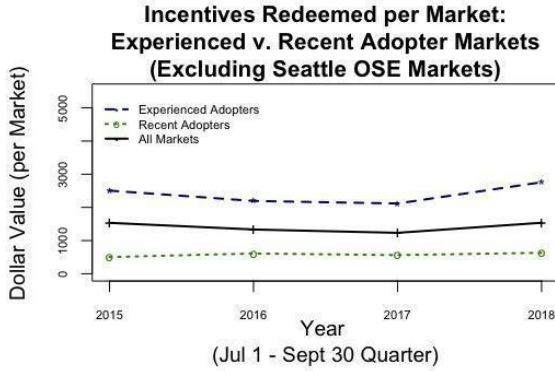
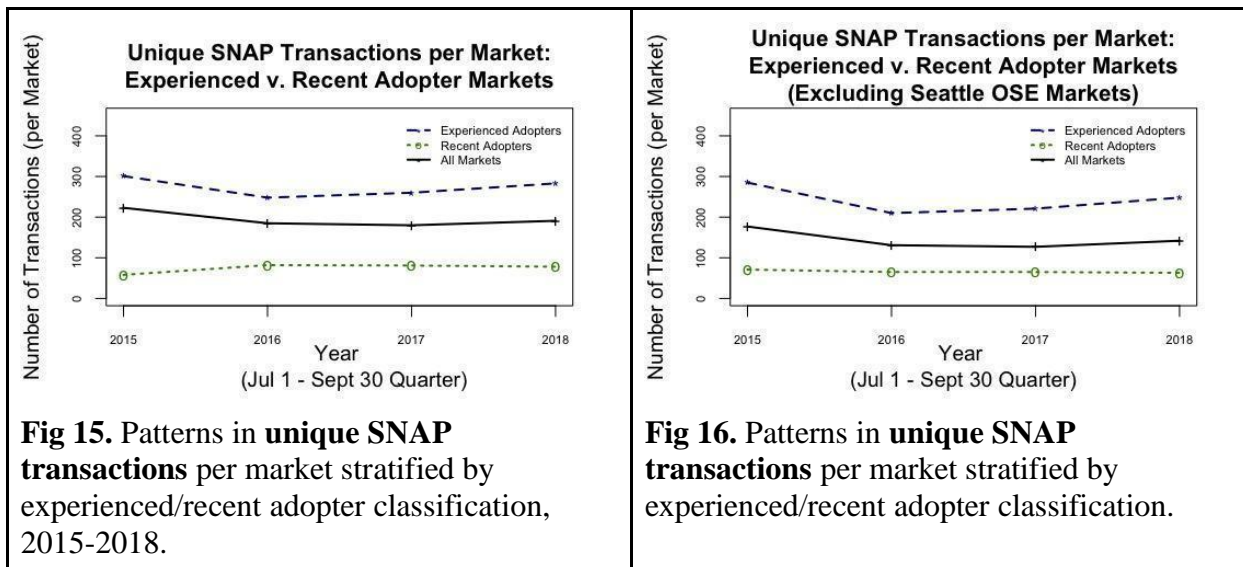


Fig 14. Patterns in **incentives redeemed** per market stratified by experienced/recent adopter classification, 2015-2018 (excluding Seattle OSE markets).



(See **Appendix A** for detailed Jul 1 - Sept 30 quarterly data.)

II. Interviews with FINI Program Partners

Six individuals were interviewed for this study, including two FINI program administrators at the Washington State Department of Health and four Regional FINI Leads, technical assistants, and market managers. Themes are organized by Dearing’s Diffusion of Innovation Framework constructs and additional, emergent themes. In the following sections, we summarize emerging themes, including those pertaining to Dearing’s Diffusion of Innovation Framework by each construct with supporting quotes.

Which resources, geographic conditions, and community relationships likely impacted FINI program adoption and implementation, and patterns in incentives redeemed and unique SNAP transactions?

Seattle OSE Markets and Incentives Redeemed Over Time

- The unlimited matching structure used by Seattle OSE markets beginning in 2017 was perceived to have been the reason for the dramatic increase in incentives redeemed per market in urban markets from 2017 to 2018.

Compatibility

- The FINI program was perceived to be particularly compatible with markets that were experienced in local food access improvement, markets with consistent staffing, and

markets with access to technology (i.e. to support the use of a point-of-sale terminal).

Advantage

- Adoption of the FINI program was perceived to attract additional shoppers, provide local farmers with increased economic opportunity, and improve markets' inclusivity for low-income shoppers.
- Adoption of the FINI program was perceived to foster new or stronger relationships with other organizations and businesses and improve markets' access to key organizational supports.

Investment/Risk

- The FINI program was perceived to be less compatible with markets that lack staff capacity and sustainable funding.

Intervention Clusters

- The FINI program was perceived to be particularly compatible with markets with experience offering complementary educational programs and programs related to food access (i.e. SNAP-Ed, cooking demos, the KERNAL program, WIC, and the Farmers' Market Nutrition Program for Seniors). Inter-agency collaboration supported the administration of these complementary programs.

Outreach Strategies

- Adoption of the FINI program was encouraged particularly in rural areas, especially in the later years of the FINI program.
- Adoption of the FINI program was encouraged through information-sharing between farmers market staff, volunteers, and regional leadership.

Contextual Conditions

- The FINI program was perceived to be compatible with markets that are conveniently located for use by low-income shoppers.
- The FINI program was perceived to be more challenging to implement in rural areas due to ideological barriers surrounding the use of SNAP benefits.

Opinion Leadership and Relationships

- Adoption and administration of the FINI program was supported by inter-agency collaboration and formal and informal farmers market networks that share best practices.

Program Adaptability

- Broad alignment of incentive program elements through the new statewide SNAP Market Match program is predicted to improve market and shopper experience.

Seattle OSE Markets and Incentives Redeemed Over Time

According to two interviewees, differences in incentives redeemed per market between urban and rural markets was perceived to be due to Seattle OSE markets' use of an unlimited match incentive structure starting in 2017. Other markets across Washington State continued to implement incentive caps. (Seattle OSE markets are all classified as urban markets. The majority of Seattle OSE markets are also classified as markets in low-SNAP locations and experienced adopter markets.) One interviewee pointed out that "Seattle is such an anomaly. And it kind of skews the data almost too much because they've had the unlimited 50/50 match incentive for much longer than the rest of Washington."

Compatibility

In order to participate in FINI, markets were required to become licensed by the USDA's Food and Nutrition Services, rent or purchase EBT equipment (i.e. a point-of-sale [POS] terminal), and train staff and vendors. All interviewees (n=6) suggested that farmers markets with experience using EBT equipment to accept SNAP were more likely to participate in the FINI program compared to markets that lacked the technology and organizational structure to accept SNAP:

A lot of the markets just didn't have the organizational structure to offer something like that, to offer EBT. The markets that already offered EBT, that already had the organizational structure to do that, and had been doing it, really were easy to encourage to do the FINI program.

One interviewee pointed out that rural markets experienced technological barriers that limited their ability to use POS terminals, and that this limited rural markets' participation in the early years of the program:

The first [EBT] machines had to be wired, so you could do two things. You could plug it in at the market, but most markets are outside and don't have a phone jack to a wired machine. Or you can do transactions over the phone where you call with a cell phone...there isn't service at all the [rural] markets...but now they have a free EBT machine that is wireless, so that...really has made it so much easier to administer and have the service available to SNAP customers.

All interviewees also suggested that markets that had offered incentive programs *prior* to adopting FINI, and markets that had been otherwise engaged in efforts to improve local food access were better equipped to adopt and implement FINI.

The majority of interviewees (n=5) suggested that established markets with consistent, paid staffing were better positioned to adopt the FINI program. Interviewees acknowledged the significant administrative demands related to participation in FINI (e.g. reporting requirements), and noted challenges faced by underfunded, smaller markets that rely exclusively on volunteers to carry out administrative tasks. As one interviewee expressed, “all of those systems and the record keeping and stuff, it's overwhelming to take on.” Administrative challenges were alleviated by support from programs such as Food From Farms (a Farmers Market Coalition which provides accounting support to markets in Washington State) and opportunities to share best practices with other market leadership.

Advantage

All interviewees expressed that a key advantage for farmers markets participating in the FINI program was the value of attracting additional shoppers. Four interviewees pointed out that through attracting new shoppers, markets were able to support local producers or improve vendor retention:

[The program] is a win/win/win regardless of the time and investment. You're getting more customers, which means you're supporting your farmers, which means you have a retention of good vendors.

Two interviewees also suggested that adoption of FINI helped to improve markets' inclusivity:

When you're really trying to build a community, which is what a farmers market's trying to do, they're not just trying to sell things...the more people that feel comfortable and are there making that decision to shop at farmers markets, I think the better.

Three interviewees noted that through participating in the FINI program, markets were able to build relationships with other organizations and businesses (including social service agencies, community health clinics, local businesses, and food pantries). Five interviewees also suggested that through participating in FINI, markets were able to access a variety of benefits, including networking opportunities, EBT machinery, bookkeeping support, complementary educational program opportunities, and additional funding. As one interviewee expressed, “[Participation in FINI] opens up a lot of partnerships...which will make a market stronger.”

Investment/Risk

All interviewees expressed that one of the most significant investments required to participate in FINI was staff time (i.e. to report incentive transactions, reimburse farmers, and promote the program to shoppers). Multiple interviewees (n=3) suggested that perceived risks of participation were more significant for low-capacity, smaller farmers markets:

If you are a small market and you put a significant investment into this program you're also risking significantly because you've got to have the capacity to administer it.

It was also suggested that some markets' most significant investment associated with the adoption of FINI was the process of carrying out the organizational transitions required to accept SNAP:

Sometimes we have to backtrack to scaling up to being a legal business, and then we offer FINI. And really, once those first two barriers are overcome, they are scaled up enough to fill out the application to be able to offer EBT, the rest of it has been pretty easy.

Intervention Clusters

All interviewees emphasized the significance of complementary educational program offerings (such as SNAP-Ed, Kids Eating Right-Nutrition & Exercise for Life [KERNAL], Farmers Market Flash, the Skagit Pediatric Incentive: Connecting Kids with Seasonal selections [PICKS] program, and market cooking demos) in creating community awareness of the FINI program. Markets partnered with local food banks, health departments, senior centers, and schools to advertise and administer complementary programs:

We came up with a kids activity program that's at all the different farmers markets. And we really did it with the idea of [incentive program] and EBT SNAP involvement and trying to kind of destigmatize...EBT and SNAP [use]

Interviewees (n=5) also suggested that complementary food-access programs, including the Farmers' Market Nutrition Program for Seniors and the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), both of which provide vouchers for purchasing produce from farmers markets, played a significant role in garnering broad community interest in farmers market opportunities for low-income shoppers:

Farmers Market Nutrition Program for WIC and seniors [helped with] some of the foundational work. That's a really robust program, really widespread, has been around for quite a while, so in terms [of getting] buy-in for farmers markets and food access programs, like SNAP and SNAP incentives, it really paved the way.

Outreach Strategies

Among interviewees, there was a lack of consensus regarding the use of outreach strategies to encourage adoption of the FINI program by farmers markets. Two interviewees did, however, suggest that rural markets were prioritized for outreach. One of the two interviewees shared that outreach efforts prioritized rural markets because there was a greater need for education surrounding the use of incentive programs in rural areas:

[People, even farmers and farmers market managers] didn't want to be involved in any kind of government program...

What we've worked the hardest on is increasing that rural market number because that's where there needs to be more of an education about why it's important to even offer [farmers market incentive programs] in the first place.

A second interviewee was unsurprised by the increase in rural markets' participation in FINI during the study period; they explained that market outreach and recruitment specifically focused on rural markets, markets with lower capacity, and markets without experience offering SNAP (particularly in the **later** years of FINI):

The growth [of] rural markets...made sense, given that most of the markets we started with were fairly high capacity markets. They were markets that already had SNAP incentive programs going. And so it was just kind of where do you go from there? Well we do outreach to the smaller markets that are more rural and may not have a SNAP incentive program.

One interviewee described the importance of relationship-building and individualized outreach strategies to encourage participation in FINI, particularly among markets that were reluctant to adopt:

[We] tailor this information...so you understand that we know who your market is and what your barriers are and how we can overcome those barriers together...Every year we would reach out to [markets] multiple ways...we didn't get any traction until we showed up and shook the hand of the market manager. So just really [about them] knowing that you see their community, you're there.

Several interviewees (n=5) shared that the availability of data related to shopper use of incentive programs and/or customer retention helped to encourage adoption. All interviewees suggested that both formal and informal data and information-sharing between farmers market staff, volunteers, and regional leadership played a significant role in encouraging markets' participation in the FINI program. Five interviewees specifically emphasized the role of the Washington State Farmers Market Association (WSFMA) in fostering inter-market connection and spreading interest in FINI:

Washington State Farmers Market Association always has some form of information provided at their conferences. And absolutely it was intriguing and always kind of lit a fire in me to do more and reach more people and more outreach programs and those types of things.

Contextual Conditions

All interviewees emphasized that markets that are conveniently located for use by low-income shoppers (e.g. on bus routes, near low-income housing, and in neighborhoods with high SNAP enrollment) were more likely to both adopt FINI and experience greater shopper participation.

One interviewee noted that low local SNAP-participation, and poor transportation infrastructure may disincentivize FINI adoption by markets:

Those [are] two situations that could make things a little bit more difficult...if [markets] are in an area that does not have a large SNAP population, or the market is just not situated in such a way where it's easy for SNAP customers to get to the market. There's just no economic incentive [to adopt FINI].

Another partner illustrated the importance of market location by describing specific challenges faced by a smaller, low-capacity market:

[The market's] location just stunk. It stunk not only for EBT use, but also just for the market itself. They had customers, but not enough. They were a small market that was volunteer-run...it really just all kind of collapsed.

While some markets were perceived to have experienced geographic barriers to FINI implementation, others faced ideological barriers. Two interviewees suggested that in some rural communities in Washington State, Hispanic/Latino shoppers may have been less inclined to participate in FINI due to fear of SNAP benefit use. Interviewees also suggested that this may have negatively contributed to *markets'* interest in FINI program adoption:

Something I've been worried about is that people are afraid to use government benefits...the Hispanic population generally was not using SNAP or EBT at the markets, and [market managers] speculated it was just out of fear...

[In that market] we really have had not a lot of traction for the program. And that's where I've gotten the feedback from the market manager that it's because they have a high Hispanic community afraid to use EBT.

Opinion Leadership and Relationships

Interviewees (n=4) suggested that the robust network fostered by regional and statewide coalitions helped to strengthen FINI program interest. Four interviewees pointed to the role of WSFMA in encouraging FINI adoption by farmers markets; WSFMA was described as “critical in spreading awareness about FINI to farmers markets.” Another interviewee expressed that WSFMA “championed [food access] work and encouraged their member markets to take part in [FINI] and other food access work.” The coordinated effort between WSFMA, Regional Leads, and Technical Assistance was identified by interviewees as essential in encouraging adoption and supporting administration of the FINI program. Most interviewees (n=5) suggested that strong, inter-market collaboration was also key to supporting successful implementation of the FINI program:

Once you get the [FINI] incentive program up and running, and help build capacity with farmers markets by increasing communication between farmers markets...[markets can] learn from one another or resource share, as well as build their capacity to approach community partners and potential funders.

Interviewees (n=4) also stressed the importance of inter-agency relationships in promoting FINI and complementary farmers market programs to eligible shoppers:

I think the fact that the food banks and the resource center and the Farm to School Program, all the other parties involved in food access for local people were helpful. They would spread the word. We would spread the word about what they were doing, and we'd kind of work together fairly nicely.

Program Adaptability

All interviewees hypothesized that the overall incentive program alignment under the statewide, state-funded incentive program launched in April 2020 (SNAP Market Match) will encourage shopper participation in incentive programs:

I think it will be easier and less burdensome for customers that may cross county lines...[now] there's consistent messaging and name brand recognition.

Four interviewees also suggested that the alignment of incentive program elements across the state will contribute to improve *market* experiences through streamlining advertising:

I'm hoping we see increased shopper participation...especially in those markets that haven't seen a ton of success because we are able to promote the program more widely.

Being able to advertise with succinct, clear graphics...has really helped us stay interested in continuing the programs.

Discussion

Summary of Key Findings: Programmatic Data

Key findings from the quantitative analyses identified several notable patterns over time related to FINI program adoption, incentives redeemed, and unique SNAP transactions. First, as the number of farmers markets participating in FINI increased, so did the percentage of rural markets and markets in high-SNAP locations. Second, the incentives redeemed and unique SNAP transactions per market appeared to differ by certain market characteristics. Incentives redeemed and unique SNAP transactions per market were greater in urban markets compared to rural markets and in experienced adopter markets compared to recent adopter markets. Unique SNAP transactions per market were greater in markets in high-SNAP locations compared to

markets in low-SNAP locations (when excluding Seattle OSE markets). Patterns of year-to-year changes in the two transaction variables (i.e. incentives redeemed and unique SNAP transactions) appeared most notable when comparing incentives redeemed in markets that offered unlimited matching (i.e. Seattle OSE markets) vs. match caps. Finally, average staffing per market decreased, while the percentage of FINI markets offering complementary educational programs increased.

Summary of Key Findings: Interviews

According to FINI partner interviewees, FINI was most compatible with larger, high-capacity markets, and markets with experience offering complementary programs (i.e. educational programs and food access programs). Key relationships that helped to encourage participation and support the administration of the FINI program included formal and informal farmers market networks, community partnerships, staffing, and administrative and technical support from FINI program partners at the state and regional level. There was a lack of consensus regarding the use of targeted outreach to encourage program adoption, however two interviewees suggested that rural markets were prioritized. Rural markets experienced unique barriers to adoption and implementation (including stigma and fear of SNAP use). Markets in high-SNAP locations and markets that were otherwise conveniently located for low-income shoppers were perceived to be more likely to adopt FINI.

Here, we discuss ways in which our programmatic analyses and interview findings illuminate one another and add to existing literature in relation to farmers market incentive program adoption and implementation. We focus on four key themes: **Geographic Convenience and**

Markets in High-SNAP Locations; Rural Markets: Barriers and Outreach; Experience, Collaboration, and Complementary Programs; and Market Capacity and Staffing.

Geographic Convenience and Markets in High-SNAP Locations

Our quantitative analyses found that the percentage of FINI markets in high-SNAP locations increased slightly during our study period. When comparing non-Seattle OSE markets in high- versus low-SNAP locations, markets in high-SNAP locations had greater unique SNAP transactions per market (i.e. a greater number of SNAP-shoppers utilized incentive programs in markets in high-SNAP locations and/or there was greater shopper retention in markets in high-SNAP locations [when comparing non-Seattle OSE markets in high- versus low-SNAP locations]). Our qualitative findings align with these two patterns in that interviewees overwhelmingly suggested that markets in high-SNAP locations (and markets that were otherwise conveniently located for use by low-income shoppers) were more likely to 1) adopt FINI and 2) experience greater shopper participation.

While research exploring relationships between geographic convenience and farmers market incentive program **adoption** is lacking, multiple studies have found that geographic barriers (such as markets' distance from bus stops, lack of personal transportation, inconvenient placement, and poor parking) may negatively impact farmers market shopping by SNAP participants.^{6,14,15,19} Interestingly, evidence suggests that farmers market stakeholders and SNAP participants in Washington State have differing beliefs regarding the degree to which certain geographic barriers (i.e. lack of transportation and inconvenient location) limit SNAP participants' use of farmers markets; one study found that farmers market stakeholders in

Washington State perceive lack of transportation to be the most significant barrier to SNAP participants' use of farmers markets. For SNAP participants, inconvenient location was a more significant barrier.⁶ Findings from our study contribute to the body of research characterizing geographic barriers and facilitators which impact SNAP participants' use of farmers markets incentive programs. Our study also identifies **perceived** geographic barriers and facilitators that may impact incentive program adoption by farmers markets.

Rural Markets: Barriers and Outreach

Findings from a recent market manager case study suggest that geographic barriers (including lack of visibility and transportation) may limit SNAP participants' use of farmers market incentive program particularly in rural markets.¹² Conversely, another study found that weekly SNAP sales and transactions associated with farmers market incentive programs were two to three times higher in rural areas compared to metropolitan areas.²⁰ Our quantitative analyses found that rural markets generally experienced lower incentives redeemed and unique SNAP transactions per market compared to urban markets. There was a lack of consensus among interviewees as to why this was the case, however two interviewees suggested that stigma and/or fear surrounding the use of SNAP benefits may have negatively impacted shoppers' participation in rural markets, particularly among eligible Hispanic/Latino shoppers in Eastern Washington. In contrast, a recent multi-state study, "Examining Rural Food-Insecure Families' Perceptions of the Supplemental Nutrition Assistance Program" found that rural communities are not unique from urban communities in terms of the degree to which "social stigma" discourages SNAP participation.²¹ However, aligned with interviewees in our study, this multi-state study also

found that Hispanic/Latino, “mixed documentation status” households living in rural communities may be fearful of using SNAP.^{21,22}

Despite there being barriers to shopper participation and market adoption of FINI (e.g. technological barriers and stigma/fear among shoppers), the total number of rural markets participating and the percentage of all FINI markets located in rural areas both increased slightly during our study period. This suggests that outreach and support offered to rural markets may have been effective in addressing barriers to markets’ adoption. Incentives redeemed decreased in rural markets over time, however, indicating that outreach to low-income shoppers in rural areas of Washington State may be an area of future program investment.

Importantly, there was considerable overlap between markets that were categorized as rural markets and markets that were categorized as markets in high-SNAP locations; 63% of rural markets are also markets in high-SNAP locations (compared to 48% of urban markets). It is possible that targeted outreach to rural markets may have contributed to the observed increase in program participation by markets in high-SNAP locations. Due to our study’s small interview sample size, it is difficult to draw definitive conclusions regarding the impact of outreach to rural farmers markets, or markets in high-SNAP locations. Nonetheless, our findings indicate that outreach strategies may have been effective in increasing markets’ participation in FINI during our study period. Further assessment of outreach strategies to both markets and shoppers, particularly in rural areas of Washington State, can help to inform future outreach efforts.

Experience, Collaboration, and Complementary Programs

Our quantitative analyses found that incentives redeemed and unique SNAP transactions per market were greater in experienced adopter markets compared to recent adopter markets. This aligns with our qualitative results; interviewees expressed that markets with experience offering SNAP were better poised to successfully implement the FINI program. Significantly, rural markets have, on average, been offering SNAP for three fewer years than urban markets.

Interviewees also emphasized additional experiences related to expanding food access that influenced markets' decision to adopt and ability to successfully implement FINI. In particular, interviewees suggested that markets with experience participating in inter-agency efforts to administer complementary educational programs (e.g. SNAP-Ed, cooking demos, and the PICKS program) were better positioned to adopt and successfully implement FINI. Relatedly, educational program offerings increased in FINI markets during our study period.

Interviewees' perspectives regarding the importance of inter-agency collaboration align with existing research which emphasizes broadly, the role of inter-market relationships and strategic coordination with partner organizations in supporting incentive program administration.^{7,14} Prior research has also suggested that the availability of complementary farmers markets programs (through SNAP-Ed, USDA programs, and community partners) encourages SNAP participants' shopping at farmers markets.⁷ Our study contributes to the growing body of evidence highlighting the impact of inter-agency collaboration and complementary farmers markets programs in supporting incentive program implementation.

Market Capacity and Staffing

Our quantitative analyses found that staffing per market decreased during our study period. Importantly, sufficient staffing was perceived to be an important facilitator of FINI program adoption by interviewees. While research drawing a direct relationship between staffing and incentive program adoption is lacking, studies have highlighted the significance of market staff in supporting incentive program administration and encouraging SNAP sales in farmers markets.²⁰ A recent study characterizing the predictors of incentive program use found that “paid market staff may...have more time to conduct marketing and outreach for the market and incentive program[s] outside of market hours” and that “consistency of market staff fosters relationships with customers who may be more likely to return because of this social connection.”²⁰ Another study found that the biggest challenge to implementing incentive programs is a lack of funding to allow staff to operate SNAP booths in farmers markets.¹⁴ Our study suggests that increasing the availability of funding for market staffing may encourage adoption and support administration of farmers market incentive programs, and highlights a potential area of investment to increase incentive program reach.

Strengths and Limitations

There were several strengths of the analyses described in this report. Importantly, this report included quantitative analyses of four consecutive years of FINI transaction data from markets in over eighty different ZIP codes; few studies have identified statewide, longitudinal trends in incentive program transaction variables. Additionally, this report employed a mixed-methods approach to explore relationships between farmers market characteristics and FINI program adoption, implementation, and patterns in transaction variables. Coupling the data sets helped

illustrate a fuller picture of key factors influencing FINI program adoption, implementation, and shopper participation. A strength of the qualitative analysis is that perspectives of FINI partners at the state, regional, and individual market levels were included in the analysis. This methodological approach helped to identify common, perceived program facilitators and barriers at multiple levels of leadership, providing a more accurate description of those facilitators and barriers.

While there were several strengths of this analysis, there were notable limitations. Data included in the quantitative analysis was drawn from the July - September quarter. While July - September quarterly reports were the best available surrogate measure to compare transaction variables among FINI markets in Washington State, it is possible that analyzing July - September quarter data alone did not accurately reflect incentives redeemed and unique SNAP transactions in certain farmers markets. For example, if a given market typically experiences high shopper use in May or October, this activity would not be captured in our study. Additionally, 2015 July - September quarterly totals were imputed using 2016 data, and thus did not perfectly reflect incentives redeemed and unique SNAP transactions values for the 2015 July - September quarter. (See **Appendix B**. Methods and Analyses)

Transaction variable-reporting had some level of inconsistency day-to-day and market-to-market. For example, some markets reported that they were open and offering incentives during one or more July - September quarters, but failed to report one or both transaction variables during all active months. For each of the July - September quarters, markets that did not report either transaction variable were excluded from analyses. Also, the various incentive match structures

used by markets are not reflected in analyses; in addition to the Seattle OSE markets, several non-Seattle markets offered an unlimited match for a brief period early on in the FINI program. Finally, we did not control for population density when comparing patterns in markets' transaction variables. It is possible that other important market or incentive characteristics were also not accounted for.

A total of only six individuals were interviewed for the qualitative portion of this study; the small sample size for the qualitative analysis limited the applicability of information gleaned from interviews. While over one hundred ZIP codes were included in the analysis process, market managers from only one region and Regional FINI Leads from just two regions in Washington State were included in the study. Two interviewees were unable to participate in the interview process due to the COVID-19 pandemic and additional interviewees were unable to be recruited during the strenuous time during which these interviews took place. Including additional markets managers and additional Regional FINI Leads from across Washington State would have provided a richer, more accurate analysis of the factors contributing to the spread of FINI incentive programs. In addition to including interviews with additional market managers, the qualitative approach could have been strengthened by including FINI farmers market shoppers from across the state.

Recommendations

Findings described in this report point to several opportunities to further develop programs and services to support the adoption and implementation of farmers market incentive programs in Washington State. Recommendations include:

Consider farmers market locations based on the needs and recommendations of both shoppers and market managers. Utilizing both shopper and market manager perspectives may help to optimize farmers market locations, and address community-specific geographic barriers that limit incentive program reach. Existing research has suggested that locating farmers markets near residential areas, in food deserts, and near other stores may help to increase shopper participation in incentive programs.¹³ Few studies have assessed geographic factors that may impact markets' decision to **adopt** incentive programs. Qualitative data gathered from both shoppers and market managers can be used to develop and advocate for policies that support markets' access to locations that best meet the needs of markets and shoppers alike.

Destigmatize and encourage the use of SNAP through tailored informational campaigns, educational programming, and community outreach. In order to foster environments conducive to the successful implementation of farmers market incentive programs, it is crucial that tailored information regarding the use of SNAP is disseminated, particularly in regions where entitlement programs may be looked upon unfavorably. Outreach efforts may be especially important in Hispanic/Latino communities in rural areas of Washington State.^{21,22} Carrying out thorough needs assessments and engaging local opinion leaders in the development of tailored informational campaigns will be crucial in this process. Through tailoring messaging to the attitudes, perceptions, and values of individual communities, the use of SNAP and incentive programs can become increasingly normalized among shoppers and markets alike. In addition, the use of educational programming should be explored as another means to draw in shoppers and destigmatize use. Building on existing strategies that helped to expand rural

markets' participation in FINI between 2015 and 2018 may help to further expand market participation in incentive programs.

Continue to support inter-agency collaboration and opportunities for markets to engage in complementary programs. The WSFMA and other organizations have facilitated inter-agency collaboration between farmers markets and community partners. These networks have played a significant role in encouraging adoption and supporting administration of both farmers market incentive programs and complementary programs (i.e. educational programs and food access programs). Dedicating additional funding to organizations that facilitate inter-agency collaboration between markets and community partners can help to improve incentive program participation, expand complementary program offerings, and grow markets' access to administrative support. These opportunities can help to build confidence in new adopters while strengthening the operations of markets with experience offering both incentive programs and complementary programs. Ensuring that the needs of markets in areas that lack widespread community-level experience in food access efforts will be paramount in encouraging the spread of farmers market incentive programs in Washington State. These efforts can be supported through continuing to fund and build upon the WSFMA Regional Leads program.

Channel resources toward organizations and programs that fund market staffing, operations, and acquisition of EBT machinery. Providing markets with funding, technology, and administrative support may help to encourage participation in incentive programs, especially for less established or lower capacity markets. One example of existing support offered to farmers markets is the National Association of Farmers Market Nutrition Programs' Marketlink

Program, a USDA-funded program that supports eligible markets in acquiring point-of-sale equipment and other support services. Specific to Washington State, the WSFMA Regional Leads program helps to support market operations through providing each market with a regional contact who helps to “coordinate region-wide efforts such as marketing and training, and builds relationships between farmers markets and community agencies that support federal food assistance benefits recipients.”²³ The WSFMA also helps to coordinate complementary programs in farmers markets, which may help to attract additional shoppers and foster inter-agency collaboration. Offering markets funding to support the administration of incentive programs may also help to encourage adoption, particularly for lower capacity markets. Developing and sustaining programs that support farmers market operations and acquisition of point-of-sale equipment may improve incentive program reach through alleviating barriers associated with program participation.

Considerations for future program evaluation

Given the perceived impact of inter-agency collaboration and farmers market networks on the spread of FINI in Washington State, future research and program evaluation efforts may consider further investigating the impact of those partnerships. Additionally, further assessment of existing outreach strategies to encourage both market and shopper participation may help to inform future efforts to expand program reach. Future research may consider including a larger number and greater variety of partners in the qualitative analysis of incentive programs, with a focus on recruiting participants from regions with comparatively low market and shopper participation. Additional research characterizing longitudinal barriers and facilitators of market participation and shopper use (e.g. geographic convenience and staffing limitations) by following

a cohort over time may also help to inform strategies to improve both market and shopper participation in incentive programs. Exploring the relationships between these variables and patterns in market adoption and shopper participation over time can better inform future investments in incentive programs.

Conclusion

Farmers market incentive programs continue to play an important role in expanding access to locally produced, fresh foods for low-income individuals. Ongoing program assessment will help to inform what future supports could be offered and best practices disseminated to successfully initiate and sustain their administration and to help increase shopper participation.

This report highlights patterns in the expansion of Washington State FINI farmers markets from 2015 to 2018. In this four year period, market participation and geographic coverage expanded, including in rural areas and areas with high rates of SNAP participation. While the average market did not experience dramatic increases in incentives redeemed or unique SNAP transactions during our study period, patterns of year-to-year changes in incentives redeemed were more notably positive when comparing markets offering unlimited match (i.e. Seattle OSE markets) vs. match caps. Urban markets and markets with greater experience offering SNAP had greater incentives redeemed and greater unique SNAP transactions per market. Staffing per market decreased slightly, while the percentage of markets offering complementary educational programs increased. Interviews with FINI program partners contextualized our quantitative findings, and highlighted the significance of barriers to FINI program adoption and use (e.g. geographic obstacles and staffing limitations), and the significance of facilitators (e.g. inter-agency collaboration, educational programming, and funding).

Findings from both programmatic data and interview analyses helped identify recommendations to help grow incentive programs both within and outside of Washington State. These include:

- Consider farmers market locations based on the needs and recommendations of both shoppers and market managers.
- Destigmatize and encourage the use of SNAP through tailored informational campaigns, educational programming, and community outreach.
- Continue to support inter-agency collaboration and opportunities for markets to engage in complementary programs.
- Channel resources toward organizations and programs that fund market staffing, operations, and acquisition of EBT machinery.

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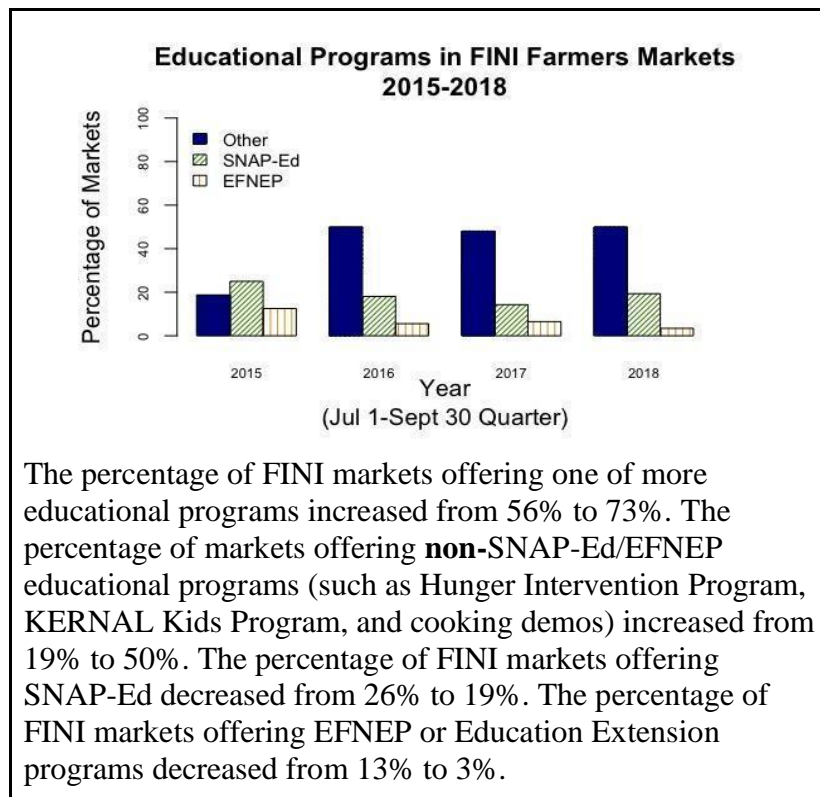
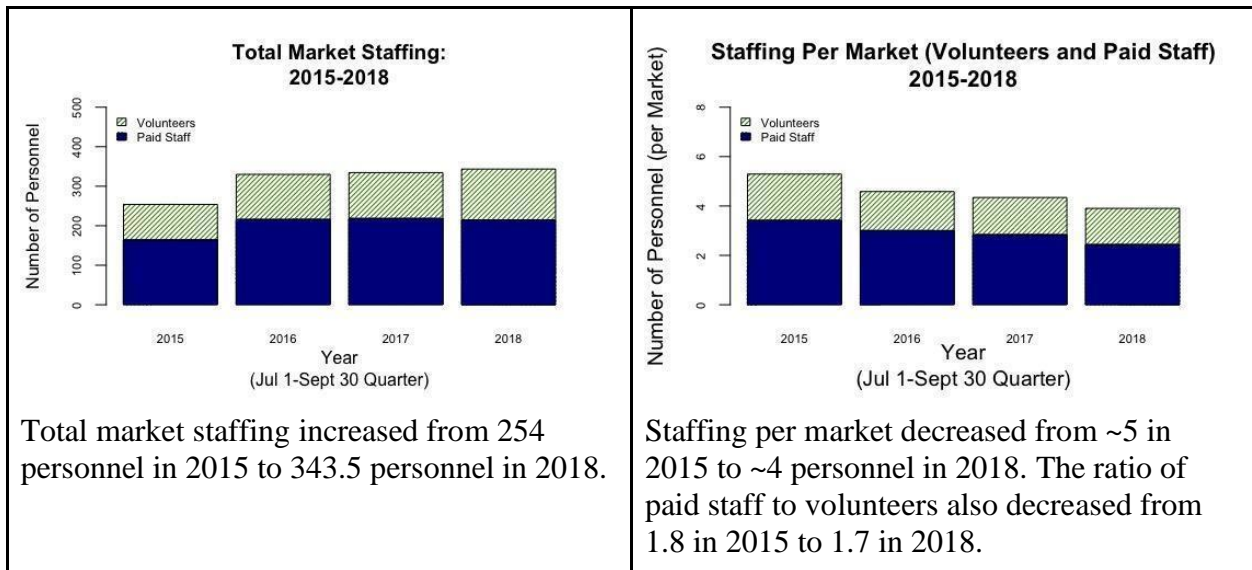
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Appendices

Appendix A. Quantitative Results

Staffing and Educational Programs



Transaction Variables

All markets: Incentives Redeemed (per market) July-Sept Quarter		
	Including Seattle OSE Markets	Excluding Seattle OSE Markets
2015	\$1,936	\$1,534
2016	\$1,739	\$1,334
2017	\$1,840	\$1,233
2018	\$2,903	\$1,537

All markets: Unique SNAP Transactions (per market) July-Sept Quarter		
	Including Seattle OSE Markets	Excluding Seattle OSE Markets
2015	223	177
2016	185	131
2017	180	127
2018	191	142

Urban/Rural Classification: Incentives Redeemed (per market) July-Sept Quarter				
	Including Seattle OSE Markets		Excluding Seattle OSE Markets	
	Urban	Rural	Urban	Rural
2015	\$1,903	\$2,205	\$1,332	\$2,205
2016	\$1,932	\$1,023	\$1,501	\$1,023
2017	\$2,182	\$776	\$1,521	\$776
2018	\$3,519	\$764	\$1,956	\$764

Urban/Rural Classification: Unique SNAP Transaction (per market) July-Sept Quarter				
	Including Seattle OSE Markets		Excluding Seattle OSE Markets	
	Urban	Rural	Urban	Rural
2015	235	104	191	104
2016	216	68	165	68
2017	211	75	158	75
2018	227	70	181	70

Markets in High-/Low-SNAP Locations: Incentives Redeemed (per market) July-Sept Quarter				
	Including Seattle OSE Markets		Excluding Seattle OSE Markets	
	High	Low	High	Low
2015	\$1,386	\$2,359	\$1398	\$1701
2016	\$1,535	\$2,005	\$1,398	\$1309
2017	\$1,841	\$1,840	\$1,465	\$865
2018	\$2,482	\$3,333	\$1,550	\$1518

Markets in High-/Low-SNAP Locations: Unique SNAP Transaction (per market) July-Sept Quarter				
	Including Seattle OSE Markets		Excluding Seattle OSE Markets	
	High	Low	High	Low
2015	223	223	212	115
2016	199	180	158	96
2017	199	162	166	71
2018	187	195	148	133

Experienced/Recent Adopter Classification: Incentives Redeemed (per market) July-Sept Quarter				
	Including Seattle OSE Markets		Excluding Seattle OSE Markets	
	Experienced	Recent	Experienced	Recent
2015	\$2,702	\$421	\$2,506	\$502
2016	\$2,239	\$727	\$2,194	\$610
2017	\$2,659	\$749	\$2,117	\$561
2018	\$4,549	\$962	\$2,758	\$631

Experienced/Recent Adopter Classification: Unique SNAP Transaction (per market) July-Sept Quarter				
	Including Seattle OSE Markets		Excluding Seattle OSE Markets	
	Experienced	Recent	Experienced	Recent
2015	301	58	285	71
2016	248	82	210	65
2017	260	81	221	65
2018	283	78	248	63

Appendix B. Methods and Analyses

Programmatic Data

Our study draws on a sample of annual and quarterly programmatic reports submitted to the Washington State Department of Health for all farmers markets participating in FINI between 2015 and 2018. While data were reported on a quarterly basis between 2016-2018, data were only reported on an annual basis in 2015, so 2015 and 2016 annual data were used to impute transaction variable estimates for July - September of 2015. To do this, 2016 quarterly programmatic reports were used to estimate the proportion of each transaction variable that took place during July - September of 2016 (67-69%), and then applied to the 2015 data.

U.S. Census Data

In addition to programmatic data, we used U.S. Census data, collected through the American Community Survey (ACS). We calculated SNAP-participation (as a percentage of households enrolled in SNAP) for the ZIP codes of the 108 analyzed markets. The median household SNAP participation across all 108 markets was 13.4%. Markets located in ZIP codes with household SNAP-participation greater than or equal to the 108-market median (13.4%) were classified as **markets in high-SNAP locations**, while markets located in ZIP codes with household SNAP participation below the median were classified as **markets in low-SNAP locations**.

SNAP-participation **is a three-year mean (2015-2017)**. 2018 ACS household SNAP-participation data were not available at the time of quantitative analyses. For reference, the **mean** household SNAP-participation for the entire State of Washington was 12.8% between 2015-2017. The **mean** household SNAP participation for the ZIP codes of the 108 markets was 15.3%.

Appendix C. Exploratory Analyses

Additional Terms:

- **Experience accepting SNAP** refers to the **number** of years that a farmers market has offered electronic benefits transmission (EBT) to accept Supplemental Nutrition Assistance Program (SNAP) benefits.
- **SNAP participation by location** refers to the **percentage of households** utilizing SNAP benefits in a given ZIP code.

We used linear regression tests to analyze the relationship between: 1) **SNAP participation by location** and average annual change in each of the two transaction variables and 2) **experience accepting SNAP** and average annual change in each of the two transaction variables. For these analyses, **SNAP participation by location** and **experience accepting SNAP** were explored as **continuous variables**, rather than categorical variables

The average annual change in incentives redeemed and unique SNAP transactions was calculated for each market and expressed as a percentage. Because several markets were only active for one year, it was not possible to calculate the average annual change in incentives redeemed and unique SNAP transactions for all 108 markets. An average annual change in incentives redeemed was calculated for a total of 74 markets and an average annual change in unique SNAP transactions for 75 markets. P-values and R-squared values were calculated to test the significance and degree of correlation:

- There was no association between markets' **SNAP participation by location** and average annual change in **incentives redeemed**. ($p = .751$) (See figure 17)
- There was no association between markets' **SNAP participation by location** and

average annual change in **unique SNAP transactions**. ($p = .476$)

- There was no association between markets' **experience accepting SNAP** and average annual change in **incentives redeemed**. ($p = .759$) (See figure 18)
- There was no association between markets' **experience accepting SNAP** and average annual change in **unique SNAP transactions**. ($p = .280$)

