



Study on SNAP Fruit and Vegetable Incentive Programs in Texas

As Required by

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Executive Summary

[Senate Bill \(S.B.\) 1834, 86th Legislature, Regular Session, 2019](#), adds Sections 33.035 and 33.036 to the Human Resources Code and requires the Texas Health and Human Resources Commission (HHSC) to conduct a study on programs in this state that provide incentives for the purchase of eligible fruits or vegetables under the Supplemental Nutrition Assistance Program (SNAP) and to establish a workgroup to assist with the study. S.B. 1834 additionally requires HHSC to submit a report on the study's findings including recommendations for legislative or other action to the governor, lieutenant governor, speaker of the House of Representatives, and each standing committee of the Legislature having primary jurisdiction by December 1, 2020.

S.B. 1834 requires the study and corresponding report to include an analysis of:

- strategies to encourage the purchase of eligible fruits or vegetables using SNAP benefits
- the potential impact of programs in this state that provide incentives for the purchase of eligible fruits or vegetables on the specialty crop industry in this state; and
- federal programs and money available to encourage the purchase of eligible fruits or vegetables using SNAP benefits.

The *Study on SNAP Fruit and Vegetable Incentive Programs in Texas* provides a summary of requisite S.B. 1834 study's findings. To compile the report, HHSC used a wide array of methodologies to collect the data and information. These methodologies included holding virtual workgroup meetings, searching electronic databases, submitting information requests, and examining research publications. A SNAP incentives workgroup was established to assist in carrying out the requirements of the bill. Four subsequent workgroup meetings were hosted between June 30, 2020, and September 17, 2020 where study components were developed. The study yielded the following key findings:

- Vouchers were found to be the main price incentive among fruit and vegetable incentive programs in Texas.
 - ▶ Rebates and vouchers were further identified as successful research-based strategies for encouraging the purchase of fruits and vegetables among SNAP recipients.

- Promotional and informational strategies, such as nutrition education, cooking classes, peer-to-peer promotion, and nudging, were found to be effective strategies for encouraging the purchase of fruits and vegetables among SNAP recipients.
- Incentive programs under SNAP that prioritize direct-to-consumer marketing outlets could potentially have more impact on fruit and vegetable specialty crops and producers, as direct-to-consumer marketing retailers provide a more direct economic exchange between the consumer and producer, which would result in greater economic gain for the producer.

Additionally, HHSC and the workgroup identified five federal programs that could be leveraged to encourage the purchase of fruits and vegetables using SNAP benefits. All five federal programs are funded by the United States Department of Agriculture (USDA). One of the programs, the Gus Schumacher Nutrition Incentive Program (GusNIP), formerly known as the Food Insecurity Nutrition Incentive (FINI) grant program, is uniquely designed to provide funding for fruit and vegetable SNAP incentive projects, both small and large scale, and for nonprofit organizations and state departments. In collaboration with the workgroup, HHSC developed four recommendations to increase the number and availability of programs in Texas that provide incentives for the purchase of eligible fruits and vegetables under the SNAP program:

- Recommendation 1: Increase the number of direct-to-consumer marketing retailers and intermediate retailers implementing fruit and vegetable incentives under SNAP in Texas.
- Recommendation 2: Promote the implementation of fruit and vegetable incentive programs under SNAP among all retailers and promote SNAP participants' purchase of fruits and vegetables at implementing retailers of incentive programs under SNAP.
- Recommendation 3: Conduct a rigorous statewide needs assessment to identify specific geographic areas of Texas to expand the SNAP incentive programs and to identify priority populations to serve.
- Recommendation 4: Expand and extend the workgroup created by S.B. 1834 to plan, implement, and evaluate a statewide incentive program. The workgroup should consider a model such as collective impact.

HHSC and the workgroup concluded that collaboration among stakeholders from food and agricultural industries, state and local governmental entities, public health organizations, health care organizations, community-based organizations, and

SNAP participants is needed to increase utilization of SNAP fruit and vegetable incentive programs across Texas.

1. Introduction

SNAP is a federal program that provides nutrition benefits supplement the food budget to low-income individuals and families that are traditionally used at stores to purchase healthy food and move towards self-sufficiency (USDA, 2020). Section 33.035(c) of the Human Resources Code, as added by S.B. 1834, requires HHSC to create a workgroup composed of relevant stakeholders that includes:

- Stakeholders from a rural area of this state with expertise in providing incentives under SNAP;
- Stakeholders from an urban area of this state with expertise in providing incentives under SNAP; and
- At least one stakeholder with direct marketing representative experience in operating a comparable program.

Section 33.036(b) of the Human Resources Code, as added by S.B. 1834, requires HHSC, in consultation with the workgroup created under Section 33.035(c), to conduct a study on SNAP fruit and vegetable incentive programs that must include:

- An inventory of existing programs that provide incentives for the purchase of eligible fruits or vegetables under SNAP, including details on how the programs are funded;
- An analysis of:
 - ▶ Strategies to encourage the purchase of eligible fruits or vegetables using SNAP benefits;
 - ▶ The potential impact of programs in this state that provide incentives for the purchase of eligible fruits or vegetables on the specialty crop industry in this state; and
 - ▶ Federal programs and money available to encourage the purchase of eligible fruits or vegetables using SNAP benefits.
- Recommendations on increasing the number and availability of programs in this state that provide incentives for the purchase of eligible fruits or vegetables under SNAP

2. Background

Living in poverty is a risk factor for food insecurity, which USDA defines as having a reduced diet quality, variety, and/or intake due to a lack of resources or access (USDA, 2018). SNAP is the largest food assistance program in the United States. Administered by the USDA Food and Nutrition Service (FNS), SNAP "...provides nutrition benefits to supplement the food budget of needy families so they can purchase healthy food and move towards self-sufficiency" (USDA, 2020).

According to epidemiologic research, fruits and vegetables play a considerable role in preventing certain cancers, as well as preventing coronary heart disease. Therefore, increasing fruit and vegetable consumption is an important and practical way to improve nutrition and reduce the risk of chronic diseases (U.S. Library of Medicine, 2000). USDA's approach to encouraging the purchase and consumption of eligible fruits and vegetables among SNAP participants is through administering programs like SNAP-Education (SNAP-Ed), the nutrition education and obesity prevention arm of SNAP, and Gus Schumacher Nutrition Incentive Program (GusNIP) formerly known as the Food Insecurity Nutrition Incentive (FINI) grant program, the fruit and vegetable incentive arm of SNAP. The implementation of price incentives as a strategy to increase the purchase and consumption of fruits and vegetables among SNAP recipients has been a growing field of research and programming for the last decade. Shifts in prioritizing local food and value-added production to increase the economic power of farmers and to curb the trends in obesity and chronic disease are major drivers.

Models show that national implementation of a 30 percent subsidy (30 cent incentive per \$1.00 spent) on approved SNAP fruit and vegetable purchases would result in long-term cost savings from reductions in the incidence of type 2 diabetes and cardiovascular disease (Choi, Seligman, & Basu, 2017). Over five years, a 30 percent subsidy would save \$1.21 billion in health care costs by preventing 38,782 cardiovascular disease events and gaining 18,928 quality-adjusted life years (Mozaffarian et al., 2018). Implementing a 30 percent subsidy in Harris County could save \$2.94 million in health care costs, prevent 393 cases of obesity, and benefit 238,000 adult SNAP participants by 2027, according to researchers at Harvard University (Harvard T.H. Chan School of Public Health, 2020).

3. SNAP Incentives Workgroup

Section 33.035(c) of the Human Resources Code, as added by S.B. 1834, requires HHSC to create a workgroup composed of relevant stakeholders that includes:

- Stakeholders from a rural area of this state with expertise in providing incentives under SNAP;
- Stakeholders from an urban area of this state with expertise in providing incentives under SNAP; and
- At least one stakeholder with direct marketing representative experience in operating a comparable program.

Though the workgroup was not subject to Chapter 2110 of the Texas Government Code, the workgroup was subject to the agency's policy for advisory committees. The application review team considered several factors for workgroup membership. The team evaluated applicants based on the following criteria:

- Relevant experience
- Education
- Expressed desire to serve
- Knowledge relating to incentivizing the purchase of fruits or vegetables under SNAP and to the category and target market for which the applicant is applying
- Personal and professional achievements

The makeup of the workgroup members included four rural stakeholders, eight urban stakeholders, and two stakeholders with direct marketing experience in operating a comparable program for a total of 14 members.

Four workgroup meetings were hosted between June 30, 2020, and September 17, 2020. Most of the collaboration regarding study components between HHSC and the workgroup members occurred during the meetings, which are archived at <https://texashsc.swagit.com/archived/>. Any study components that required collaboration outside scheduled meetings occurred in compliance with Circular C-022, HHSC Policy for Advisory Committees.

4. Inventory of Existing Texas Incentive Programs

S.B. 1834 requires the study to include an inventory of existing programs that provide incentives for the purchase of eligible fruits or vegetables under SNAP, including details on how the programs are funded.

Description and Outcomes of Texas Incentive Programs

An inventory with detailed descriptions of price incentive programs for SNAP purchases of Texas-grown fruits and vegetables can be found in Table 1, Inventory of SNAP Fruit and Vegetable Incentive Programs in Texas. HHSC created the inventory using HHSC staff's existing knowledge of incentive programs in Texas and reports shared by workgroup members, as well as other stakeholders, including Fair Food Network and the Houston Health Department. The inventory underwent multiple iterations informed by workgroup members' expertise.

HHSC developed a second table of outcomes of the incentive programs, which can be found in Table 2, Outcomes of SNAP Fruit and Vegetable Incentive Programs in Texas, and a third table detailing the value of SNAP incentives redeemed, which can be found in Table 3, SNAP Incentives Redeemed. The data in Tables 2 and 3 comes from reports on spending and reach shared by stakeholders.

Double Up Food Bucks

The Double Up Food Bucks program, operated by Fair Food Network, offers a licensed branding design, central administration, and technical assistance for local implementation of SNAP fruit and vegetable incentive programs (Fair Food Network, n.d.). The program is operated in most states, including Texas, to match SNAP dollars spent on fresh fruits and vegetables (Fair Food Network, n.d.).

In Texas, the Double Up Food Bucks program operates in the following areas: Austin, Fort Worth, Houston, South Plains, and Waco. The number of direct-to-consumer marketing sites (farmers markets and farm stands) in each area ranges from one in Waco to 17 in Austin. South Plains is the only region with intermediate retailers, operating at four grocery stores. The total value of incentive redemptions for Double Up Food Bucks in Texas since 2017 is \$186,733, with regional totals ranging from \$1,244 in Fort Worth, which began in 2020, to \$114,743 in South Plains, which began in 2017 (Fair Food Network, 2020). Prior to using Double Up Food Bucks branding, these areas may have operated an incentive program using

different branding, causing their sales data not to be captured in Table 3. Compared to direct-to-consumer marketing sites where the value of incentives averaged \$6,578 from January 2020 to July 2020, the value of incentives spent in grocery stores was dramatically higher at \$107,011 for the same period (Fair Food Network, 2020).

Healthy Houston Bucks

The Healthy Houston Bucks incentive program is operated in six locations in Houston. In 2017, revenue from the program totaled \$2,501; in 2018, revenue totaled \$2,188 (Houston Health Department, Office of Chronic Disease Prevention, 2020).

Wholesome Wave

The Wholesome Wave incentive program is a fruit and vegetable prescription program in Texas. Through the program, clinical partners identify patients at participating clinics who are obese, diabetic, food insecure with financial need (e.g., patients eligible for Medicare, Medicaid, or a sliding pay scale), or a combination of all three to receive a \$60.00 Walmart gift card for six months that can be redeemed for produce (Wholesome Wave, 2019; Wholesome Wave, 2020). The program, located at two clinics in Corpus Christi, has enrolled over 700 participants who have redeemed \$88,000.00, representing a 77 percent redemption rate from February 2020 to July 2020. Participants averaged \$21.56 per shopping trip (Wholesome Wave, 2020). To be successful, fruit and vegetable prescription programs must have the appropriate resources since physicians working with medically underserved populations may experience constraints in budgets and administrative support (Swartz, 2018).

WIC Farmers Market Nutrition Program

The USDA Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Farmers Market Nutrition Program (FMNP) is a fruit and vegetable incentive program for WIC participants, many of whom also participate in SNAP. Given that WIC FMNP is implemented in nine locations across the state, best practices from this program could be adopted for expansion of SNAP incentive programs. The Texas Department of Agriculture (TDA) administers WIC FMNP by working with a network of contracting entities, including food banks, nonprofits, and local health departments, to distribute vouchers to WIC participants and reimburse farmers for redeemed vouchers. The vouchers can be redeemed at approved farmers markets (TDA, 2019).

Other Considerations

Not all incentives are redeemed. After reviewing reports shared by stakeholders, no program reported a 100 percent redemption rate, and redemption rates were lower in programs operating Double Up Food Bucks in intermediate retail locations. Electronic benefit transfer (EBT) cards may be more effective in retail stores. Households with low-income are on average 4 percent more likely to participate in SNAP with a switch from paper coupons to EBT cards (Atasoy, Mills, & Parmeter, 2010). Customer use of retail coupons in grocery stores has resulted in embarrassment, low long-term redemption rates, coupon stigma, and perceived discrimination (Brumbaugh & Rosa, 2009). For customers with low income in grocery stores, a devaluation effect can exceed cost savings from retail coupons (Barat, Amos, Paswan, & Holmes, 2013).

For WIC FMNP, Texas received over \$1,054,646 yearly in 2017 and 2018; of these funds, 76 percent was expended in 2017 and 77 percent in 2018, partly because clients did not spend all their vouchers (TDA, 2019). Of the vouchers distributed, 73–78 percent were redeemed each year from 2017 to 2019. Over 26,000 WIC clients participated in WIC FMNP yearly from 2017 to 2018 (TDA, Food and Nutrition Division, 2020a and 2020b; TDA, 2019). For fruit and vegetable prescription vouchers, which are mostly redeemed at farmers markets, redemption rates are greatest during the summer and fall months (Swartz, 2018). Accordingly, the WIC FMNP in Austin operates seasonally from April to October (Mace, 2019). Some strategies that WIC FMNP contracting entities use to increase participation include inviting clients who spend all their vouchers to events with incentive bags, distributing vouchers during a farmers market, and advertising vouchers and market locations on social media (TDA, 2019).

The effect of the cost structure and burden for farmers is important for program success. For example, hosting farmers markets on-site at places like federally qualified health centers removes transportation barriers for participants but increases cost to the farmer for transportation and storage (Swartz, 2018). Providing incentive coupons that can be redeemed at local farmers markets lessens the cost burden. Cost is the primary barrier to policies that scale fruit and vegetable incentive programs nationwide. A SNAP incentive program should be cohesive with existing SNAP efforts in order to be cost-effective and organized (Swartz, 2018).

Table 1. Inventory of SNAP Fruit and Vegetable Incentive Programs in Texas

Incentive Program	Location – Setting	Lead Organization	Incentive and Redemption	Funding Sources
Double Up Food Bucks	Austin, Del Valle – farmers markets	Sustainable Food Center	<ul style="list-style-type: none"> • Receive \$1.00 for fresh fruits and vegetables for every \$1.00 spent on SNAP-eligible items up to \$20.00 per day • Incentive is redeemed using a voucher 	<ul style="list-style-type: none"> • Michael and Susan Dell Foundation • St. David’s Foundation • Farmers’ Market SNAP Support Grant, 2015–2018 • GusNIP, 2019 • City of Austin • Private donations
Double Up Food Bucks	Austin – mobile markets	Sustainable Food Center	<ul style="list-style-type: none"> • Receive \$1.00 for fresh fruits and vegetables for every \$1.00 spent on SNAP-eligible items up to \$20.00 per day • Incentive is redeemed using a voucher 	<ul style="list-style-type: none"> • Simply Organic Giving Fund, \$10,000.00 in 2019 • City of Austin City Council, \$1 million in 2019 • Austin Food and Wine Alliance, \$2,000.00 in 2019 • National Sustainable Agriculture Coalition, \$154,138.00 in 2019–2020 • GusNIP, 2019
Double Up Food Bucks	Houston – farmers markets	Urban Harvest	<ul style="list-style-type: none"> • Receive \$1.00 for fresh fruits and vegetables for every \$1.00 spent on SNAP-eligible items up to \$20.00 per day • Discount includes produce boxes 	<ul style="list-style-type: none"> • Rebuild Texas Fund, \$347,000.00 in 2019 • William J. and Dorothy K. O’Neill Foundation • Texas Hunger Initiative • GusNIP, 2019 • Sponsorships
Double Up Food Bucks	Waco – farmers markets	Waco Downtown Farmers Market	<ul style="list-style-type: none"> • Receive \$1.00 for fresh fruits and vegetables, food plants, and seeds for every \$1.00 spent on SNAP-eligible items up to \$20.00 per day 	<ul style="list-style-type: none"> • USDA, \$100,000.00 in 2015 • Waco-McLennan County Health Public Health District • Local fundraisers • GusNIP • Local sponsorships

Incentive Program	Location – Setting	Lead Organization	Incentive and Redemption	Funding Sources
Double Up Food Bucks	Fort Worth – farmers markets	Blue Zones Project	<ul style="list-style-type: none"> • Receive \$1.00 for fresh fruits and vegetables for every \$1.00 spent on SNAP-eligible items up to \$10.00 per day • Incentive is redeemed using a voucher 	<ul style="list-style-type: none"> • North Texas Healthy Communities • Blue Zones Project • GusNIP
Double Up Food Bucks	South Plains: Lubbock, Plainville, Amarillo – farmers markets South Plains: Littlefield, Brownfield, Dimmitt – retail stores	Texas Hunger Initiative	<ul style="list-style-type: none"> • Receive \$1.00 for fresh fruits and vegetables for every \$1.00 spent on SNAP-eligible items up to \$20.00 per day • Lowe's Markets uses a registered printed coupon to redeem incentives • United Supermarkets uses a loyalty app to redeem incentives 	<ul style="list-style-type: none"> • Tecovas Foundation • Covenant Health • USDA National Institute of Food and Agriculture Food Insecurity Nutrition Incentive • GusNIP • Walmart Foundation, \$2.6 million in 2019
Double Dollar	Dallas – farmers markets	Good Local Markets	<ul style="list-style-type: none"> • Receive \$1.00 for fruits and vegetables for every \$1.00 spent on SNAP-eligible items up to \$20.00 per day 	<ul style="list-style-type: none"> • Moody Foundation, \$60,000.00 in 2018–2019 • Sponsorships
Healthy Houston Bucks	Houston – farmers markets	Houston Health Department	<ul style="list-style-type: none"> • Receive \$1.00 for fresh produce for every \$1.00 spent on SNAP-eligible items up to \$20.00 	<ul style="list-style-type: none"> • Houston Health Foundation disaster relief funds

Table 2. Outcomes of SNAP Fruit and Vegetable Incentive Programs in Texas

Incentive Program	Location	Venue	Number of Sites	Year Incentive Program Began	Households Reached ⁱ
Double Up Food Bucks ⁱⁱ	Austin, Del Valle	Farmers markets, mobile markets	17	2012	911 ⁱⁱⁱ
	Houston	Farmers markets	13	2019	152
	Waco	Farmers markets	1	2018	70
	Fort Worth	Farmers markets	2	2020	46
	South Plains: Lubbock, Plainville, Amarillo	Farmers markets	7	2017	4,006
	South Plains: Littlefield, Brownfield, Dimmit	Retail stores	4	2018	4,006
Eating Local is a SNAP ^{iv}	Dallas	Farmers markets	2	2018	n/a
Healthy Houston Bucks ^v	Houston	Farmers markets, retail stores	6	2017	n/a

ⁱ As of July 2020 and based on an average spend of \$26.90 per household.

ⁱⁱ Fair Food Network, 2020

ⁱⁱⁱ Sustainable Food Center operated an incentive program starting in 2012 and began participating in Double Up Food Bucks in 2019.

^{iv} Good Local Markets, 2019

^v Houston Health Department, Office of Chronic Disease Prevention, 2020

Table 3. SNAP Incentives Redeemed

Incentive Program	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Double Up Food Bucks South Plains: Littlefield, Brownfield, Dimmitt	-	-	-	-	-	-	\$598	\$894	\$107,011	\$108,503
Double Up Food Bucks South Plains: Lubbock, Plainville, Amarillo	-	-	-	-	-	\$970	\$2,484	\$3,519	\$759	\$7,732
Double Up Food Bucks Austin, Del Valle	\$6,216	\$17,792	\$20,681	\$20,898	\$26,503	\$28,549	\$35,488	\$36,088	\$24,498	\$216,713
Double Up Food Bucks Houston	-	-	-	-	-	-	-	\$340	\$4,497	\$4,837
Double Up Food Bucks Waco	-	-	-	-	-	-	\$1,622	\$1,811	\$1,890	\$5,323
Double Up Food Bucks Fort Worth	-	-	-	-	-	-	-	-	\$1,244	\$1,244
Eating Local is a SNAP Dallas	-	-	-	-	-	-	\$3,000 SNAP sales	\$7,224 SNAP sales	-	\$10,224 SNAP sales
Healthy Houston Bucks Houston	-	-	-	-	-	\$2,501 revenue	\$2,188 revenue	-	-	\$4,689 revenue

5. Recommendations

As required by S.B. 1834, and in consultation with the workgroup, HHSC developed four recommendations aimed at increasing the number and availability of programs in Texas that provide incentives for the purchase of eligible fruits or vegetables under SNAP.

Recommendation 1

Increase the number of direct-to-consumer marketing retailers and intermediate retailers implementing SNAP fruit and vegetable incentives in Texas.

This recommendation leverages existing pipelines of retailers and organizations, such as the Texas Retailers Association, certified farmers markets in the TDA Farmers Market Nutrition Program and the Senior Farmers Market Nutrition Program (SFMNP), and other farmers markets using HHSC-awarded Texas EBT equipment that serves the SNAP-recipient population in Texas. This approach is a natural progression as SNAP fruit and vegetable incentive programs are currently functioning predominately at direct-to-consumer marketing outlets, such as farmers markets, in Texas. This approach allows for collaboration among organizations implementing incentive programs and for state agencies, like TDA and HHSC, to increase the number of farmers markets implementing incentive programs in Texas. Furthermore, collaboration to increase the number of farmers markets is aligned with federal priorities to increase local food production and consumer access to local food. The workgroup additionally recommends collaboration among organizations implementing incentive programs; state agencies, like TDA and HHSC; and organizations, like the Texas Retailers Association, to promote intermediate retailers as supermarkets, grocery stores, and convenience stores, as they play an important role in increasing the number and availability of SNAP incentive programs among SNAP participants.

SNAP participants redeem approximately 80 percent of SNAP benefits at larger stores such as superstores (53 percent) and supermarkets (29 percent) (Ribera, 2020). Smaller proportions occur at grocery stores (10 percent), convenience stores (6 percent), other stores (2 percent), and farmers markets (less than 0.1 percent) (Ribera, 2020). In line with these trends, the value of incentives spent in grocery store-based incentive programs in Texas have been proven to be higher (Fair Food Network, 2020). Expanding incentives into intermediate retailers such as

supermarkets, superstores, and grocery stores has potential for benefiting farmers (Dimitri & Oberholtzer, 2015); however, expanding incentive programs among intermediate retailers that prioritize Texas-grown fruits and vegetables will require attention to mitigate significant logistical barriers for these types of retailers. For example, intermediate retailers are unable to identify the state or country of origin for produce at the point of purchase. To participate in the Double Up Food Bucks program, grocery stores could be required to source a percentage of their produce locally during the growing season, as Fair Food Network reports that redemption rates increased after such a change was implemented.

Recommendation 2

Promote the implementation of SNAP fruit and vegetable incentive programs among all retailers and promote SNAP participants' purchase of fruits and vegetables at implementing retailers of SNAP incentive programs.

This recommendation leverages existing statewide programs to promote incentive programs among direct-to-consumer marketing retailers and intermediate retailers, as well as to encourage the purchase of Texas-grown fruits and vegetables through incentive programs among SNAP participants. Both are required for successful implementation (Bartlett et al., 2014).

Recommendation 3

Conduct a rigorous statewide needs assessment to identify specific geographic areas of Texas to expand the SNAP incentive programs and priority populations to serve.

The objectives of the needs assessment are to:

- Identify the geography and demographics of priority populations with high SNAP participation and SNAP-eligible populations with low fruit and vegetable consumption;
- Identify geographic locations of direct-to-consumer marketing retailers and other retailers such as supermarkets, superstores, and corner stores that supply Texas-grown fruits and vegetables;
- Describe barriers to participating in SNAP incentive programs from the perspective of SNAP participants, farmers, and retailers; and
- Assess the capacity and describe the barriers SNAP-authorized retailers face in implementing Texas-grown fruit and vegetable incentive programs.

Recommendation 4

Expand and extend the workgroup created by S.B. 1834 to plan, implement, and evaluate a statewide incentive program. The workgroup should consider a model such as collective impact.

While collaborating on this report, the workgroup members and HHSC discussed many topics, including the needs of SNAP recipients and those eligible to receive SNAP; the “SNAP Gap,” a term used by researchers at The University of Texas Health Science Center School of Public Health to describe the gap between the number of people eligible for SNAP and the number of individuals enrolled in SNAP (Evans, Jennings, & Nikah, 2017); the unique needs of subpopulations within SNAP recipients, such as the elderly; SNAP recipients’ access to nutritious, locally grown foods; and barriers to readily available and accessible data on SNAP redemptions and SNAP-recipient purchasing behavior experienced by those stakeholders interested in improving the landscape of incentive programs. The purpose of the final recommendation is to provide direction on the future collection of additional information and data needed to inform the future SNAP incentive programs in Texas.

The workgroup, with counsel from the HHSC Advisory Committee Coordination Office, determined that the workgroup could continue until the expiration date of Section 33.036, Human Resources Code, which is September 1, 2021. Alternatively, or in addition to this proposed extension, the HHS Executive Commissioner could establish the workgroup as a committee under Section 531.012, Government Code.

HHSC recommends the collective impact model developed by Kania and Kramer (2011). The collective impact model requires five elements for the successful coordination of efforts: a common agenda, shared measurement systems, mutually reinforcing activities, continuous communication, and a backbone organization.

6. Strategies to Encourage the Purchase of Fruits or Vegetables

S.B. 1834 requires the study to include an analysis of strategies to encourage the purchase of eligible fruits or vegetables using SNAP benefits.

In consultation with the workgroup, HHSC divided strategies to be analyzed into two overarching concepts: price incentive strategies and informational and promotional strategies. A price incentive strategy is a financial benefit provided to a SNAP recipient that encourages the purchase of eligible fruits and vegetables supported under S.B. 1834. Informational and promotional strategies are informational and promotional mechanisms operating through implicit and explicit activities.

To operationalize the analysis, HHSC conducted a literature review on both the price incentive and informational and promotional strategies. HHSC's review included searching electronic databases, examining research publications, and evaluating case studies and outcome reports collected from workgroup members and other stakeholders. First, HHSC prioritized literature focused primarily on testing interventions within the SNAP-recipient population, but later expanded to literature assessing interventions among participants of other means-tested federal assistance programs and people or communities with low income. HHSC used three categories to determine the degree of evidence base for each strategy and sub-strategy: research-based, practice-based, and emergent. HHSC identified price incentive strategies as research-based when relevant, rigorous research, such as systematically reviewed scientific studies, could be found supporting the strategy as effective in encouraging the purchase of fruits and vegetables. HHSC identified case studies, pilot studies, and evidence from the field of interventions demonstrating potential for effectiveness as practice-based price incentive strategies and community- or practitioner-driven activities that show potential but have not yet been formally evaluated for outcomes as emergent price incentive strategies.

Price Incentive Strategies

HHSC identified rebates and vouchers (or coupons) as research-based price incentive strategies for SNAP-recipient focused intervention.

Rebates

A recent study assessing the USDA Healthy Incentive Pilot (HIP) offered rebates to SNAP participants for purchasing targeted fruits and vegetables (Olsho, Klerman, Wilde, & Bartlett, 2016). The study was conducted in Hampden County, Massachusetts, where 7,500 randomly selected SNAP households received a 30 percent rebate on targeted fruits and vegetables. Adults in 5,076 HIP and non-HIP households were interviewed 1–3 months before implementation and again at 4–6 months and 9–11 months post-implementation. The study found that targeted fruit and vegetable intake among participants who received the HIP rebate increased by 0.24 cups, compared to participants who did not receive the rebate. Across all fruit and vegetable intake, participants who received the HIP rebate increased their fruit and vegetable intake by 0.32 cups, compared to participants who did not receive the rebate (Olsho, Klerman, Wilde, & Bartlett, 2016). HHSC evaluated the vouchers sub-strategy based on literature findings of SNAP participants in the Double Up Food Bucks vouchers program. Another study analyzed the fruit and vegetable expenditures and variety and purchase decisions affected by the Double Up Food Bucks voucher program (Steele-Adjognon and Weatherspoon, 2017). The results indicate that the voucher program results in significant increases, specifically in vegetable expenditures.

Vouchers

HHSC identified vouchers (or coupons) as a practice-based sub-strategy based on the literature review. Results from a study assessing the influence of targeted coupons on purchasing behavior through evaluating retail data on grocery transactions, exposure to targeted coupons, and coupon use among 2,500 households over two years found that the intervention group had a higher increase in the purchase rates of healthier foods and produce, compared to the control group (Guan, Atlas, & Vadiveloo, 2018). Results from a study conducted across 14 states found that a financial incentive awarded for SNAP purchases of fruits and vegetables at farmers markets in 14 states resulted in a significant increase of 0.16 cups per day in fruit and vegetable consumption for participants receiving a \$2.00 subsidy for every \$1.00 spent, but no significant changes were found for any other incentive levels ranging from 40 cents to \$1.50 subsidy per \$1.00 spent over a one-month period (Karpyn et al., 2018). Additionally, customers who received a 2-for-1 discount on fruits and vegetables at a supermarket in a community with low income in Maine spent more on fresh produce, but not on frozen or canned fruits and vegetables, when compared to customers of the same supermarket who did not receive the 2-for-1 discount (Polacsek et al., 2018).

All incentive programs currently operating in Texas use vouchers. In Austin, over one-half of customers who participated in an incentive program of \$1.00 subsidy

per \$1.00 spent reported greatly increasing the amount and variety of fresh fruits and vegetables they have eaten in the past year (Sustainable Food Center, 2017; Sustainable Food Center, 2018).

Informational and Promotional Strategies

HHSC identified nutrition education, cooking classes, and peer-to-peer promotion as research-based informational and promotional strategies for SNAP-recipient focused intervention.

Nutrition Education

USDA FNS evaluated nutrition education and provided evidence that well-designed nutrition education programs can influence healthier food choices among SNAP participants. The “SNAP Education and Evaluation Study (Wave II)” study report evaluates the impact of various nutrition education programs on fruit and vegetable consumption among elementary school children and older adults. The study found that students enrolled in nutrition education programs increased their daily fruit and vegetable intake at home by one-quarter to one-third cup, as well as had a greater willingness to try new fruits and vegetables. In addition, older adults in nutrition education programs increased their daily fruit and vegetable consumption by approximately one-half cup (Long et al., 2013).

Internet-Based

Internet-based nutrition education includes general access to internet resources. In one study comparing the effects of web-based versus in-person methods of nutrition information and education distribution, findings show that most participants with low income preferred the web-based method. The study sampled 123 participants and randomly assigned 66 participants to receive in-person nutrition information and 57 participants to receive web-based. Both groups received information on fruit and vegetable purchasing, nutrition label reading, and whole grain purchasing. Results from the study show that nutrition-related behavior, such as purchasing and consuming fruits and vegetables, increased among both groups. However, 83 percent of all participants reported a willingness to use web-based method interventions again (Neuenschwander, Abbot, & Mobley, 2012). In a second study done to evaluate internet access and interest in receiving nutrition information through the web-based method found the majority of SNAP participants sampled in the study preferred the web-based method. The study surveyed 188 responses and found that 76 percent of participants have access to the internet and 57 percent of participants use online nutrition education and receive emails with nutritional information (Loehmer, Smith, McCaffrey, & Davis, 2018). The results of these studies indicate that using web-based interventions

could lead to increased reach to individuals in both SNAP participants and individuals in communities with low income.

Cooking Classes

A systematic review of cooking classes across 30 different studies showcased that cooking classes were associated with an improvement in attitude, self-efficacy, and healthier dietary intake among both adults and children of communities with low income (Hasan et al., 2019). Cooking Matters is an intervention aimed to inspire families with low income to make healthy and affordable food choices through strategies such as cooking classes. An evaluation conducted for the Cooking Matters intervention consisted of 1,600 study participants, including families participating in a Cooking Matters course, compared to families not enrolled in the course. Participating families were surveyed before the course began and three and six months after it concluded. The evaluation found that at short-term (three months), families enrolled in the Cooking Matters course were eating and purchasing more fruit and by the medium-term (six months), families were consuming more vegetables, including non-fried options, compared to families not participating in the course ("Cooking Matters," n.d.). In terms of targeting SNAP participants through the cooking classes sub-strategy, the Cooking in a SNAP intervention aims to increase healthy food consumption and increase confidence in planning and preparing meals at home among SNAP participants and SNAP-eligible participants. The evaluation of the Cooking in a SNAP intervention followed 51 participants pre- and post-cooking courses through survey completion. In the pre-survey evaluation, 68.6 percent of participants reported consuming one cup or less of fruits and vegetables on most days, while post-survey showed that 58.8 percent of participants reported eating more than 1.5 cups of fruit and vegetables on most days (Cooking in a SNAP, 2019).

Peer-to-Peer Promotion

HHSC evaluated peer-to-peer promotion through a systematic review across 22 articles. The systematic review found that among primarily Latino communities with low income, peer-to-peer nutrition education exhibited positive influence on dietary consumption behaviors (Pérez-Escamilla et al., 2008). Another study evaluated two different nutrition education classes taught by parents trained through the Head Start and Parents as Teachers program to fellow peers with low income to increase knowledge regarding low-cost healthy eating among families with low income. The two nutrition education courses evaluated included "Stretching Your Food Dollars" and "Healthy, Low-Fat Eating," both of which were taught in English and Spanish. The results of this study showed that over the course of the program participants showed modest improvement in knowledge of low-cost and low-fat nutrition as well

as moderate increase in self-efficacy for purchasing and consuming healthy, low-cost food (Marshak, Silva, & Silberstein, 1998).

Nudging

Nudging can be separated into two sub-strategies: 1) placement and presentation, and 2) leveraging information. Placement and presentation speaks to how the produce is placed in order, salience, convenience, packaging, and abundance. Leveraging information speaks to signage, nutrition labels, shelf labels, order forms, and multiple exposure to food items. HHSC identified nudging as a research-based informational and promotional strategy for SNAP-recipient focused intervention.

Findings from a study evaluating in-store marketing interventions of strategies of placement and presentation of food items among four grocery stores (two intervention-based and two control) in economically disadvantaged communities showed that the two intervention grocery stores had significantly higher food spending on fruits and vegetables. Exit surveys showed 31 percent of customers at intervention stores had noticed the intervention strategies which led to an increase in purchasing healthier food items (Gamburzew et al., 2016). In terms of literature findings targeting SNAP participants, a study evaluated the influence of purchasing fruits and vegetables among SNAP participants with targeted check-out aisle end-caps or displaying products at the end of the check-out aisle, in both treatment and control grocery stores. The goal of this study was to evaluate strategies that allowed fruits and vegetables to be convenient and salient. The overall purchase of targeted fruit and vegetables significantly increased within treatment grocery stores, compared to the control stores (Payne & Niculescu, 2018). For SNAP participants, a targeted study focusing on the influence of exposure to visual strategies, such as signage, on fruit and vegetable purchases was conducted across six different grocery stores. Of the 1,050 customers who completed the survey, 25 percent reported seeing at least one visual or signage throughout the store. Among the 25 percent of customers who reported exposure to at least one visual, those enrolled in SNAP reportedly increased food spending on fruits and vegetables by 6 percent, compared to those not enrolled in SNAP (Sutton et al., 2019). Findings from a different study focusing on point-of-purchase intervention strategies (such as signage, shelf labels, and education on nutrition composition and label interpretation of food purchases) showed a greater purchase of fruit and vegetables, specifically dark green and yellow-colored vegetables (Milliron, Woolf & Appelhans, 2012).

Combination of Strategies

Nutrition education and other synergistic programming should be provided to strengthen the effect of incentives. Compared to SNAP price incentives alone or nutrition education alone, the combination of price incentive and nutrition education demonstrated the strongest dietary improvement (Verghese, Raber, & Sharma, 2019).

Other Strategies for Consideration

Gardening Classes

Community gardening classes were evaluated, with a focus on nutrition and health improvements. One study indicated that access to education about community-based gardens among 32 participants with low income not only resulted in increased food access but also an increased intake of fresh produce and a shift toward a preference for home cooking (Palar et al., 2019). School gardening classes were also evaluated. In one study performed across the state of Oregon, the Oregon Department of Education Farm to School Baseline and Progress Reports for the 2015–2016 school year was analyzed and found that 30 school districts, of which 25 districts were in communities with low income, encouraged students to learn about healthy eating through school gardening classes. Through thematic results it was found that students' intake of fruits and vegetables increased, as well as their attitudes to try new produce as a result of learning how to grow produce (Rains, Giombi, & Joshi, 2019).

Social Marketing

HHSC divided the social marketing strategy into two sub-strategies: 1) radio, television, and newspaper advertisements and 2) billboards, posters, and signage in public locations such as grocery stores, farmers markets, schools, and community centers. Billboard advertisements were identified as a research-based strategy for individuals of low-income intervention. Literature findings for radio, television, and newspaper advertisements was determined to be a practice-based strategy for individuals of low-income focused intervention.

For the sub-strategy of radio, television, and newspaper advertisements, literature was found evaluating the Tu Salud ¡Sí Cuenta! Your Health Matters! campaign in Hispanic border communities with low income in Texas. This campaign included radio and television segments, as well as newspaper and newsletter distribution to community members in Brownsville, Texas, to encourage nutrition and physical activity improvements among adults and children. This study evaluated the

influence of the campaign among a group of residents in Brownsville, compared to a group of residents in Laredo, Texas, who did not have exposure to the Tu Salud ¡Sí Cuenta! Your Health Matters! campaign. The results of this study showed that exposure to the Tu Salud ¡Sí Cuenta! Your Health Matters! campaign was associated with a lower rate of unhealthy food consumption, compared to the group of residents who were unexposed to the campaign (Heredia, Lee, Mitchell-Bennett, & Reininger, 2017).

The sub-strategy of billboard advertisements was evaluated through literature focusing on assessing the influence billboards have in urban communities with low income in terms of encouraging healthier lifestyles. The study focused on how billboards impact communication within these communities through evaluating the Willis-Knighton Health System in Louisiana, which connects disadvantaged communities to health care services that encourage healthier lifestyles through the use of billboards advertising location and availability of resources that effect healthier lifestyles. The study concluded that billboard content is mostly distributed alongside high-transit routes which is applicable to communities with low income in urban settings since these communities tend to reside alongside transit routes. Furthermore, the study states that communities with low income rely more on mediums such as billboards for informational content, compared to communities with higher income (Elrod & Fortenberry Jr., 2017).

Social Media

Social media platforms consist of Facebook, YouTube, Snapchat, Instagram, and Twitter. One study found Facebook to be an effective tool to encourage healthy eating in women with low income (Lohse, 2013). The study put an ad on Facebook inviting access to online nutrition programs to people living in areas with low income. Of the 465 people who clicked the ad, 81 completed the eligibility survey and 52 completed the pre-program survey. Another study conducted a systematic review of interventions utilizing discussion forums, blogs, and social media, such as Facebook and Twitter, to promote healthy living (Welch et al., 2016). The study found 11 reviews that met the criteria, of which seven used both discussion forums and social media to promote healthy eating and lifestyles to communities with low income.

Mobile Apps

Mobile apps were evaluated based on literature findings targeting WIC. Mobile apps consist of any apps for mobile devices, such as cellphones, tablets, etc., that promote or inform produce purchasing. One study reviewed and analyzed publicly available mobile apps for WIC participants and found a total of 17 apps, 12 of which

required verification of WIC enrollment to access (Weber, Dawson, Greene, & Hull, 2018). All 17 apps fell into one of the following categories: shopping management (finding and redeeming benefits), clinic appointment management, information resources (recipes, food lists, and tips to utilize WIC benefits), and WIC-required nutrition education modules.

7. Potential Impact on Specialty Crop Industry

S.B. 1834 requires the study to include an analysis of the potential impact of programs in this state that provide incentives for the purchase of eligible fruits or vegetables on the specialty crop industry in this state.

Conducting an analysis on potential impact requires analyzing current trends in fruit and vegetable consumption, trends in fruit and vegetable purchasing, and evaluating the food system of Texas through the lens of fruit and vegetable specialty crops.

Though per capita consumption in the U.S. has increased from 1970, per capita consumption of fruit has declined since 2000, and the same trend can be observed in vegetable consumption among the general population (Ribera, 2020). According to the 2015–2020 Dietary Guidelines for Americans, the recommended amount of vegetables in the Healthy U.S.-Style Eating Pattern at the 2,000-calorie level is 2.5-cup equivalents of vegetables per day and 2-cup equivalents of fruit per day (USDA, 2015). In Texas, only 12.1 percent of adults meet the daily fruit intake recommendation, and only 10.9 percent of adults meet the daily vegetable intake recommendation (Lee-Kwan, Moore, Blanck, Harris, & Galuska, 2017). Of the 2,751 individuals identified as SNAP-eligible (i.e., at or below 165 percent of the federal poverty level) in the 2019 Texas Behavioral Risk Factor Surveillance Survey, only 17.6 percent of respondents reported consuming fruits and vegetables five times a day (Texas Department of State Health Services, 2020).

Any food item, except for items such as alcohol and tobacco, can be purchased under SNAP. As there are no nutritional standards on SNAP food purchases and no system for tracking SNAP benefits redeemed on local food items at SNAP-authorized retailers, SNAP participant purchase data is not readily available. In 2011, USDA did conduct a study on food purchasing among SNAP participants and non-SNAP participants. Researchers found that food purchasing did not statistically differ between SNAP participants and non-SNAP participants. The top-10 purchases between SNAP participants and non-SNAP participants included meat, poultry, and seafood; sweetened beverages; vegetables; frozen prepared foods; prepared dessert; high fat dairy and cheese; bread and crackers; fruit; milk; and salty snacks. The top-10 summary categories and top-seven commodities by expenditure were the same for SNAP and non-SNAP households. About 40 cents of every food purchase dollar was spent on basic items like meat, fruit, vegetables, milk, eggs,

and bread. Another 20 cents was spent on sweetened drinks, desserts, salty snacks, candy, and sugar. The remaining 40 cents was spent on a variety of items, including cereal, prepared foods, other dairy products, rice, beans, and other cooking ingredients. One notable difference was that the non-SNAP participants' top-five food purchases included fruits and vegetables, while the SNAP participants' top-five food purchases only included vegetables. Other studies, including a systematic review (Andreyeva et al., 2015), show similar findings of finding no statistically significant difference in purchase behavior between SNAP participants and non-SNAP participants.

Food system importing trends do impact fruit and vegetable purchases. The U.S. trend of importing more fruit and vegetables than exporting since 2010 has impacted local food procurement practices, and the share of consumption from imports has increased from 2008 to 2016 (Ribera, 2020). Berries, avocados, and bananas were the largest portion of 2019 imports, accounting for more than half of fruit imports. In 2019, tomatoes and peppers counted for more than 40 percent of vegetable imports. With most imports coming from Mexico, Texas is the largest port of entry surpassing Arizona and California. According to the USDA National Agricultural Statistics Service 2015 Local Food Direct Marketing Survey, small-scale producers (i.e., \$50,000 in annual direct marketing sales) represented 84 percent of the 167,000 U.S. farm operations yet accounted for only 15 percent of the \$8.74 billion in sales marketed through local and regional food channels.

A USDA report on linkages between federal programs, agriculture, and the U.S. economy posits that \$1.80 of economic activity is generated from \$1.00 of SNAP benefits (Hanson, 2010). After multiple effects were applied to simulate the food system, the report found that of the \$32.3 million in agricultural gross domestic product or value added from \$1 billion in SNAP dollars would result in an estimated \$12,965.22 in gross domestic product for fruit and vegetable agriculture (Hanson, 2010). Using the report as a blueprint for measuring economic impact (Hanson, 2010), along with multiple assumptions, the \$457,708,980.00 in SNAP payments HHSC made in August 2020 to more than 1.5 million households could produce approximately \$183,724.38 in economic activity for fruit and vegetable crop agriculture (HHSC, 2020). However, there are important differences to note regarding Texas agriculture when discussing potential impact. First, 72 percent of farm share sales in Texas is livestock, poultry, and products, while 28 percent is crops (USDA National Agricultural Statistics Service, 2017). In contrast, the USDA report assumed gross domestic product produced from SNAP dollars was distributed among 38 percent livestock production and 62 percent crop production (Hanson, 2010), which is a complete reverse of Texas agriculture composition. Secondly, most of Texas crop production is comprised of cotton and cotton seed

(\$2,648,014,000); grains, oilseeds, dry beans, and dry peas (\$2,152,014,000); and nursery, greenhouse, floriculture, and sod (\$838,675,000), leaving approximately 8 percent of Texas crop sales for vegetables, melons, potatoes, and sweet potatoes (\$352,393,000); and fruits, tree nuts, and berries (\$213,286,000) (USDA National Agricultural Statistics Service, 2017). Furthermore, in Texas, specialty crop producers sell 80 percent of their products to retail and food service and 20 percent to other retailers such as farmers markets (Ribera, 2020). Given these realities, economic activity produced by SNAP dollars would likely have less direct impact on fruit and vegetable specialty crops.

The impact on fruit and vegetable specialty crops could be greater if incentive programs under SNAP were to prioritize Texas-grown fruits and vegetables among direct-to-consumer marketing outlets. Direct-to-consumer marketing is local food marketing arrangements in which producers sell agricultural products directly to consumers, such as farmers markets, community supported agriculture, and farm stands. The consumer benefits from nutritious produce, while farmers and producers receive a larger fraction of the purchase price from each transaction (McFadden et al., 2016). Only 3 percent of Texas farms sell directly to consumers (USDA National Agricultural Statistics Service, 2017). Funding from GusNIP could create economic activity and markets for local and regional farmers (Dimitri & Oberholtzer, 2015), such as bringing in revenue at a farmers market located at a federally qualified health center (Freedman et al., 2017). Incentive programs provide access to a population who otherwise would not spend their SNAP and WIC dollars in the local food system; in Austin, 72 percent and 78 percent of Double Dollar Incentive Program customers using SNAP and WIC reported they would not have visited the farmers market without the program in 2017 and 2018, respectively (Sustainable Food Center, 2017; Sustainable Food Center, 2018). Similarly, in Houston, the average number of SNAP transactions increased dramatically from 2 per market per month without an incentive to 25 per market per month with the Healthy Houston Bucks program at 6 markets in 2017 (Houston Health Department, Office of Chronic Disease Prevention, 2018). A coordinated effort among the sectors is required to bring about policy, systems, and environmental changes necessary to increase the number of retailers in Texas that provide Texas-grown fruit and vegetable incentives under SNAP.

8. Federal Programs to Encourage the Purchase of Fruits or Vegetables Using SNAP Benefits

S.B. 1834 requires the study to include an analysis of federal programs and money available to encourage the purchase of eligible fruits or vegetables using SNAP benefits.

HHSC identified five federal programs to encourage the purchase of fruits and vegetables using SNAP benefits. Yearly funding for the state of Texas since 2017 ranged from \$114,456.00 to \$535,210,651.00. All the federal programs found were operationalized and funded through a state department, allowing the state department to partner with contracting entities, except for one program, Gus Schumacher Nutrition Incentive Program (GusNIP) formerly known as the Food Insecurity Nutrition Incentive (FINI) grant program. GusNIP allows nonprofit organizations to apply for and implement projects. In Texas, only two Texas-based organizations have been awarded Food Insecurity Nutrition Incentive or GusNIP funding. In 2015, the nonprofit organization San Antonio Food Bank received \$100,000.00 for its *San Antonio SNAP Incentives for Postpartum Mothers* project. In 2019, the nonprofit organization Sustainable Food Center received a \$155,096.00 grant for its *Bolstering and Building Capacity for Double Up Across Texas* project.

Table 4, Inventory of Federal Programs to Encourage the Purchase of Fruits or Vegetables Using SNAP Benefits, details the findings.

Table 4. Inventory of Federal Programs to Encourage the Purchase of Fruits or Vegetables Using SNAP Benefits

Federal Program	Lead Organization	Details	Eligible Applicants	Funding in Texas
SNAP-Ed	USDA FNS	<p>Improve the likelihood that people eligible for SNAP will make healthy food choices within a limited budget and choose physically active lifestyles consistent with the current Dietary Guidelines for Americans and the USDA food guidance.</p> <p>Projects operate through state departments and through contracted entities or implementing agencies.</p> <p>SNAP-Ed funds may not be used to provide the cash value of financial incentives.</p>	State agencies	<p>\$17,389,666 in 2017 \$21,649,931 in 2018 \$24,472,096 in 2019 \$23,640,229 in 2020</p>
GusNIP	USDA FNS; USDA National Institute of Food and Agriculture	<p>Increase the purchase of fruits and vegetables by consumers with low income participating in SNAP by providing incentives at the point of purchase.</p> <p>Operate through authorized SNAP retailers, and in compliance with all relevant SNAP regulations and operating requirements.</p> <p>GusNIP pilot projects (awards not to exceed a total of \$100,000 over one year); multi-year community-based GusNIP projects (awards not to exceed a total of \$500,000 over no more than four years); and multi-year, GusNIP large-scale projects (awards of \$500,000 or more over no more than four years).</p>	Nonprofit organizations; state agencies	\$155,096 in 2019

Federal Program	Lead Organization	Details	Eligible Applicants	Funding in Texas
SFMNP	USDA FNS	<p>Increase the domestic consumption of agricultural commodities through farmers markets, roadside stands, and community supported agricultural programs.</p> <p>Enrollment in another means-tested program, such as the Commodity Supplemental Food Program or SNAP, can be used for determining SFMNP eligibility.</p>	State agencies	<p>\$115,288 in 2017 \$115,288 in 2018 \$114,456 in 2019 \$114,456 in 2020</p>
WIC	USDA FNS	<p>Provides federal grants to states for supplemental foods, health care referrals, vouchers, and nutrition education for pregnant, breastfeeding, and non-breastfeeding postpartum women with low income, and to infants and children up to age five who are found to be at nutritional risk.</p> <p>Individual can be enrolled in WIC and SNAP simultaneously.</p>	State agencies	<p>\$535,210,651 in 2017 \$501,841,328 in 2018 \$478,168,090 in 2019 \$480,397,428 in 2020</p>

9. Conclusion

HHSC, in consultation with the workgroup, concludes that collaboration among stakeholders from the food and agricultural industries (farmers markets, farm stands, community supported agriculture, and other food retail settings such as supermarkets, superstores, and corner stores), state and local governmental entities, public health organizations, health care organizations, community-based organizations serving communities with low income, and SNAP participants is needed to increase utilization of SNAP fruit and vegetable incentive programs across Texas. The landscape of federal nutrition education and nutrition assistance programs and organizations that serve communities with low income provides latitude for statewide collaboration and coordination of efforts.

List of Acronyms

Acronym	Full Name
EBT	electronic benefit transfer
FINI	Food Insecurity Nutrition Incentive
FMNP	Farmers Market Nutrition Program
FNS	Food and Nutrition Service
GusNIP	Gus Schumacher Nutrition Incentive Program
HHSC	Texas Health and Human Services Commission
HIP	Healthy Incentive Pilot
SFMNP	Senior Farmers Market Nutrition Program
SNAP	Supplemental Nutrition Assistance Program
SNAP-Ed	Supplemental Nutrition Assistance Program-Education
TDA	Texas Department of Agriculture
USDA	United States Department of Agriculture
WIC	Women, Infants, and Children

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Appendix A. Definitions

Term	Definition
Collective Impact	The commitment by a group of stakeholders from different sectors of influence that have a common agenda to solve complex social problems such as healthy eating or obesity prevention.
Community Supported Agriculture	Farm or network/association of multiple farms that offers consumers regular (usually weekly) deliveries of locally grown farm products.
Direct-to-consumer marketing retailer	Local food marketing arrangements in which producers sell agricultural products directly to the consumers, such as sales through farmers markets, mobile markets, and farm stands.
Education	Consumer is actively engaged in a learning process with instructor.
Eligible fruits and vegetables	Any variety of fresh, canned, dried, or frozen whole or cut fruits or vegetables that include no added sugars, fats, oils or salts and have been harvested or produced in this state.
Intermediate retailer	Retailers that serve as intermediary between producer and consumer.
Needs assessment	Process of identifying and describing the extent and type of health and nutrition problems and needs of individuals and/or target populations in the community.
Nudge	Subtle environment change in a food distribution setting to encourage purchase of targeted item.
Price Incentive	Financial benefit provided to SNAP recipients that encourage purchase of eligible fruits and vegetables.
Rebate	A financial benefit that involves a pay back of money to purchaser.
Social Marketing	The process of combining commercial marketing methods with public health approaches in order to achieve significant, large-scale public benefits.
Specialty crop	Fruits and vegetables, tree nuts, dried fruits, horticulture, and nursery crops including floriculture.
Voucher (or coupon)	A token that entitles purchaser to discount.
Strategy	Broad approach to intervening on nutrition education and obesity prevention.