

2019 Farm to School Census Report

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Authors

Ellen Bobronnikov, Sarah Prenovitz, and Liz M.B. Yadav

Abt Associates

6130 Executive Boulevard
Rockville, MD 20852

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Table of Contents

Acronyms	i
Executive Summary	ii
1. Introduction and Methods	1
1.1 Current Study	1
1.2 Data Collection	2
1.3 Data Analysis	3
1.4 Study Sample	4
1.5 Study Limitations	6
1.6 Report Organization	6
2. Farm to School Participation	8
2.1 Farm to School Participation in SY 2018-2019	8
2.2 Characteristics of SFAs Participating in Farm to School	10
3. Farm to School Policy and Local Context	13
3.1 SFA Policies	13
3.2 Definitions of Local	14
3.3 Participation in Federal Meal Programs	15
3.4 Preparation and Service of Local Foods	16
3.5 Farm to School Staff	18
3.6 Funding for Farm to School	19
4. Farm to School Activities	20
4.1 Focus of Farm to School Activities and Level of Participation	20
4.2 Promoting Local Foods	21
4.3 Education Activities	22
4.4 Local Foods Procurement	24
5. Local Foods in Schools and Associated Expenditures	28
5.1 Local Foods in Schools	28
5.2 Top Local Foods Purchased	29
5.3 Local Food Expenditures	32
6. Benefits and Challenges	34
6.1 Benefits	34
6.2 Challenges	36
6.3 Reasons for Not Participating in Farm to School	40
7. Conclusions	42
References	43
Appendix A: Study Objectives	45
Appendix B: 2019 Farm to School Census Questionnaire	48
Appendix C: Study Methods for Analysis of 2019 Census Data	76
Appendix D: 2019 Census Supplemental Tables	79
Appendix E: Longitudinal Analysis Methods and Findings	123

List of Exhibits

Exhibit 1.1. Study sample sizes	4
Exhibit 1.2. Characteristics of 2019 Census respondents and non-respondents, and farm to school participants and non-participants.....	5
Exhibit 2.1. Farm to school activities by category	8
Exhibit 2.2. Nearly two-thirds of all SFAs participated in farm to school in SY 2018-2019	9
Exhibit 2.3. As of SY 2018-2019, most F2S SFAs had participated in farm to school for fewer than three years	10
Exhibit 2.4. In SY 2018-2019, larger and suburban SFAs participated in farm to school activities at the highest levels	11
Exhibit 2.5. Participation in farm to school activities was highest in K-5	12
Exhibit 3.1. About one-third of F2S SFAs had wellness or procurement policies supporting farm to school	14
Exhibit 3.2. F2S SFAs that had a set definition of “local” were most likely to define it as produced within the State	15
Exhibit 3.3. In addition to NSLP, almost all F2S SFAs also participated in SBP	15
Exhibit 3.4. Approximately one-fourth of F2S SFAs reported making more than half of their meals from scratch	16
Exhibit 3.5. Most F2S SFAs operated their own school meal food service	17
Exhibit 3.6. Most F2S SFAs used school-based kitchens to prepare meals.....	17
Exhibit 3.7. Most SFAs relied on part-time staff or volunteers to implement farm to school activities	18
Exhibit 3.8. F2S SFAs most commonly funded farm to school activities and staffing through their nonprofit school food service account.....	19
Exhibit 4.1. Almost all F2S SFAs participated in procurement activities	20
Exhibit 4.2. Almost all F2S SFAs participated in multiple farm to school activities	21
Exhibit 4.3. F2S SFAs reported promoting local foods in various ways.....	22
Exhibit 4.4. Taste tests, cooking demonstrations, and field trips were the most common education activities	23
Exhibit 4.5. F2S SFAs most commonly used school garden harvest as part of garden-based education activities or as part of school meals.....	24
Exhibit 4.6. F2S SFAs participated in a variety of activities to support local procurement.....	25
Exhibit 4.7. USDA programs and produce distributors were most commonly used to source local foods.....	26
Exhibit 4.8. Informal procurement was the most commonly reported approach to procure local foods.....	27
Exhibit 5.1. Most SFAs reported serving local foods in federal school meal programs	28

Exhibit 5.2. Nearly half of schools in F2S SFAs had salad bars; most of these served local foods	29
Exhibit 5.3. Most F2S SFAs purchased local fruits, vegetables, and fluid milk.....	30
Exhibit 5.4. Apples were the top local produce item purchased	30
Exhibit 5.5. Fluid milk was the local item served most frequently	31
Exhibit 5.6. Local foods made up about one-fifth of F2S SFAs' total food expenditures	33
Exhibit 6.1. F2S SFAs most commonly perceived higher-quality foods as a benefit of participating in farm to school	35
Exhibit 6.2. Availability, and procurement and delivery processes were the most common categories of challenges reported.....	36
Exhibit 6.3. F2S SFAs reported issues with availability of local foods	37
Exhibit 6.4. Procurement and delivery processes challenges varied	38
Exhibit 6.5. One-third of F2S SFAs perceived the cost of local items as a challenge to procuring local foods.....	38
Exhibit 6.6. One-third of F2S SFAs reported a lack of staff time to prepare local foods as a challenge	39
Exhibit A-1. Research questions by study objectives	45
Exhibit D-1.1. Methods used to track farm to school activities; benefits and challenges; and food, nutrition, and agricultural education activities	79
Exhibit D-2.1. Farm to school participation	80
Exhibit D-2.2. Farm to school participation, by SFA size	80
Exhibit D-2.3. Farm to school participation, by urbanicity	80
Exhibit D-2.4. Farm to school participation, by free or reduced-price lunch eligibility	81
Exhibit D-2.5. Farm to school activity participation, by free or reduced-price lunch eligibility	82
Exhibit D-2.6. Farm to school activity participation, by robust participation	84
Exhibit D-2.7. Expected timeframe to begin farm to school activities among SFAs that plan to begin in the future	85
Exhibit D-2.8. Length of farm to school participation	85
Exhibit D-2.9. Characteristics of F2S SFAs, by length of participation	85
Exhibit D-2.10. Length of farm to school participation, by robust participation	86
Exhibit D-2.11. Percent of schools in F2S SFAs participating in farm to school activities	86
Exhibit D-2.12. Grades participating in farm to school activities	86
Exhibit D-2.13. Grades participating in farm to school activities, by SFA size	87
Exhibit D-3.1. SFA policies to support farm to school.....	88
Exhibit D-3.2. F2S SFA participation in a farm to school network, task force, or advisory board.....	88
Exhibit D-3.3. Definition of "local" for school food procurement.....	88

Exhibit D-3.4. Participation in FNS programs in addition to the National School Lunch Program	89
Exhibit D-3.5. Food preparation facilities	89
Exhibit D-3.6. Food preparation facilities, by SFA size	89
Exhibit D-3.7. Food preparation facilities, by urbanicity	90
Exhibit D-3.8. Food preparation facilities, by robust participation	90
Exhibit D-3.9. Food service arrangements.....	90
Exhibit D-3.10. Percent of recipes made from scratch.....	91
Exhibit D-3.11. Percent of recipes made from scratch, by robust participation	91
Exhibit D-3.12. Percent of F2S SFAs with staff working on farm to school activities.....	91
Exhibit D-3.13. Number of farm to school staff in F2S SFAs	92
Exhibit D-3.14. Food service staff training on farm to school or school garden activities	92
Exhibit D-3.15. Farm to school funding sources used by F2S SFAs	93
Exhibit D-3.16. Farm to school funding sources used by F2S SFAs, by SFA size	93
Exhibit D-4.1. Activity category combinations	94
Exhibit D-4.2. Farm to school participation, by activity category.....	94
Exhibit D-4.3. Farm to school participation, by activity category and SFA size	94
Exhibit D-4.4. Farm to school participation, by single activity category and SFA size	95
Exhibit D-4.5. Farm to school participation, by activity category and length of participation	95
Exhibit D-4.6. Farm to school participation, by single activity category and length of participation	95
Exhibit D-4.7. Number of farm to school activities in which F2S SFAs participated	96
Exhibit D-4.8. Robust and non-robust farm to school participation.....	96
Exhibit D-4.9. Participation in farm to school promotion activities	97
Exhibit D-4.10. Participation in farm to school education and garden activities.....	98
Exhibit D-4.11. Percent of schools in F2S SFAs that provide food, nutrition, or agricultural education	99
Exhibit D-4.12. Presence of edible school gardens	99
Exhibit D-4.13. Percent of schools in F2S SFAs with edible school gardens	99
Exhibit D-4.14. Uses for school garden harvest.....	99
Exhibit D-4.15. Participation in farm to school procurement activities	100
Exhibit D-4.16. Local food sources	100
Exhibit D-4.17. Local food procurement approaches.....	101
Exhibit D-4.18. Local food procurement approaches, by food service arrangement	101
Exhibit D-5.1. Percent of schools in F2S SFAs serving local food.....	102
Exhibit D-5.2. Participation in farm to school activities related to serving local foods.....	102

Exhibit D-5.3. Use of local foods in federal meal programs among F2S SFAs participating in those programs	103
Exhibit D-5.4. Percent of schools in F2S SFAs with salad bars and salad bars that serve local food	103
Exhibit D-5.5. Percent of schools in F2S SFAs with Salad bars and salad bars that serve local food, by SFA size	104
Exhibit D-5.6. Local food purchases by food group	105
Exhibit D-5.7. Local food purchases by food group, by SFA size	105
Exhibit D-5.8. Local food purchases by food group, by length of participation	106
Exhibit D-5.9. F2S SFAs purchasing local food from a single food group	106
Exhibit D-5.10. Types of grains purchased locally	106
Exhibit D-5.11. Food group of most purchased local item, by spending	107
Exhibit D-5.12. F2S SFA spending on top local items	107
Exhibit D-5.13. Most common local foods among top local items by spending	108
Exhibit D-5.14. Frequency of serving local foods in school meals or snacks, by food group ...	108
Exhibit D-5.15. Food spending by expenditure type	109
Exhibit D-5.16. Percent of food spending on local foods	109
Exhibit D-5.17. Percent of food spending on local foods, by free or reduced-price lunch eligibility	109
Exhibit D-5.18. Percent of food spending on local foods, by robust participation	110
Exhibit D-5.19. Percent of food spending on local foods, by number of farm to school activities	110
Exhibit D-5.20. Total and local food spending per student, by free or reduced-price lunch eligibility	111
Exhibit D-5.21. Total and local food spending per student, by robust participation	112
Exhibit D-5.22. Source of information on spending, by expenditure type	112
Exhibit D-6.1. Benefits from participating in farm to school	113
Exhibit D-6.2. Benefits from participating in farm to school, by SFA size	114
Exhibit D-6.3. Benefits from participating in farm to school, by FRPL eligibility	115
Exhibit D-6.4. Benefits from participating in farm to school, by length of participation	116
Exhibit D-6.5. Local foods procurement challenges.....	117
Exhibit D-6.6. Local foods procurement challenges, by SFA size	118
Exhibit D-6.7. Local foods procurement challenges, by length of participation.....	120
Exhibit D-6.8. Reasons provided for not participating in farm to school	121
Exhibit D-6.9. Reasons provided for no longer participating in farm to school	122
Exhibit E-1. Questions used to define farm to school “participation” in the 2013, 2015, and 2019 Censuses.....	124

Exhibit E-2. Participation in farm to school increased over time among SFAs participating in all three Censuses	125
Exhibit E-3. Local was defined using larger distances over time	126
Exhibit E-4. Promotion of local foods by longitudinal F2S SFAs increased over time	127
Exhibit E-5. More longitudinal F2S SFAs participated in field trips and farmer visits, and fewer SFAs used edible gardens in their curricula in the 2019 Census compared to the 2013 Census.....	127
Exhibit E-6. More longitudinal F2S SFAs sourced foods from USDA DoD Fresh and fewer from cooperatives over time.....	128
Exhibit E-7. The purchase of local fluid milk and other dairy products increased over time	129
Exhibit E-8. Census questions examined longitudinally from the 2013, 2015, and 2019 Censuses.....	130
Exhibit E-9. Farm to school participation over time.....	131
Exhibit E-10. SFAs that fulfilled plans to start farm to school activities in SY 2018-2019	132
Exhibit E-11. Definition of "local" for school food procurement over time	133
Exhibit E-12. Participation in farm to school promotion activities over time	133
Exhibit E-13. Participation in farm to school education activities over time	134
Exhibit E-14. Local food sources over time.....	134
Exhibit E-15. Percentage of schools with salad bars over time	135
Exhibit E-16. Local foods purchases by food group over time	135

Acronyms

CACFP	Child and Adult Care Food Program
CCD	Common Core of Data
CSA	community-supported agriculture
DoD Fresh	U.S. Department of Agriculture Department of Defense Fresh Fruit and Vegetable Program
F2S SFAs	School food authorities that reported participating in farm to school activities in school year 2018-2019
FFAVORS	Fresh Fruit and Vegetable Order Receipt System
FFVP	Fresh Fruit and Vegetable Program
FNS	Food and Nutrition Service
FRPL	free or reduced-price lunch
FSMC	food service management company
IFB	invitation for bid
LEA	local education agency
NCES	National Center of Education Statistics
NSLP	National School Lunch Program
RCCI	residential child care institution
RFP	request for proposal
SBP	School Breakfast Program
SFA	school food authority
SFSP	Summer Food Service Program
SSO	Seamless Summer Option
SY	school year
USDA	U.S. Department of Agriculture
USDA DoD Fresh	U.S. Department of Agriculture Department of Defense Fresh Fruit and Vegetable Program
USDA Foods	U.S. Department of Agriculture Foods in Schools Program

Executive Summary

The U.S. Department of Agriculture (USDA) supports a range of farm to school activities in which schools serve locally produced foods in their cafeterias and expose students to food and agricultural education experiences. Farm to school activities might include local and regional food procurement efforts; hands-on learning activities such as school gardening, farm visits, and culinary classes; or integration of food-related education into the regular curriculum.

Beginning in 2017, the USDA Food and Nutrition Service contracted with Abt Associates to design and conduct the *Farm to School Census and Comprehensive Review*, a multi-year study that examines and describes the multiple facets of farm to school efforts across the country. This report summarizes findings from the 2019 Farm to School Census (2019 Census).¹

Data Collection

USDA conducted the first nationwide Farm to School Census in 2013, followed in 2015 by a second Census to measure progress. The 2019 Census continues to measure many of the same concepts as the earlier censuses; it also asks new questions to fill research gaps identified in the literature review conducted by Abt Associates in 2019.

The 2019 Census was sent via email to nearly 19,000 SFAs to collect data on local food purchasing, edible school gardens, other farm to school activities and policies, and evidence of economic and nutritional impacts of participating in farm to school activities. A total of 12,634 SFAs completed the 2019 Census, for a response rate of 67 percent.

Summary of Findings

Key findings on farm to school participation rates and related activities are provided below. Overall participation rates are based on the full sample of 12,634 SFAs that completed the 2019 Census. Findings related to farm to school activities from the 2019 Census are based on the 8,393 SFAs that reported participating in farm to school activities in school year (SY) 2018-2019, hereafter referred to as “F2S SFAs.”

Farm to School Participation

- **About two-thirds of SFAs (65 percent) participated in one or more farm to school activities in SY 2018-2019, and 73 percent participated in SY 2019-2020.** Participation was determined based on whether SFAs reported participating in any of 30 distinct farm to school activities.
- **Very large and suburban SFAs participated in farm to school at the highest rates.** Participation in farm to school was related to the size of the SFA and urbanicity, with larger SFAs and suburban SFAs participating at the highest levels ($p < 0.01$ for each). Very large SFAs participated at the highest rate (87 percent) and small SFAs participated at the lowest (57 percent). Additionally, suburban SFAs had a higher participation rate (73 percent) than rural (65 percent) or urban (63 percent) SFAs.

¹ Other documents that summarize the study’s findings from a review of published research, interviews with school food distributors, and a review of the USDA Farm to School Grant Program are available at <https://www.fns.usda.gov/cfs/farm-school-census-and-comprehensive-review>.

- **SFAs with high and low rates of eligibility for free or reduced-price lunch participated at similar levels.** SFAs in the lowest quartile of student eligibility for free or reduced-price lunch (31 percent or less) participated in farm to school at slightly higher levels than SFAs in the highest quartile (over 86 percent of students eligible) – 68 percent vs. 65 percent ($p < 0.01$).
- **Over half of F2S SFAs (57 percent) participated in farm to school activities for less than three years.** These SFAs were more likely to be small, in rural areas, and have higher levels of free or reduced-price lunch compared to more experienced F2S SFAs ($p < 0.01$ for each).
- **Schools at lower grade levels participated in farm to school at the highest rates.** Participation varied across grade levels, with decreasing levels of participation at schools with higher grade levels (62 percent in K-5, 52 percent in grades 6-8, and 45 percent in grades 9-12).

Local Food Policies

- **Approximately one-third of F2S SFAs did not define “local” for food procurement.** There is no universal definition of local used by all schools, districts, or States. The most common response to the question of how SFAs defined local in SY 2018-2019 was that there was no set definition (30 percent). The next most common response was that local was defined as being produced within the State (23 percent).
- **Over half of F2S SFAs had no policies supporting farm to school or did not know whether they had any such policies.** About one-third reported they have wellness policies that support farm to school (34 percent) or procurement policies that support local foods purchases (31 percent). About one-third of F2S SFAs (30 percent) reported no policies in support of farm to school, and about one-fourth (24 percent) did not know whether they had any such policies.
- **The majority of F2S SFAs (62 percent) had at least one paid staff member, either full- or part-time, who worked on farm to school activities.** Most F2S SFAs relied on part- or full-time staff who spend a portion of their time on farm to school activities (59 percent), but less than one-fifth (17 percent) had any staff dedicated full-time to farm to school activities. SFAs without paid staff may have relied on volunteers to support their farm to school efforts.

Farm to School Activities

- **Nearly half of F2S SFAs participated in seven or more farm to school activities.** Nearly all F2S SFAs participated in *procurement* activities, including activities such as purchasing or serving local foods (88 percent), compared to about three-fifths that participated in the *promotion* of local foods in schools through strategies such as signage, cafeteria activities, or community events (61 percent), or *education* activities such as taste tests, school gardens, or field trips to farms (60 percent).
- **F2S SFAs participated in several activities to promote local foods.** Approximately two-fifths of F2S SFAs reported participating in promotion activities such as promoting local foods in general via cafeteria signs, posters, and newsletters (42 percent); and implementing strategies to encourage student selection and consumption of local foods (40 percent). Additionally, 31 percent reported promoting local foods through themed or branded promotions, such as Harvest of the Month.

- **About one-third of F2S SFAs had edible gardens.** Thirty-four percent of F2S SFAs reported having at least one edible school garden and, among these SFAs, more than half of their schools (56 percent) had a garden. About half of SFAs with edible school gardens reported serving garden produce as part of classroom or garden-based educational activities (52 percent) or donating or selling the garden produce to the cafeteria for inclusion in school meals (48 percent).

Local Foods in Schools

- **Most F2S SFAs served some local foods and incorporated them in school meal programs.** Almost 72 percent of F2S SFAs served local foods as part of the National School Lunch Program (NSLP), and 68 percent of those F2S SFAs that participated in the School Breakfast Program (SBP) served local foods at breakfast. Additionally, the majority of schools in F2S SFAs (85 percent) served local foods.
- **Local foods accounted for an estimated 20 percent of overall food expenditures.** F2S SFAs reported spending a total of \$1.26 billion on local foods, excluding foods purchased through the USDA Foods in Schools program (USDA Foods) and the USDA Department of Defense Fresh Fruit and Vegetable Program (USDA DoD Fresh). This local spending accounted for one-fifth of their total food purchases, on average.² However, about 10 percent of F2S SFAs could not provide usable local food expenditure data, and 54 percent indicated that the local food expenditures they provided were estimates. Thus, these expenditures may not represent the true costs spent on local foods.
- **Produce distributors were among the most-common sources for local foods.** Forty-three percent of F2S SFAs reported they obtained local foods from produce distributors.
- **Fruits and vegetables were the most-common categories of local foods purchased.** Most F2S SFAs purchased at least some local fruits and vegetables (73 percent and 71 percent, respectively), and local fluid milk (59 percent). Fewer F2S SFAs purchased other local dairy products, local grains, or local proteins (28 percent, 26 percent, and 24 percent, respectively).
- **F2S SFAs served local milk daily and fruits and vegetables less frequently.** Among F2S SFAs that purchased local fluid milk, 87 percent served it daily; and about one-third of F2S SFAs that purchased local fruits or vegetables served them daily (34 percent and 29 percent, respectively).

Benefits and Challenges

- **F2S SFAs most frequently perceived higher-quality foods, increased student knowledge about local and healthy foods, and increased consumption of items in schools as benefits from their participation in farm to school.** These were cited as benefits by 42 percent, 31 percent, and 26 percent of F2S SFAs, respectively. Nearly one-third of F2S SFAs (30 percent) were unsure of the benefits, and 9 percent perceived no benefits.
- **Most F2S SFAs perceived some challenge in procuring local foods.** Eighty-one percent of F2S SFAs reported at least one challenge procuring local foods. The most common challenges reported were limited availability of local foods (45 percent); the cost of local items (33 percent);

² There was large variation in the percent of expenditures spent on local foods. SFAs at the 25th percentile spent 4 percent of their expenditures on local foods, and those at the 75th percentile spent 25 percent on local foods.

a lack of staff time to prepare local foods (31 percent); and difficulty finding local producers, suppliers, and distributors (27 percent). Among those SFAs that did not participate in farm to school, their reasons for not participating were closely aligned with challenges among those that did participate.

Conclusions

Results from the 2019 Census indicate that nearly two-thirds of SFAs (65 percent) participated in farm to school activities in SY 2018-2019, and nearly three-fourths (73 percent) participated in SY 2019-2020. The majority of F2S SFAs (57 percent) began participating in farm to school activities in the last three years. These findings suggest an increase in farm to school participation in recent years.

Some of the most common farm to school activities included serving local foods in school meals, promoting local foods in schools, holding taste tests or cooking demonstrations, organizing student field trips to farms, and having edible school gardens. Given that the majority of SFAs nationwide are participating in farm to school, opportunities exist not only to expand initial engagement but also to deepen existing connections among local food producers, educators, and school nutrition professionals.

1. Introduction and Methods

The 2010 reauthorization of the Richard B. Russell National School Lunch Act established that the U.S. Department of Agriculture (USDA) create a Farm to School Grant Program to distribute grant funding and provide training and technical assistance to improve access to local foods in schools as well as disseminate research and data on existing programs and opportunities for expansion. “Farm to school” does not refer to a single program or prescribed program model – school food authorities (SFAs) and schools can participate in various ways. Farm to school programs include a wide range of activities that connect schools with local or regional producers in order to serve locally produced foods in school cafeterias and expose students to food- and agricultural-related education experiences. Farm to school activities might include local and regional food procurement; hands-on, experiential learning activities such as school gardening, farm visits, and culinary classes; or integration of food-related education into the classroom curriculum.

SFAs

The school food authority is the entity responsible for school food service operations.

Increasing access to healthy food and improving nutrition among children and adolescents are key national health objectives in the *Healthy People 2020* agenda.³ However, according to the Centers for Disease Control and Prevention, the majority of children are not eating enough fruits and vegetables.⁴ The growing awareness of negative health consequences of poor nutrition has expanded interest in the nutritional quality of food served in school cafeterias. Farm to school initiatives attempt to address these concerns by encouraging healthy eating in schools and communities through a strengthened connection between consumers and local producers. Farm to school activities and policies differ widely across SFAs, but all encompass a combination of core elements aiming to reinvigorate local economies and improve community nutrition.

1.1. Current Study

In 2017, the USDA Food and Nutrition Service (FNS) contracted with Abt Associates to design and conduct the *Farm to School Census and Comprehensive Review*, a multi-year study that examines and describes the multiple facets of farm to school efforts across the country. This study includes the 2019 Farm to School Census (2019 Census), a descriptive review of the USDA Farm to School Grant Program, a literature review of published research on farm to school activities since 2010, and a set of interviews with school food distributors. This report summarizes findings from the 2019 Census. FNS also conducted nationwide Farm to School Censuses in 2013 and 2015 (hereafter referred to as the 2013 and 2015 Censuses), and this report includes key comparisons to earlier census data in [Appendix E](#). Selected information from the study team’s interviews with food school distributors are also incorporated to provide additional context. See [Appendix A](#) for the study’s objectives and research questions.

Other reports from the study are available at <https://www.fns.usda.gov/cfs/farm-school-census-and-comprehensive-review>. These include the Farm to School Literature Review, including findings from interviews with food school distributors in an appendix; the Farm to School Grantee Report; and the Farm to School Census and Comprehensive Review Summary Report.

³ See <https://www.healthypeople.gov/2020/About-Healthy-People>.

⁴ U.S. Department of Health and Human Services, 2014.

1.2. Data Collection

All SFAs that participated in the National School Lunch Program (NSLP) in the 2018-2019 school year (SY) were invited to complete the 2019 Census, regardless of whether they participated in farm to school activities. The 2019 Census respondents included public, private, and charter SFAs; as well as residential child care institutions (RCCIs) participating in NSLP in the 50 States, U.S. territories, and Washington, DC. A total of 18,832 SFAs were invited to complete the 2019 Census.⁵

The 2019 Census asked SFAs whether they participated in or planned to participate in any of 30 farm to school activities. An SFA that participated in any of the defined activities received further questions about:

- Other school meals programs offered,
- Its definition of “local,”
- Experiences with school gardens and salad bars,
- Mechanisms to track activities,
- Perceived benefits and challenges of farm to school activities,
- Its approach to procurement,
- Food purchases and costs,
- Staffing for farm to school activities, and
- Policies related to farm to school.

SFAs that did not participate in any of the defined activities received a limited set of questions about school meal programs offered, their definition of “local,” and whether and when they planned to conduct farm to school activities in the future. [Appendix B](#) provides the full 2019 Census questionnaire.

The 2019 Census was administered solely via the web. Active data collection occurred from September 9 to December 31, 2019. Over the almost four-month data collection period, the study team sent up to 10 email reminders and a physical letter to SFAs that had not completed the survey. The team also called all SFAs that had not started the Census as of mid-October 2019. SFAs could contact the study team with questions via a study email address and a toll-free phone number.

A total of 12,634 SFAs completed the 2019 Census, including respondents from all 50 States as well as American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, the U.S. Virgin Islands, and Washington, DC, for a total response rate of 67 percent. See Section 1.4 below for more information on the study sample and sample size.

⁵ This number excludes 97 SFAs that withdrew from the 2019 Census data collection for one of the following reasons: the SFA had closed (n = 45), the SFA terminated its participation in NSLP as of SY 2018-2019 (n = 31), or the SFA was combined with another SFA for the data collection (n = 21).

1.3. Data Analysis

This section briefly describes the methods the study team used to prepare and analyze the raw census data. [Appendix C](#) includes additional details about the approach.

The study team cleaned the raw data to ensure the data were as correct, complete, and consistent as possible. This process involved examining the data for logical errors, contacting SFAs and consulting official records to update some implausible values, and setting the remaining implausible values to missing.

Chi-square tests showed significant variation in response rates by region and SFA size category, with the lowest response rates in the Midwest and in small SFAs, and the highest response rates in the Southeast and in large SFAs.⁶ Response rates were also found to be related to the percentage of students eligible for free or reduced-price lunch, with SFAs with higher levels of student eligibility less likely to respond.⁷ Based on these findings, the study team developed inverse propensity score weights to account for potential non-response bias in the 2019 Census analyses and applied them to the 2019 findings.⁸ The weighting allowed the study team to comment on farm to school participation for all SFAs participating in NSLP in SY 2018-2019, rather than only for SFAs that responded to the 2019 Census.

The study team linked the 2019 Census data to information from the National Center of Education Statistics (NCES) Common Core of Data (CCD) and to 2013 and 2015 Census data. Records from the CCD were used to construct a measure of urbanicity, which classifies the area in which schools are located.⁹ Data linked across the three censuses were used to examine selected trends over time. Since the number of SFAs participating in farm to school across the three censuses is a small subsample of the total respondents ($n = 1,507$), the methods and findings for this longitudinal sample are presented separately in [Appendix E](#).

This study presents many comparisons between different groups, based on characteristics such as size, rates of eligibility for free or reduced-price lunch, and urbanicity. Analyses tested means across groups for statistically significant differences using *t*-tests.

⁶ Information on SFA size was drawn from the Verification Summary Report (FNS-742), SFA reports, and study team research. SFA size categories were used rather than the number of students to flexibly test for non-linear relationships between SFA size and response rate, so that SFAs without precise student counts could be included. Repeating this analysis with the number of students resulted in a qualitatively similar finding (i.e., there is a significant positive relationship between SFA size and response rate).

⁷ Information on eligibility for free and reduced-price lunch was drawn from FNS-742 data.

⁸ Because the data collection was administered to all SFAs that participated in NSLP, there was no sampling or oversampling done to construct the weights.

⁹ Urbanicity is based on locale codes, which describe the type of area in which schools in a district are located. The study team grouped SFAs located in towns with rural SFAs. Classifications of these areas are mostly based on information from the U.S. Census Bureau. See https://nces.ed.gov/programs/edge/docs/EDGE_GEOCODE_PUBLIC_FILEDOC.pdf for more information.

1.4. Study Sample

Exhibit 1.1 describes the SFAs that were invited to complete the 2019 Census and the samples of respondents included in the analyses. A total of 18,832 SFAs were sent the 2019 Census questionnaire, of which 12,634 completed usable responses. Among these, 8,393 SFAs participated in one or more farm to school activities in SY 2018-2019. Hereafter, these SFAs are referred to as “F2S SFAs.” Most of the analyses of the 2019 Census data are based on these samples of SFAs included in the green boxes in the exhibit below.

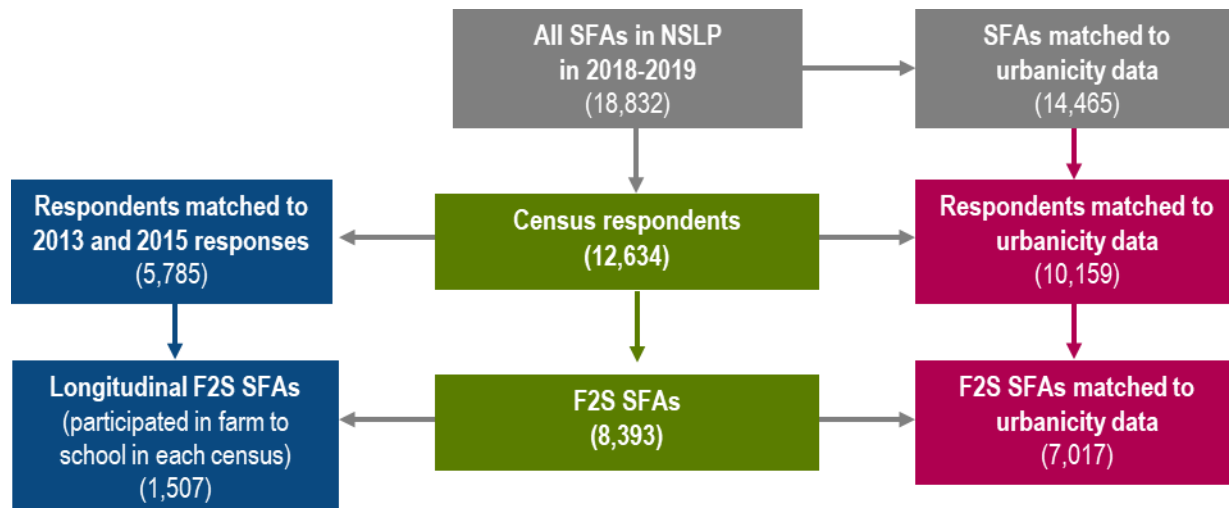
F2S SFAs

SFAs that participated in one or more farm to school activities during the previous school year (2018-2019).

The pink boxes on the right display the samples of respondents for which urbanicity could be determined. A total of 14,465 SFAs from the full population were matched to information on urbanicity from the CCD, including 10,159 SFAs that responded to the 2019 Census and 7,017 SFAs that participated in farm to school activities in SY 2018-2019. Analyses by urbanicity are limited to these samples for which urbanicity data were available.

The blue boxes on the left display the small sample of 5,785 respondents that could be linked across the 2013, 2015, and 2019 Censuses; and the 1,507 respondents that reported participating in farm to school activities in each of these three Censuses (longitudinal F2S SFAs). Analyses using this sample can be found in [Appendix E](#).

Exhibit 1.1. Study sample sizes



Analyses compared SFAs based on the following key demographic differences:

- Percentage of students eligible for free or reduced-price lunch, defining SFAs with high levels of eligibility as those in the top quartile (over 86 percent of students eligible) and those with low levels of eligibility as those in the lowest quartile (31 percent or fewer students eligible);
- Urbanicity, defined as location in an urban, suburban, or rural area; and

- SFA size, defined as small (fewer than 1,000 students), medium (more than 1,000 and fewer than 5,000 students), large (more than 5,000 and fewer than 25,000 students), or very large (25,000 or more students).

Exhibit 1.2 uses these characteristics to compare all 2019 Census respondents to non-respondents, and F2S SFAs to non-participants. These can also be compared to all SFAs across the country (in the second column). Compared to non-respondents, respondents were generally larger SFAs: approximately two-thirds of non-respondents (69 percent) were small SFAs, compared to 57 percent of respondents. Respondents and non-respondents were similar in other traits examined.

The majority of this report focuses on the F2S SFA sample. About one-quarter of F2S SFAs were in each of the highest and lowest quartiles of students eligible for free or reduced-price lunch (quartiles were determined based on all SFAs). The majority of F2S SFAs (63 percent) were located in rural areas, about a quarter in suburban areas, and the remainder in urban areas. About half were small, about one-third medium, and the rest were large (11 percent) or very large (2 percent). Among those SFAs that responded to the 2019 Census, F2S SFAs were more likely to be in suburban areas than non-participants.

Exhibit 1.2. Characteristics of 2019 Census respondents and non-respondents, and farm to school participants and non-participants

SFA Characteristic	All SFAs ^a	Non-Respondents ^b	Respondents		
			Overall ^c	F2S SFAs ^d	Non-Participants ^e
	Percent of SFAs				
Eligibility for Free or Reduced-Price Lunch (FRPL)					
Highest quartile (more than 86% of students eligible)	25%	27%	24%	24%	26%
Lowest quartile (31% or fewer students eligible)	25%	27%	24%	25% ^{NP}	23% ^P
Urbanicity					
Rural	64%	61% ^R	65% ^{NR}	63%	70%
Suburban	23%	24% ^R	23% ^{NR}	25% ^{NP}	17% ^P
Urban	13%	15% ^R	12% ^{NR}	12%	13%
Size					
Very large (> = 25,000 students)	2%	1% ^R	2% ^{NR}	2% ^{NP}	1% ^P
Large (5,000-24,999 students)	9%	6% ^R	10% ^{NR}	11% ^{NP}	4% ^P
Medium (1,000-4,999 students)	29%	24% ^R	31% ^{NR}	34% ^{NP}	20% ^P
Small (1-999 students)	61%	69% ^R	57% ^{NR}	52% ^{NP}	75% ^P

Note: FRPL = Free or Reduced-Price Lunch

^a N = 18,832, FRPL Missing = 1,404; Urbanicity Missing = 4,367; SFA Size Missing = 15.

^b N = 6,198, FRPL Missing = 819; Urbanicity Missing = 1,831; SFA Size Missing = 15.

^c N = 12,634, FRPL Missing = 585; Urbanicity Missing = 2,475; SFA Size Missing = 0.

^d N = 8,393, FRPL Missing = 266; Urbanicity Missing = 1,376; SFA Size Missing = 0.

^e N = 4,239, FRPL Missing = 319; Urbanicity Missing = 1,098; SFA Size Missing = 0.

NR (Non-Respondents) and R (Respondents) superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

NP (Non-Participants) and P (Participants) superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

1.5. Study Limitations

The information used in this report is based on self-reporting by SFA-level respondents who may not have been familiar with activities that occurred at the school-level or in prior years, or who may not have had access to exact expenditure data for local purchases. About 10 percent of F2S SFAs did not provide any usable local food expenditure data¹⁰; and 54 percent stated that their local food expenditures were estimated, rather than solely based on financial records or receipts.¹¹ Further, about two-thirds of F2S SFAs (64 percent) did not formally track overall farm to school activities; 70 percent did not track food, nutrition, and agricultural education activities; 57 percent did not track the number of edible school gardens; and 73 percent did not track the benefits and challenges of farm to school activities.¹² Data have been cleaned to ensure that information on each SFA is consistent and to eliminate extreme outliers, but reports of expenditures and school-level activities should be considered to be approximations.

Additionally, non-response weights that were applied to 2019 study findings may not accurately represent non-respondents if there were systematic differences in the participation and activities of respondents and non-respondents. For example, if SFAs that did not complete the 2019 Census were systematically less likely to participate in farm to school activities than the SFAs with similar demographic characteristics that completed the 2019 Census, the participation rates presented in this report would be too high.

1.6. Report Organization

The remainder of this report includes six chapters, each discussing a main theme from the 2019 Census findings, and a concluding chapter.

- [Chapter 2](#) – Farm to school participation rates and characteristics of F2S SFAs participating in farm to school in SY 2018-2019
- [Chapter 3](#) – Farm to school policies and context, including how SFAs define local foods, participation in other federal meal programs, school meal preparation and food service arrangements, staffing for farm to school activities, and funding for farm to school
- [Chapter 4](#) – Farm to school activities conducted, including the promotion of local foods, education and garden activities, and local foods procurement
- [Chapter 5](#) – Farm to school spending and purchases, including the use of local foods in school meals, the top local foods purchased, and the level of spending by SFAs on local foods
- [Chapter 6](#) – Perceived benefits, reported challenges, and reasons for not participating in farm to school activities
- [Chapter 7](#) – Concluding comments.

Following the main chapters are five appendices:

- [Appendix A](#) – Study objectives

¹⁰ The 10 percent of F2S SFAs are those with missing expenditure data for local foods, including fluid milk. See Appendix [Exhibit D-5.15](#) for complete information.

¹¹ See Appendix [Exhibit D-5.22](#) for complete information.

¹² See Appendix [Exhibit D-1.1](#) for complete information.

- [Appendix B](#) – 2019 Census Questionnaire
- [Appendix C](#) – Study methods for analysis of 2019 Census data
- [Appendix D](#) – Tables with all findings from the 2019 Census, including selected findings broken out by subgroups
- [Appendix E](#) – Longitudinal analysis methods and findings from the 2013, 2015, and 2019 Censuses.

2. Farm to School Participation

This chapter describes farm to school participation rates and characteristics of SFAs that participated in farm to school activities in SY 2018-2019. Findings related to participation in farm to school are based on the full set of 12,634 SFAs that completed the 2019 Census. Other findings are based on the 8,393 SFAs participating in farm to school in SY 2018-2019.

2.1. Farm to School Participation in SY 2018-2019

Farm to school participation is defined as having done one of 30 specified farm to school activities primarily related to procurement, promotion, or education in SY 2018-2019.

2019 Census respondents included both SFAs that participated in farm to school and those that did not. “Participation” in farm to school was defined in the 2019 Census as involvement in at least one of 30 specified farm to school activities in SY 2018-2019. As seen in Exhibit 2.1, most activities were categorized as (1) *procurement*, including purchasing or serving local foods; (2) *promotion* of local foods in schools through strategies such as signage, cafeteria activities, or community events; or (3) *education*, such as taste tests, school gardens, or field trips to farms. Some activities did not fit in these categories and were included in the “other” activities category. In practice, there is overlap between promotion and education activities, as activities promoting local foods may also serve an educational purpose, and activities that educate students about local foods may also serve to promote those foods.

Exhibit 2.1. Farm to school activities by category

 PROCUREMENT	 PROMOTION	 EDUCATION
• Use local foods in NSLP, SBP, CACFP meals, CACFP At-Risk Afterschool, Summer meals (SFSP and SSO), and/or the Fresh Fruit and Vegetable Program (FFVP) • Serve local foods as a snack • Serve products from school- or district-based gardens • Seek out local vendors, farmers, or co-ops to procure local foods • Source local foods from USDA DoD Fresh • Work with local food producers to develop specific food products • Forecast budgetary needs for local purchases • Utilize the geographic preference option	• Implement strategies to encourage student selection and consumption of local foods • Use food coaches to promote the consumption of local foods • Promote local foods through themed or branded promotions • Promote local foods at school in general via cafeteria signs, posters, and newsletters • Generate media coverage of local foods used in schools • Host farm to school family and community events • Celebrate National Farm to School Month • Host special local foods events in CACFP and/or SFSP	• Hold taste tests or cooking demonstrations of locally grown foods • Use USDA Team Nutrition materials • Conduct educational edible school garden activities as part of a school, summer, or afterschool curriculum • Conduct student field trips to farms, farmers' markets, producers, and processors • Have farmer(s) visit • Integrate farm to school activities into pre-K curriculum

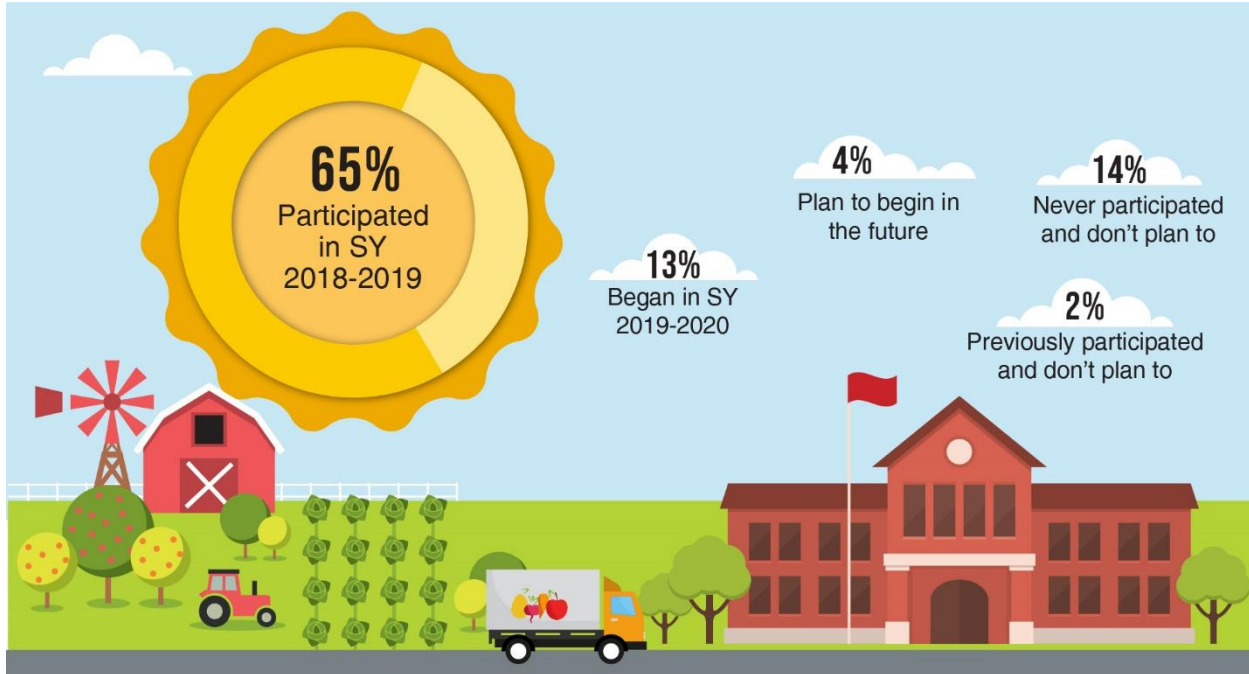
OTHER ACTIVITIES: Serve local food or provide farm to school activities as part of afterschool programs, provide training to school food service staff, and evaluate the impact of farm to school activities.

Note: NSLP = National School Lunch Program, SBP = School Breakfast Program, CACFP = Child and Adult Care Food Program, SFSP = Summer Food Service Program, SSO = Seamless Summer Option, USDA DoD Fresh = U.S. Department of Agriculture Department of Defense Fresh Fruit and Vegetable Program.

Approximately two-thirds of SFAs participated in farm to school activities in SY 2018-2019, and nearly three-fourths participated in SY 2019-2020.

Sixty-five percent of SFAs participated in one or more farm to school activities in SY 2018-2019, and 73 percent participated as of the fall of the 2019-2020 school year. Thirteen percent of SFAs reported beginning participation in farm to school in SY 2019-2020,^{13,14} and 4 percent planned to begin at some point in the future (Exhibit 2.2).¹⁵ Two percent of SFAs had previously participated in farm to school activities but did not plan to do so in the future, and 14 percent had never participated in farm to school and had no plans to do so in the future.

Exhibit 2.2. Nearly two-thirds of all SFAs participated in farm to school in SY 2018-2019



Note: N = 12,634, Missing = 2, Weighted N = 18,832.

Source: 2019 Census (farm to school participation status calculated based on selections in Q4). See Appendix [Exhibit D-2.1](#) for a table with all response options.

Among those 4 percent that planned to participate in the future, most (74 percent) did not know when they would begin, and 18 percent expected to begin in the 2020-2021 school year.¹⁶

The majority of F2S SFAs had recently started participating in farm to school.

Over half of F2S SFAs (57 percent) had participated in farm to school for fewer than three years (Exhibit 2.3), suggesting that over time, more SFAs are initiating participation in farm to school. One-fourth (25 percent) of F2S SFAs had participated for three to five years, and 18 percent had participated for six years or more.

¹³ Some SFAs that were participating in SY 2018-2019 no longer participated in SY 2019-2020.

¹⁴ SFAs that began participating in SY 2019-2020 are not included in references to “F2S SFAs” since the findings reflect activities over a full, one-year period; and SFAs completed the 2019 Census in the fall of SY 2019-2020.

¹⁵ Note the 2019 Census was administered in fall 2019, prior to the COVID-19 pandemic.

¹⁶ See Appendix [Exhibit D-2.7](#) for complete information.

Exhibit 2.3. As of SY 2018-2019, most F2S SFAs had participated in farm to school for fewer than three years

Note: N = 8,393, Missing = 0, Weighted N = 12,315. Responses limited to F2S SFAs.

Source: 2019 Census Q19. See Appendix [Exhibit D-2.8](#) for a table with all response options.

F2S SFAs that recently began participating in farm to school tended to be smaller, more rural, and had higher levels of students eligible for free or reduced-price lunch than more experienced SFAs; they were also more likely to focus only on procurement activities.

The F2S SFAs that had participated in farm to school for fewer than three years were more likely to be small (61 percent vs. 41 percent), in rural areas (65 percent vs. 60 percent), and have high levels of students eligible for free or reduced-price lunch (26 percent vs. 21 percent)¹⁷ compared to more experienced F2S SFAs ($p < 0.01$ for each).¹⁸

Additionally, F2S SFAs that had been doing farm to school for less than three years were more likely to pursue procurement activities only compared to those that had been involved for more than three years (31 percent vs. 11 percent; $p < 0.01$), suggesting that SFAs may be more likely to start with procurement activities before getting involved in promotion and/or education activities.¹⁹

2.2. Characteristics of SFAs Participating in Farm to School

Participation in farm to school was highest for very large and suburban SFAs.

The majority of SFAs of all sizes participated in farm to school in SY 2018-2019, but larger SFAs had the highest levels of participation. Fifty-seven percent of small SFAs of fewer than 1,000 students participated in farm to school compared to 87 percent of very large SFAs with more than 25,000 students ($p < 0.01$; Exhibit 2.4). Suburban SFAs had slightly higher levels of participation than either rural or urban SFAs (73 percent versus 65 percent and 63 percent, respectively; $p < 0.01$ for each).

Smaller differences were seen based on the level of eligibility for free or reduced-price lunch. SFAs with the lowest levels of student eligibility participated in farm to school activities at slightly higher rates overall than those with the highest levels (68 percent vs. 65 percent; $p < 0.01$).²⁰

¹⁷ “High levels” are defined as SFAs in the top quartile of percentage of students eligible for free or reduced-price lunch (greater than 86 percent of students eligible).

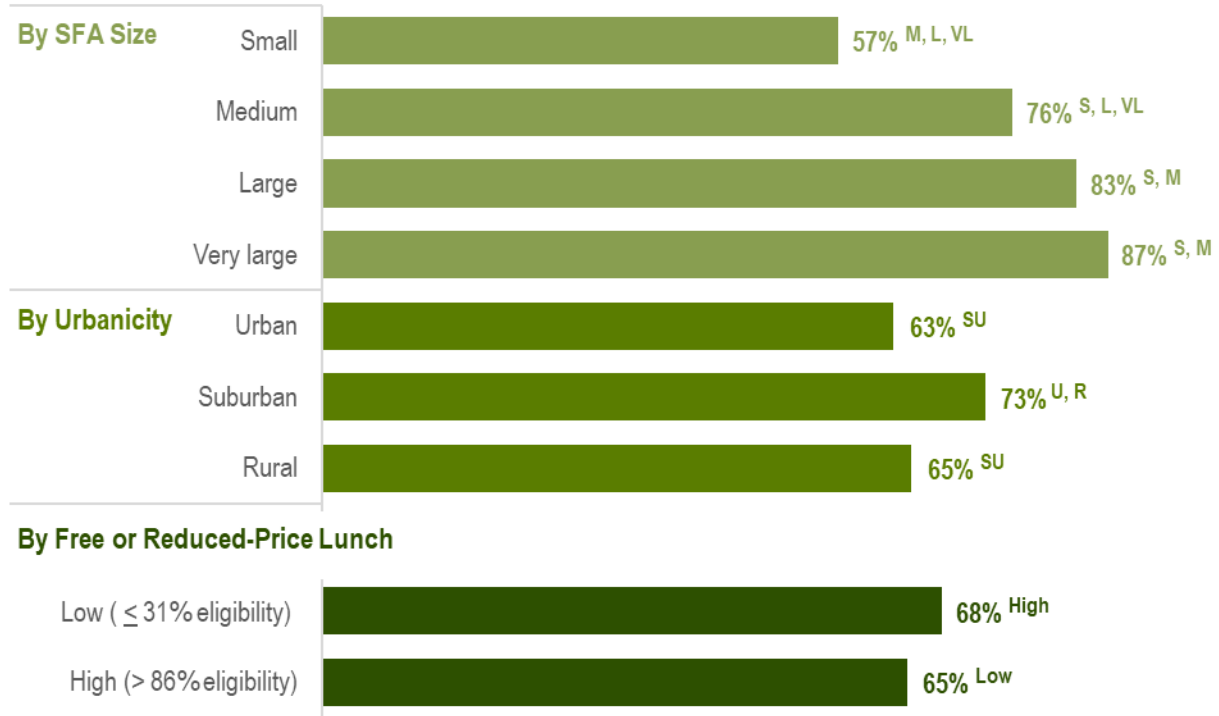
¹⁸ See Appendix [Exhibit D-2.9](#) for complete information.

¹⁹ See Appendix [Exhibit D-4.6](#) for complete information.

²⁰ “Lowest levels” are defined as SFAs in the bottom quartile of the percentage of students eligible for free or reduced-price lunch (31 percent or fewer students eligible). “Highest levels” are defined as SFAs in the top quartile of student eligibility (greater than 86 percent of students eligible).

Exhibit 2.4. In SY 2018-2019, larger and suburban SFAs participated in farm to school activities at the highest levels

% of SFAs that participated in farm to school in SY 2018-2019



Note: Small (1-999 students) SFAs N = 7,169, Missing = 2, Weighted N = 11,339; Medium (1,000-4,999 students) SFAs N = 3,911, Missing = 0, Weighted N = 5,511; Large (5,000-24,999 students) SFAs N = 1,303, Missing = 0, Weighted N = 1,689; Very large (≥ 25,000 students) SFAs N = 251, Missing = 0, Weighted N = 293.

Urban SFAs N = 1,209, Missing = 0, Weighted N = 2,333; Suburban SFAs N = 2,332, Missing = 0, Weighted N = 4,300; Rural SFAs N = 6,618, Missing = 1, Weighted N = 12,199.

Low free or reduced-price eligibility (Quartile 1: 31 percent or fewer of students eligible) SFAs N = 2,925, Missing = 1, Weighted N = 4,319; High free or reduced-price eligibility (Quartile 4: over 86 percent of students eligible) SFAs N = 2,899, Missing = 1, Weighted N = 4,299.

S, M, L, and VL superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

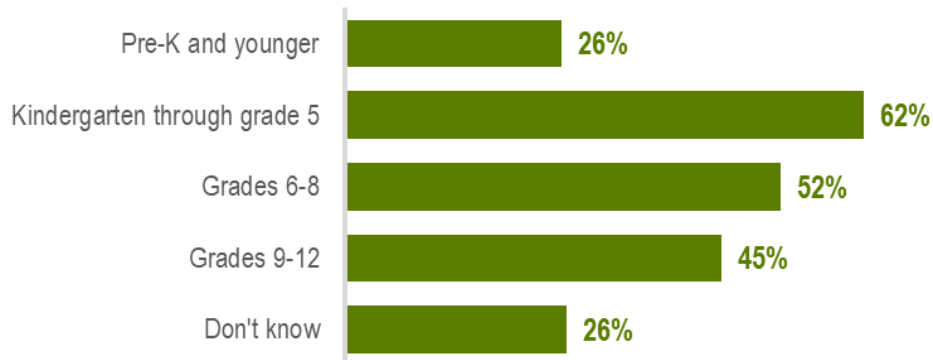
U, SU, and R superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Low and High superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Census (farm to school participation status calculated based on selections in Q4). See Appendix [Exhibit D-2.2](#) (by SFA size), [Exhibit D-2.3](#) (by urbanicity), and [Exhibit D-2.4](#) (by percent free or reduced-price lunch) for tables with all response options.

Elementary schools participated in farm to school activities at the highest levels.

Participation in farm to school decreased at higher grade levels, with elementary schools participating at the highest level (62 percent in K-5, 52 percent in grades 6-8, and 45 percent in grades 9-12; Exhibit 2.5). Approximately one-fourth of F2S SFAs (26 percent) reported that preschools and pre-kindergartens in the SFA participated in some farm to school activities, and about one-quarter of F2S SFAs did not know which grades participated.

Exhibit 2.5. Participation in farm to school activities was highest in K-5

Note: N = 8,393, Missing = 1, Weighted N = 12,315. Responses limited to F2S SFAs.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Census Q22. See Appendix [Exhibit D-2.12](#) for a table with all response options.

3. Farm to School Policy and Local Context

This chapter provides context for farm to school implementation. It describes State and local policies supporting farm to school, SFA definitions of local foods, additional federal school meal program participation, food service approaches used by SFAs, and staffing and funding available for farm to school activities. Findings in this chapter and remaining chapters primarily focus on F2S SFAs (those 8,393 SFAs participating in farm to school in SY 2018-2019). In addition, the chapter references relevant findings from the study team's interviews with a small sample of school food distributors.



3.1. SFA Policies

Many States have legislation that supports farm to school activities.²¹ According to the National Farm to School Network, between 2002 and 2018, 46 States, Washington, DC, and the U.S. Virgin Islands introduced a combined total of 453 bills and resolutions to establish, support, or expand farm to school.²² Almost all passed farm to school legislation that related to local procurement, food and agriculture education, or school gardens. Numerous States and territories have also encouraged farm to school efforts as a part of a State- or territory-level broader wellness or food security policy.²³ These initiatives can include, but are not limited to, encouraging the purchase of local foods by adapting procurement requirements, hiring specialists to help with the procurement process, or establishing a database of distributors that can provide local foods to schools.²⁴

District policies may reflect these State and national initiatives. Further, schools participating in NSLP were required to have a local school wellness policy by the start of SY 2006-2007.²⁵ These policies include goals for nutrition education as well as nutrition guidelines for foods served in school, and may also include goals for farm to school efforts.

About one-third of F2S SFAs incorporated farm to school into school wellness or local procurement policies.

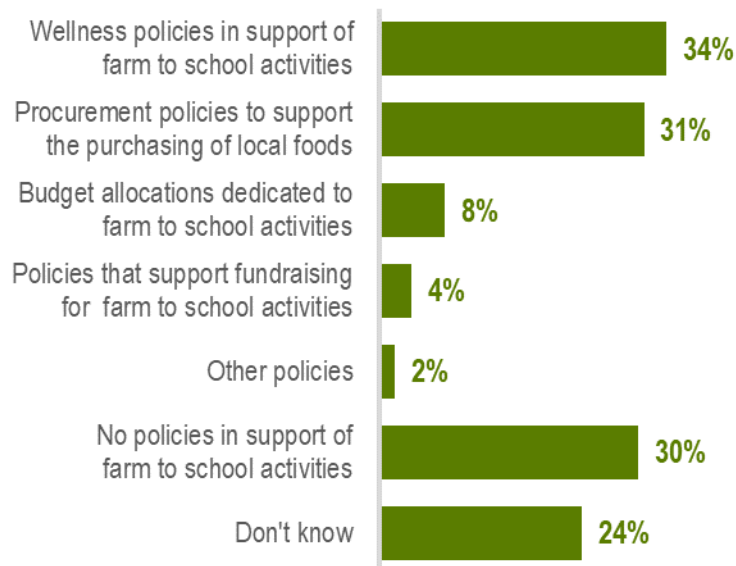
In the 2019 Census, about one-third of F2S SFAs reported having wellness policies supporting farm to school activities (34 percent) or procurement policies supporting the purchase of local foods (31 percent; Exhibit 3.1). Only 8 percent of F2S SFAs budgeted for farm to school activities in SY 2018-2019. About one-third of F2S SFAs (30 percent) did not have any SFA-level policies supporting farm to school activities, and about one-fourth (24 percent) reported that they did not know whether they had any such policies.

²¹ National Farm to School Network, 2017, 2019; Owen et al., 2011; Turner et al., 2017.

²² National Farm to School Network, 2019.

²⁴ Durairaj & Cureton, 2017; Landry et al., 2015; Marshall et al., 2012; National Farm to School Network, 2017, 2019; Owen et al., 2011.

²⁵ Local School Wellness Policy Implementation under the Healthy, Hunger-Free Kids Act of 2010, 2016.

Exhibit 3.1. About one-third of F2S SFAs had wellness or procurement policies supporting farm to school

Note: N = 8,393, Missing = 495, Weighted N = 12,315. Responses limited to F2S SFAs.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Census Q49. See Appendix [Exhibit D-3.1](#) for a table with all response options.

Farm to school networks, task forces, and advisory boards can also serve as important infrastructure for farm to school policies and implementation. For example, these entities may set goals for the amount of local foods served in schools and provide support to meet those goals. Twelve percent of F2S SFAs participated in a farm to school network, task force, or advisory board.²⁶

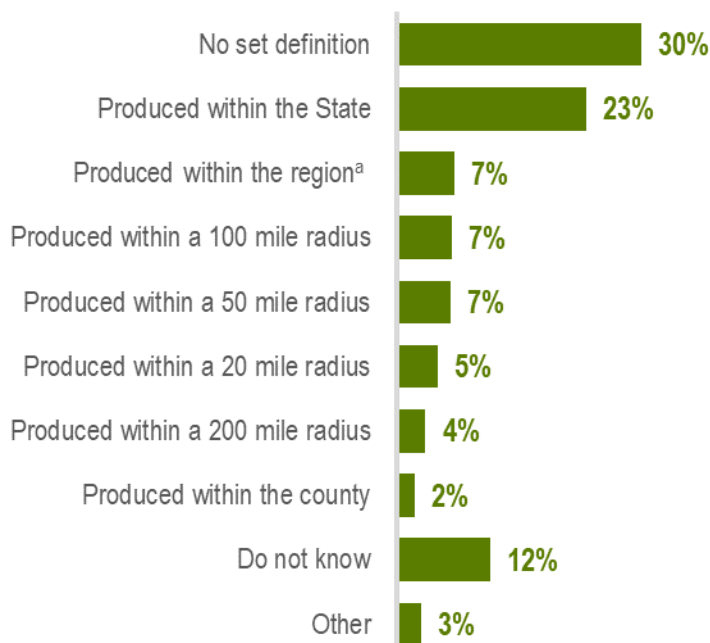
3.2. Definitions of Local

Local foods are central when discussing farm to school procurement, although what constitutes local may depend on stakeholder perspectives. There is no universal definition of local used by all schools, SFAs, States, or set by USDA but, rather, an SFA is able to define local to meet its own needs.

F2S SFAs typically had no definition of “local” or defined it as being produced within the State.

The 2019 Census asked SFAs how they defined local. Nearly one-third of F2S SFAs (30 percent) did not use a set definition (Exhibit 3.2). The most common response among those that reported a set definition was “produced within the State” (23 percent). Twelve percent of respondents did not know how their SFA defined local (these SFAs may have set definitions of local that the Census respondent was not aware of).

²⁶ See Appendix [Exhibit D-3.2](#) for complete information.

Exhibit 3.2. F2S SFAs that had a set definition of “local” were most likely to define it as produced within the State


Note: N = 8,393, Missing = 1, Weighted N = 12,315. Sample restricted to F2S SFAs.

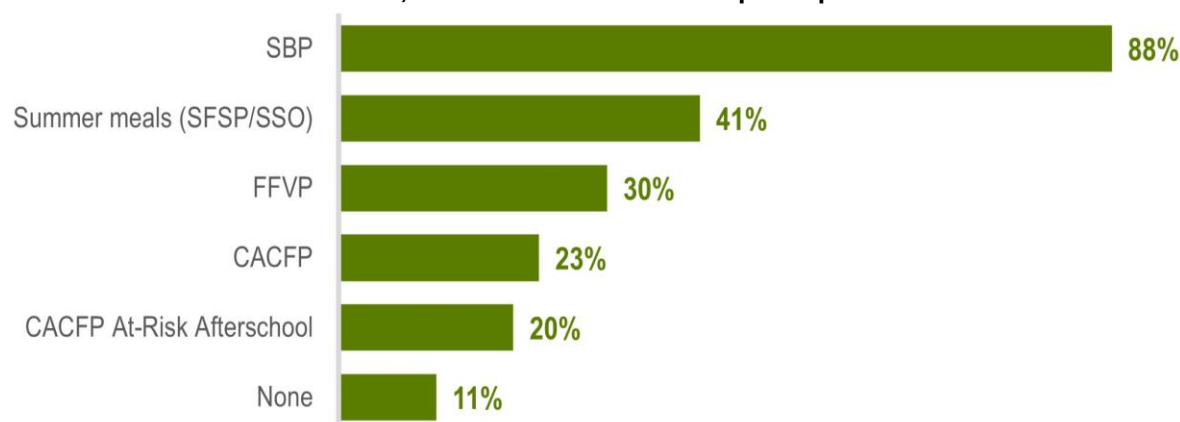
^a "Region" as defined by the SFA.

Source: 2019 Census Q3. See Appendix [Exhibit D-3.3](#) for a table with all response options.

3.3. Participation in Federal Meal Programs

Most F2S SFAs participated in other federal meal programs in addition to NSLP.

In addition to NSLP, in which all F2S SFAs participated, 88 percent of these SFAs participated in the School Breakfast Program (SBP), and 41 percent participated in FNS summer meal programs, through the Summer Food Service Program (SFSP) or the Seamless Summer Option (SSO) (Exhibit 3.3). Nearly one-third of F2S SFAs participated in the Fresh Fruit and Vegetable Program (FFVP), which provides free fresh fruits and vegetables to children at eligible elementary schools during the school day.

Exhibit 3.3. In addition to NSLP, almost all F2S SFAs also participated in SBP


Note: N = 8,393, Missing = 5, Weighted N = 12,315. Sample restricted to F2S SFAs.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Census Q2. See Appendix [Exhibit D-3.4](#) for a table with all response options.

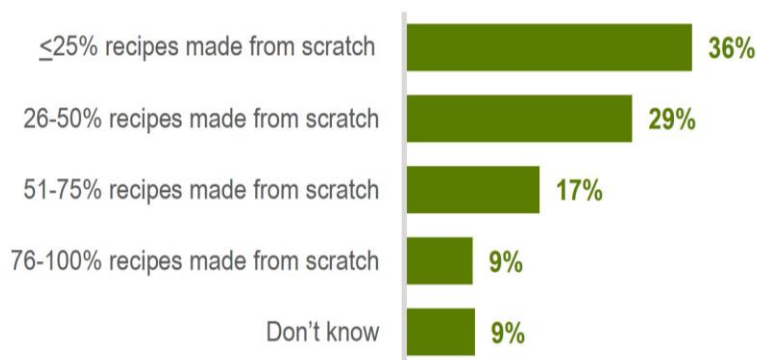
3.4. Preparation and Service of Local Foods

Most F2S SFAs had school-based kitchens and prepared some of their meals from scratch.

In the 2019 Census, scratch cooking was defined as including peeling and cutting up fruits and vegetables, measuring out raw ingredients, and adding seasonings. SFAs reported on the proportion of recipes their schools made from scratch. Nine percent of F2S SFAs reported preparing over three-quarters of their recipes from scratch, and over half of F2S SFAs (55 percent) reported preparing more than 25 percent from scratch. Just about one-third (36 percent) reported preparing 25 percent or less of their recipes from scratch (Exhibit 3.4).



Exhibit 3.4. Approximately one-fourth of F2S SFAs reported making more than half of their meals from scratch



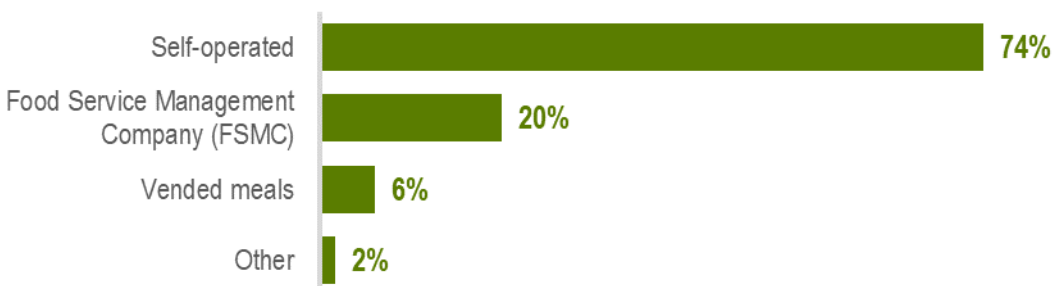
Note: N = 8,393, Missing = 0, Weighted N = 12,315. Sample restricted to F2S SFAs.

Source: 2019 Census Q9. See Appendix [Exhibit D-3.10](#) for a table with all response options.

The types of facilities available for meal preparation affect the ways that SFAs can use local foods and the extent to which they are able to prepare food from scratch. SFAs without access to kitchens or experience preparing meals from scratch may have challenges preparing local foods and may rely on foods that can be eaten whole, such as apples, or are available pre-cut or processed.

Among F2S SFAs, although the majority (74 percent) reported operating their own school meal food service, 20 percent reported using a food service management company (FSMC),²⁷ and 6 percent purchased vended meals (Exhibit 3.5).

²⁷ “Food Service Management Company (FSMC) means a commercial enterprise or a nonprofit organization that is or may be contracted by the SFA to manage any aspect of the school food service. [They] may be: (a) Public agencies or entities; (b) private, nonprofit organizations; or (c) private, for-profit companies.” U.S. Department of Agriculture, Food and Nutrition Service, 2016a.

Exhibit 3.5. Most F2S SFAs operated their own school meal food service

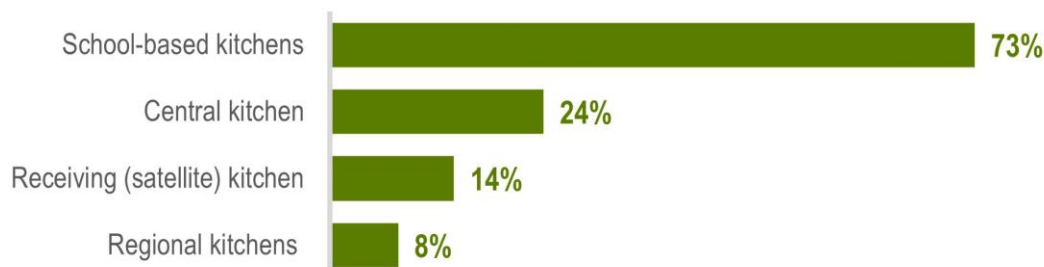
Note: N = 8,393, Missing = 5, Weighted N = 12,315. Responses limited to F2S SFAs.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Census Q20. See Appendix [Exhibit D-3.9](#) for a table with all response options.

Nearly three-fourths of F2S SFAs (73 percent) used school-based kitchens to prepare meals (Exhibit 3.6). Less than one-quarter of F2S SFAs used central kitchens that serve multiple schools (24 percent); receiving kitchens with limited preparation onsite (14 percent); or regional kitchens in which meals are prepared at one school and distributed to other schools (8 percent). Some SFAs used more than one type of facility.

The type of facilities available to F2S SFAs varied by size and urbanicity. For example, nearly all very large F2S SFAs (93 percent) had school-based kitchens, compared to about two-thirds of small ones (64 percent; $p < 0.01$).²⁸ Urban F2S SFAs were least likely to have school-based kitchens (65 percent; $p < 0.01$) and they were most likely to have receiving kitchens (32 percent, $p < 0.01$).²⁹

Exhibit 3.6. Most F2S SFAs used school-based kitchens to prepare meals

Note: N = 8,393, Missing = 3, Weighted N = 12,315. Responses limited to F2S SFAs.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Census Q21. See Appendix [Exhibit D-3.5](#) for a table with all response options.

²⁸ See Appendix [Exhibit D-3.6](#) for complete information.

²⁹ See Appendix [Exhibit D-3.7](#) for complete information.

3.5. Farm to School Staff

The 2019 Census examined the staff available to support farm to school efforts. Various individuals facilitate farm to school activities, including nutrition specialists, garden educators, AmeriCorps members, teachers, and food service staff, as well as unpaid volunteers. The responsibilities of the staff who organize farm to school activities vary. Some are hired specifically to work in school gardens, others oversee kitchens and develop new school menus, and some coordinate in-school training and education.³⁰

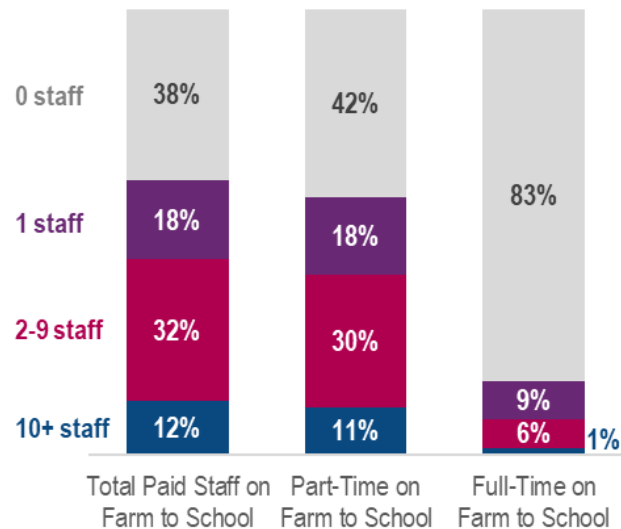
Most F2S SFAs relied on part-time staff or volunteers and did not have any paid staff dedicated full-time to farm to school.

The 2019 Census asked F2S SFAs to report on the number of paid staff that supported farm to school activities. The majority of F2S SFAs (62 percent) had at least one paid staff member, either full- or part-time, who worked on farm to school activities (Exhibit 3.7). SFAs that did not have paid staff may have relied on volunteers to support their farm to school efforts. SFAs also might not have counted the teachers or other school staff who support these efforts.

Most F2S SFAs rely on part- or full-time staff who spend a portion of their time on farm to school activities. Eighteen percent of F2S SFAs reported having one staff member to implement farm to school activities on a part-time basis; 30 percent reported between two and nine staff; and 11 percent of SFAs reported having 10 or more staff working part-time on farm to school activities. Most (83 percent) did not have any paid staff dedicated full-time (40 hours per week) to farm to school activities.



Exhibit 3.7. Most SFAs relied on part-time staff or volunteers to implement farm to school activities



Note: Total paid staff N = 8,393, Missing = 638, Weighted N = 12,315. Full-time N = 8,393, Missing = 807, Weighted N = 12,315. Part-time N = 8,393, Missing = 746, Weighted N = 12,315.

Responses limited to F2S SFAs.

Full-time is defined as at least 40 hours in one week. Part-time is defined as less than 40 hours in one week and includes both full-time staff who spent some time on farm to school and part-time staff solely dedicated to farm to school.

Source: 2019 Census Q46. See Appendix [Exhibit D-3.12](#) for a table with all response options.

³⁰ Conner et al., 2014; Gardner Burt et al., 2017; Hazzard et al., 2011.

3.6. Funding for Farm to School

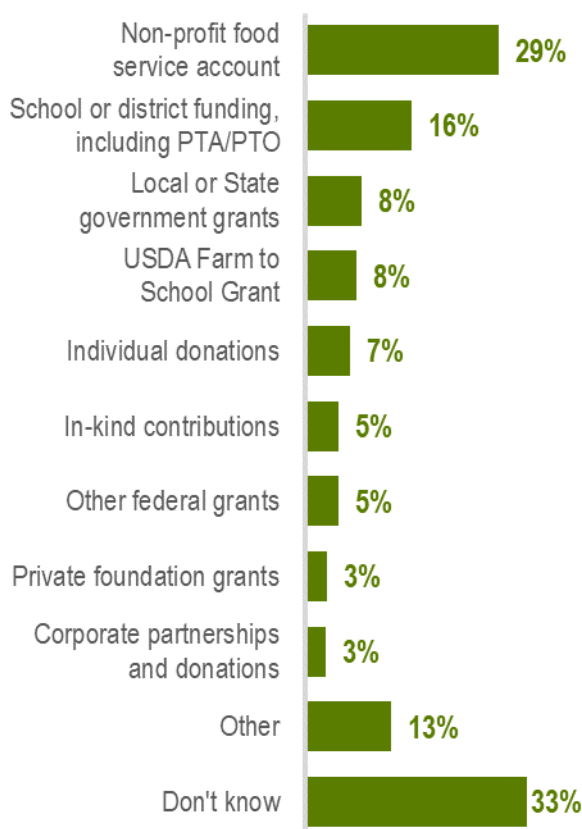
Farm to school activities are funded through various sources, such as the nonprofit school food service account; school or district funding, including from parent teacher associations/organizations (PTAs/PTOs); USDA Farm to School or other federal grants; grants from local or State governments, or private foundations; individual donations or in-kind contributions; and corporate partnerships and donations. For example, staffing through in-kind contributions could include local or State governments providing a part-time farm to school staff member.

The nonprofit school food service account was the most common funding source for farm to school staff and activities, but this source was most frequently used by larger SFAs.

F2S SFAs with at least one full-time paid staff member working on farm to school activities were asked about their funding sources for these activities and staff time. School food service accounts were used most frequently (29 percent), followed by school or school district funding (16 percent) (Exhibit 3.8). Less than 10 percent of these SFAs reported using any local or State government grants, USDA Farm to School Grants, individual donations, in-kind contributions, private foundation grants, corporate partnerships and donations, or other federal grants. One-third of these SFAs (33 percent) reported not knowing how their farm to school activities and staff time are funded. Thirteen percent reported other sources of funding, including a staff member's regular salary; other federal, State, or local funds; and programs such as AmeriCorps and FoodCorps.

Larger F2S SFAs were more likely to use the nonprofit school food service account to fund farm to school staff or activities.³¹ About half of large and very large F2S SFAs reported using this account (46 percent and 52 percent, respectively) compared to 19 percent of small ones ($p < 0.01$ for each). In contrast, small F2S SFAs reported being more likely to use individual donations to fund staff time and activities (10 percent) than did medium and large F2S SFAs (4 percent and 3 percent, respectively; $p < 0.01$ for each).

Exhibit 3.8. F2S SFAs most commonly funded farm to school activities and staffing through their nonprofit school food service account



Note: N = 4,788, Missing = 0, Weighted N = 6,993.

Responses limited to F2S SFAs that had full- or part-time staff member(s) dedicated to farm to school activities within their SFA. Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Census Q47. See Appendix [Exhibit D-3.15](#) for a table with all response options.

³¹ See Appendix [Exhibit D-3.16](#) for complete information.

4. Farm to School Activities

Farm to school efforts include procurement of local foods; promotion of their consumption among students; hands-on, experiential learning activities such as school gardens, farm visits, and culinary classes; and integration of food and agriculture-related education into the classroom curriculum. This chapter examines the categories of farm to school activities that SFAs are engaged in, their level of participation, and types of efforts. Findings are primarily based on the 8,393 F2S SFAs that participated in farm to school in SY 2018-2019. The chapter also references selected findings from the study team's interviews with a small sample of school food distributors.

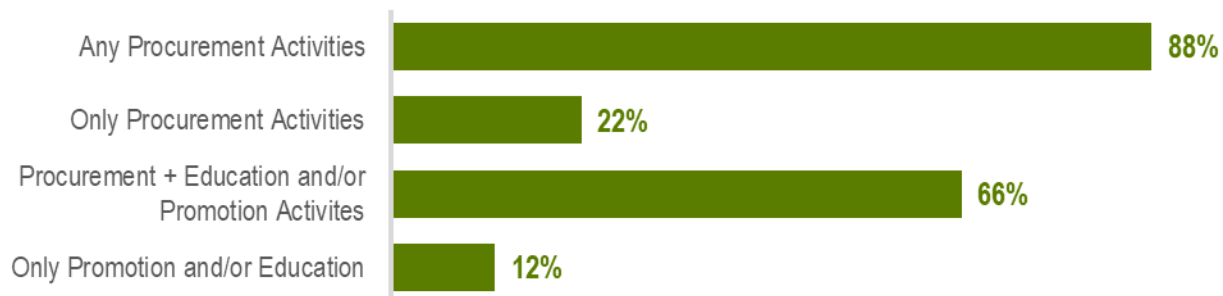
4.1. Focus of Farm to School Activities and Level of Participation

F2S SFAs most often participated in procurement activities.

Almost all F2S SFAs (88 percent) participated in at least one procurement activity (Exhibit 4.1). This included 66 percent of F2S SFAs that participated in promotion and/or education activities as well as procurement, and 22 percent that only participated in procurement activities. Only 12 percent of F2S SFAs participated in promotion and/or education activities without also participating in procurement activities.

Procurement activities refer to sourcing, purchasing, and serving local foods in schools; promotion activities encompass strategies to market local foods to students and their families; and education activities include learning opportunities in the classroom, school garden, or through field trips (see [Exhibit 2.1](#) for all activities within each category). Due to the frequent overlap between promotion and education activities, Exhibit 4.1 combines these two categories.

Exhibit 4.1. Almost all F2S SFAs participated in procurement activities



Note: N = 8,393, Missing = 0, Weighted N = 12,315. Sample restricted to F2S SFAs.

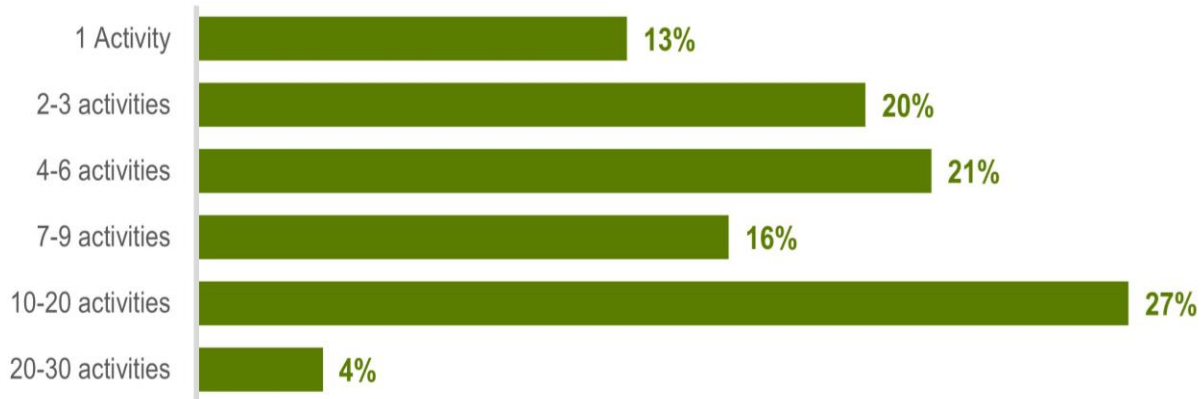
30 F2S SFAs did not participate in activities in any of these categories.

Source: 2019 Census (farm to school participation status calculated based on selections in Q4). See Appendix [Exhibit D-4.1](#) and [Exhibit D-4.2](#) for tables with all response options.

Nearly half of F2S SFAs participated in seven or more distinct farm to school activities.

All but 13 percent of F2S SFAs engaged in multiple farm to school activities (Exhibit 4.2). F2S SFAs participated in an average of 7.5 distinct farm to school activities in SY 2018-2019, and approximately half of F2S SFAs (46 percent) participated in seven or more activities. This group is described in this report as having “robust” participation. Nearly one-third of SFAs (27 percent) participated in 10 to 20 activities, and 4 percent participated in 20 to 30 activities.

Exhibit 4.2. Almost all F2S SFAs participated in multiple farm to school activities



Note: N = 8,393, Missing = 0, Weighted N = 12,315. Sample restricted to F2S SFAs.

Source: 2019 Census (calculated based on selections in Q4). See Appendix [Exhibit D-4.7](#) for a table with all response options.

4.2. Promoting Local Foods

SFAs promote local foods to students in several ways, such as themed or branded promotions, celebrations of National Farm to School Month, media coverage, and community events.

Open-ended comments from the 2019 Census included descriptions of efforts to promote local foods through special events. For instance, one SFA reported a “chefs in the garden” event, in which a local chef prepared food that students harvested from the garden at the elementary school.



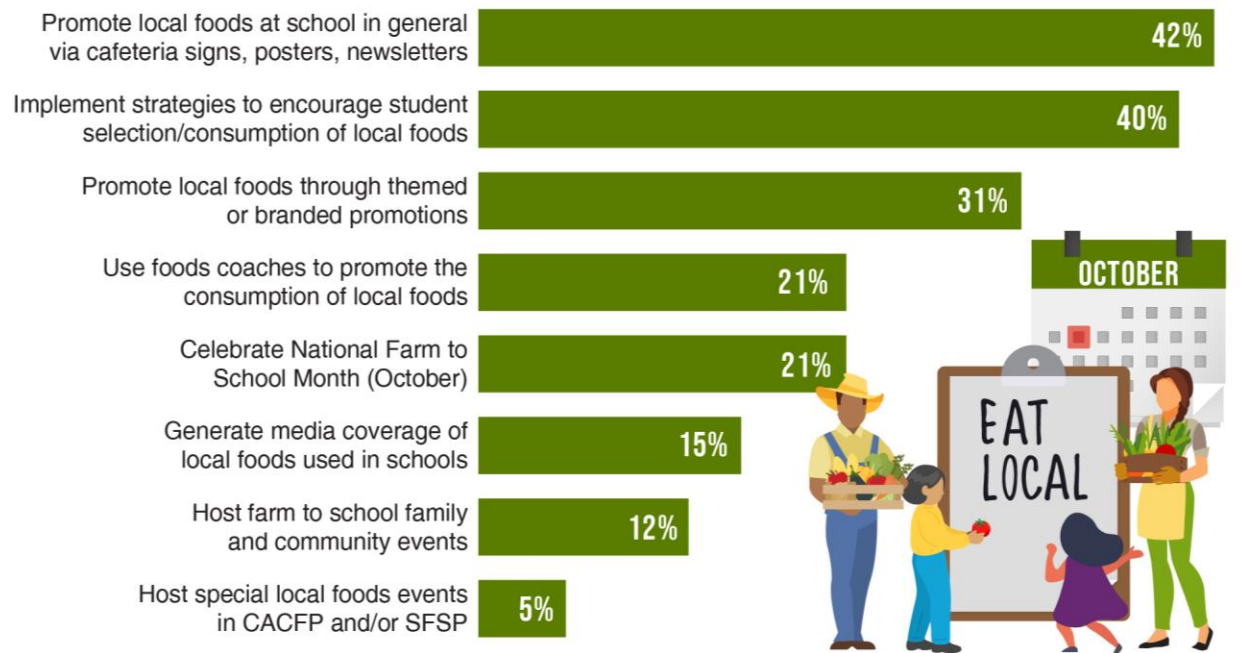
Several SFAs in California participated in a Harvest of the Month program to provide taste tests and in California Thursdays to emphasize local products on the menu. Another SFA described the experience of creating characters as spokespersons for fruits and vegetables.

Some of these events had a focus on educating students. For example, one SFA played videos during lunch informing students how fruits and vegetables are grown, harvested, and served. Another displayed educational information on menus and in school serving lines in cafeterias. A third SFA highlighted an in-season fruit or vegetable each month, and a dietician presented nutritional information to the students.

Approximately three-fifths of F2S SFAs (61 percent) engaged in local food promotion activities.³²

The most common promotion activities among F2S SFAs in SY 2018-2019 included promoting local foods in general at schools (e.g., via cafeteria signs, posters, or newsletters) (42 percent), and implementing strategies to encourage students to select and consume local foods (e.g., via product placements, food prompts, and creative signage) (40 percent; Exhibit 4.3). About one-third of F2S SFAs (31 percent) promoted local foods through themed or branded promotions, such as Harvest of the Month or Local Day, and 21 percent both used food coaches (i.e., adults or students in the cafeteria encouraging children to eat local foods) and celebrated National Farm to School Month to promote local foods.

Exhibit 4.3. F2S SFAs reported promoting local foods in various ways



Note: N = 8,393, Missing = 4, Weighted N = 12,315. Sample restricted to F2S SFAs.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Census Q4. See Appendix [Exhibit D-4.9](#) for full participation information.

4.3. Education Activities

Three-fifths of F2S SFAs engaged in education activities.³³

About one-third of F2S SFAs held taste tests or cooking demonstrations of locally grown foods in the cafeteria, classroom, or other school setting (34 percent); or conducted student field trips to farms, farmers' markets, producers, and processors (31 percent) in SY 2018-2019 (Exhibit 4.4). Fewer F2S SFAs had farmers visit the cafeteria, classroom, or other school-related settings (15 percent); integrated farm to school materials into the pre-K curriculum (13 percent); or used USDA Team Nutrition materials (12 percent).

³² See Appendix [Exhibit D-4.2](#) for complete information.

³³ See Appendix [Exhibit D-4.2](#) for complete information.

Exhibit 4.4. Taste tests, cooking demonstrations, and field trips were the most common education activities



Note: $N = 8,393$, Missing = 3, Weighted $N = 12,315$. Sample restricted to F2S SFAs.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Census Q4. See Appendix [Exhibit D-4.10](#) for full participation information.

Open-ended comments from the 2019 Census described some of the ways these activities were conducted. One SFA reported that a farmer works with students on growing their school garden and making compost from kitchen vegetables. Another SFA indicated that their agriculture teacher uses a grow tower to show elementary students how salad vegetables grow, and another SFA described the formal agriculture program at their high school. Many SFAs reported using taste tests to introduce new items (e.g., one SFA used its “Wellness Wednesdays” to debut recipes made from fresh fruits and vegetables each week). Another described visits from the county extension office to teach students about fruits and vegetables and do sample tastings.

About one-third of F2S SFAs used produce from school gardens as part of education activities.

In SY 2018-2019, about one-third of F2S SFAs (34 percent) had at least one edible school garden,³⁴ and among these SFAs, more than half of their schools (56 percent) had a garden.³⁵ About one-fifth of all F2S SFAs conducted educational school garden activities as part of a school, summer, or afterschool curriculum (21 percent).³⁶

About half of F2S SFAs that had edible school gardens served their garden produce as part of classroom or garden-based education activities (52 percent), or donated or sold the harvest to the cafeteria for inclusion in school meals (48 percent; Exhibit 4.5).



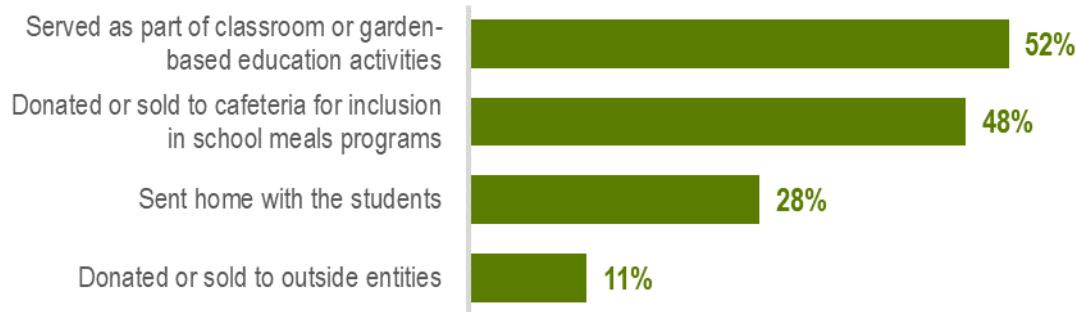
³⁴ See Appendix [Exhibit D-4.12](#) for complete information.

³⁵ See Appendix [Exhibit D-4.13](#) for complete information.

³⁶ See Appendix [Exhibit D-4.10](#) for complete information.

About one-fourth of F2S SFAs with gardens (28 percent) sent the produce home with students; and 11 percent donated or sold it through outside entities, such as farmers' markets. Seven percent specified other uses for garden produce including for school events; afterschool programs; taste tests; and donation to teachers, staff, or families.

Exhibit 4.5. F2S SFAs most commonly used school garden harvest as part of garden-based education activities or as part of school meals



Note: N = 2,938, Missing = 0, Weighted N = 4,225. Responses limited to SFAs that had edible school gardens during SY 2018-2019. Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Census Q31. See Appendix [Exhibit D-4.14](#) for a table with all response options.

4.4. Local Foods Procurement

As described in Section 4.1, activities related to the procurement of local foods are the most common way that SFAs engage in farm to school efforts. Procurement includes budgeting, drafting specifications, soliciting proposals or bids, and awarding and managing contracts. The overall process for procuring foods is the same for all foods, local or non-local, and can be impacted by budgets, food and supplier availability, state and local procurement regulations, size of the SFA, how the SFA handles its food service, and capacity to store and prepare fresh foods.³⁷

***Almost 90 percent of F2S SFAs engaged in farm to school procurement activities in SY 2018-2019.*³⁸**

Many F2S SFAs reported serving local foods in NSLP (72 percent), the most common procurement activity among F2S SFAs.³⁹ Beyond serving local foods in various programs, the 2019 Census asked SFAs whether they participated in other activities to support local procurement in SY 2018-2019. Forty-two percent of F2S SFAs reported that they procured local foods through the USDA Department of Defense Fresh Fruit and Vegetable Program (USDA DoD Fresh).⁴⁰ Additionally, approximately one-third of F2S SFAs (34 percent) sought out local vendors, farmers, or cooperatives for the procurement of local foods. One-fifth of F2S SFAs forecasted their budgetary needs for local purchases (21 percent), and one-fifth used a geographic preference to give higher priority to local foods in evaluations of proposals or bids

³⁷ Conell et al., 2015.

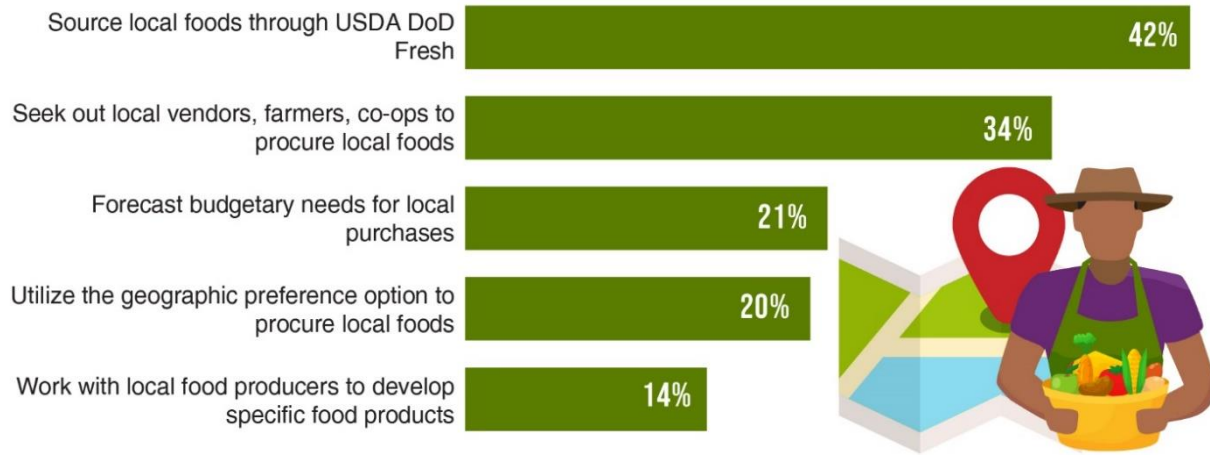
³⁸ See Appendix [Exhibit D-4.2](#) for complete information.

³⁹ See Appendix [Exhibit D-5.2](#) for complete information.

⁴⁰ USDA DoD Fresh enables SFAs to use their USDA Foods entitlement money to buy fresh produce. Schools in 48 States, Guam, Puerto Rico, the U.S. Virgin Islands, and Washington, DC participate in the USDA DoD Fresh program. See more at <https://www.fns.usda.gov/usda-foods/usda-dod-fresh-fruit-and-vegetable-program>.

(20 percent; Exhibit 4.6). Less frequently, F2S SFAs worked with local food producers to develop specific food products (14 percent).

Exhibit 4.6. F2S SFAs participated in a variety of activities to support local procurement



Note: N = 8,393, Missing = 4, Weighted N = 12,315. Sample restricted to F2S SFAs.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Census Q4. See Appendix [Exhibit D-4.15](#) for full participation information.

The most common sources of local foods were USDA DoD Fresh and produce distributors.

In SY 2018-2019, the most common sources of local foods for F2S SFAs were USDA programs (43 percent for USDA DoD Fresh and 36 percent for USDA Foods) and produce distributors (43 percent; Exhibit 4.7).⁴¹ Produce distributors typically source from numerous farmers, providing expanded options for SFAs. In fact, the study team’s interviews with school food distributors indicated that they sourced produce from an average of 50 farmers, ranging from 5 to 118 farmers per distributor.

One-quarter of F2S SFAs sourced local foods from individual producers, including community supported agriculture (CSA) (25 percent).⁴² Other sources of local foods included grocery stores (17 percent), broadline distributors⁴³ (16 percent), and school or community gardens (16 percent). Less than 10 percent of SFAs procured local foods from cooperatives of farmers, ranchers, or fishers; farmers’ markets or roadside stands; and food hubs.⁴⁴ Additionally, 3 percent of F2S SFAs reported another source for local foods, such as local dairies.

⁴¹ USDA Foods is a school meals entitlement program that “supports domestic nutrition programs and American agricultural producers through purchases of 100% American-grown and -produced foods for use by schools and institutions participating in NSLP, CACFP and SFSP.” USDA Foods includes USDA Foods Bulk for Processing, USDA Foods Direct Delivery, and USDA DoD Fresh. See more at <https://www.fns.usda.gov/usda-fis>.

⁴² In a CSA, consumers purchase a share from a local farm before the growing season and regularly receive part of the farm’s seasonal production in return.

⁴³ A broadline distributor offers a wide variety of product categories (e.g., including, but not limited to, produce).

⁴⁴ A food hub, a centrally located facility with a business management structure, facilitates the aggregation, storage, processing, distribution, and/or marketing of locally/regionally produced food products.

Exhibit 4.7. USDA programs and produce distributors were most commonly used to source local foods

LOCAL FOOD SOURCES:

- USDA DoD Fresh Program: **43%**
- Produce distributor: **43%**
- USDA Foods: **36%**
- Individual food producer, including CSA: **25%**
- Grocery store: **17%**
- Broadline distributor: **16%**
- School or community garden/farm: **16%**
- Cooperative of farmers, ranchers, or fishers: **8%**
- Farmers' market or roadside stand: **6%**
- Food hub: **3%**



Note: N = 8,393, Missing = 1, Weighted N = 12,315. Responses limited to F2S SFAs.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Census Q32. See Appendix [Exhibit D-4.16](#) for a table with all response options.

Informal procurement was the most common approach for purchasing local foods.

To purchase local food, F2S SFAs most often used informal procurement, including small purchases and micro-purchases (39 percent; Exhibit 4.8),⁴⁵ though almost one-quarter of SFAs still used formal procurement. SFAs often use multiple procurement approaches, depending on need.

The study team's interviews with school food distributors corroborated the prevalence of informal requests for local foods. Distributors indicated that SFAs often communicated local food requests through telephone calls and emails, and that requests for local foods were not consistently included in the formal procurement process. Informal procurement,

Examples of Local Food Procurement Approaches

"I went to different farms and orchards and talked to the farmers, and also had one school garden."

"Local milk was procured as a formal bid [and] other local produce from [a] broadline [distributor]."

"Ranchers came and asked if they could donate food/meat to our school program."

"School food service operates the greenhouses located at one of our schools. All products grown in the greenhouse belong to the parish school food service."

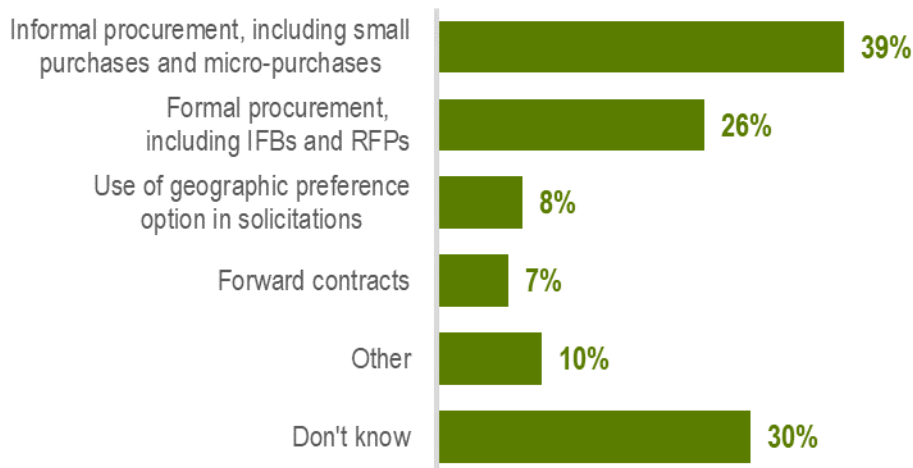
⁴⁵ Per federal regulations, for micro-purchases (i.e., purchase amount under \$10,000), an SFA can purchase items without competition. For small purchases (i.e., purchase amount under \$250,000), an SFA must get written or oral price quotes from at least three bidders. States may set more restrictive thresholds for both types of purchases (U.S. Department of Agriculture, Food and Nutrition Service, 2019; Methods of procurement to be followed, 2014).

which includes small and micro-purchases, can allow distributors to provide available, local products, but distributors cannot always meet demand when they receive last-minute requests.

Some F2S SFAs did report procuring local foods through formal procurement methods, including invitations for bids (IFBs) and requests for proposals (RFPs; 26 percent). Eight percent of F2S SFAs used a geographic preference in solicitations, and 7 percent used forward contracts.⁴⁶ Nearly one-third of respondents (30 percent) were unsure of the procurement approaches their SFA used. Given the census is not focused solely on procurement, it is possible the census respondent did not have complete information on the procurement approach.



Exhibit 4.8. Informal procurement was the most commonly reported approach to procure local foods



Note: N = 8,393, Missing = 0, Weighted N = 12,315. Responses limited to F2S SFAs.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Census Q33. See Appendix [Exhibit D-4.17](#) for a table with all response options.

SFAs that are self-operated reported using informal procurement for local foods more frequently (46 percent) than SFAs that use FSMCs or vended meals (21 percent and 18 percent respectively).⁴⁷ However, SFAs with FSMCs or vended meals were less able to provide details on local food procurement (43 percent and 50 percent, respectively). Self-operated SFAs may have more awareness of their procurement processes than those who rely on outside entities to purchase foods. Nevertheless, more SFAs with FSMCs reported using forward contracts (11 percent vs. 4-6 percent for SFAs that used other food service arrangements).

⁴⁶ A forward contract is an agreement to purchase a specific quantity of an item, at a pre-specified price, on a specific date in the future.

⁴⁷ See Appendix [Exhibit D-4.18](#) for complete information.

5. Local Foods in Schools and Associated Expenditures

This chapter describes how SFAs use local foods in school meals, their top local foods purchased, and their estimated expenditures for local foods. Findings are primarily based on the 8,393 F2S SFAs that participated in farm to school in SY 2018-2019. The chapter also includes relevant findings from the study team's interviews with a small sample of school food distributors.

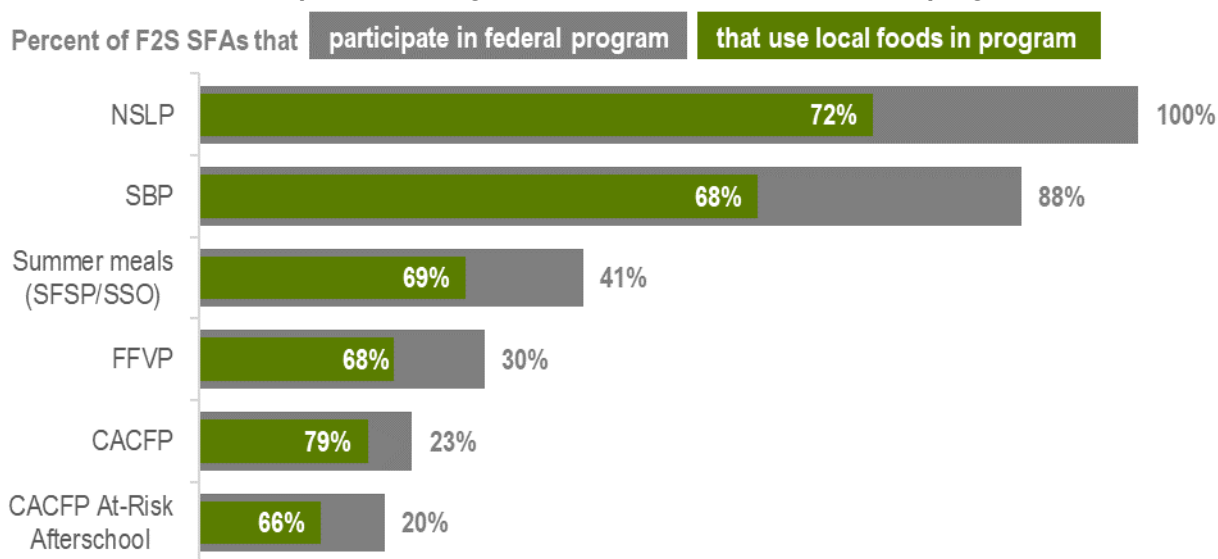
5.1. Local Foods in Schools

Most F2S SFAs reported serving local foods.

The majority of schools in F2S SFAs (85 percent) served at least some local foods.⁴⁸ Most of the F2S SFAs participating in specific federal school meal programs served local foods in those programs (Exhibit 5.1). Seventy-two percent of F2S SFAs, all of which participate in NSLP, served local foods as part of the program. Of the 23 percent of F2S SFAs that participated in CACFP, 79 percent served local foods in that program. Similarly, 69 percent of those participating in summer meals programs (SFSP/SSO) served local foods in their summer meals; 68 percent of those participating in SBP served local foods in their breakfasts; and 68 percent of those that participated in FFVP served local foods as part of that program.

Further, almost one-third of F2S SFAs (31 percent) used local foods as snacks, and 17 percent served produce from school or district gardens in school meals.⁴⁹

Exhibit 5.1. Most SFAs reported serving local foods in federal school meal programs



Note: NSLP N = 8,393, Missing = 0, Weighted N = 12,315. SBP N = 7,434, Missing = 0, Weighted N = 10,772. Summer meals N = 3,572, Missing = 0, Weighted N = 5,030. FFVP N = 2,576, Missing = 0, Weighted N = 3,742. CACFP N = 1,957, Missing = 0, Weighted N = 2,799. CACFP At-Risk Afterschool N = 1,726, Missing = 0, Weighted N = 2,443.

Sample restricted to F2S SFAs that participated in the corresponding program.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Census Q4. See Appendix [Exhibit D-3.4](#) and [Exhibit D-5.3](#) for tables with all response options.

⁴⁸ See Appendix [Exhibit D-5.1](#) for complete information.

⁴⁹ See Appendix [Exhibit D-5.2](#) for complete information.

Most school salad bars included local foods.

Nearly half of the schools in F2S SFAs (46 percent) had a salad bar, and most of those salad bars (84 percent) served local foods (Exhibit 5.2). Overall, the percentage of schools with salad bars was lower for larger SFAs – very large SFAs were less likely to have a salad bar (33 percent) than small, medium, or large SFAs (42-48 percent; $p < 0.01$).⁵⁰ In contrast, the percentage of schools with salad bars that served local foods increased with SFA size, such that 94 percent of salad bars in very large SFAs included local foods, while 78 percent of salad bars in small SFAs did ($p < 0.01$).

5.2. Top Local Foods Purchased

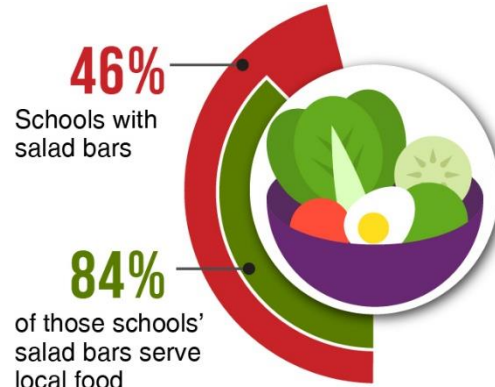
Fruits and vegetables were the most-common local foods purchased.

The most common local foods F2S SFAs purchased were fruits and vegetables, with more than 70 percent purchasing each (Exhibit 5.3), followed by local fluid milk (59 percent).

Other dairy products such as cheese, cottage cheese, sour cream, and yogurt; protein foods such as meat, poultry, eggs, seafood, nuts, and seeds; and grains, including baked goods (e.g., bread, cookies, and tortillas); were purchased by about one-quarter of F2S SFAs (24-28 percent). Baked goods accounted for the majority of grains purchased locally (68 percent).⁵¹ Finally, 8 percent of SFAs purchased other minimally processed products, including honey, maple syrup, and peanut butter.⁵²

Findings from the study team’s interviews with school food distributors are in line with these findings. The majority of distributors indicated that their school food customers most frequently requested fruits and vegetables.

Exhibit 5.2. Nearly half of schools in F2S SFAs had salad bars; most of these served local foods



Note: Schools with salad bars N = 8,393, Missing = 321, Weighted N = 12,315. Salad bars with local foods N = 8,072, Missing = 3,452, Weighted N = 11,795.

Percentage of salad bars with local foods assumes one salad bar per school.

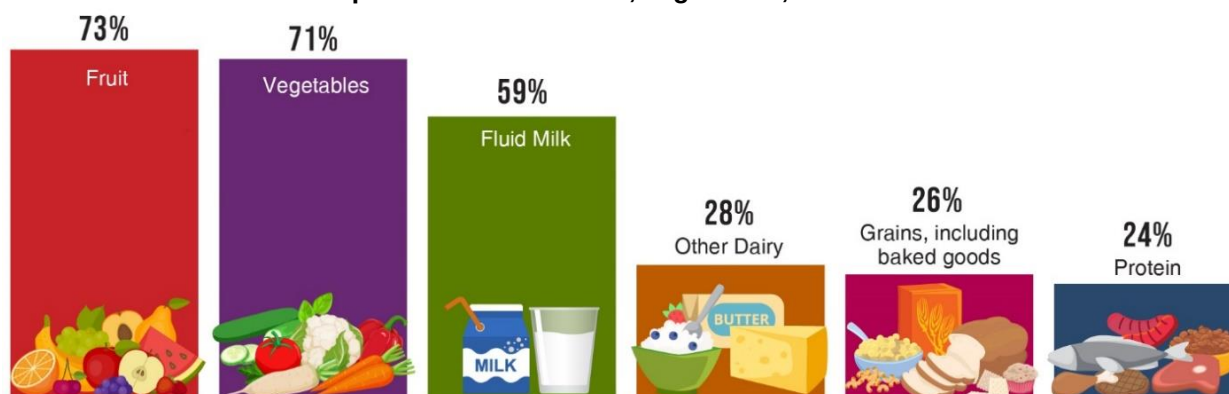
Source: 2019 Census Q7 and Q8. See Appendix [Exhibit D-5.4](#) for a table with all response options.



⁵⁰ See Appendix [Exhibit D-5.5](#) for complete information.

⁵¹ See Appendix [Exhibit D-5.10](#) for complete information.

⁵² See Appendix [Exhibit D-5.6](#) for complete information.

Exhibit 5.3. Most F2S SFAs purchased local fruits, vegetables, and fluid milk

Note: N = 8,393, Weighted N = 12,315. Fruit missing = 137; Vegetables missing = 147; Fluid Milk missing = 258; Other Dairy missing = 444; Grains, including baked goods missing = 421; Protein missing = 409. Responses limited to F2S SFAs.

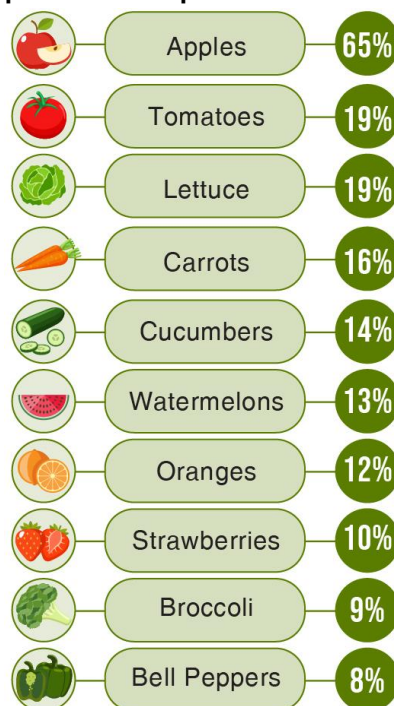
Source: 2019 Census Q34. See Appendix [Exhibit D-5.6](#) for a table with all response options.

Of their local foods expenditures, F2S SFAs spent the most on apples and fluid milk.

SFAs reported their top foods purchased locally by expenditure. In SY 2018-2019, nearly half of F2S SFAs (48 percent) spent the most on local fruits. For 30 percent it was fluid milk, and 12 percent reported spending the most on a local vegetable.⁵³ Only 4 percent spent the most on a local protein or other local product.

Most of the top local items purchased (by dollars spent) were produce. Nearly two-thirds of F2S SFAs (65 percent) identified apples among the five local foods they spent the most on, and tomatoes and lettuce were in the top five for 19 percent of F2S SFAs (Exhibit 5.4). Other top local produce items included carrots, cucumbers, watermelons, oranges, strawberries, broccoli, and bell peppers. On average, SFAs spent \$90,646 on their top local item.⁵⁴

Thirty-seven percent of F2S SFAs reported that local fluid milk was among the five local foods they spent the most on, making it the second, most-commonly cited food after apples.⁵⁵

Exhibit 5.4. Apples were the top local produce item purchased

Note: N = 8,393, Missing = 1,309, Weighted N = 12,315. Responses limited to F2S SFAs. Top local food items based on being included in an SFA's top five local foods. Source: 2019 Census Q35. See Appendix [Exhibit D-5.13](#) for a table with all response options.

⁵³ See Appendix [Exhibit D-5.11](#) for complete information.

⁵⁴ See Appendix [Exhibit D-5.12](#) for complete information.

⁵⁵ See Appendix [Exhibit D-5.13](#) for complete information.

Larger F2S SFAs and those with longer participation in farm to school purchased more local foods.

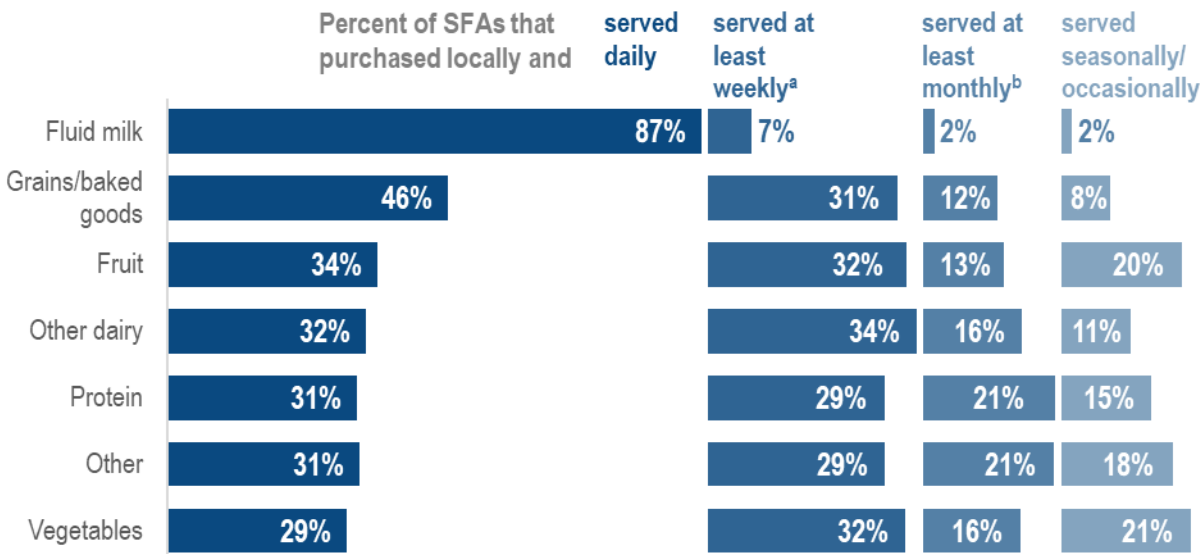
Among the F2S SFAs that purchased any local foods, larger ones were more likely to purchase local foods from each food group except for other dairy products, which were purchased by SFAs in similar levels regardless of SFA size.⁵⁶ For example, nearly half of very large F2S SFAs purchased grains or protein locally (45 and 44 percent, respectively); compared to less than one-third of small, medium, and large F2S SFAs (24-31 percent; $p < 0.01$ for each). Additionally, among the F2S SFAs that had purchased any local foods, those that had participated in farm to school for three or more years were more likely to purchase local foods from most food groups than those with less experience.⁵⁷

F2S SFAs served fluid milk more regularly than other local items.

Among the F2S SFAs that purchased local fluid milk, 87 percent served it daily, as did about one-third of those F2S SFAs that purchased local fruits or vegetables (34 percent and 29 percent, respectively). One-third of F2S SFAs served local fruits or vegetables weekly (32 percent each), while about one-fifth served them seasonally or occasionally (20 percent and 21 percent, respectively; Exhibit 5.5).

Among the F2S SFAs that purchased local grains/baked goods, nearly half served them daily (46 percent); and among those that purchased other local dairy products or proteins, about one-third served them daily (32 percent and 31 percent, respectively).

Exhibit 5.5. Fluid milk was the local item served most frequently



Note: Respondents were asked about serving frequency only for items they reported purchasing locally in Q34. As a result, information for "N" and "Missing" vary by each food group. Fluid milk: N = 4,849, Missing = 67, Weighted N = 7,100. Grains: N = 2,072, Missing = 53, Weighted N = 3,029. Fruit: N = 6,128, Missing = 77, Weighted N = 8,885. Other dairy: N = 2,218, Missing = 50, Weighted N = 3,263. Protein: N = 1,924, Missing = 55, Weighted N = 2,798. Other product type: N = 416, Missing = 319, Weighted N = 628. Vegetables: N = 5,942, Missing = 77, Weighted N = 8,617. Responses limited to F2S SFAs.

^a This category is based on a combination of "a few times per week" and "weekly."

^b This category is based on a combination of "a few times per month" and "monthly."

Source: 2019 Census Q36. See Appendix [Exhibit D-5.14](#) for a table with all response options.

⁵⁶ See Appendix [Exhibit D-5.7](#) for complete information.

⁵⁷ See Appendix [Exhibit D-5.8](#) for complete information.

5.3. Local Food Expenditures

Responses to the 2019 Census reflect challenges in collecting and reporting complete expenditure data, especially related to local food purchases, which were similar to those noted by respondents in previous censuses. Ten percent of F2S SFAs did not provide usable local food expenditure data,⁵⁸ and half provided estimated local food expenditures rather than figures solely based on financial records or receipts (54 percent for all local food and 49 percent for local fluid milk).⁵⁹



The 2019 Census asked SFAs about their total spending on all foods, all local foods, and local fluid milk. These questions excluded USDA Foods and USDA DoD Fresh, federal program entitlements that can be used for procuring local foods. Separately, the 2019 Census asked for total and local food expenditures on food procured through USDA DoD Fresh. However, the 2019 Census did not collect data on USDA Foods program spending, which accounts for approximately 15 to 20 percent of foods in school lunches.⁶⁰ Further, since many of the costs SFAs reported represent estimates, these findings should be interpreted with caution.

On average, F2S SFAs reported that 20 percent of their food spending was on local foods, with over half of local spending on fluid milk.

In SY 2018-2019, F2S SFAs spent an average of approximately \$114,000 on local foods, with more than half (\$66,000) spent on fluid milk.⁶¹ This amount accounted for about 20 percent of total food costs, on average, excluding foods purchased through USDA Foods and USDA DoD Fresh.⁶² Additionally, F2S SFAs spent, on average, \$16,000 on local foods through USDA DoD Fresh,⁶³ representing 56 percent of the average F2S SFA's total spending through the program.⁶⁴ Overall, F2S SFAs spent an average of \$40 on local foods per student.⁶⁵

In total, F2S SFAs spent an estimated \$1.26 billion on local foods in SY 2018-2019, excluding local foods purchased through USDA Foods and USDA DoD Fresh (Exhibit 5.6). Local fluid milk made up \$725 million of that total. F2S SFAs reported procuring an additional \$96.8 million worth of local foods through USDA DoD Fresh.

⁵⁸ This 10 percent of F2S SFAs are those with missing expenditure data for local foods, including fluid milk. See Appendix [Exhibit D-5.15](#) for complete information.

⁵⁹ See Appendix [Exhibit D-5.22](#) for complete information.

⁶⁰ U.S. Department of Agriculture, Food and Nutrition Service, 2016b.

⁶¹ See Appendix [Exhibit D-5.15](#) for complete information.

⁶² There was a large variation in the percent of expenditures spent on local foods. SFAs at the 25th percentile spent 4 percent of their expenditures on local foods, and those at the 75th percentile spent 25 percent on local foods.

⁶³ See Appendix [Exhibit D-5.15](#) for complete information.

⁶⁴ This represents a calculated average (i.e., mean) for SFAs that provided complete information on total and local USDA DoD Fresh food expenditures. See Appendix [Exhibit D-5.16](#) for complete information.

⁶⁵ See Appendix [Exhibit D-5.20](#) for complete information.

Exhibit 5.6. Local foods made up about one-fifth of F2S SFAs' total food expenditures

Note: Percentage of food expenditures excluding USDA DoD Fresh and USDA Foods that are local, N = 8,393, Missing = 1,248, Weighted N = 12,315. Local Food Costs, excluding USDA DoD Fresh and USDA Foods, N = 8,393, Missing = 800-830, Weighted N = 12,315. Local USDA DoD Fresh Costs, N = 5,056, Missing = 768, Weighted N = 7,268. Responses limited to F2S SFAs.

Source: 2019 Census Q37-Q39. See Appendix [Exhibit D-5.15](#) and [Exhibit D-5.16](#) for complete information.

F2S SFAs with higher levels of free or reduced-price lunch eligibility spent a higher percentage on local foods and more per student on food overall.

F2S SFAs with higher rates of students eligible for free or reduced-price lunch had a higher share of local food purchases. F2S SFAs with the highest levels of eligibility spent 22 percent of their budget on local foods, excluding USDA Foods and USDA DoD Fresh, while those with the lowest levels spent 18 percent on local foods ($p < 0.01$).⁶⁶

F2S SFAs with higher levels of students eligible for free or reduced-price lunch also spent more per student on food overall.⁶⁷ F2S SFAs with the highest levels of eligibility spent \$368 per student on all food, while those with the lowest levels spent \$167 per student ($p < 0.01$).

The level of spending on local foods did not vary substantially based on the number of farm to school activities.

Most F2S SFAs, at all levels of engagement, procured some local foods. While the percentage of local food purchases generally increased with the number of activities an SFA participated in, the differences were small. In fact, even those F2S SFAs that only participated in one farm to school activity spent an average of 16 percent of their total food purchases on local foods in SY 2018-2019, while those that participated in seven or more activities spent an average of 22 percent of their total food budget on local foods.⁶⁸

⁶⁶ See Appendix [Exhibit D-5.17](#) for complete information.

⁶⁷ See Appendix [Exhibit D-5.20](#) for complete information.

⁶⁸ See Appendix [Exhibit D-5.19](#) for complete information.

6. Benefits and Challenges

This chapter describes what SFAs reported as benefits of farm to school activities, local procurement challenges, and reasons for not participating in farm to school. Findings on benefits and challenges are based on the 8,393 F2S SFAs that participated in farm to school in SY 2018-2019. Reasons for non-participation are based on the 1,746 SFA respondents that had never participated in farm to school and 297 SFAs that no longer participate. The chapter also includes relevant findings from the study team's interviews with a small sample of school food distributors.

6.1. Benefits

SFAs perceived many different benefits of participating in farm to school.

When asked about the benefits resulting from their farm to school participation, F2S SFAs most commonly selected higher-quality foods in school meals (42 percent), an increase in student knowledge about local and healthful foods (31 percent), and increased consumption of items in school meals (26 percent; Exhibit 6.1). They also reported increased student knowledge about how to grow food, more food cooked from scratch in school meals, more experiential learning opportunities for students, and increased participation in school meals (17 to 19 percent each).

Some F2S SFAs indicated lower school meal program costs, reduced food waste, and increased kitchen staff satisfaction as benefits resulting from their farm to school participation (14 to 15 percent each). Six percent suggested other benefits, including increased nutritional value to students and better perceptions of school meals, as well as benefits to the economy and the environment (see text box).

Nearly one-third of F2S SFAs (30 percent) were unsure of the benefits of their farm to school participation, and 9 percent perceived no benefits.⁶⁹



Reported Benefits of Farm to School

"I see an excitement and curiosity [from students] that makes me feel good."

"An awakening of how critical it is that we re-introduce whole, less processed foods at the earliest possible age."

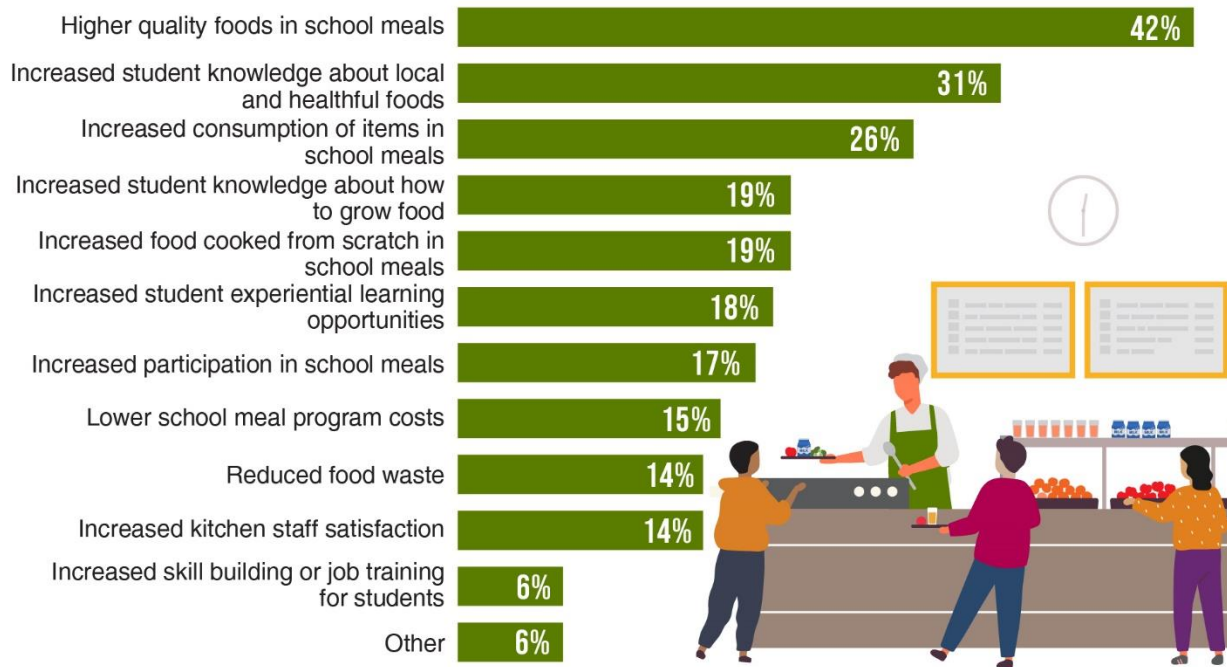
"We have so many more kids eating fresh veggies than ever before. We can go through 50 pounds of carrots when it used to be 10."

"Better parent and community perception of school meal programs."

"Strengthened local economy and reduced delivery truck travel."

"Reducing our carbon footprint by expecting our vendors to purchase local when possible."

⁶⁹ See Appendix [Exhibit D-6.1](#) for complete information.

Exhibit 6.1. F2S SFAs most commonly perceived higher-quality foods as a benefit of participating in farm to school


Note: N = 8,393, Missing = 4,113, Weighted N = 12,315. Sample restricted to F2S SFAs.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Census Q13. See Appendix [Exhibit D-6.1](#) for a table with all response options.

Larger F2S SFAs and those with longer participation perceived more benefits from farm to school.

Generally, larger F2S SFAs were more likely to report benefits of farm to school participation than smaller ones.⁷⁰ For instance, 63 percent of very large F2S SFAs perceived increased student knowledge about local and healthful foods as a result of farm to school activities, while only 26 percent of small ones did ($p < 0.01$). Similarly, almost half of very large F2S SFAs (48 percent) reported increased consumption of items in school meals, compared to less than one-third of small ones (22 percent; $p < 0.01$). Small F2S SFAs were more likely to be unsure of the benefits of farm to school activities (34 percent) compared to very large ones (11 percent; $p < 0.01$).

F2S SFAs with longer participation in farm to school were also more likely to perceive benefits from their farm to school participation than those newer to farm to school.⁷¹ Forty-two percent of F2S SFAs with less than three years of participation in farm to school were unsure of the benefits compared to only 12 percent of those with more experience ($p < 0.01$).

⁷⁰ See Appendix [Exhibit D-6.2](#) for complete information.

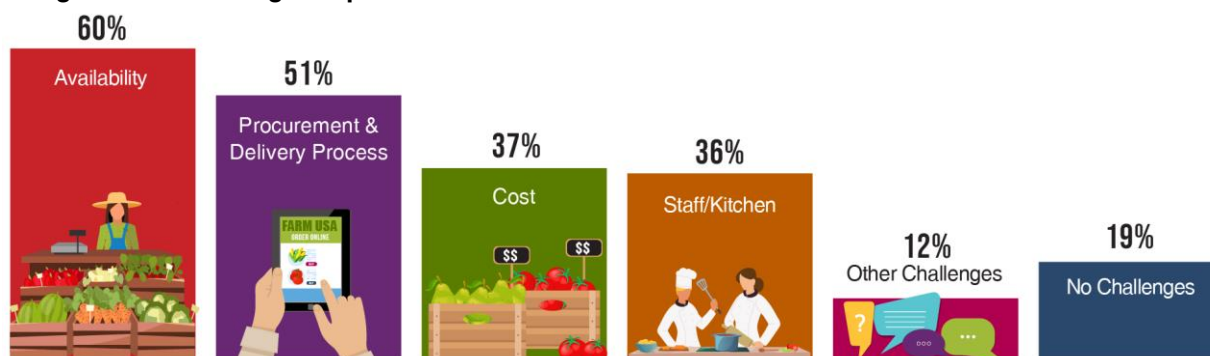
⁷¹ See Appendix [Exhibit D-6.4](#) for complete information.

6.2. Challenges

Most F2S SFAs reported challenges in procuring local foods.

F2S SFAs indicated that they experienced many types of constraints when purchasing local foods. Categories of challenges included availability (reported by 60 percent of F2S SFAs), procurement and delivery processes (51 percent), cost (37 percent), and staffing and school kitchens (36 percent). Nearly one-fifth of F2S SFAs (19 percent) reported no challenges. The following sections examine the specific challenges within each category to better understand the issues faced by F2S SFAs.

Exhibit 6.2. Availability, and procurement and delivery processes were the most common categories of challenges reported



Note: N = 8,393, Missing = 4,086, Weighted N = 12,315. Sample restricted to F2S SFAs.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Census Q14. See Appendix [Exhibit D-6.5](#) for a table with all response options.

SFAs most commonly cited issues related to availability as a challenge of local procurement.

Of the specific challenges reported, limited availability of local foods was most commonly cited by F2S SFAs (45 percent; Exhibit 6.3). Other challenges with availability included difficulty in finding local producers or suppliers, a lack of local foods offerings from primary vendors, and a lack of pre-cut or processed local foods (reported by 23 to 27 percent of F2S SFAs).

Less frequently, F2S SFAs reported a lack of variety by local vendors (20 percent) or difficulty obtaining local products that meet purchasing requirements (14 percent). Only 8 percent of SFAs cited producers' ability to meet food safety requirements as an issue. Respondents described challenges in more detail in open-ended comments (see text box), commenting on seasonality, limited availability of needed volume, and concerns about hygiene and safety.

Food distributors corroborated these challenges in their interviews with the study team. Distributors commonly cited the seasonality of local foods as a challenge because schools may not be aware of availability (e.g., asking for strawberries in December), and distributors may not have the capacity to warehouse local products to extend their

Examples of Availability Challenges

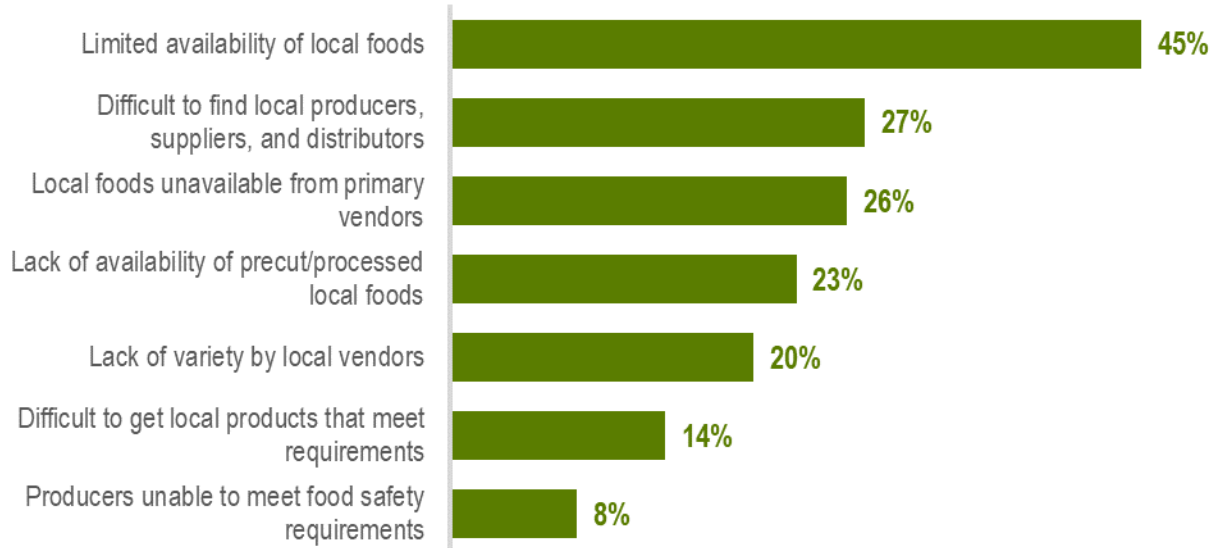
"Because we are in the Midwest, local things like vegetables are very limited during the school year due to when they are produced. We have had success with milk and fruit (apples) but not much else."

"For a very large district, some local vendors are unable to consistently supply needed product quantities."

"I always worry about safety regarding fresh foods from local farmers. I like the 'big box' safety."

season. Food safety requirements and concerns can also make it difficult for distributors to find the supply they need to provide the local foods that schools request.

Exhibit 6.3. F2S SFAs reported issues with availability of local foods



Note: N = 8,393, Missing = 4,086, Weighted N = 12,315. Sample restricted to F2S SFAs.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Census Q14. See Appendix [Exhibit D-6.5](#) for a table with all response options.

About half of F2S SFAs experienced challenges with procurement and delivery processes related to local foods.

Half of F2S SFAs cited issues with procurement and delivery processes when purchasing local foods (Exhibit 6.2). About one-fifth of F2S SFAs indicated challenges with identification of local foods by the distributor or vendor (23 percent), delivery (22 percent), or coordinating procurement of local and non-local foods (18 percent; Exhibit 6.4). Less commonly, F2S SFAs reported local producers not bidding on IFBs or RFPs (14 percent) or a lack of information to write specifications targeting local foods (12 percent). In open-ended comments, respondents described their lack of knowledge about how to contact and engage local farmers, and their lack of time to maintain documentation (see text box).

Examples of Procurement Challenges

"For a small district, finding the time to solicit and keep proper documentation for procurement has been the biggest deterrent."

"The entire procurement [process] most farmers do not want to deal with.... Farmers are too busy to want to deal with paperwork."

Exhibit 6.4. Procurement and delivery processes challenges varied

Note: N = 8,393, Missing = 4,086, Weighted N = 12,315. Sample restricted to F2S SFAs.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Census Q14. See Appendix [Exhibit D-6.5](#) for a table with all response options.

SFAs commonly reported the cost of local items as a challenge.

Thirty-three percent of F2S SFAs indicated the cost of local items was a challenge (Exhibit 6.5). In some cases, cost challenges may be a perception that local foods have higher costs, rather than reflective of actual cost differences. Some studies have indicated that schools do not always pay a premium for local products and local products may sometimes be cheaper – the result of several factors, including lower transportation costs, fewer supply chain intermediaries, less packaging, purchasing items in season, and schools' ability to purchase products that farmers otherwise would be unable to sell.⁷² Less commonly, F2S SFAs cited issues with unstable product prices (13 percent).

Examples of Cost Challenges

"We are a small school (150 kids) so finding a vendor willing to affordably work with us has been challenging."

"Biggest obstacle is our budget."

Exhibit 6.5. One-third of F2S SFAs perceived the cost of local items as a challenge to procuring local foods

Note: N = 8,393, Missing = 4,086, Weighted N = 12,315. Sample restricted to F2S SFAs.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Census Q14. See Appendix [Exhibit D-6.5](#) for a table with all response options.

⁷² Carbone et al., 2016; Gearan et al., 2019; Izumi et al., 2010; The Kohala Center, 2015; Motta & Sharma, 2016.

Some F2S SFAs faced staffing and kitchen equipment challenges.

Thirty-one percent of F2S SFAs reported a lack of staff time as a challenge to preparing local foods (Exhibit 6.6). Some F2S SFAs reported a lack of trained staff or kitchen equipment as challenges related to procuring local foods (11-12 percent).

Findings from school food distributor interviews corroborated these findings. The distributors indicated that unprocessed foods can be challenging for school staff to use, as they may not have the capacity or skills to prepare (e.g., clean, slice, chop) the product. Distributors also suggested providing relevant training for school nutrition staff. About one-fifth of F2S SFAs (21 percent) reported providing any kind of training to school food service staff about farm to school-related activities.⁷³

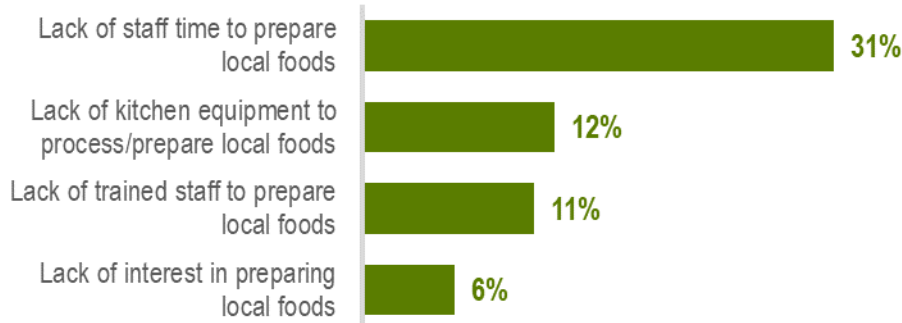
Examples of Staff/Kitchen Challenges

“Our limited time frame and small staff makes preparing fresh fruits and vegetables difficult. The food often needs extra cleaning and trimming before any actual recipe prep.”

“We have limited storage. Most foods purchased in large quantities would go to waste.”

“Lack of time and money to market the benefits of farm to school and school nutrition programs to parents, students, and the school community.”

Exhibit 6.6. One-third of F2S SFAs reported a lack of staff time to prepare local foods as a challenge



Note: N = 8,393, Missing = 4,086, Weighted N = 12,315. Sample restricted to F2S SFAs.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Census Q14. See Appendix [Exhibit D-6.5](#) for a table with all response options.

Larger SFAs and those with longer participation in farm to school reported more local food procurement challenges.

Overall, challenges in procuring local foods were reported most frequently by the largest F2S SFAs and by those with longer participation in farm to school. These findings may be partially driven by the fact that these SFAs are the most likely to participate in farm to school activities and thus may encounter more challenges.

Only 5 percent of very large F2S SFAs reported no challenges with procuring local foods compared to 24 percent of small ones ($p < 0.01$).⁷⁴ Larger SFAs were more likely to report challenges with availability and with procurement and delivery processes. For instance, the majority (84 percent) of very large F2S SFAs reported some challenge with availability, compared to 53 percent of small ones ($p < 0.05$). Further,

⁷³ See Appendix [Exhibit D-3.14](#) for complete information.

⁷⁴ See Appendix [Exhibit D-6.6](#) for complete information.

80 percent of very large F2S SFAs cited challenges with procurement and delivery processes, compared with only 43 percent of small ones ($p < 0.01$). Smaller F2S SFAs also cited fewer challenges with the cost of local items than their larger counterparts (27 percent compared to 40-48 percent, $p < 0.01$ for each).

Similarly, F2S SFAs that participated in farm to school activities for at least three years were more likely to report local food procurement challenges than those that began participating more recently ($p < 0.01$).⁷⁵ In particular, although limited availability of local foods was a challenge for some F2S SFAs of all levels of experience, F2S SFAs that have participated in farm to school for at least three years were more likely to cite this challenge than those with less experience (51 percent versus 40 percent; $p < 0.01$). More experienced F2S SFAs also reported more delivery challenges (29 percent versus 17 percent; $p < 0.01$) and more challenges finding pre-cut or processed local foods (29 percent versus 18 percent; $p < 0.01$). Finally, the cost of local items was more frequently cited as a challenge by more experienced F2S SFAs than by those newer to farm to school (41 percent versus 27 percent; $p < 0.01$).

6.3. Reasons for Not Participating in Farm to School

SFAs provided various reasons for not participating in farm to school.

SFAs that reported they had never participated in farm to school were asked why. These SFAs generally reported reasons for not participating that were similar to the challenges reported by SFAs that did participate. Concerns around availability of local foods was the most commonly reported category of reasons for not participating (55 percent), closely followed by concerns related to staff and kitchens (44 percent) as well as procurement and delivery processes (42 percent).⁷⁶ Less frequently, non-participating SFAs cited cost concerns (20 percent).

Among the specific challenges selected, non-participating SFAs most frequently cited the limited availability of local foods (42 percent).⁷⁷ Other commonly cited reasons for not participating included that it was too time consuming for staff to prepare local foods (32 percent); that local foods were not available from primary vendors (27 percent); and that it was too difficult to find local producers, suppliers, and distributors (27 percent).

One-fifth of non-participating SFAs (20 percent) selected “other” and specified additional reasons for not participating. Several SFAs reported that they use a particular vendor or that their meals are outsourced, implying that they have no discretion over the inclusion of local foods. Other responses included limited knowledge by staff on farm to school, newness of the respondent to the SFA, and general budget and time restrictions.

SFAs that previously participated in farm to school cited similar reasons for no longer participating.

Among the 2 percent of SFAs that previously participated in farm to school before SY 2018-2019, the most frequently cited reason for no longer participating was a lack of staff available to lead farm to school activities (35 percent).⁷⁸ About one-third of these SFAs also cited the inability to find local food vendors (31 percent), and 26 percent reported that nearby producers were unable to provide needed items. About

⁷⁵ See Appendix [Exhibit D-6.7](#) for complete information.

⁷⁶ See Appendix [Exhibit D-6.8](#) for complete information.

⁷⁷ See Appendix [Exhibit D-6.8](#) for complete information.

⁷⁸ See Appendix [Exhibit D-6.9](#) for complete information.

one-fifth cited the high cost of local foods (20 percent) or the lack of funds to conduct farm to school activities (19 percent).

Less frequently, SFAs cited no interest in farm to school activities (8 percent), lack of buy-in from district management (4 percent), lack of administrative support (3 percent), or that they did not see the benefits of farm to school activities (2 percent).

7. Conclusions

Results from the 2019 Census indicate that nearly two-thirds of SFAs (65 percent) participated in farm to school activities in SY 2018-2019, and nearly three-fourths (73 percent) participated in SY 2019-2020. The majority of F2S SFAs had been participating in farm to school activities for less than three years. These findings suggest an increase in farm to school participation in recent years.

The overall level of participation in farm to school was highest in very large and suburban SFAs, and K-5 schools participated at the highest rate. F2S SFAs that recently started participating farm to school in farm to school were more likely to be small, in rural areas, and have higher levels of free or reduced-price lunch eligibility compared to more experienced F2S SFAs.

Nearly half of F2S SFAs participated in at least seven farm to school activities. Most F2S SFAs participated in procurement activities (88 percent), and about three-fifths participated in promotion or education activities. Additionally, the majority of schools within F2S SFAs (85 percent) served at least some local foods, and local foods accounted for approximately 20 percent of F2S SFAs' total food purchases, excluding USDA Foods and DoD Fresh. When buying local foods, SFAs most often purchased fruits and vegetables, closely followed by fluid milk.

SFAs perceived several benefits resulting from their farm to school participation, including higher-quality foods and increased student knowledge about local and healthy foods. The most common perceived challenges included the limited availability of local foods, the cost of local items, and a lack of staff time to prepare local foods.

The majority of SFAs across the country are now involved in farm to school. Opportunities exist not only to expand initial engagement but also to deepen the existing connections among local food producers, educators, and school nutrition professionals as well as broaden the variety of local products, promotional strategies, and educational opportunities offered by schools.

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Appendix A: Study Objectives

The *Farm to School Census and Comprehensive Review* was guided by the four main objectives presented below. This report addresses in a descriptive manner the topics specified by the first three objectives. The study design does not allow direct attribution of any outcomes to farm to school efforts. The fourth objective is addressed in a separate document that describes the study's review of the Farm to School Grant Program.

1. Identify and describe the economic contribution of farm to school across various geographies by examining the **procurement process**.
2. Assess the impacts of farm to school efforts on **food growing, serving, and purchasing** at the SFA level.
3. Identify and describe how farm to school programs and activities have affected changes in **policy, systems, or structure**.
4. Analyze and describe the **outcomes and impacts** attributable to the USDA Farm to School Grant Program in the current year and cumulatively.

A more detailed set of research questions for each objective is presented in Exhibit A-1.

Exhibit A-1. Research questions by study objectives

Research Question
Objective 1: Identify and describe the economic contribution of farm to school across various geographies (e.g., FNS regions; urban, rural, and suburban communities; school districts/SFAs; and States) by examining the procurement process.
a. How do schools and SFAs define local, or is there no set definition? How does this vary across SFA size, State, and region?
b. How much money do SFAs spend on local food?
c. How many full- and part-time positions are dedicated to farm to school efforts, if any (State-, SFA-, and school level)?
d. In what ways does the number of producers and/or distributors used to source local items for NSLP impact overall procurement?
e. What goals do SFAs have regarding local purchasing and have goals been reached?
f. Are distributors recruited or used by SFAs for their ability to "buy local?"
g. Do different SFAs procure from the same distributors?
h. What are the most common foods purchased locally, by region, in weight and volume, and by cost?
i. What aspects of the local procurement process do SFAs find particularly complex or burdensome, and what aspects are easily accomplished? Have SFAs identified best practices to manage or simplify their local procurement process?
j. Do SFAs have to establish new supply chains to purchase local items and, if so, what is that process?
k. To what extent has the volume of local sales by SFAs claimed by producers and distributors shifted with farm to school efforts?
l. To what extent do SFAs have direct relationships with local farmers and producers?
Objective 2: Assess the impacts of farm to school efforts on food growing, serving, and purchasing at the SFA level.
a. What is the number of active school food gardens in each SFA and State? How are those gardens supported (i.e., grants, fundraising, directly funded by State government)?
b. How often is garden produce integrated into school operations (e.g., salad bars, sampling in the cafeteria)?

Research Question	
i.	What share of school meals include produce from school gardens? What share of school gardens sell or donate their harvest to SFAs for school meals?
ii.	How have gardens been integrated into the curriculum at various grade levels (e.g., nutrition education, cooking classes, agricultural coursework)?
c.	How many SFAs and schools have salad bars?
d.	Is “local” promoted to students? If yes, how is it promoted?
e.	How many schools, students, and staff participate in farm to school nationwide and at what levels (e.g., pre-K, elementary, middle, high school)?
f.	What are students’ thoughts, attitudes, and behaviors related to farm to school and school meals that include local foods (satisfaction, before-and-after meal participation rates, produce consumption, willingness to try new things)?
g.	In addition to school gardens, what types of farm to school activities are practiced at the State and SFA level? Is there State-level policy that incorporates and affects farm to school?
h.	Has school food purchasing changed since farm to school implementation at the SFA level (e.g., in terms of variety, type, locality)? If yes, how has it changed? In what ways have the meal offerings changed? What are the most commonly purchased and most popular (among students) farm to school products, and how are they different from those that are not considered part of the program?
i.	Has the amount of “plate waste” changed as farm to school efforts are implemented at the school or SFA level? If yes, has it increased or decreased?
j.	Have farm to school efforts led to more “scratch cooking” at the SFA level? What preparation, planning, and processes are used by SFAs to incorporate local foods into meals?
Objective 3: Identify and describe how farm to school programs and activities have affected changes in policy, systems, or structure.	
a.	What are the farm to school trends over time? Where are the gaps in technical assistance and funding for farm to school (i.e., to determine current and future farm to school needs)?
b.	What policies have been instituted since 2010 regarding local foods at State and SFA levels? How many schools or SFAs have included farm to school in their wellness plan or district/school-level policy?
c.	What types of strategies or system changes have been implemented by State agencies (e.g., Departments of Education, Agriculture, and Environment) in an effort to roll out farm to school? Are farm to school efforts directly allocated in the State budget?
d.	What percent of schools, SFAs, and States have a farm to school network, task force, or advisory board that promotes or assists with implementing farm to school?
e.	What other funding sources are SFAs using to assist in the cost of their farm to school program (e.g., Team Nutrition Training Grants, FoodCorps, State Health Department funds)? Are Farm to School Grants able to provide the requisite assistance?
Objective 4: Analyze and describe the outcomes and impacts attributable to the USDA Farm to School Grant Program in the current year and cumulatively.	
a.	How were the grant funds utilized by type of grant?
b.	How did activities, as implemented, track with the original grant proposal?
c.	How did Farm to School Grants impact the USDA Farm to School Grant Program at the SFA level, if at all? What are the impacts (planned and documented) by type of grant (i.e., support service, implementation, training, and planning)?

Research Question	
	What were the measurable outcome(s) of the projects and were they accomplished?
d.	What challenges did grantees face in the implementation of their projects? How did they overcome these challenges?
e.	Did grantees have additional funding for farm to school efforts?
f.	Did farm to school efforts sustain after grant funding ended? If yes, how was this accomplished? Was there an association between the amount of grant funding and sustainability over time (i.e., how farm to school is institutionalized in school policy, procedure, staffing, and budget)? What key factors other than funding are associated with sustainability?

Appendix B: 2019 Farm to School Census Questionnaire

Welcome to the 2019 Farm to School Census!

The 2019 Farm to School Census is being conducted by the United States Department of Agriculture (USDA) Food and Nutrition Service (FNS) and is being administered by Abt Associates. This Census will provide updated information on how many school food authorities (SFAs) are participating in farm to school activities such as purchasing locally-produced food for school meal programs, taking students to farms, bringing farmers into classrooms, teaching students culinary skills, adopting food and agricultural curricula, and cultivating edible school gardens.

Before you begin, a few important reminders:

- Please complete the Census even if you think you do not participate in **Farm to School** (HOVER: Farm to school activities are widely defined and vary based on school district participation. Farm to school activities generally refer to the procurement of local or regional foods and/or educational activities involving food, agriculture, or nutrition.).
- For each SFA, please complete a separate Farm to School Census. You do not need to complete a separate Census for each school, just for each SFA. If you have multiple schools in your SFA, you only need to complete ONE Census for the entire SFA.
- The Census is estimated to take 30 minutes or less to complete. Some questions may require that you coordinate with other school staff or partners.

NOTE: We recommend you obtain your purchase or procurement records before starting the Census. A few questions ask for the total value of food purchases during school year 2018-2019 and how much (in dollars) of those purchases were locally-produced.

- Your place in the Census will be saved if you close the page. When you are ready to return, please use the same Census link you received via email. When you click the link to start again, you will be able to continue where you left off.
- Words that appear in **green** are defined. To access the definition, simply hover your mouse over the word.
- **Please only use the “Back” and “Next” buttons that are embedded within the Census. Do not use the back or forward arrows in your browser or you will receive an error message.**

The Census does not ask for any personal information. FNS complies with the Privacy Act of 1974 (5 USC §552a). All information gathered is for research purposes only and will be kept private to the full extent allowed by law. The Census does not ask about any personal information. Just as prior Farm to School Census results are available here [<https://farmtoschoolcensus.fns.usda.gov/>], USDA intends to make the results of the current Census available in support and recognition of farm to school activities nationwide. Participation in this study will not affect any reimbursements, credits, participation in or foods received through USDA programs.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0584-0646. The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: U.S. Department of Agriculture, Food and Nutrition Services, Office of Policy Support, 3101 Park Center Drive, Room 1014, Alexandria, VA 22302, ATTN: PRA (0584-0646). Do not return the completed form to this address.

* Questions 1 and 2 are required questions.

(PROGRAMMER: Fill in information from sample. Display all information on the same screen for respondent to verify.)

1. Please review the information below to ensure it is correct and complete.

Contact email address:

SFA Name (Please use complete name without abbreviations.):

State or territory (abbreviation):

5 digit zip code for SFA mailing address:

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ID number assigned to your SFA by your State Agency (if known):

--	--	--	--	--	--	--	--	--	--

Is all of this information complete and correct?

- ☐ Yes - All information is complete and correct (GO TO Q2)
☐ No - Corrections or completions are needed

- 1a. What information needs to be updated? (Please choose all that apply.)

- ☐ Email address
☐ SFA Name
☐ State or territory
☐ SFA zip code
☐ State Agency ID number
☐ Nothing (GOTO Q2)

(PROGRAMMER: ASK Q1B if Q1A = 1 “Email address”)

- 1b. What is the correct email address?

(PROGRAMMER: ASK Q1C if Q1A = 2 “SFA Name”)

- 1c. What is the correct SFA name? Please include complete name without abbreviations

(PROGRAMMER: ASK Q1D if Q1A = 3 “State or territory”)

1d. What is the correct state or territory? (DROP DOWN BOX WITH STATES LISTED BY ABBREVIATION)

(PROGRAMMER: ASK Q1E if Q1A = 4 “SFA Zip code”)

1e. What is the correct zip code for your SFA’s mailing address? Please enter the 5 digit zip code.

(PROGRAMMER: ASK Q1F if Q1A = 5 “State agency ID number”)

1f. What is the correct State agency ID number (SFAID) number?

SCHOOL INFORMATION

Please answer a few questions about your SFA.

1. In addition to the National School Lunch Program (NSLP), which FNS programs did your SFA participate in during the 2018-2019 school year? (Please choose all that apply.)
 - ☐ School Breakfast Program (SBP)
 - ☐ Fresh Fruit and Vegetable Program (FFVP)
 - ☐ Child and Adult Food Program (CACFP) (e.g., in a Pre-K setting)
 - ☐ Child and Adult Food Program (CACFP) At-Risk Afterschool (snacks and/or supper)
 - ☐ Summer meals (i.e., meals in the Summer Food Service Program or the Seamless Summer Option,)
 - ☐ None of these

3. How does your SFA define "local" for the majority of its school food procurement? (Please choose one. If your definition of local varies by product, please select the most commonly used definition.)
 - ☐ Produced within a 20 mile radius
 - ☐ Produced within a 50 mile radius
 - ☐ Produced within a 100 mile radius
 - ☐ Produced within a 200 mile radius
 - ☐ Produced within the county
 - ☐ Produced within the State
 - ☐ Produced within the region (ASK Q3a)
 - ☐ Other: (please specify) _____
 - ☐ We don't have a set definition for local.
 - ☐ Don't know

(PROGRAMMER: ASK Q3a if Q3 = "Produced within the region")

3a. What do you mean by “region”?

- ☐ Other: (please specify) _____

4. Throughout the Census, please consider **Farm to School activities** (HOVER: Farm to School activities generally refer to the procurement of local or regional foods and/or educational activities involving food, agriculture, or nutrition.) throughout your SFA, whether they take place at one school or many schools.

For each activity below, please indicate if your SFA has never done this activity; used to do this activity before 2018-2019 school year; did this activity in the 2018-2019 school year; is currently doing this in the 2019-2020 school year; or plan to do this activity in the future. **For each row, please mark as many columns as applicable.**

	CHOOSE ALL THAT APPLY:				
	Have never done this activity	Used to do this activity before 2018-2019 school year	Did this in 2018-2019 school year (last year)	Currently doing this in 2019-2020 school year (this year)	Plan to do this activity in the future
4a. Use local foods in any form (e.g., fluid milk, fresh, frozen or dried products, and more) in the National School Lunch Program (NSLP)	1	2	3	4	5
4ai. Use local foods in any form (e.g., fluid milk, fresh, frozen or dried products, and more) in the School Breakfast Program (SBP)	1	2	3	4	5
4b. Serve local foods as a snack (in the classroom, sold a la carte, as fundraisers, etc.)	1	2	3	4	5
4c. Serve local foods or providing farm to school activities as part of afterschool programs	1	2	3	4	5
4d. Use local foods (e.g., fluid milk, fresh, frozen or dried products, and more) in the Fresh Fruit and Vegetable Program (FFVP)	1	2	3	4	5
4e. Source local foods from USDA DoD Fresh	1	2	3	4	5
4f. Serve products from school-based or district-based gardens/farms in any school meal, including summer and CACFP (HOVER: Child and Adult Care Food Program)	1	2	3	4	5

	CHOOSE ALL THAT APPLY:				
	Have never done this activity	Used to do this activity before 2018-2019 school year	Did this in 2018-2019 school year (last year)	Currently doing this in 2019-2020 school year (this year)	Plan to do this activity in the future
4fi. Use local foods in any form (e.g., fluid milk, fresh, frozen or dried products, and more) in CACFP (HOVER: Child and Adult Care Food Program) meals (e.g., in a Pre-K setting)	1	2	3	4	5
4fii. Use local foods in any form (e.g., fluid milk, fresh, frozen or dried products, and more) in CACFP (HOVER: Child and Adult Care Food Program) At-Risk Afterschool (snacks and/or supper)	1	2	3	4	5
4fiii. Use local foods in any form (e.g., fluid milk, fresh, frozen or dried products, and more) in Summer meals (i.e., meals in the Summer Food Service Program or through the Seamless Summer Option)	1	2	3	4	5
4g. Hold taste tests/cooking demonstrations of local or garden-grown foods in the cafeteria, classroom, or other school-related setting	1	2	3	4	5
4h. Work with local food producers to develop specific food products using local foods	1	2	3	4	5
4i. Implement strategies to encourage student selection and consumption of local foods (e.g., product placement, food prompts, creative signage, etc.)	1	2	3	4	5
4j. Use cafeteria food coaches to promote the consumption of local foods (e.g., adults or students in the cafeteria encouraging kids to eat local foods)	1	2	3	4	5

	CHOOSE ALL THAT APPLY:				
	Have never done this activity	Used to do this activity before 2018-2019 school year	Did this in 2018-2019 school year (last year)	Currently doing this in 2019-2020 school year (this year)	Plan to do this activity in the future
4k. Use USDA Team Nutrition materials (such as <i>The Great Garden Detective Adventure</i> or <i>Dig In!</i>) as part of taste testing or educational activities	1	2	3	4	5
4l. Conduct educational edible school garden as part of a school, summer, or afterschool curriculum	1	2	3	4	5
4m. Conduct student field trips to farms, farmers' markets, producers, processors	1	2	3	4	5
4n. Have farmer(s) visit the cafeteria, classroom or other school-related setting	1	2	3	4	5
4o. Integrate farm to school activities (such as gardening and local foods education) into Pre-Kindergarten curriculum	1	2	3	4	5
4p. Provide training to school food service staff on Farm to School or school gardens	1	2	3	4	5
4q. Promote local foods through themed or branded promotions (e.g., Harvest of the Month, Local Day, Taste Washington Day, etc.)	1	2	3	4	5
4r. Promote local foods at school in general (e.g., via cafeteria signs, posters, newsletters, etc.)	1	2	3	4	5
4s. Generate media coverage of local foods being used in schools	1	2	3	4	5
4t. Host Farm to School related family and community events (e.g., invite parents to lunch, corn shucking contests, farmers' markets at schools, etc.)	1	2	3	4	5
4u. Celebrate National Farm to School Month (October)	1	2	3	4	5

	CHOOSE ALL THAT APPLY:				
	Have never done this activity	Used to do this activity before 2018-2019 school year	Did this in 2018-2019 school year (last year)	Currently doing this in 2019-2020 school year (this year)	Plan to do this activity in the future
4v. Host special local foods events in CACFP (HOVER: Child and Adult Care Food Program) and/or SFSP (HOVER: Summer Food Service Program)	1	2	3	4	5
4w. Search for local vendors, farmers, co-ops to procure local foods	1	2	3	4	5
4x. Forecast budgetary needs for local purchases	1	2	3	4	5
4y. Utilize the geographic preference option to purchase local foods	1	2	3	4	5
4z. Evaluate the impact of farm to school activities (e.g., measuring changes in food waste, student acceptance of local items, changes in participation rates)	1	2	3	4	5
	Have never done this activity	Used to do this activity before 2018-2019 school year	Did this in 2018-2019 school year (last year)	Currently doing this in 2019-2020 school year (this year)	Plan to do this activity in the future

(PROGRAMMER: FOR Q4, DON'T ALLOW 1 TO BE SELECTED WITH 2 OR 3 OR 4. 1 MAY BE SELECTED WITH 5.)

(PROGRAMMER: SET FARM TO SCHOOL STATUS BASED ON Q4 ANSWERS.)

NOTE THAT F2S IS SET FOR QUESTIONNAIRE SKIP PURPOSES ONLY AND NOT FOR ANALYSIS

If Q4 includes 1 for any attribute, then set Q4_1 = YES, else Q4_1 = NO (have never done)

If Q4 includes 2 for any attribute, then set Q4_2 = YES, else Q4_2 = NO (used to do)

If Q4 includes 3 for any attribute, then set Q4_3 = YES, else Q4_3 = NO (did in 2018-2019)

If Q4 includes 4 for any attribute, then set Q4_4 = YES, else Q4_4 = NO (currently do in 2019-2020)

If Q4 includes 5 for any attribute, then set Q4_5 = YES, else Q4_5 = NO (plan to do)

IF Q4_1 = YES, and Q4_2, Q4_3, Q4_4, AND Q4_5 = NO, THEN CONFIRM:

[CONFIRM] Based on your responses, your SFA does not participate in and has no plans to participate in farm to school activities. Is that correct?

- ☐ Yes → CONTINUE TO ASSIGNING F2S VALUE BELOW
- ☐ No → GO BACK TO GRID AND REVIEW/UPDATE ANSWERS

Assign value of F2S based on the table below: (once assigned, skip out; F2S is Single Punch)

Hierarchy:

If Q4_3 = YES, SET F2S = 1 (participating in F2S in 2018-2019); skip out

IF Q4_4 = YES, SET F2S = 2 (started F2S in SY 2019-2020); skip out

IF Q4_5 = YES, SET F2S = 3 (plan to start F2S in the future); skip out

IF Q4_2 = YES, SET F2S = 5 (no longer participating and no plans for the future); skip out

IF Q4_1 = YES, SET F2S = 4 (no F2S and no plans for the future)

Q4_1	Q4_2	Q4_3	Q4_4	Q4_5	F2S	TITLE OF SKIP SECTION
any	any	YES	any	any	F2S = 1	Participating in Farm to School, SY 2018-2019
any	YES	NO	NO	NO	F2S = 5	No longer participating in Farm to School
any	any	NO	YES	any	F2S = 2	Started Farm to School in SY 2019-2020
any	any	NO	NO	YES	F2S = 3	Plan to start Farm to School in the future
YES	NO	NO	NO	NO	F2S = 4	No Farm to School and no plans for the future

GO TO Q6a

[PROGRAMMER: If number of schools is missing in the sample, set the max at Q6 to 20,000. If the number of schools is in the sample, set the max at Q6 to # of schools in sample + 10]

6a. According to our records, you had [S_NUMSCH] schools in your SFA during the 2018-2019 school year. Is this correct?

- ☐ Yes (GO TO Q7)
- ☐ No (GO TO Q6)

6. How many schools were in your SFA during the 2018-2019 school year?

_____ (RANGE 0-9999)

- ☐ Don't know

7. To the best of your knowledge, approximately how many schools in your SFA had **salad bars** during the 2018-2019 school year?

_____ (RANGE 0-9999)

- ☐ Don't know

IF Q7 > = 1 and F2S = 1, go to Question 8. IF F2S ≠ 1 go to Question 9. If Q 7 is “0” or DK , go to Question 9

8. How many of these salad bars served local foods during the 2018-2019 school year?

_____ (RANGE 0-9999)

☐ Don't know

9. During the 2018-2019 school year, what percent of your SFA's recipes were made from “**scratch**”? (HOVER OVER: Scratch can include peeling and cutting up fruits and vegetables, measuring out raw ingredients, adding seasonings)

☐ 0-25%

☐ 26-50%

☐ 51-75%

☐ 76-100%

☐ Don't know

(PROGRAMMER: IF F2S = 1 OR 2, GO TO Q11; IF F2S = 3, GO TO Q17; IF F2S = 4, GO TO Q = 18; IF F2S = 5 GO TO Q10)

NO LONGER PARTICIPATING IN FARM TO SCHOOL

10. Why are you no longer participating in farm to school activities? (Please choose all that apply.)

☐ Lack funds to operate/conduct farm to school activities

☐ No staff available to lead farm to school activities

☐ No interest in farm to school activities

☐ Don't see the benefits of farm to school activities

☐ Don't have buy-in from district management

☐ Lack of administrative support

☐ Unable to find vendors that provide local foods

☐ Farmers/producers near me unable to provide what we need

☐ The cost of purchasing local foods is too high

☐ Other reason: (please specify)_____

☐ I don't know

GO TO Q18.

**STARTED FARM TO SCHOOL ACTIVITIES IN 2019-2020 SCHOOL YEAR
OR DOING FARM TO SCHOOL IN 2018-2019 SCHOOL YEAR**

PROGRAMMER: Display the following text when F2S = 1: Please provide an answer to the following questions with information for the 2018-2019 school year.

PROGRAMMER: DISPLAY CHOSEN ACTIVITIES FROM Q4 GRID SO THEY CAN BE REFERENCE FOR Q11

11. How are you tracking farm to school activities? (Please consider the activities you selected, as seen below. {DISPLAY Q4 = 3 or 4})(Please choose all that apply.)

- ☐ Spreadsheets/records
- ☐ Verbal/written reports from teachers/staff
- ☐ Surveys
- ☐ Other: (please specify) _____
- ☐ We don't formally track

(IF Q11 = 3 "Surveys", ASK Q12)

12. At what level are you surveying? (Please choose all that apply)

- ☐ Students
- ☐ Teachers/staff
- ☐ Schools
- ☐ Other (please specify: _____)

13. Which of the following benefits do you feel has resulted from your participation in farm to school activities? (Please choose all that apply.)

- ☐ Reduced food waste
- ☐ Lower school meal program costs
- ☐ Increased consumption of items in school meals
- ☐ Increased participation in school meals
- ☐ Cooking food from "scratch" (HOVER OVER: Scratch can include peeling and cutting up fruits and vegetables, measuring out raw ingredients, adding seasonings)
- ☐ Increased kitchen staff satisfaction
- ☐ Better quality foods
- ☐ Increased student knowledge about local and healthful foods
- ☐ Increased student knowledge about how to grow food
- ☐ Increased student experiential learning opportunities (HOVER OVER: Opportunities include but are not limited to classes in the garden, visits to a farm, cooking classes, and taste tests.)
- ☐ Increased professional skill building or job training for students
- ☐ Other: (please specify) _____
- ☐ We have not seen any benefits.
- ☐ I don't know

14. Which, if any, of the following challenges have you experienced in procuring local products? (Please choose all that apply.)

VENDORS

- ☐ Limited availability of local foods
- ☐ Lack of availability of precut/processed local foods
- ☐ Local foods not available from primary vendors
- ☐ Local foods are not identified or marked as local by distributor/vendor
- ☐ Local food vendors don't offer a broad range of products
- ☐ Difficult to find local producers, suppliers, and distributors
- ☐ Difficult to coordinate procurement of local foods with non-local foods
- ☐ Local producers aren't bidding on Invitations for Bids (IFBs) or Requests for Proposals (RFPs)
- ☐ Difficult to get local products that meet quality requirements & other specifications (e.g., size)
- ☐ Producers unable to meet food safety requirements (e.g., Good Agricultural Practices)
- ☐ Don't always receive ordered items
- ☐ Delivery challenges

PRICE AND PURCHASING

- ☐ Local foods are more expensive than conventional products
- ☐ Unstable product prices
- ☐ School/district payment procedures do not align with farmers' needs
- ☐ Unclear on how to apply the geographic preference option
- ☐ Unclear how to write specifications targeting local foods

STAFF/ KITCHEN

- ☐ Lack of kitchen equipment to process/prepare local foods
- ☐ Lack of skilled/trained staff to prepare local foods
- ☐ Lack of staff time in preparing local foods
- ☐ Lack of interest in preparing local foods

OTHER CHALLENGES

- ☐ Other: (please specify) _____
- ☐ There are no challenges.

15. How are you tracking the **benefits and/or challenges** of your farm to school activities? (Please choose all that apply)

- ☐ Spreadsheets/reports
- ☐ Verbal/written reports from teachers/staff
- ☐ Surveys
- ☐ Other: (please specify) _____
- ☐ We don't formally track
- ☐ I don't know

(IF Q15 = 3 "Surveys", ask Q16)

16. At what level are you surveying? (Please choose all that apply)

- ☐ Students
- ☐ Teachers/staff
- ☐ Schools
- ☐ Other (please specify: _____)

IF F2S = 1, GO TO Q19; If F2S = 2, GO TO Q52.

PLAN TO START FARM TO SCHOOL IN THE FUTURE

17. When do you plan to start conducting farm to school activities?

- ☐ Next school year, 2020-2021
- ☐ The following school year, 2021-2022
- ☐ A few years from now, past the 2021-2022 school year
- ☐ Not sure when we will start

PROGRAMMER: GO TO Q52

NO FARM TO SCHOOL AND NO PLANS FOR THE FUTURE

18. Why does your SFA choose not to participate in and have no plans to participate in farm to school activities? (Please choose all that apply.)

VENDORS

- ☐ Limited availability of local foods
- ☐ Lack of availability of precut/processed local foods
- ☐ Local foods not available from primary vendors
- ☐ Local foods are not identified or marked as local by distributor/vendor
- ☐ Local food vendors don't offer a broad range of products
- ☐ Difficult to find local producers, suppliers, and distributors
- ☐ Difficult to coordinate procurement of local foods with non-local foods
- ☐ Local producers aren't bidding on Invitations for Bids (IFBs) or Requests for Proposals (RFPs)
- ☐ Difficult to get local products that meet quality requirements & other specifications (e.g., size)
- ☐ Producers unable to meet food safety requirements (e.g., Good Agricultural Practices)
- ☐ Don't always receive ordered items
- ☐ Delivery challenges

PRICE AND PURCHASING

- ☐ Local foods are more expensive than conventional products
- ☐ Unstable product prices
- ☐ School/district payment procedures do not align with farmers' needs
- ☐ Unclear on how to apply the geographic preference option
- ☐ Unclear on how to apply to write specifications targeting local foods

STAFF/ KITCHEN

- ☐ Lack of kitchen equipment to process/prepare local foods
- ☐ Lack of skilled/trained staff to prepare local foods
- ☐ Lack of staff time in preparing local foods
- ☐ Lack of interest in preparing local foods

OTHER CHALLENGES

- ☐ Other: (please specify) _____
- ☐ There are no challenges.

PROGRAMMER: GO TO Q52

PARTICIPATING IN FARM TO SCHOOL

19. How long has your SFA been conducting farm to school activities? (Please choose one; your best estimate is fine.)

- ☐ Less than 3 years
- ☐ 3-5 years
- ☐ 6-10 years
- ☐ More than 10 years

20. How does your SFA handle food service? (Please choose all that apply.)

- ☐ Self-operated
- ☐ Food Service Management Company (FSMC)
- ☐ Vended meals
- ☐ Other (please specify) _____

21. How does your SFA handle food preparation? (Please choose all that apply.)

- ☐ Central kitchen (i.e., for entire SFA or multiple schools in a SFA)
- ☐ Regional kitchens (e.g., meals are prepared at one school and distributed to other schools)
- ☐ Receiving (satellite) kitchen (i.e., limited preparation on site)
- ☐ School-based kitchens (i.e., for a single school)
- ☐ Other (please specify) _____

22. During the 2018-2019 school year, what grades participated in farm to school activities? Please keep in mind that farm to school activities include gardens, food and agricultural education, and local procurement. (Please choose all that apply.)

- ☐ Pre-K and younger
- ☐ K through 5th grade
- ☐ 6th grade to 8th grade
- ☐ 9th grade to 12th grade
- ☐ I don't know

(PROGRAMMER: DISPLAY ALL ITEMS FROM THE GRID IN Q4 WHERE Q4x = 3. HAVE THIS LIST VISIBLE TO RESPONDENT AS THEY ANSWER QUESTION 23 BELOW)

23. (DISPLAY LIST OF Q4 ITEMS WHERE Q4x = 3 ABOVE QUESTION.) To the best of your knowledge, approximately how many schools within the SFA **participated in any farm to school activities** during the 2018-2019 school year? (Please see the list above for farm to school activities your SFA participated in during the 2018-2019 school year)

_____ Number of schools (Numeric) Range 1:32000

(PROGRAMMER: ANSWER TO Q23 MUST NOT BE GREATER THAN Q6. IF Q23>Q6: PLEASE CONFIRM. THE NUMBER OF SCHOOLS PARTICIPATING IN ANY FARM TO SCHOOL ACTIVITIES (Q23) CANNOT BE GREATER THAN THE TOTAL NUMBER OF SCHOOLS IN YOUR SFA (Q6).

24. To the best of your knowledge, approximately how many of the schools in your SFA **served local food of any kind** in the 2018-2019 school year?

_____ Number of schools (Numeric) Range 0:32000

(PROGRAMMER: ANSWER TO Q24 MUST NOT BE GREATER THAN Q23. IF Q24>Q23, DISPLAY: “Serving local foods is considered a farm to school activity, so the number of schools serving local food cannot be greater than the total number of schools participating in farm to school activities. Please click next or back to review or edit your response.” AND GOTO Q23)

25. To the best of your knowledge, approximately how many of the schools in your SFA **provided food, nutrition, or agricultural education** during the 2018-2019 school year?

_____Number of schools (Numeric) Range 0:32000

(PROGRAMMER: ANSWER TO Q25 MUST NOT BE GREATER THAN Q23. IF Q25>Q23, DISPLAY: “Providing food, nutrition, or agricultural education is considered a farm to school activity, so the number of schools providing agricultural education cannot be greater than the total number of schools participating in farm to school activities.” GOTO Q23.)

26. How are you tracking the food, nutrition, and agricultural education activities? (Please choose all that apply.)

- ☐ Spreadsheet/reports
- ☐ Verbal/written reports from teachers/staff
- ☐ Surveys
- ☐ Other (please specify: _____)
- ☐ We don't formally track

(IF Q26 = 3 “Surveys”, ask Q27)

27. At what level are you surveying? (Please choose all that apply)

- ☐ Students
- ☐ Teachers/staff
- ☐ Schools
- ☐ Other (please specify: _____)

(PROGRAMMER: ASK Q28 if Q25>0)

28. How is food, nutrition and agricultural education provided to students? (Please choose all that apply.)

- ☐ Visits from farmers
- ☐ Food and agriculture curriculum integration
- ☐ Field trips to farms/farmers' markets
- ☐ Taste tests of local foods
- ☐ Other (please specify:_____)

29. To the best of your knowledge, approximately how many schools in the SFA had **edible school gardens** during the 2018-2019 school year? (IF SAMPLE HAS NUMBER OF SCHOOLS =1, ASK “To the best of your knowledge, did your school have an edible garden during the 2018-2019 school year?”)

_____(Numeric) Range 0:32000

- ☐ Don't Know

(PROGRAMMER: ANSWER AT Q29 MUST NOT BE GREATER THAN ANSWER AT Q23. IF Q29>Q23, DISPLAY: The number of schools with edible school gardens cannot be greater than the total number of schools in your SFA participating in Farm to School. Let's review those questions again. GOTO Q23)

(PROGRAMMER: IF Q29>0, ASK Q30 AND Q31, ELSE GO TO Q32)

30. How does your SFA track the number of schools that had edible school gardens during the 2018-2019 school year? (Please choose all that apply)

- ☐ Spreadsheet/reports
- ☐ Verbal/written reports from teachers/staff
- ☐ Surveys
- ☐ Other (please specify: _____)
- ☐ We don't formally track

31. How did schools use the harvest from the school gardens? (Please choose all that apply.)

- ☐ Donated or sold to the cafeteria for inclusion in school meals programs
- ☐ Donated or sold it to outside entities, like at a farmers' market or **CSA** [HOVER OVER: Community Supported Agriculture- in a traditional CSA there are a number of members who buy a share of the farm's production before each growing season. In return, members receive regular distributions of the food grown at the farm. The CSA allows the farmer to better gauge the number of crops to plant and therefore the potential profit from the growing season.]
- ☐ Sent it home with the students
- ☐ Served it in the classrooms or gardens as part of classroom or garden-based educational activities
- ☐ Something else (please specify: _____)
- ☐ I don't know

32. For the 2018-2019 school year, please indicate if your SFA procured local foods from any of the following sources. (Please choose all that apply.)

- ☐ Individual food producers (i.e., farmers, ranchers, fishers), including but not limited to a Community Supported Agriculture (CSA) model
- ☐ Cooperatives of farmers, ranchers or fishers
- ☐ Farmers' markets or roadside stands
- ☐ School or community garden/farm
- ☐ Produce distributor
- ☐ Broadline distributor
- ☐ **Food hub** (HOVER OVER: a centrally located facility with a business management structure facilitating the aggregation, storage, processing, distribution, and/or marketing of locally/regionally produced food products.)
- ☐ Grocery stores
- ☐ **USDA DoD Fresh Program** (HOVER OVER: The United States Department of Agriculture (USDA) Department of Defense (DoD) Fresh Fruit and Vegetable Program allows schools to use USDA Foods entitlement dollars to buy fresh produce. The program is operated by the Defense Logistics Agency (DLA) at the Department of Defense. USDA DoD Fresh allocations may be changed throughout the year and USDA does not impose a cap on the amount of entitlement used through this program.)
- ☐ USDA Foods
- ☐ Other. Please specify: _____.

- ☐ None of these
- ☐ I don't know

33. Which of the following approaches did your SFA use to procure local foods during the 2018-2019 school year? (Please choose all that apply)

- ☐ Forward contracts
- ☐ Informal procurement, including small purchases and micropurchases
- ☐ Formal procurement, including Invitations for Bid and Requests for Proposal
- ☐ Use of geographic preference as part of solicitations
- ☐ Other _____
- ☐ I don't know

34. Please indicate if your SFA or any schools in your SFA purchased any of the following local foods – IN ANY FORM -- during the 2018-2019 school year or would like to in the future. (Please choose one answer per row.)

	Yes, purchased as local products in 2018-2019	No, and have no plans to purchase these as local products	No, but would like to purchase as a local product in the future
a. Fruit	1	2	3
b. Vegetables	1	2	3
c. Fluid milk	1	2	3
d. Other dairy (HOVER OVER: Cheese, cottage cheese, sour cream, yogurt, etc.)	1	2	3
e. Protein (HOVER OVER: Meat, poultry, eggs, seafood, nuts, seeds, etc.)	1	2	3
f. Grains, including baked goods (HOVER OVER: Flour, grits, pasta, rice, etc.)	1	2	3
g. Other product type: (please specify) _____	1	2	3

(PROGRAMMER, IF 1 or 3 is chose for Other, show the specify box.)

(PROGRAMMER: IF NONE OF THE ATTRIBUTES IN Q34 ARE MARKED AS 1, GO TO PROGRAMMER NOTE BEFORE Q37.)

35. What were the top five local foods your SFA purchased in 2018-2019, based on TOTAL DOLLARS SPENT.

(PROGRAMMER: THE [FOOD PULL DOWN MENU] DISPLAYED IN COLUMN ii. WILL DEPEND ON THE CATEGORY CHOSEN IN COLUMN i. COLUMN iii. SHOULD ONLY APPEAR AS AVAILABLE TO THE RESPONDENT AS DICTATED BY THE SELECTION IN THE [FOOD PULL DOWN MENU] ALLOW THE RESPONDENT TO BEGIN TYPING A FOOD AS A WAY OF SEARCHING THE [FOOD PULL DOWN MENU] LIST. FOR EXAMPLE, IF THE FOOD PULL DOWN MENU FOR FRUIT IS DISPLAYED, THE RESPONDENT CAN TYPE “P” TO SKIP TO ALL THE FRUITS THAT START WITH “P” ON THE LIST – BUT RETAIN THE ABILITY TO SCROLL THROUGH THE PULL DOWN LIST. ONCE Q35i = NO OTHER FOOD PURCHASE, SKIP OUT TO Q35b.)

TOP LOCAL FOODS BY DOLLARS SPENT	i. What food group is it in?	ii. What is the food?	iii. Please specify
a. Top local item	[PULL DOWN MENU 1]	[FOOD PULL DOWN MENU_x]	_____
b. Second local item	[PULL DOWN MENU 1]	[FOOD PULL DOWN MENU_x]	_____
c. Third local item	[PULL DOWN MENU 1]	[FOOD PULL DOWN MENU_x]	_____
d. Fourth local item	[PULL DOWN MENU 1]	[FOOD PULL DOWN MENU_x]	_____
e. Fifth local item	[PULL DOWN MENU 1]	[FOOD PULL DOWN MENU_x]	_____

[PULL DOWN MENU 1]

(PROGRAMMER: ONLY DISPLAY THE CATEGORIES SELECTED IN Q34]

- ☐ Fruit → COLUMN ii. IS [FOOD PULL DOWN MENU_A]
- ☐ Vegetable → COLUMN ii. IS [FOOD PULL DOWN MENU_B]
- ☐ Fluid Milk → COLUMN ii. IS [FOOD PULL DOWN MENU_C]
- ☐ Other Dairy → COLUMN ii. IS [FOOD PULL DOWN MENU_D]
- ☐ Protein → COLUMN ii. IS [FOOD PULL DOWN MENU_E]
- ☐ Grains, including baked goods → COLUMN ii. IS [FOOD PULL DOWN MENU_F]
- ☐ [DISPLAY TEXT FROM SPECIFY OF 34g.] → COLUMN ii. IS [FOOD PULL DOWN MENU_G]

(PROGRAMMER: ONLY DISPLAY THIS LAST OPTION FOR ROWS 35b – e)

- ☐ I don't purchase any other local foods.

[FOOD PULL DOWN MENU_A]

- ☐ Apples
- ☐ Apricots
- ☐ Bananas
- ☐ Blackberries

- ☐ Blueberries
- ☐ Cantaloupe
- ☐ Cranberries
- ☐ Dragon fruit
- ☐ Grapefruit
- ☐ Grapes
- ☐ Kiwi
- ☐ Melons
- ☐ Nectarines
- ☐ Oranges
- ☐ Papaya
- ☐ Peaches
- ☐ Pears
- ☐ Pineapple
- ☐ Plums
- ☐ Pluots
- ☐ Raspberries
- ☐ Strawberries
- ☐ Tomatoes
- ☐ Watermelon
- ☐ Fruit juice
- ☐ Other → MAKE COLUMN iii. "Please specify" AVAILABLE

[FOOD PULL DOWN MENU_B]

- ☐ Asparagus
- ☐ Avocados
- ☐ Beans
- ☐ Beets
- ☐ Bell peppers
- ☐ Bok choy
- ☐ Broccoli
- ☐ Brussels sprouts
- ☐ Cabbage
- ☐ Carrots
- ☐ Cauliflower
- ☐ Celery
- ☐ Collard greens
- ☐ Corn
- ☐ Cucumber
- ☐ Eggplant
- ☐ Green beans
- ☐ Green chilies
- ☐ Kale
- ☐ Leeks
- ☐ Lettuce
- ☐ Mushrooms
- ☐ Onions
- ☐ Parsnips

- ☐ Peas
- ☐ Potatoes (not sweet potatoes)
- ☐ Pumpkin
- ☐ Radishes
- ☐ Rutabaga
- ☐ Salad Mix
- ☐ Spinach
- ☐ Sprouts
- ☐ Squash
- ☐ Sweet potatoes
- ☐ Swiss chard
- ☐ Turnips
- ☐ Turnip greens
- ☐ Zucchini
- ☐ Vegetable juice (such as tomato juice)
- ☐ Other → MAKE COLUMN iii. "Please specify" AVAILABLE

[FOOD PULL DOWN MENU_C]

- ☐ Fluid milk

[FOOD PULL DOWN MENU_D]

- ☐ Cheese, including cottage cheese
- ☐ Sour cream
- ☐ Yogurt/Greek yogurt
- ☐ Other → MAKE COLUMN iii. "Please specify" AVAILABLE

[FOOD PULL DOWN MENU_E]

- ☐ Beef
- ☐ Eggs
- ☐ Nuts, seeds, and/or nut/seed butters
- ☐ Pork
- ☐ Poultry
- ☐ Seafood
- ☐ Tofu or other meat alternative
- ☐ Wild Game

[FOOD PULL DOWN MENU_F]

- ☐ Flour
- ☐ Grits
- ☐ Pasta
- ☐ Rice
- ☐ Baked goods (e.g., bread, cookies, tortillas)
- ☐ Other → MAKE COLUMN iii. "Please specify" AVAILABLE

[FOOD PULL DOWN MENU_G]

- ☐ [DISPLAY TEXT FROM SPECIFY OF 34g.]

(PROGRAMMER: ASK Q35b FOR EACH ITEM IN TABLE 35 ABOVE)

35b. How much did your SFA spend on [Q35xiii IF POPULATED, OTHERWISE Q35xii (x = a-e based on iteration asked)] in 2018-2019? (Enter numbers only. Please do not use commas or dollar signs.)

\$ _____ (RANGE 0-999,999,999)

(PROGRAMMER: LOOP BACK THROUGH Q35b 5 TIMES. IF VALUE FOR Q35b is less than \$99, display a confirmation question as follows:

Does this amount reflect how much your SFA spent on [Q35xiii IF POPULATED, OTHERWISE Q35xii (x = a-3 based on iteration asked)] for the ENTIRE 2018-2019 SCHOOL YEAR?)

- ☐ Yes – GOTO Q36
☐ No- GOTO Q35b

(PROGRAMMER: Populate the rows in Q36 with only the items that are “Yes” at Q34.)

36. On average, in SY 2018-2019, about how frequently did your SFA’s meals or snacks include at least one **local** food from the categories below?

	Daily	A few times per week	Weekl y	A few times per month	Monthly	Seasonally /Occasiona lly	Never
a. Fruit							
b. Vegetables							
c. Fluid milk							
d. Other dairy (HOVER OVER: Cheese, cottage cheese, sour cream, yogurt, etc.)							
e. Protein (HOVER OVER: Meat, poultry, eggs, seafood, nuts, seeds, etc.)							
f. Grains, including baked goods (HOVER OVER: Flour, grits, pasta, rice, etc.)							
g. [DISPLAY TEXT FROM OTHER PRODUCT TYPE IN 34g.]							

(PROGRAMMER: PUT Q37 and Q38 and Q39 on the SAME SCREEN)

The following questions ask how much money was spent by your SFA on food and local food during the 2018-2019 school year. Please give your best approximation and **do not include** the value of USDA Foods or USDA DoD Fresh (entitlement).

37. For the 2018-2019 school year, what were your SFA's approximate total food costs (in dollars)? (Enter numbers only. Please do not use commas or dollar signs.) **(PROGRAMMER: MASK QUESTION SO ONLY NUMBERS CAN BE IMPUTED)**

TOTAL food costs (Please round to the nearest dollar. Do not count USDA Foods/USDA DoD Fresh.):	\$
---	----

(PROGRAMMER: ALLOW ONLY WHOLE NUMBERS. QUESTION RANGE FROM 0-1,000,000,000. DISPLAY:

You have entered (Q37 formatted as a dollar amount with dollar sign and commas) as your total food costs for all of the 2018-2019 school year. Is this correct?

- ☐ Yes – GOTO Q37a
☐ No- GOTO Q37

(PROGRAMMER: QUESTION 37 AND 37a SHOULD BE DISPLAYED ON THE SAME SCREEN SO RESPONDENT CAN VIEW ALL OF QUESTION 37 WHEN ANSWERING 37a)

- 37a. What source did you use for your answer to the previous question (For the 2018-2019 school year, what were your approximate TOTAL food costs)? (Please choose all that apply.)

- ☐ Financial records/receipts
☐ Procurement records, including bid documents
☐ Budget
☐ Estimated costs

38. For the 2018-2019 school year, about how much of your SFA's total food purchases (in dollars) were spent on **LOCAL** foods INCLUDING fluid milk? (If you're not sure, a rough estimate is perfectly acceptable.) **(PROGRAMMER: MASK QUESTION SO ONLY NUMBERS CAN BE IMPUTED)** (Enter numbers only. Please do not use commas or dollar signs.)

Total cost of local food, including fluid milk (Please round to the nearest dollar. Do not count USDA Foods/USDA DoD Fresh.):	\$
---	----

If the value at Q38 is less than the sum of top local foods (given in Q35), soft error prompt should read: "The amount you have entered here is less than the value of the top local foods you entered earlier. DISPLAY Q35 DATA. Did you mean to enter this amount?" They should then be redirected to Q35 if No.

(PROGRAMMER: ALLOW ONLY WHOLE NUMBERS. QUESTION RANGE FROM 0-1,000,000,000. DISPLAY:

You have entered (Q38 formatted as a dollar amount with dollar sign and commas) as the total amount spent on local food purchases, including fluid milk, for all of the 2018-2019 school year. Is this correct?

- ☐ Yes – GOTO Q38a
- ☐ No- GOTO Q38

(PROGRAMMER: Q38 CANNOT BE GREATER THAN Q37. IF Q38>Q37, DISPLAY: “Your local food purchases cannot be greater than your total food purchases. Let’s review these questions again.” GOTO Q37)

(PROGRAMMER: IF Q38 is 11% or more of Q37, display:

Your local food purchases are a large percent (DISPLAY PERCENT ROUNDED TO WHOLE PERCENT % IN PARENTHESES) of your total food purchases. Are your local food purchases \$ Q38 and your total food purchases \$ Q37?

- ☐ Yes, both are okay – GOTO Q38a
- ☐ No, one or both are wrong - GOTO Q37

(PROGRAMMER: QUESTION 38 AND 38a SHOULD BE DISPLAYED ON THE SAME SCREEN SO RESPONDENT CAN VIEW ALL OF QUESTION 38 WHEN ANSWERING 38a)

38a. What source did you use for your answer to the previous question (For the 2018-2019 school year, what were your approximate total **LOCAL** food costs, including fluid milk)? (Please choose all that apply.)

- ☐ Financial records/receipts
- ☐ Procurement records, including bid documents
- ☐ Budget
- ☐ Estimated costs

39. For the 2018-2019 school year, about how much did your SFA spend on **LOCAL** fluid milk (in dollars)? (If you're not sure, a rough estimate is acceptable.) (Enter numbers only. Please do not use commas or dollar signs.) **(PROGRAMMER: MASK QUESTION SO ONLY NUMBERS CAN BE IMPUTED)**

Costs of Local Fluid Milk (Please round to the nearest dollar.):	\$
--	----

(PROGRAMMER: ALLOW ONLY WHOLE NUMBERS. QUESTION RANGE FROM 0-1,000,000,000. DISPLAY:

You have entered Q39 (formatted as a dollar amount with dollar sign and commas). Is this correct?

- ☐ Yes – GOTO Q39a
- ☐ No- GOTO Q39

(PROGRAMMER: Q39 CANNOT BE GREATER THAN Q38. IF Q39>Q38, DISPLAY: “Your fluid milk purchases cannot be greater than your total local food purchases INCLUDING fluid milk. Let’s review these questions again.” GOTO Q38)

(PROGRAMMER: QUESTION 39 AND 39a SHOULD BE DISPLAYED ON THE SAME SCREEN SO RESPONDENT CAN VIEW ALL OF QUESTION 39 WHEN ANSWERING 39a)

39a. What source did you use for your answer to the previous question (For the 2018-2019 school year, how much did your SFA spend on **LOCAL** fluid milk)?

- ☐ Financial records/receipts
- ☐ Procurement records, including bid documents
- ☐ Budget
- ☐ Estimated costs

40. For the 2018-2019 school year, what were your SFA's approximate food costs (in dollars) for **USDA DoD Fresh (HOVER OVER: USDA Department of Defense Fresh Fruit and Vegetable Program) ONLY?** (Do not count USDA Foods.) (Enter numbers only. Please do not use commas or dollar signs.) **(PROGRAMMER: MASK QUESTION SO ONLY NUMBERS CAN BE IMPUTED)**

Costs of USDA DoD Fresh (HOVER OVER: USDA Department of Defense Fresh Fruit and Vegetable Program) (Please round to the nearest dollar.):	\$
--	----

(PROGRAMMER: ALLOW ONLY WHOLE NUMBERS. QUESTION RANGE FROM 0-1,000,000,000. DISPLAY:

You have entered Q40 (formatted as a dollar amount with dollar sign and commas). Is this correct?

- ☐ Yes – GOTO Q40a
- ☐ No- GOTO Q40

(PROGRAMMER: Q40 CANNOT BE GREATER THAN ($\text{total number of students} \times 180 \times 0.75 \times 0.33$). IF $\text{Q40} > (\text{total number of students} \times 180 \times 0.75 \times 0.33)$, DISPLAY QUESTION BELOW. OTHERWISE, IF $\text{total number of students} > \text{IS MISSING}$, GOTO Q40a.):

Your USDA DoD Fresh amount is larger than expected Q40 (formatted as a dollar amount with dollar sign and commas). Is this amount correct?

- ☐ Yes – GOTO Q40a
- ☐ No- GOTO Q40

(PROGRAMMER: QUESTION 40 AND 40a SHOULD BE DISPLAYED ON THE SAME SCREEN SO RESPONDENT CAN VIEW ALL OF QUESTION 40 WHEN ANSWERING 40a)

40a. What source did you use for your answer to the previous question (For the 2018-2019 school year, what were your SFA's approximate food costs for USDA DoD Fresh ONLY?)

- ☐ Financial records/receipts
- ☐ Fresh Fruits and Vegetables Order Receipt System (FFAVORS)
- ☐ Budget
- ☐ Estimated costs

If Q40 = 0, skip to Q42.

41. For the 2018-2019 school year, what were your SFA's approximate **LOCAL** food costs (in dollars) for **USDA DoD Fresh (HOVER OVER: USDA Department of Defense Fresh Fruit and Vegetable Program)** ONLY? (Do not count USDA Foods.) (Enter numbers only. Please do not use commas or dollar signs.) **(PROGRAMMER: MASK QUESTION SO ONLY NUMBERS CAN BE IMPUTED)**

Costs of LOCAL USDA DoD Fresh (HOVER OVER: USDA Department of Defense Fresh Fruit and Vegetable Program) (Please round to the nearest dollar.):	\$
---	----

(PROGRAMMER: ALLOW ONLY WHOLE NUMBERS. QUESTION RANGE FROM 0-1,000,000,000. DISPLAY:

You have entered Q41 (formatted as a dollar amount with dollar sign and commas). Is this correct?

- ☐ Yes – GOTO Q41a
☐ No- GOTO Q41

(PROGRAMMER: Q41 CANNOT BE GREATER THAN Q40. IF Q41>Q40, DISPLAY: “Your LOCAL USDA DoD Fresh purchases cannot be greater than your TOTAL USDA DoD Fresh purchases. Let’s review these questions again.” GOTO Q40)

(PROGRAMMER: QUESTION 41 AND 41a SHOULD BE DISPLAYED ON THE SAME SCREEN SO RESPONDENT CAN VIEW ALL OF QUESTION 41 WHEN ANSWERING 41a)

- 41a. What source did you use for your answer to the previous question (For the 2018-2019 school year, what were your SFA's approximate **LOCAL** food costs for USDA DoD Fresh ONLY?)

- ☐ Financial records/receipts
☐ Fresh Fruits and Vegetables Order Receipt System (FFAVORS)
☐ Budget
☐ Estimated costs

42. The next few questions ask about distributors or vendors used to procure local food. Which distributors do you currently use to procure local food? Please provide the company names of the distributors. You are welcome to include both produce and broadline distributors, among others, as well as suppliers.

- ☐ Company Name 1: (please specify) _____
☐ Company Name 2: (please specify) _____
☐ Company Name 3: (please specify) _____
☐ Company Name 4: (please specify) _____
☐ Do not use distributors to procure local food
☐ Refused

43. Which of the following reports do you ask your vendors or distributors for regarding the items you are considering ordering or have ordered? (Please choose all that apply.)

- ☐ Local order/availability guide
- ☐ Origin of item
- ☐ Volume of all local foods procured by that vendor or distributor for your SFA (e.g., Velocity Report)
- ☐ Price of all local foods procured by that vendor or distributor for your SFA
- ☐ Other 1 (please specify) _____
- ☐ Other 2 (please specify) _____
- ☐ I have not asked for any of these

(PROGRAMMER: IF Q43 = any of 1-6, ask Q44 & Q45; IF Q43 = “ I have not asked for any of these,” GO TO STATEMENT BEFORE Q46.)

44. Are the vendors or distributors able to provide the reports requested above?

- ☐ Yes
- ☐ No
- ☐ Sometimes

45. How often do you receive (or have you received) these reports?

- ☐ Weekly
- ☐ Monthly
- ☐ Every few months
- ☐ Yearly
- ☐ Sporadically
- ☐ I don't know

These last questions ask about staff who work on farm to school activities, farm to school policies, and best practices.

46. How many staff, either full or part-time, are dedicated to farm to school activities within your SFA/school/district? This includes purchasing, procurement, educational activities and gardens. Please only include paid staff, including any contracted and grant-funded staff. (Please include nutrition specialists, garden educators, AmeriCorps members, teachers, and any others who facilitate farm to school activities.)

a. Number of full time staff dedicated 40 hours per week to farm to school activities (Full time is defined as at least 40 hours in one week)	RANGE 0-10000
b. Number of full time staff who use some portion of their time for farm to school activities (Full time is defined as at least 40 hours in one week)	RANGE 0-10000
c. Number of part time staff who use some portion of their time for farm to school activities (Part time is defined as less than 40 hours in one week)	RANGE 0-10000

(PROGRAMMER: IF Q46a or Q46b >0, ASK Q47. ELSE GO TO Q48)

47. How are the above positions and farm to school activities funded? (Please choose all that apply.)

- ☐ USDA Farm to School Grant
- ☐ Other federal grants (specify) _____
- ☐ Local or state government grants
- ☐ Private foundation grants (national or local) (specify) _____
- ☐ Corporate partnerships and donations
- ☐ School/District funding, such as PTA/PTO or a school/district foundation
- ☐ Individual donations
- ☐ In-kind contributions (e.g., a local or State government provides a Farm to School staff member at partial time, the provision of garden supplies from a hardware store, or the donation of apples from a local farm for an activity)
- ☐ From the non-profit food-service account
- ☐ Other (please specify): _____
- ☐ I don't know

48. Does your SFA participate in a Farm to School network, task force, or advisory board that promotes or assists with implementing farm to school activities?

- ☐ Yes
- ☐ No
- ☐ I don't know

49. From the list below, please select which, if any, of the following policies are currently in place at your SFA to support Farm to School. (Please choose all that apply.)

- ☐ Wellness policies that support Farm to School
- ☐ Procurement policies that support the purchasing of local foods
- ☐ Policies that support fundraising for farm to school activities
- ☐ Budget allocations dedicated to farm to school activities
- ☐ No policies are in place to support farm to school activities (CAN ONLY BE SELECTED IF ANOTHER RESPONSE IS NOT GIVEN)
- ☐ Other (please specify) _____
- ☐ Don't know

50. Is there other information on farm to school activities that you think we need to know? (Optional)

51. Please share a local food success story. We want to know about best practices or hear about amazing stories that feature partnerships or highlight community engagement. (Optional)

52. Sometimes FNS would like to reach out to SFAs for other opportunities, such as gathering best practices or featuring SFAs in webinars or e-letters. We would like your permission to provide your contact information to the FNS Regional Office, should they request it. Please choose an option below.

☐ I agree to allow FNS to provide my contact information to the FNS Regional Office for other purposes.

☐ I do not agree to allow FNS to provide my contact information to the FNS Regional Office for other purposes.

PROGRAMMER: INSERT NEW SCREEN

Thank you for completing the 2019 Farm to School Census! For more information on starting or expanding farm to school activities, please visit the Office of Community Food Systems' website at <https://www.fns.usda.gov/farmtoschool/farm-school>.

Please contact Abt Associates at farmtoschool@abtassoc.com if you have any questions or would like to update us with any additional information.

PROGRAMMER: INSERT A SUBMIT BUTTON ON THIS SCREEN AND THEN CLOSE BROWSER.

Appendix C: Study Methods for Analysis of 2019 Census Data

This appendix describes the data collection and analysis process for the 2019 Census. It also describes the matching process to both the CCD and the 2013 and 2019 Censuses. Additional information describing the longitudinal analysis across all three Censuses is included in [Appendix E](#).

Data Collection

The 2019 Census collected data from 12,634 SFAs in all 50 States as well as American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, the U.S. Virgin Islands, and Washington, DC. Of the 18,831 in the sample, 97 SFAs withdrew from data collection because they had closed or no longer participated in NSLP.

Sixty-four percent of SFAs ($N = 12,025$) completed the 2019 Census and hit the final “submit” button. The study team also analyzed information from respondents that answered a substantial number of questions but did not complete the Census ($n = 495$), or who completed and did not hit the final submit button ($n = 114$). The addition of these respondents yields a final response rate of 67 percent ($N = 12,634$).

Data Analysis

This section describes the methods the study team used to (1) clean the raw 2019 Census data, (2) link the 2019 Census data to the 2013 and 2015 Census data and to the NCES CCD to examine changes over time and urbanicity, (3) weight the data to account for the missing responses, and (4) conduct significance testing for differences across groups or over time.

Data Cleaning

The raw data file was cleaned in order to ensure that data were as correct, complete, and consistent as possible. Responses to questions that respondents should not have seen were removed; and logically incorrect responses were set to missing, such as those in which SFAs reported greater local food expenditures than total food expenditures. The study team also examined extremely high or low values that were unlikely to be true, and reached out to some SFAs for verification. In other cases, responses were updated based on administrative data from the CCD. Remaining outliers were set to missing.

Matching 2019 Census Data to the CCD

In order to incorporate information on the urbanicity of SFAs, the study team linked the 2019 Census data to the CCD. The data for these comparisons were limited to public school SFAs, as the CCD data used in the analysis are only available for public school SFAs. The CCD contains information on the universe of public schools, organized based on local education agencies (LEAs). In most cases, public school SFAs map cleanly to LEAs, but in some cases the two administrative units do not match perfectly.

Even though they usually encompass the same schools and students, SFAs and LEAs use different identifiers. The study team performed matching in several stages, employing both exact and fuzzy

matching, and leveraging several partial crosswalks between SFA and LEA identifiers.⁷⁹ The study team made exact matches to earlier Census files using the SFA identifiers in the sample frame for the 2019 Census in cases where SFA identifiers were consistent. These previous Census files contained partial information on LEA codes. The study team also used a partial crosswalk between SFA identifiers and LEA identifiers that had been developed previously for another data collection effort, but only covered a subset of States.

The study team then leveraged these “direct” exact matches to identify “indirect” exact matches. For some SFAs that had responded to at least one previous Census, the study team was able to use identifying information to link the SFA to its LEA identifier or to the other previous Census if it had initially matched to only one of the two Censuses. The team also pursued this strategy in reverse, using SFA-LEA links from the partial crosswalk to identify additional matches between the 2019 Census and those of previous years, for use in the longitudinal analyses discussed in Appendix E.

For SFAs that were not matched to LEA identifiers, the study team conducted a fuzzy match based on SFA name, State, and ZIP Code. Cases where the match quality was marginal or when more than one 2019 record matched to a LEA identifier (or vice versa) were reviewed manually to determine whether the match was appropriate.

This procedure resulted in 14,465 matches between the 2019 Census and urbanicity information from the CCD.⁸⁰ The study team then used the matches to the CCD to incorporate information on urbanicity, as reported in the CCD, into the analysis.

Missing Data

The study team also addressed two types of missing data:

- **Item-level non-response**, when a respondent does not provide answers to all relevant questions.
- **Unit-level non-response**, when a potential respondent does not respond to the survey at all.

High rates of missing data for either reason can result in biased estimates if respondents (to either the Census or the question) are systematically different from non-respondents in important ways. This report includes information on the number of missing values for each Census question, to allow readers to interpret results based on small samples with appropriate caution. The study team also required that SFAs had proceeded to a certain point in the Census in order for that response to be included in the analysis, so that the sample used is reasonably consistent across all questions, and that SFAs that responded to very few questions could be accounted for by non-response weights.

The team addressed the problem of unit-level non-response by investigating whether response rates varied by key SFA characteristics and then creating non-response weights that correct for this variation. The non-response weights were developed by first estimating a probit model that described variation in response rate by SFA characteristics. The initial model included State, SFA size category, the percentage of students eligible for FRPLs, whether an SFA was a school, whether an SFA was a private organization,

⁷⁹ Fuzzy matching allows for matching when no unique identifiers are available. It identifies probable matches by breaking strings of text into smaller pieces, weighting these pieces based on how common they are in the data overall, and calculating similarity scores that measure the degree of similarity between two text strings. We use the Stata command `matchit` for fuzzy matching. See <https://github.com/julioraffo/matchit> for more information.

⁸⁰ A total of 4,367 SFAs in the longitudinal sample did not match to urbanicity information.

the interaction between whether an SFA was a school and whether it was a private organization, whether an SFA was a RCCI, and the interaction between RCCI status and being a private organization. The study team included these characteristics in the model because they appeared in the sample frame and thus were available for all SFA respondents. Some States had response rates of 100 percent, so SFAs from those States were dropped from the estimation and not assigned values for the estimated likelihood of response. In order to include all SFAs in the sample, “State” was replaced with “region” in this analysis. Then a series of models were fit, each dropping one non-significant variable at a time. The final model included all variables listed above except for RCCI status and the interaction between RCCI status and being a private organization.

The study team then used coefficients from the probit model to predict the propensity of each SFA to complete the survey and took the inverse of these propensities to create inverse propensity weights. The resulting weights were then adjusted so that the sum of the weights of responding schools was equal to the number of schools in the sample frame.⁸¹ The inverse propensity weight can be thought of as reflecting the number of SFAs (including the responding SFA) that are represented by each respondent. Analyses of the 2019 Census data using these weights approximate results that would be obtained if the response rate did not vary by these factors. Thus, they will better reflect the full sample than analyses without weights.

Because urbanicity is available only for those SFAs linked to the CCD, which only covers public schools, the study team used parallel methods to develop a second set of weights for analyses of urbanicity, which were limited to public school SFAs. These weights address the likelihood of both responding to the Census and having a successful link to the CCD urbanicity data.

Analysis

The analyses of the 2019 Farm to School Census data included in this report are weighted using the appropriate set of non-response weights, as described above. T-tests were used to compare differences between groups. When not otherwise specified, differences marked as significant have a p-value less than 0.05 for a two-sided t-test.

⁸¹ One consequence of using a probit model is that weights do not sum perfectly.

Appendix D: 2019 Census Supplemental Tables

The tables presented in this appendix include key findings from the 2019 Census as well as selected findings broken down by subgroups. These tables support the exhibits included in the body of the report and provide additional detail. Note that numbers in these tables ending in .5 may be rounded up or down to the appropriate whole number in the body of the report.⁸²

The full dataset for public use is available at: <https://farmtoschoolcensus.fns.usda.gov>.

Tables from Chapter 1

Exhibit D-1.1. Methods used to track farm to school activities; benefits and challenges; and food, nutrition, and agricultural education activities

Method	Overall farm to school activities ^a	Benefits and/or Challenges of farm to school activities ^b	Food, nutrition, and agricultural education activities ^c	Edible school gardens ^d
	Percent of SFAs			
Spreadsheets/reports	23.9%	7.4%	12.7%	8.4%
Verbal/written reports from teachers/staff	12.9%	10.1%	17.4%	28.5%
Surveys	5.7%	2.6%	3.3%	2.6%
Among those who use surveys:				
Surveys of students	91.0%	92.4%	86.7%	-
Surveys of teachers/staff	51.5%	63.6%	61.8%	-
Surveys of schools	31.7%	43.9%	38.8%	-
Surveys of others	10.6%	12.1%	6.0%	-
Don't formally track	64.2%	73.0%	68.6%	57.4%
Other	6.7%	4.0%	6.6%	10.3%
Don't know	-	8.3%	-	-

Note:

^a N = 8,393, Missing = 4,023, Weighted N = 12,315. Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

^b N = 8,393, Missing = 4,023, Weighted N = 12,315. Sample restricted to F2S SFAs.

^c N = 8,393, Missing = 4,023, Weighted N = 12,315. Responses limited to F2S SFAs.

^d N = 2,938, Missing = 1,529, Weighted N = 4,225. Responses limited to F2S SFAs that had edible school gardens during SY 2018-2019.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Farm to School Census Q11-12, Q15-16, Q26-Q27, Q30 (How are you tracking [ITEM]? At what level are you surveying?)

⁸² For example, a number ending in 0.49 would appear as 0.5 in these appendix tables but would be rounded down in the body of the report; whereas, a number ending in 0.51 would appear as 0.5 in these appendix tables but would be rounded up in the body of the report.

Tables from Chapter 2

Exhibit D-2.1. Farm to school participation

Participation status	Percent of SFAs
Participated in farm to school in SY 2018-2019	65.4%
Began farm to school participation in SY 2019-2020 ^a	13.3%
Plan to begin farm to school in the future	4.4%
Have never participated in farm to school and do not plan to	14.4%
Have previously participated in farm to school but do not plan to	2.4%

Note: N = 12,634, Missing = 2, Weighted N = 18,832.

^a A total of 73.1 percent of SFAs participated in farm to school in SY 2019-2020; 5.7 percent of SFAs that participated in SY 2018-2019 no longer participated in SY 2019-2020.

Source: 2019 Farm to School Census (farm to school participation status calculated based on selections in Q4.)

Exhibit D-2.2. Farm to school participation, by SFA size

	All SFAs	Small (S) ^a	Medium (M) ^b	Large (L) ^c	Very large (VL) ^d
Participation status	Percent of SFAs				
Participated in farm to school in SY 2018-2019	65.4%	57.0% ^{M, L, VL}	76.1% ^{S, L, VL}	83.3% ^{S, M}	86.7% ^{S, M}
Began farm to school participation in SY 2019-2020	13.3%	14.6% ^{M, L, VL}	12.0% ^{S, L}	9.8% ^{S, M}	8.9% ^S
Plan to begin farm to school in the future	4.4%	5.4% ^{M, L}	3.3% ^S	2.3% ^S	2.4%
Have never participated in farm to school and do not plan to	14.4%	20.0% ^{M, L, VL}	7.1% ^{S, L, VL}	3.4% ^{S, M, VL}	0.8% ^{S, M, L}
Have previously participated in farm to school but do not plan to	2.4%	3.0% ^{M, L}	1.4% ^S	1.2% ^S	1.1%

Note:

^a Small (S) SFAs (1-999 students) N = 7,169, Missing = 2, Weighted N = 11,339.

^b Medium (M) SFAs (1,000-4,999 students) N = 3,911, Missing = 0, Weighted N = 5,511.

^c Large (L) SFAs (5,000-24,999 students) N = 1,303, Missing = 0, Weighted N = 1,689.

^d Very large (VL) SFAs (> = 25,000 students) N = 251, Missing = 0, Weighted N = 293.

S, M, L, VL superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census (farm to school participation status calculated based on selections in Q4.)

Exhibit D-2.3. Farm to school participation, by urbanicity

	All SFAs with urbanicity data	Urban ^a	Suburban ^b	Rural ^c
Participation status	Percent of SFAs			
Participated in farm to school in SY 2018-2019	66.7%	63.1% ^{SU}	73.3% ^{U, R}	65.1% ^{SU}
Began farm to school participation in SY 2019-2020	13.6%	13.4%	13.2%	13.7%
Plan to begin farm to school in the future	3.9%	4.2%	3.5%	4.0%
Have never participated in farm to school and do not plan to do so in the future	13.5%	17.2% ^{SU, R}	8.7% ^{U, R}	14.5% ^{U, SU}
Have previously participated in farm to school but do not plan to do so in the future	2.3%	2.1%	1.3% ^R	2.7% ^{SU}

Note:

^a Urban N = 1,209, Missing = 0, Weighted N = 2,333.

^b Suburban N = 2,332, Missing = 0, Weighted N = 4,300.

^c Rural N = 6,618, Missing = 1, Weighted N = 12,199.

U, SU, R superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census (farm to school participation status calculated based on selections in Q4.)

Exhibit D-2.4. Farm to school participation, by free or reduced-price lunch eligibility

	All SFAs	Quartile 1 FRPL ^a	Quartile 2 FRPL ^b	Quartile 3 FRPL ^c	Quartile 4 FRPL ^d
Participation status	Percent of SFAs				
Participated in farm to school in SY 2018-2019	65.4%	68.5% Q ⁴	67.5% Q ⁴	66.8%	64.6% Q ^{1, 2}
Began farm to school participation in SY 2019-2020	13.3%	13.9% Q ³	14.2% Q ^{3, 4}	11.1% Q ^{1, 2}	12.3% Q ²
Plan to begin farm to school in the future	4.4%	3.6% Q ^{3, 4}	3.7% Q ⁴	4.6% Q ¹	5.3% Q ^{1, 2}
Have never participated in farm to school and do not plan to do so in the future	14.4%	11.8% Q ^{3, 4}	12.7% Q ^{3, 4}	15.2% Q ^{1, 2}	14.8% Q ^{1, 2}
Have previously participated in farm to school but do not plan to do so in the future	2.4%	2.2% Q ⁴	1.9% Q ⁴	2.3%	3.0% Q ^{1, 2}

Note: FRPL = Free or Reduced-Price Lunch

The All SFAs column includes some SFAs for which valid values of FRPL are not available.

^a Quartile 1 FRPL (31% or fewer students eligible) N = 2,925, Missing = 1, Weighted N = 4,319.

^b Quartile 2 FRPL (more than 31% and up to 51% students eligible) N = 3,093, Missing = 0, Weighted N = 4,486.

^c Quartile 3 FRPL (more than 51% and up to 86% students eligible) N = 3,132, Missing = 0, Weighted N = 4,431.

^d Quartile 4 FRPL (more than 86% students eligible) N = 2,899, Missing = 1, Weighted N = 4,299.

Q1, Q2, Q3, Q4 superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census (farm to school participation status calculated based on selections in Q4.)

Exhibit D-2.5. Farm to school activity participation, by free or reduced-price lunch eligibility

Farm to school activity	All F2S SFAs	Quartile 1 FRPL ^a	Quartile 2 FRPL ^b	Quartile 3 FRPL ^c	Quartile 4 FRPL ^d
	Percent of F2S SFAs				
Use local foods in any form in CACFP*	79.2%	82.0%	79.9%	78.2%	79.7%
Use local foods in NSLP	71.7%	72.3%	72.1%	71.1%	72.1%
Use local foods in summer meals*	69.4%	70.0%	69.9%	68.5%	68.5%
Use local foods in any form in SBP*	68.5%	70.8% Q2	67.3% Q1	68.5%	68.1%
Use local foods as part of FFVP*	68.2%	72.2% Q3	66.6%	66.3% Q1	67.1%
Use local foods in CACFP At-Risk Afterschool*	65.8%	72.8%	66.5%	65.5%	64.7%
Promote local foods at school in general	42.3%	44.1%	45.2% Q3, Q4	41.8% Q2	41.8% Q2
Source local foods from USDA DoD Fresh	41.7%	43.3%	40.8% Q3	44.1% Q2	43.0%
Encourage student selection and consumption	39.9%	40.9%	41.2%	40.6%	39.4%
Seek out sources to procure local food	33.6%	33.5%	35.8%	33.4%	34.4%
Hold taste tests or cooking demonstrations	33.5%	34.1%	33.9%	34.0%	33.0%
Student field trips to farms etc.	30.7%	30.5%	32.9% Q3	29.5% Q2	31.1%
Themed or branded promotions	30.7%	35.6% Q2, Q3, Q4	32.1% Q1, Q4	29.8% Q1	29.0% Q1, Q2
Serve local foods as a snack	30.5%	27.8% Q3, Q4	29.9% Q4	31.0% Q1	33.6% Q1, Q2
Use food coaches	21.5%	21.6%	20.9%	21.7%	23.2%
Forecast budgetary needs for local purchases	21.4%	19.9% Q4	22.1%	22.0%	22.9% Q1
Celebrate National Farm to School Month	21.2%	23.4% Q4	21.9%	22.6% Q4	19.6% Q1, Q3
Training school food service staff	21.0%	20.9%	21.7%	20.6%	21.7%
Educational edible school garden	20.9%	21.2% Q2	18.6% Q1, Q4	20.6%	21.3% Q2
Utilize the geographic preference option	20.0%	19.5% Q4	21.1%	19.4% Q4	22.1% Q1, Q3
Local foods or activities afterschool	18.5%	9.4% Q2, Q3, Q4	15.3% Q1, Q3, Q4	23.0% Q1, Q2, Q4	26.1% Q1, Q2, Q3
Serve products from school or district gardens	17.0%	17.4%	18.1% Q3, Q4	15.5% Q2	15.5% Q2
Have farmer(s) visit	15.3%	14.3% Q3	15.8%	16.8% Q1	15.3%
Generate media coverage of local foods	14.8%	15.3%	16.4%	15.1%	14.7%
Evaluate farm to school activities	14.1%	12.4% Q2, Q4	14.7% Q1	14.4%	15.6% Q1
Develop food products with local producers	13.7%	13.7%	14.5%	13.2%	14.7%
Farm to school activities in Pre-K	12.9%	11.4% Q3, Q4	11.8% Q3, Q4	14.5% Q1, Q2	15.3% Q1, Q2
Farm to school family and community events	12.0%	11.1% Q4	11.1% Q4	12.6% Q4	14.9% Q1, Q2, Q3
Use USDA Team Nutrition materials	11.8%	10.0% Q3, Q4	11.7%	12.6% Q1	13.5% Q1
Local foods events in CACFP and/or SFSP	4.7%	2.2% Q2, Q3, Q4	4.6% Q1, Q4	5.9% Q1	7.0% Q1, Q2

Note: FRPL = Free or Reduced-Price Lunch

* Sample restricted to SFAs that participated in the associated program (Q2).

The All F2S SFAs column includes some SFAs for which valid values of FRPL are not available.

^a Quartile 1 FRPL (31% or fewer students eligible) N = 2,026, Missing = 0, Weighted N = 123-2,957.

^b Quartile 2 FRPL (more than 31% and up to 51% students eligible) N = 2,096, Missing = 0, Weighted N = 428-3,028.

^c Quartile 3 FRPL (more than 51% and up to 86% students eligible) N = 2,109, Missing = 0, Weighted N = 816-2,959.

^d Quartile 4 FRPL (more than 86% students eligible) N = 1,895, Missing = 0, Weighted N = 795-2,778.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

Q1, Q2, Q3, Q4 superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census Q4 (For each activity below, please indicate if your SFA did this activity in SY 2018-2019.)

Exhibit D-2.6. Farm to school activity participation, by robust participation

Farm to school activity	All F2S SFAs	Non-robust ^a	Robust ^b
	Percent of F2S SFAs		
Use local foods in NSLP	71.7%	53.2% ^{RB}	93.0% ^{NR}
Use local foods in any form in SBP	59.9%	38.9% ^{RB}	84.1% ^{NR}
Promote local foods at school in general	42.3%	14.8% ^{RB}	74.0% ^{NR}
Source local foods from USDA DoD Fresh	41.7%	28.1% ^{RB}	57.3% ^{NR}
Encourage student selection and consumption	39.9%	12.4% ^{RB}	71.5% ^{NR}
Seek out sources to procure local food	33.6%	10.8% ^{RB}	59.9% ^{NR}
Hold taste tests or cooking demonstrations	33.5%	12.2% ^{RB}	58.1% ^{NR}
Student field trips to farms etc.	30.7%	22.1% ^{RB}	40.6% ^{NR}
Themed or branded promotions	30.7%	8.6% ^{RB}	56.1% ^{NR}
Serve local foods as a snack	30.5%	10.7% ^{RB}	53.3% ^{NR}
Use local foods in summer meals	28.4%	12.8% ^{RB}	46.3% ^{NR}
Use food coaches	21.5%	4.5% ^{RB}	41.0% ^{NR}
Forecast budgetary needs for local purchases	21.4%	3.4% ^{RB}	42.1% ^{NR}
Celebrate National Farm to School Month	21.2%	5.2% ^{RB}	39.6% ^{NR}
Training school food service staff	21.0%	4.3% ^{RB}	40.2% ^{NR}
Educational edible school garden	20.9%	10.0% ^{RB}	33.5% ^{NR}
Use local foods as part of FFVP	20.7%	9.9% ^{RB}	33.2% ^{NR}
Utilize the geographic preference option	20.0%	3.3% ^{RB}	39.4% ^{NR}
Local foods or activities afterschool	18.5%	4.2% ^{RB}	34.8% ^{NR}
Use local foods in any form in CACFP	18.0%	6.3% ^{RB}	31.5% ^{NR}
Serve products from school or district gardens	17.0%	5.7% ^{RB}	29.9% ^{NR}
Have farmer(s) visit	15.3%	6.1% ^{RB}	25.8% ^{NR}
Generate media coverage of local foods	14.8%	2.4% ^{RB}	29.1% ^{NR}
Evaluate farm to school activities	14.1%	1.7% ^{RB}	28.4% ^{NR}
Develop food products with local producers	13.7%	2.3% ^{RB}	26.7% ^{NR}
Use local foods in CACFP At-Risk Afterschool	13.0%	3.5% ^{RB}	24.0% ^{NR}
Farm to school activities in Pre-K	12.9%	5.8% ^{RB}	21.1% ^{NR}
Farm to school family and community events	12.0%	3.0% ^{RB}	22.2% ^{NR}
Use USDA Team Nutrition materials	11.8%	4.5% ^{RB}	20.3% ^{NR}
Local foods events in CACFP and/or SFSP	4.7%	0.7% ^{RB}	9.3% ^{NR}

Note:

^a Non-robust N = 4,398, Missing = 0, Weighted N = 6,592.^b Robust N = 3,993, Missing = 0, Weighted N = 5,720. Robust refers to participation in at least 7 farm to school activities.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

RB and NR superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census Q4 (For each activity below, please indicate if your SFA did this activity in SY 2018-2019.)

Exhibit D-2.7. Expected timeframe to begin farm to school activities among SFAs that plan to begin in the future

Timeframe	Percent of SFAs
SY 2020-2021	18.0%
SY 2021-2022	5.4%
After SY 2021-2022	3.1%
Not sure when we will start	73.6%

Note: N = 548, Missing = 0, Weighted N = 837.

Responses limited to SFAs that plan to start farm to school in the future.

Source: 2019 Farm to School Census Q17 (When do you plan to start conducting farm to school activities?)

Exhibit D-2.8. Length of farm to school participation

Participation length	Percent of F2S SFAs
Less than 3 years	56.7%
3-5 years	24.7%
6-10 years	11.2%
More than 10 years	7.2%
Don't Know	0.2%

Note: N = 8,393, Missing = 0, Weighted N = 12,315.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Source: 2019 Farm to School Census Q19 (How long has your SFA been conducting farm to school activities?)

Exhibit D-2.9. Characteristics of F2S SFAs, by length of participation

SFA characteristic	Years of participation with farm to school	
	Less than 3 years	3 years or more
	Percent of F2S SFAs	
Size ^a		
Very large (> = 25,000 students)	1.0% ³⁺	3.5% ^{<3}
Large (5,000–24,999 students)	8.4% ³⁺	15.5% ^{<3}
Medium (1,000–4,999 students)	29.8% ³⁺	39.8% ^{<3}
Small (1–999 students)	60.8% ³⁺	41.3% ^{<3}
Urbanicity ^b		
Rural	65.3% ³⁺	60.4% ^{<3}
Suburban	23.9% ³⁺	26.9% ^{<3}
Urban	10.8% ³⁺	12.6% ^{<3}
Eligibility for Free or Reduced-Price Lunch ^c		
Highest quartile (more than 86% students eligible)	25.7% ³⁺	21.1% ^{<3}
Lowest quartile (31% or fewer students eligible)	23.8% ³⁺	27.1% ^{<3}

Note: Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

^a Less than 3 years SFAs N = 4,663, Missing = 0, Weighted N = 6,982. 3 years or more SFAs N = 3,714, Missing = 0, Weighted N = 5,309.

^b Less than 3 years SFAs N = 3,687, Missing = 0, Weighted N = 5,286. 3 years or more SFAs N = 3,319, Missing = 0, Weighted N = 4,632.

^c Less than 3 years SFAs N = 4,663, Missing = 179, Weighted N = 6,982. 3 years or more SFAs N = 3,714, Missing = 85, Weighted N = 5,309.

< 3 and 3+ superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census Q19 (How long has your SFA been conducting farm to school activities?)

Exhibit D-2.10. Length of farm to school participation, by robust participation

Participation length	All F2S SFAs	Non-robust ^a	Robust ^b
	Percent of F2S SFAs		
Less than 3 years	56.7%	73.6% ^{RB}	37.1% ^{NR}
3-5 years	24.7%	15.8% ^{RB}	34.9% ^{NR}
6-10 years	11.2%	5.8% ^{RB}	17.5% ^{NR}
More than 10 years	7.2%	4.5% ^{RB}	10.3% ^{NR}
Don't Know	0.2%	0.2%	0.2%

Note:

^a Non-robust N = 4,400, Missing = 0, Weighted N = 6,595.

^b Robust N = 3,993, Missing = 0, Weighted N = 5,720. Robust refers to participation in at least 7 farm to school activities.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

RB and NR superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census Q19 (How long has your SFA been conducting farm to school activities?)

Exhibit D-2.11. Percent of schools in F2S SFAs participating in farm to school activities

Type of activity	Mean	Std dev	Min	Max	Median
Participated in any farm to school activities	91.5%	21.9%	0%	100.0%	100.0%

Note: N = 8,393, Missing = 35, Weighted N = 12,315.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Source: 2019 Farm to School Census Q23 (To the best of your knowledge, approximately how many schools within the SFA participated in any farm to school activities during SY 2018-2019?).

Exhibit D-2.12. Grades participating in farm to school activities

Grade	Percent of F2S SFAs
Pre-K and younger	25.7%
Kindergarten through 5th grade	61.7%
6th grade to 8th grade	51.8%
9th grade to 12th grade	44.7%
Don't know	26.4%

Note: N = 8,393, Missing = 1, Weighted N = 12,315.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Farm to School Census Q22 (During SY 2018-2019, what grades participated in farm to school activities? Please keep in mind that farm to school activities include gardens, food and agricultural education, and local procurement.)

Exhibit D-2.13. Grades participating in farm to school activities, by SFA size

Grade	All F2S SFAs	Small (S) ^a	Medium (M) ^b	Large (L) ^c	Very large (VL) ^d
	Percent of F2S SFAs				
Pre-K and younger	25.7%	23.4% ^{L, VL}	25.3% ^{L, VL}	32.1% ^{S, M, VL}	55.5% ^{S, M, L}
Kindergarten through 5th grade	61.7%	54.4% ^{M, L, VL}	66.8% ^{S, L, VL}	75.6% ^{S, M, VL}	87.1% ^{S, M, L}
6th grade to 8th grade	51.8%	48.1% ^{M, L, VL}	53.6% ^{S, L, VL}	59.0% ^{S, M, VL}	73.9% ^{S, M, L}
9th grade to 12th grade	44.7%	36.7% ^{M, L, VL}	52.3% ^{S, VL}	53.8% ^{S, VL}	72.9% ^{S, M, L}
Don't know	26.4%	29.2% ^{M, L, VL}	25.5% ^{S, L, VL}	19.6% ^{S, M, VL}	8.8% ^{S, M, L}

Note:

^a Small (S) SFAs (1-99 students) N = 4,111, Missing = 1, Weighted N = 6,459.

^b Medium (M) SFAs (1,000-4,999 students) N = 2,979, Missing = 0, Weighted N = 4,195.

^c Large (L) SFAs (5,000-24,999 students) N = 1,085, Missing = 0, Weighted N = 1,406.

^d Very large (VL) SFAs (> = 25,000 students) N = 218, Missing = 0, Weighted N = 254.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

S, M, L, VL superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census Q22 (During SY 2018-2019, what grades participated in farm to school activities? Please keep in mind that farm to school activities include gardens, food and agricultural education, and local procurement.)

Tables from Chapter 3

Exhibit D-3.1. SFA policies to support farm to school

Policies	Percent of F2S SFAs
Wellness policies in support of farm to school activities	33.6%
Procurement policies to support the purchasing of local foods	31.0%
Budget allocations dedicated to farm to school activities	7.7%
Policies that support fundraising for farm to school activities	3.8%
Other	1.8%
No policies in support of farm to school activities	30.3%
Don't know	23.7%

Note: N = 8,393, Missing = 495, Weighted N = 12,315.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Farm to School Census Q49 (From the list below, please select which, if any, of the following policies are currently in place at your SFA to support Farm to School.)

Exhibit D-3.2. F2S SFA participation in a farm to school network, task force, or advisory board

Participation status	Percent of F2S SFAs
Participation in Farm to School network, task force, or advisory board	11.6%
No participation in Farm to School network, task force, or advisory board	65.9%
Don't know	22.4%

Note: N = 8,393, Missing = 495, Weighted N = 12,315.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Source: 2019 Farm to School Census Q48 (Does your SFA participate in a Farm to School network, task force, or advisory board that promotes or assists with implementing farm to school activities?)

Exhibit D-3.3. Definition of “local” for school food procurement

Definition of local	Percent of F2S SFAs
Produced within a 20 mile radius	5.1%
Produced within a 50 mile radius	6.7%
Produced within a 100 mile radius	6.8%
Produced within a 200 mile radius	3.6%
Produced within the county	2.2%
Produced within the state	23.5%
Produced within the region ^a	7.1%
No set definition	30.3%
Do not know	11.6%
Other	3.0%

Note: N = 8,393, Missing = 1, Weighted N = 12,315

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

^a “Region” as defined by the SFA.

Source: 2019 Farm to School Census Q3 (How does your SFA define ‘local’ for the majority of its school food procurement?)

Exhibit D-3.4. Participation in FNS programs in addition to the National School Lunch Program

FNS program	Percent of F2S SFAs
School Breakfast Program (SBP)	87.5%
Summer meals (i.e., Summer Food Service Program (SFSP) and/or Seamless Summer Option (SSO))	40.9%
Fresh Fruit and Vegetable Program (FFVP)	30.4%
Child and Adult Food Program (CACFP) (e.g., in a Pre-K setting)	22.7%
Child and Adult Food Program (CACFP) At-Risk Afterschool (snacks and/or supper)	19.8%
None	11.1%

Note: N = 8,393, Missing = 5, Weighted N = 12,315.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Farm to School Census Q2 (In addition to the National School Lunch Program (NSLP), which FNS programs did your SFA participate in during SY 2018-2019?)

Exhibit D-3.5. Food preparation facilities

Facility	Percent of F2S SFAs
School-based kitchens (i.e., for a single school)	72.8%
Central kitchen (i.e., for entire SFA or multiple schools in a SFA)	24.1%
Receiving (satellite) kitchen (i.e., limited preparation on site)	14.0%
Regional kitchens (e.g., meals are prepared at one school and distributed to other schools)	7.7%
Other	3.3%

Note: N = 8,393, Missing = 3, Weighted N = 12,315.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Farm to School Census Q21 (How does your SFA handle food preparation?)

Exhibit D-3.6. Food preparation facilities, by SFA size

Facility	All F2S SFAs	Small (S) ^a	Medium (M) ^b	Large (L) ^c	Very large (VL) ^d
	Percent of F2S SFAs				
School-based kitchens (i.e., for a single school)	72.8%	64.4% ^{M, L, VL}	79.7% ^{S, L, VL}	86.7% ^{S, M, VL}	92.6% ^{S, M, L}
Central kitchen (i.e., for entire SFA or multiple schools in a SFA)	24.1%	24.9% ^M	22.5% ^{S, VL}	24.3%	29.7% ^M
Receiving (satellite) kitchen (i.e., limited preparation on site)	14.0%	10.2% ^{M, L, VL}	14.6% ^{S, L, VL}	25.9% ^{S, M, VL}	35.1% ^{S, M, L}
Regional kitchens (e.g., meals are prepared at one school and distributed to other schools)	7.7%	4.0% ^{M, L, VL}	10.5% ^{S, L, VL}	14.1% ^{S, M}	18.9% ^{S, M}
Other	3.3%	5.4% ^{M, L, VL}	1.0% ^S	0.9% ^S	0.9% ^S

Note:

^a Small (S) SFAs (1–999 students) N = 4,111, Missing = 3, Weighted N = 6,459.

^b Medium (M) SFAs (1,000–4,999 students) N = 2,979, Missing = 0, Weighted N = 4,195.

^c Large (L) SFAs (5,000–24,999 students) N = 1,085, Missing = 0, Weighted N = 1,406.

^d Very large (VL) SFAs (> = 25,000 students) N = 218, Missing = 0, Weighted N = 254.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

S, M, L, VL superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census Q21 (How does your SFA handle food preparation?)

Exhibit D-3.7. Food preparation facilities, by urbanicity

Facility	All F2S SFAs with urbanicity data	Urban ^a	Suburban ^b	Rural ^c
	Percent of F2S SFAs			
School-based kitchens (i.e., for a single school)	74.9%	65.1% ^{SU, R}	77.7% ^U	75.6% ^U
Central kitchen (i.e., for entire SFA or multiple schools in a SFA)	25.4%	26.3%	23.2% ^R	26.0% ^{SU}
Receiving (satellite) kitchen (i.e., limited preparation on site)	14.3%	31.7% ^{SU, R}	19.2% ^{U, R}	9.1% ^{U, SU}
Regional kitchens (e.g., meals are prepared at one school and distributed to other schools)	8.7%	10.3% ^R	11.1% ^R	7.5% ^{U, SU}
Other	2.1%	9.1% ^{SU, R}	2.4% ^{U, R}	0.6% ^{U, SU}

Note:

^a Urban N = 826, Missing = 0, Weighted N = 1,160.

^b Suburban N = 1,796, Missing = 0, Weighted N = 2,515.

^c Rural N = 4,395, Missing = 3, Weighted N = 6,260.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

U, SU, R superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census Q21 (How does your SFA handle food preparation?)

Exhibit D-3.8. Food preparation facilities, by robust participation

Facility	All F2S SFAs	Non-robust ^a	Robust ^b
	Percent of F2S SFAs		
School-based kitchens (i.e., for a single school)	72.8%	69.1% ^{RB}	77.0% ^{NR}
Central kitchen (i.e., for entire SFA or multiple schools in a SFA)	24.1%	23.1%	25.3%
Receiving (satellite) kitchen (i.e., limited preparation on site)	14.0%	12.5% ^{RB}	15.8% ^{NR}
Regional kitchens (e.g., meals are prepared at one school and distributed to other schools)	7.7%	5.9% ^{RB}	9.8% ^{NR}
Other	3.3%	4.9% ^{RB}	1.4% ^{NR}

Note:

^a Non-robust N = 4,400, Missing = 2, Weighted N = 6,595.

^b Robust N = 3,993, Missing = 1, Weighted N = 5,720. Robust refers to participation in at least 7 farm to school activities.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

RB and NR superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census Q21 (How does your SFA handle food preparation?)

Exhibit D-3.9. Food service arrangements

Arrangement	Percent of F2S SFAs
Self-operated	73.9%
Food Service Management Company (FSMC)	20.2%
Vended meals	6.1%
Other	1.6%

Note: N = 8,393, Missing = 5, Weighted N = 12,315.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Farm to School Census Q20 (How does your SFA handle food service?)

Exhibit D-3.10. Percent of recipes made from scratch

Prevalence	Percent of F2S SFAs
< 25% recipes made from scratch	36.3%
26-50% recipes made from scratch	29.0%
51-75% recipes made from scratch	17.1%
76-100% recipes made from scratch	8.7%
Don't know	8.8%

Note: N = 8,393, Missing = 0, Weighted N = 12,315.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Source: 2019 Farm to School Census Q9 (During SY 2018-2019, what percent of your SFA's recipes were made from scratch?)

Exhibit D-3.11. Percent of recipes made from scratch, by robust participation

Prevalence	All F2S SFAs	Non-robust ^a	Robust ^b
	Percent of F2S SFAs		
< 25% recipes made from scratch	36.3%	40.1% ^{RB}	32.0% ^{NR}
26-50% recipes made from scratch	29.0%	24.7% ^{RB}	33.8% ^{NR}
51-75% recipes made from scratch	17.1%	15.3% ^{RB}	19.2% ^{NR}
76-100% recipes made from scratch	8.7%	8.1% ^{RB}	9.5% ^{NR}
Don't know	8.8%	11.7% ^{RB}	5.5% ^{NR}

Note:

^a Non-robust N = 4,400, Missing = 0, Weighted N = 6,595.

^b Robust N = 3,993, Missing = 0, Weighted N = 5,720. Robust refers to participation in at least 7 farm to school activities.

RB and NR superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Source: 2019 Farm to School Census Q9 (During SY 2018-2019, what percent of your SFA's recipes were made from scratch?)

Exhibit D-3.12. Percent of F2S SFAs with staff working on farm to school activities

Number of staff members	Total paid staff who work on farm to school activities ^a	Staff dedicated full-time to farm to school ^b	Staff who work part-time on farm to school ^c
	Percent of F2S SFAs		
0	38.3%	83.5%	42.1%
1	17.9%	8.7%	17.6%
2-9	31.9%	6.4%	29.7%
10 +	11.9%	1.4%	10.6%

Note:

^a Total staff who work on farm to school activities N = 8,393, Missing = 638, Weighted N = 12,315.

^b Full-time on farm to school N = 8,393, Missing = 807, Weighted N = 12,315. Full time is defined as at least 40 hours in one week.

^c Part-time on farm to school N = 8,393, Missing = 746, Weighted N = 12,315. Part time is defined as less than 40 hours in one week and includes both full-time staff who spent some time on farm to school and part-time staff solely dedicated to farm to school.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Source: 2019 Farm to School Census Q46 (How many staff, either full or part-time, are dedicated to farm to school activities within your SFA/school/district? This includes purchasing, procurement, educational activities and gardens. Please only include paid staff, including any contracted and grant-funded staff. (Please include nutrition specialists, garden educators, AmeriCorps members, teachers, and any others who facilitate farm to school activities.)

Exhibit D-3.13. Number of farm to school staff in F2S SFAs

Staff type	Mean	Std dev	Min	Max	Median
Full-time staff dedicated to farm to school activities	0.79	6.64	0.00	300.00	0.00
Full-time staff who spend less than full-time on farm to school activities	2.45	11.20	0.00	328.00	0.00
Part-time staff who spend any time on farm to school activities	2.57	15.35	0.00	661.00	0.00

Note: N = 8,393, Missing = 807, Weighted N = 12,315.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Full time is defined as at least 40 hours in one week. Part time is defined as less than 40 hours in one week.

Source: 2019 Farm to School Census Q46 (How many staff, either full or part-time, are dedicated to farm to school activities within your SFA/school/district? This includes purchasing, procurement, educational activities and gardens. Please only include paid staff, including any contracted and grant-funded staff. (Please include nutrition specialists, garden educators, AmeriCorps members, teachers, and any others who facilitate farm to school activities.))

Exhibit D-3.14. Food service staff training on farm to school or school garden activities

	Did this activity before SY 2018-2019	Did this activity in SY 2018-2019	Currently doing this activity (SY 2019-2020)	Plan to do this activity in the future	Never did this activity
Farm to school activity	Percent of F2S SFAs				
Provide training to school food service staff about farm to school or school gardens	13.0%	21.0%	22.2%	27.9%	60.3%

Note: N = 8,393, Missing = 3, Weighted N = 12,315.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

If an SFA indicated they did an activity before SY 2018-2019, in SY 2019-2019, or in SY 2019-2020, then the survey did not allow them to choose that they never did this activity.

Source: 2019 Farm to School Census Q4 (For each activity below, please indicate if your SFA has never done this activity; used to do this activity before SY 2018-2019; did this activity in SY 2018-2019; is currently doing this in the SY 2019-2020; or plans to do this activity in the future.)

Exhibit D-3.15. Farm to school funding sources used by F2S SFAs

Funding source	Percent of F2S SFAs
Non-profit food-service account	29.0%
School or school district funding, including PTA/PTO	16.0%
Local or State government grants	8.4%
USDA Farm to School Grant	7.7%
Individual donations	6.7%
Other federal grants	5.0%
In-kind contributions ^a	4.9%
Private foundation grants	3.2%
Corporate partnerships and donations	3.0%
Other	12.9%
Don't know	33.4%

Note: N = 4,788, Missing = 0, Weighted N = 6,993.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs) who had full time or part time staff member(s) dedicated to farm to school activities within their SFA/school/district.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Farm to School Census Q47 (How are the above positions and farm to school activities funded?)

Exhibit D-3.16. Farm to school funding sources used by F2S SFAs, by SFA size

Funding source	All F2S SFAs	Small (S) ^a	Medium (M) ^b	Large (L) ^c	Very large (VL) ^d
	Percent of F2S SFAs				
Non-profit food-service account	29.0%	19.4% ^{M, L, VL}	35.2% ^{S, L, VL}	46.4% ^{S, M}	52.1% ^{S, M}
School or school district funding, including PTA/PTO	16.0%	16.8%	15.7%	13.6%	16.3%
Local or State government grants	8.4%	8.8%	7.3% ^L	10.3% ^M	9.3%
USDA Farm to School Grant	7.7%	7.5%	7.4%	8.5%	11.8%
Individual donations	6.7%	9.6% ^{M, L}	3.8% ^S	2.6% ^{S, VL}	7.0% ^L
In-kind contributions ^e	4.9%	5.2% ^{VL}	4.6% ^{VL}	4.0% ^{VL}	9.5% ^{S, M, L}
Private foundation grants	3.2%	3.1% ^{VL}	2.7% ^{VL}	4.2%	7.1% ^{S, M}
Corporate partnerships and donations	3.0%	2.8% ^{VL}	2.4% ^{L, VL}	4.5% ^M	8.3% ^{S, M}
Other federal grants	5.0%	4.6% ^{L, VL}	4.2% ^{L, VL}	6.8% ^{S, M, VL}	14.8% ^{S, M, L}
Other	12.9%	13.5%	12.7%	11.0%	11.6%
Don't know	33.4%	38.8% ^{M, L, VL}	31.2% ^{S, L, VL}	22.1% ^{S, M, VL}	12.7% ^{S, M, L}

Note:

^a Small (S) SFAs (1–999 students) N = 2,236, Missing = 0, Weighted N = 3,515.

^b Medium (M) SFAs (1,000–4,999 students) N = 1,732, Missing = 0, Weighted N = 2,437.

^c Large (L) SFAs (5,000–24,999 students) N = 649, Missing = 0, Weighted N = 842.

^d Very large (VL) SFAs (> = 25,000 students) N = 171, Missing = 0, Weighted N = 200.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs) who had full time or part time staff member(s) dedicated to farm to school activities within their SFA/school/district.

Responses may not sum to 100% because multiple responses were permitted.

S, M, L, VL superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census Q47 (How are the above positions and farm to school activities funded?)

Tables from Chapter 4

Exhibit D-4.1. Activity category combinations

	Percent of F2S SFAs
Procurement only	22.1%
Procurement + Education or Promotion	66.0%
Procurement and Promotion only	15.1%
Procurement and Education only	10.2%
Procurement, Promotion, and Education	40.7%
Promotion and/or Education only	11.5%
Promotion only	2.5%
Education only	6.3%
Promotion and Education only	2.7%

Note: N = 8,393, Missing = 0, Weighted N = 12,315.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

30 F2S SFAs do not fall into any of these categories because they only participated in other activities (serving local food or providing farm to school activities as part of afterschool programs; providing training to school food service staff; and/or evaluating the impact of farm to school activities).

Source: 2019 Farm to School Census (calculated based on selections in Q4.)

Exhibit D-4.2. Farm to school participation, by activity category

Activity type	Percent of F2S SFAs
Participated in Procurement	88.1%
Participated in Promotion	61.1%
Participated in Education	59.9%

Note: N = 8,393, Missing = 0, Weighted N = 12,315.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Farm to School Census (calculated based on selections in Q4.)

Exhibit D-4.3. Farm to school participation, by activity category and SFA size

Activity type	All F2S SFAs	Small (S) ^a	Medium (M) ^b	Large (L) ^c	Very large (VL) ^d
	Percent of F2S SFAs				
Participated in Procurement	88.1%	84.2% ^{M, L, VL}	91.7% ^{S, L}	94.1% ^{S, M}	94.5% ^S
Participated in Promotion	61.1%	53.3% ^{M, L, VL}	67.6% ^{S, L, VL}	73.3% ^{S, M, VL}	82.1% ^{S, M, L}
Participated in Education	59.9%	58.4% ^{L, VL}	60.6% ^{VL}	62.8% ^S	70.0% ^{S, M}

Note:

^a Small (S) SFAs (1-999 students) N = 4,111, Missing = 0, Weighted N = 6,459.

^b Medium (M) SFAs (1,000-4,999 students) N = 2,979, Missing = 0, Weighted N = 4,195.

^c Large (L) SFAs (5,000-24,999 students) N = 1,085, Missing = 0, Weighted N = 1,406.

^d Very large (VL) SFAs (> = 25,000), N = 218, Missing = 0, Weighted N = 254.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

S, M, L, VL superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census (calculated based on selections in Q4.)

Exhibit D-4.4. Farm to school participation, by single activity category and SFA size

Activity type	All F2S SFAs	Small (S) ^a	Medium (M) ^b	Large (L) ^c	Very large (VL) ^d
	Percent of F2S SFAs				
Participated in Procurement only	22.1%	24.8% ^{M, L, VL}	20.4% ^{S, L, VL}	16.6% ^{S, M}	12.4% ^{S, M}
Participated in Education only	6.3%	9.2% ^{M, L, VL}	3.5% ^S	2.4% ^S	1.8% ^S
Participated in Promotion only	2.5%	2.8%	2.4%	1.8%	1.9%

Note:

^a Small (S) SFAs (1-999 students) N = 4,111, Missing = 0, Weighted N = 6,459.

^b Medium (M) SFAs (1,000-4,999 students), N = 2,979, Missing = 0, Weighted N = 4,195.

^c Large (L) SFAs (5,000-24,999 students) N = 1,085, Missing = 0, Weighted N = 1,406.

^d Very large (VL) SFAs (> = 25,000), N = 218, Missing = 0, Weighted N = 254.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

S, M, L, VL superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census (calculated based on selections in Q4.)

Exhibit D-4.5. Farm to school participation, by activity category and length of participation

Activity type	All F2S SFAs	Less than 3 years ^a	3 years or more ^b
	Percent of F2S SFAs		
Participated in Procurement	88.1%	84.2% ³⁺	93.1% ^{<3}
Participated in Promotion	61.1%	48.5% ³⁺	77.8% ^{<3}
Participated in Education	59.9%	50.5% ³⁺	72.3% ^{<3}

Note:

^a Less than 3 years N = 4,663, Missing = 0, Weighted N = 6,982.

^b 3 years or more N = 3,714, Missing = 0, Weighted N = 5,309.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

< 3, 3+ indicate differences between Less than 3 years SFAs compared to 3 years or more SFAs that are statistically significant at the 0.05 level.

Source: 2019 Farm to School Census (calculated based on selections in Q4.)

Exhibit D-4.6. Farm to school participation, by single activity category and length of participation

Activity type	All F2S SFAs	Less than 3 years ^a	3 years or more ^b
	Percent of F2S SFAs		
Participated in Procurement only	22.1%	30.5% ³⁺	11.0% ^{<3}
Participated in Education only	6.3%	9.0% ³⁺	2.8% ^{<3}
Participated in Promotion only	2.5%	3.3% ³⁺	1.5% ^{<3}

Note:

^a Less than 3 years N = 4,663, Missing = 0, Weighted N = 6,982.

^b 3 years or more N = 3,714, Missing = 0, Weighted N = 5,309.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

The All F2S SFAs column includes some SFAs for which valid values of length of participation are not available.

Responses may not sum to 100% because multiple responses were permitted.

< 3, 3+ indicate differences between Less than 3 years SFAs compared to 3 years or more SFAs that are statistically significant at the 0.05 level.

Source: 2019 Farm to School Census (calculated based on selections in Q4.)

Exhibit D-4.7. Number of farm to school activities in which F2S SFAs participated

Number of activities	Percent of F2S SFAs
1 activity	12.6%
2-3 activities	19.5%
4-6 activities	21.5%
7-9 activities	15.5%
10-20 activities	27.2%
20-30 activities	3.7%

Note: N = 8,393, Missing = 0, Weighted N = 12,315.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Source: 2019 Farm to School Census (calculated based on selections in Q4.)

Exhibit D-4.8. Robust and non-robust farm to school participation

Participation pattern	Percent of F2S SFAs
Robust	46.4%
Not robust	53.6%

Note: N = 8,393, Missing = 0, Weighted N = 12,315.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Robust refers to participation in at least 7 farm to school activities.

Source: 2019 Farm to School Census (calculated based on selections in Q4.)

Exhibit D-4.9. Participation in farm to school promotion activities

	Did this activity before SY 2018- 2019	Did this activity in SY 2018- 2019	Currently doing this activity (SY 2019-2020)	Plan to do this activity in the future	Never did this activity
Farm to school activity	Percent of F2S SFAs				
Promote local foods at school in general via cafeteria signs, posters, newsletters	24.5%	42.3%	44.3%	35.1%	39.0%
Implement strategies to encourage student selection and consumption of local foods (e.g., product placement, food prompts, creative signage, etc.)	21.9%	39.9%	42.6%	34.3%	41.0%
Promote local foods through themed or branded promotions (e.g., Harvest of the Month, Local Day, Taste Washington Day)	18.7%	30.7%	31.3%	30.5%	51.9%
Use food coaches to promote the consumption of local foods (e.g., adults or students in the cafeteria encouraging kids to eat local foods)	11.9%	21.5%	23.1%	21.0%	66.1%
Celebrate National Farm to School Month (October)	13.3%	21.2%	22.7%	26.9%	61.6%
Generate media coverage of local foods used in schools	9.4%	14.8%	15.3%	20.0%	71.7%
Host farm to school family and community events (e.g., parents invited to lunch, corn shucking contests, farmers' markets at schools)	8.1%	12.0%	12.4%	18.8%	76.5%
Host special local foods events in CACFP and/or SFSP	2.9%	4.7%	4.7%	10.0%	88.3%

Note: N = 8,393, Missing = 4, Weighted N = 12,315.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

If an SFA indicated they did an activity before SY 2018-2019, in SY 2019-2019, or in SY 2019-2020, then the survey did not allow them to choose that they never did this activity.

Source: 2019 Farm to School Census Q4 (For each activity below, please indicate if your SFA has never done this activity; used to do this activity before SY 2018-2019; did this activity in SY 2018-2019; is currently doing this in the SY 2019-2020; or plans to do this activity in the future.)

Exhibit D-4.10. Participation in farm to school education and garden activities

	Did this activity before SY 2018- 2019	Did this activity in SY 2018- 2019	Currently doing this activity (SY 2019-2020)	Plan to do this activity in the future	Never did this activity
Farm to school activity	Percent of F2S SFAs				
Hold taste tests or cooking demonstrations of locally-grown foods in the cafeteria, classroom, or other school setting	21.4%	33.5%	29.2%	30.5%	47.3%
Conduct student field trips to farms, farmers' markets, producers, processors	19.4%	30.7%	27.3%	25.6%	54.5%
Conduct educational edible school garden activities as part of a school, summer, or afterschool curriculum	14.0%	20.9%	19.0%	21.3%	64.7%
Serve products from school- or district-based gardens in any school meal (i.e., including SFSP and CACFP)	10.8%	17.0%	16.3%	16.4%	71.9%
Have farmer(s) visit the cafeteria, classroom or other school-related setting	12.1%	15.3%	13.1%	23.2%	67.7%
Integrate farm to school activities (e.g., gardening) into Pre-Kindergarten curriculum	8.2%	12.9%	12.6%	16.2%	75.5%
Use USDA Team Nutrition materials (e.g., The Great Garden Detective Adventure or Dig In!) as part of taste testing or other educational activities	8.4%	11.8%	10.8%	18.0%	74.8%

Note: N = 8,393, Missing = 3, Weighted N = 12,315.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

If an SFA indicated they did an activity before SY 2018-2019, in SY 2019-2019, or in SY 2019-2020, then the survey did not allow them to choose that they never did this activity.

Source: 2019 Farm to School Census Q4 (For each activity below, please indicate if your SFA has never done this activity; used to do this activity before SY 2018-2019; did this activity in SY 2018-2019; is currently doing this in the SY 2019-2020; or plans to do this activity in the future.)

Exhibit D-4.11. Percent of schools in F2S SFAs that provide food, nutrition, or agricultural education

	Mean	Std dev	Min	Max	Median
Schools that provided food, nutrition, or agricultural education	85.0%	26.4%	0.20%	100.0%	100.0%

Note: N = 6,910, Missing = 28, Weighted N = 10,116.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs) that provided food, nutrition, or agricultural education.

Source: 2019 Farm to School Census Q25 (To the best of your knowledge, approximately how many schools within the SFA provided food, nutrition, or agricultural education] during SY 2018-2019?)

Exhibit D-4.12. Presence of edible school gardens

	Percent of F2S SFAs
No edible school garden	65.7%
Had at least one edible school garden	34.3%

Note: N = 8,393, Missing = 0, Weighted N = 12,315.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Source: 2019 Farm to School Census Q29 (To the best of your knowledge, approximately how many schools in the SFA had edible school gardens during SY 2018-2019?)

Exhibit D-4.13. Percent of schools in F2S SFAs with edible school gardens

Garden Status	Mean	Std dev	Min	Max	Median
Schools with edible school gardens	56.2%	34.7%	1.2%	100.0%	50.0%

Note: N = 2,938, Missing = 0, Weighted N = 4,225.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs) that had school gardens.

Source: 2019 Farm to School Census Q29 (To the best of your knowledge, approximately how many schools within the SFA had edible school gardens during SY 2018-2019?)

Exhibit D-4.14. Uses for school garden harvest

Use	Percent of SFAs
Served as part of classroom or garden-based educational activities	51.8%
Donated or sold to cafeteria for inclusion in school meals programs	48.3%
Sent home with the students	27.6%
Donated or sold to outside entities, like at a farmers' market or through a CSA	11.5%
Other	6.4%
Don't know	13.2%

Note: N = 2,938, Missing = 0, Weighted N = 4,225.

Responses limited to F2S SFAs that had edible school gardens during SY 2018-2019.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Farm to School Census Q31 (How did schools use the harvest from the school gardens?)

Exhibit D-4.15. Participation in farm to school procurement activities

	Did this activity before SY 2018-2019	Did this activity in SY 2018-2019	Currently doing this activity (SY 2019-2020)	Plan to do this activity in the future	Never did this activity
Farm to school activity	Percent of F2S SFAs				
Source local foods from USDA DoD Fresh	22.5%	41.7%	45.2%	27.5%	41.7%
Seek out local vendors, farmers, co-ops to procure local foods	21.8%	33.6%	36.1%	33.2%	46.4%
Forecast budgetary needs for local purchases	12.7%	21.4%	24.6%	24.3%	64.5%
Utilize the geographic preference option to procure local foods	12.1%	20.0%	22.7%	22.5%	66.0%
Work with local food producers to develop specific food products using local foods	8.7%	13.7%	15.0%	19.4%	72.3%

Note: N = 8,393, Missing = 4, Weighted N = 12,315

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

If an SFA indicated they did an activity before SY 2018-2019, in SY 2019-2019, or in SY 2019-2020, then the survey did not allow them to choose that they never did this activity.

Source: 2019 Farm to School Census Q4 (For each activity below, please indicate if your SFA has never done this activity; used to do this activity before SY 2018-2019; did this activity in SY 2018-2019; is currently doing this in the SY 2019-2020; or plans to do this activity in the future.)

Exhibit D-4.16. Local food sources

Source	Percent of F2S SFAs
USDA DoD Fresh Program	43.1%
Produce distributor	42.5%
USDA Foods	36.3%
Individual food producer (i.e., farmer, rancher, fisher), including but not limited to items purchased through a CSA	25.4%
Grocery store	16.9%
Broadline distributor	16.5%
School or community garden/farm	16.4%
Cooperative of farmers, ranchers or fishers	8.2%
Farmers' market or roadside stand	6.1%
Food hub	3.2%
Other	3.3%
None of the options listed	5.8%
Don't know	9.5%

Note: N = 8,393, Missing = 1, Weighted N = 12,315.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Farm to School Census Q32 (For SY 2018-2019, please indicate if your SFA procured local foods from any of the following sources?)

Exhibit D-4.17. Local food procurement approaches

Approach	Percent of F2S SFAs
Informal procurement, including small purchases and micro-purchases	39.2%
Formal procurement, including Invitations for Bid and Requests for Proposal	25.8%
Use of geographic preference option in solicitations	8.3%
Forward contracts	6.8%
Other	10.1%
Don't know	30.3%

Note: N = 8,393, Missing = 0, Weighted N = 12,315.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Farm to School Census Q33 (Which of the following approaches did your SFA use to procure local foods during SY 2018-2019?)

Exhibit D-4.18. Local food procurement approaches, by food service arrangement

	Self-operated ^a	Food Service Management Company (FSMC) ^b	Vended meals ^c	Other ^d
Approach	Percent of F2S SFAs			
Forward contracts	6.1%	10.7%	4.8%	3.7%
Informal procurement, including small purchases and micro-purchases	46.4%	20.7%	18.5%	18.2%
Formal procurement, including Invitations for Bid and Requests for Proposal	28.4%	19.6%	16.5%	16.4%
Use of geographic preference option in solicitations	9.4%	6.3%	3.8%	1.6%
Other	9.0%	12.6%	14.8%	19.5%
Don't know	24.8%	43.0%	49.8%	53.1%

Note:

^a N = 6,229, Missing = 0, Weighted N = 9,096.

^b N = 1,701, Missing = 1,652, Weighted N = 2,485.

^c N = 471, Missing = 432, Weighted N = 746.

^d N = 125, Missing = 107, Weighted N = 198.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Farm to School Census Q33 (Which of the following approaches did your SFA use to procure local foods during SY 2018-2019?)

Tables from Chapter 5

Exhibit D-5.1. Percent of schools in F2S SFAs serving local food

Type of activity	Mean	Std dev	Min	Max	Median
Schools that served local food of any kind	85.1%	32.1%	0.0%	100.0%	100.0%

Note: N = 8,393, Missing = 25, Weighted N = 12,315.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Source: 2019 Farm to School Census Q24 (To the best of your knowledge, approximately how many schools within the SFA served local food of any kind in SY 2018-2019?).

Exhibit D-5.2. Participation in farm to school activities related to serving local foods

	Did this activity before SY 2018-2019	Did this activity in SY 2018-2019	Currently doing this activity (SY 2019-2020)	Plan to do this activity in the future	Never did this activity
Farm to school activity	Percent of F2S SFAs				
Use local foods in any form (e.g., fresh, frozen, dried) in NSLP	39.4%	71.7%	74.3%	41.7%	13.1%
Use local foods in any form in SBP	33.0%	59.9%	62.8%	36.7%	26.4%
Serve local foods as a snack in any context	18.5%	30.5%	31.9%	23.5%	58.4%
Use local foods in any form in summer meals (i.e., SFSP or SSO)	16.6%	28.4%	25.5%	19.4%	63.5%
Use local foods as part of the Fresh Fruit and Vegetable Program (FFVP) ^a	15.0%	20.7%	22.0%	15.8%	65.8%
Use local foods in any form in CACFP meals (i.e., in a Pre-K setting)	9.8%	18.0%	19.7%	12.6%	75.4%
Serve products from school- or district-based gardens in any school meal (i.e., including SFSP and CACFP)	10.8%	17.0%	16.3%	16.4%	71.9%
Use local foods in any form in CACFP At-Risk Afterschool (i.e., snacks and/or supper)	7.4%	13.0%	14.2%	10.4%	81.6%

Note: N = 8,393, Missing = 2, Weighted N = 12,315.

^a FFVP is only offered in elementary schools.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

If an SFA indicated they did an activity before SY 2018-2019, in SY 2019-2019, or in SY 2019-2020, then the survey did not allow them to choose that they never did this activity.

Source: 2019 Farm to School Census Q4 (For each activity below, please indicate if your SFA has never done this activity; used to do this activity before SY 2018-2019; did this activity in SY 2018-2019; is currently doing this in the SY 2019-2020; or plans to do this activity in the future.)

Exhibit D-5.3. Use of local foods in federal meal programs among F2S SFAs participating in those programs

Activity	Percent of SFAs
Use local foods in any form in CACFP meals (i.e., in a Pre-K setting) ^a	79.2%
Use local foods in NSLP ^b	71.7%
Use local foods in any form in summer meals (i.e., SFSP or SSO) ^c	69.4%
Use local foods in any form in SBP ^d	68.4%
Use local foods as part of the Fresh Fruit and Vegetable Program (FFVP) ^e	68.1%
Use local foods in any form in CACFP At-Risk Afterschool (i.e., snacks and/or supper) ^f	65.7%

Note: Sample for each activity restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs) that participated in the corresponding program.

^a N = 1,957, Missing = 0, Weighted N = 2,799.

^b N = 8,393, Missing = 0, Weighted N = 12,315.

^c N = 3,572, Missing = 0, Weighted N = 5,030.

^d N = 7,434, Missing = 0, Weighted N = 10,772.

^e N = 2,576, Missing = 0, Weighted N = 3,742.

^f N = 1,726, Missing = 0, Weighted N = 2,443.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Farm to School Census Q4 (For each activity below, please indicate if your SFA did this activity in SY 2018-2019.)

Exhibit D-5.4. Percent of schools in F2S SFAs with salad bars and salad bars that serve local food

School salad bar status	Mean	Std dev	Min	Max	Median
Schools with salad bars ^a	45.9%	43.8%	0.0%	100.0%	35.7%
Salad bars with local food ^b	83.7%	36.2%	0.0%	100.0%	100.0%

Note:

^a N = 8,393, Missing = 321, Weighted N = 12,315.

^b N = 8,072, Missing = 3,452, Weighted N = 11,795.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs) with salad bars.

Percent of salad bars with local food assumes 1 salad bar per school.

Source: 2019 Farm to School Census Q7 and Q8 (To the best of your knowledge, approximately how many schools in your SFA had salad bars during SY 2018-2019? How many of these salad bars served local foods during SY 2018-2019?)

Exhibit D-5.5. Percent of schools in F2S SFAs with Salad bars and salad bars that serve local food, by SFA size

School salad bar status	Mean	Std dev	Min	Max	Median
All F2S SFA with salad bars					
Schools with salad bars	45.9%	43.8%	0.0%	100.0%	35.7%
Salad bars with local food	83.7%	36.2%	0.0%	100.0%	100.0%
Small (S) ^a					
Schools with salad bars	47.5% L, VL	46.9%	0.0%	100.0%	50.0%
Salad bars with local food	78.3% L, VL	40.7%	0.0%	100.0%	100.0%
Medium (M) ^b					
Schools with salad bars	45.5% L, VL	39.7%	0.0%	100.0%	40.0%
Salad bars with local food	86.2% S, L, VL	33.6%	0.0%	100.0%	100.0%
Large (L) ^c					
Schools with salad bars	42.4% S, M, VL	41.8%	0.0%	100.0%	26.3%
Salad bars with local food	92.2% S, M	25.8%	0.0%	100.0%	100.0%
Very large (VL) ^d					
Schools with salad bars	32.5% S, M, L	38.5%	0.0%	100.0%	13.5%
Salad bars with local food	94.1% S, M	23.0%	0.0%	100.0%	100.0%

Note:

^a Small (S) SFAs (1–999 students) N = 3,843-4,111, Missing = 268-1,930, Weighted N = 6,014-6,459.

^b Medium (M) SFAs (1,000–4,999 students) N = 2,941-2,979, Missing = 38-1,027, Weighted N = 4,139-4,195.

^c Large (L) SFAs (5,000–24,999 students) N = 1,076-1,085, Missing = 9-405, Weighted N = 1,395-1,406.

^d Very large (VL) SFAs (> 25,000 students) N = 212-218, Missing = 6-90, Weighted N = 247-254.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs) with salad bars.

Percent of salad bars with local food assumes one salad bar per school.

S, M, L, VL superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census Q7 and Q8 (To the best of your knowledge, approximately how many schools in your SFA had salad bars during SY 2018-2019? How many of these salad bars served local foods during SY 2018-2019?)

Exhibit D-5.6. Local food purchases by food group

Food group	Purchased any local items in SY 2018-2019	Did not purchase any items locally but would like to in the future	No plans to purchase any items locally
	Percent of F2S SFAs		
Fruit ^a	73.4%	16.9%	9.6%
Vegetables ^b	71.3%	18.8%	9.9%
Fluid milk ^c	59.5%	13.6%	26.9%
Other dairy ^d	28.0%	28.9%	43.1%
Grains, including baked goods ^e	25.9%	31.9%	42.2%
Protein ^f	23.9%	32.5%	43.6%
Other product type ^g	8.0%	29.3%	62.7%

Note:

^a N = 8,393, Missing = 137, Weighted N = 12,315.

^b N = 8,393, Missing = 147, Weighted N = 12,315.

^c N = 8,393, Missing = 258, Weighted N = 12,315.

^d N = 8,393, Missing = 444, Weighted N = 12,315.

^e N = 8,393, Missing = 421, Weighted N = 12,315.

^f N = 8,393, Missing = 409, Weighted N = 12,315.

^g N = 8,393, Missing = 3,077, Weighted N = 12,315.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Source: 2019 Farm to School Census Q34 (Please indicate if your SFA or any schools in your SFA purchased any of the following local foods – IN ANY FORM -- during the 2018-2019 school year or would like to in the future.)

Exhibit D-5.7. Local food purchases by food group, by SFA size

Food Group	All F2S SFAs	Small (S) ^a	Medium (M) ^b	Large (L) ^c	Very large (VL) ^d
	Percent of F2S SFAs that purchased any local items				
Fruit	84.8%	79.4% M, L, VL	88.5% S, L, VL	93.5% S, M	94.2% S, M
Vegetables	82.3%	78.6% M, L, VL	84.2% S, L, VL	89.1% S, M	91.2% S, M
Fluid milk	67.8%	67.4% M, L, VL	66.4% S, L, VL	70.7% S, M, VL	82.8% S, M, L
Other dairy	31.2%	32.0% M	31.1% S	28.6%	29.5%
Grains, including baked goods	28.9%	29.6% L, VL	26.3% L, VL	30.8% S, M, VL	44.5% S, M, L
Protein	26.7%	28.3% VL	24.0% VL	25.2% VL	44.3% S, M, L
Other product type	6.0%	7.2% M	4.6% S, VL	4.5% VL	9.3% M, L

Note:

^a Small (S) SFAs (1–999 students) N = 3,238, Missing = 0, Weighted N = 5,083.

^b Medium (M) SFAs (1,000–4,999 students) N = 2,711, Missing = 0, Weighted N = 3,820.

^c Large (L) SFAs (5,000–24,999 students) N = 1,024, Missing = 0, Weighted N = 1,329.

^d Very large (VL) SFAs (>=25,000 students) N = 208, Missing = 0, Weighted N = 243.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs) that purchased any local items.

Responses may not sum to 100% because multiple responses were permitted.

S, M, L, VL superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census Q34 (Please indicate if your SFA or any schools in your SFA purchased any of the following local foods IN ANY FORM -- during SY 2018-2019 or would like to in the future.)

Exhibit D-5.8. Local food purchases by food group, by length of participation

Food group	All F2S SFAs	Less than 3 years ^a	3 years or more ^b
	Percent of F2S SFAs that purchased any local items		
Fruit	84.8%	80.0% ³⁺	90.2% ^{<3}
Vegetables	82.3%	77.1% ³⁺	88.1% ^{<3}
Fluid milk	67.8%	69.0% ³⁺	66.5% ^{<3}
Grains, including baked goods	28.9%	26.1% ³⁺	32.0% ^{<3}
Protein	26.7%	23.5% ³⁺	30.3% ^{<3}
Other dairy	31.2%	28.8% ³⁺	33.8% ^{<3}
Other product type	6.0%	6.4%	5.6%

Note:

^a Less than 3 years N = 3,693, Missing=0, Weighted N = 5,500.

^b 3 years or more N = 3,482, Missing = 0, Weighted N = 4,966.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs) that purchased any local items.

The All F2S SFAs column includes some SFAs for which valid values of length of participation are not available.

Responses may not sum to 100% because multiple responses were permitted.

< 3, 3+ indicate differences between Less than 3 years SFAs compared to 3 years or more SFAs that are statistically significant at the 0.05 level.

Source: 2019 Farm to School Census Q34 (Please indicate if your SFA or any schools in your SFA purchased any of the following local foods IN ANY FORM – during SY 2018-2019 or would like to in the future.)

Exhibit D-5.9. F2S SFAs purchasing local food from a single food group

Food group	Percent of F2S SFAs
Fruit	2.5%
Vegetables	1.8%
Fluid milk	5.1%
Protein	0.5%
Grains, including baked goods	0.1%
Other dairy	0.1%
Other product type	0.1%

Note: N = 8,393, Missing = 0, Weighted N = 12,315.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Source: 2019 Farm to School Census Q34 (Please indicate if your SFA or any schools in your SFA purchased any of the following local foods IN ANY FORM – during SY 2018-2019 or would like to in the future.)

Exhibit D-5.10. Types of grains purchased locally

Grain type	Percent of F2S SFAs with grains as a top local food
Baked goods (e.g., bread, cookies, tortillas)	68.1%
Flour	7.9%
Rice	6.0%
Pasta	1.9%
Grits	0.4%
Other	15.6%

Note: N = 695, Missing = 0, Weighted N = 1,008.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs) that selected a grain as one of the top five foods.

Source: 2019 Farm to School Census Q35ii (What were the top five local foods your school district purchased in SY 2018-2019, based on total dollars spent? What is the food group? What is the food [drop -down menu]?)

Exhibit D-5.11. Food group of most purchased local item, by spending

Food group	Top local item ^a	Second local item ^b	Third local item ^c	Fourth local item ^d	Fifth local item ^e
	Percent of F2S SFAs				
Fruit	48.2%	47.4%	40.9%	38.2%	38.5%
Vegetable	11.9%	30.7%	40.8%	44.7%	45.0%
Fluid milk	30.1%	4.4%	2.6%	2.7%	2.5%
Other dairy	0.5%	2.8%	3.6%	3.4%	2.4%
Protein	4.1%	4.1%	3.4%	3.0%	3.1%
Grains including baked goods	1.2%	5.4%	3.4%	2.4%	1.8%
Other product type	4.1%	5.1%	5.3%	5.6%	6.8%

Note:

^a N = 8,393, Missing = 1,316, Weighted N = 12,315.

^b N = 8,393, Missing = 2,318, Weighted N = 12,315.

^c N = 8,393, Missing = 3,273, Weighted N = 12,315.

^d N = 8,393, Missing = 4,055, Weighted N = 12,315.

^e N = 8,393, Missing = 4,565, Weighted N = 12,315.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Source: 2019 Farm to School Census Q35 (What were the top five local foods your school district purchased in SY 2018-2019, based on total dollars spent?)

Exhibit D-5.12. F2S SFA spending on top local items

Item rank	Mean	Std dev	Min	Max
Top local food item	\$90,645.50	\$481,773.27	\$0.00	\$9,300,000.00
Second local food item	\$25,707.06	\$283,662.60	\$0.00	\$12,551,938.00
Third local food item	\$10,962.39	\$74,569.33	\$0.00	\$2,405,017.00
Fourth local food item	\$7,751.18	\$45,869.24	\$0.00	\$1,114,046.00
Fifth local food item	\$7,074.47	\$45,113.87	\$0.00	\$1,200,050.00

Note: N = 8,393, Missing = 5,419, Weighted N = 12,315.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Source: 2019 Farm to School Census Q35B (How much did your SFA spend on [FOOD ITEM] in SY 2018-2019?)

Exhibit D-5.13. Most common local foods among top local items by spending

Local food	Percent of F2S SFAs
Fluid milk	36.9%
Local produce	
Apples	64.5%
Tomatoes	19.2%
Lettuce	18.6%
Carrots	16.5%
Cucumber	14.1%
Watermelon	12.5%
Oranges	11.6%
Strawberries	9.8%
Broccoli	8.9%
Bell peppers	7.9%

Note: N = 8,393, Missing = 1,309, Weighted N = 12,315.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

Percent of F2S SFAs reflects SFAs that included the item in their list of top five local foods by spending.

Source: 2019 Farm to School Census Q35 (What were the top five local foods your school district purchased in SY 2018-2019, based on total dollars spent?)

Exhibit D-5.14. Frequency of serving local foods in school meals or snacks, by food group

Food group	Percent of F2S SFAs that purchased locally						
	Daily	A few times per week	Weekly	A few times per month	Monthly	Seasonally/occasionally	Never
Fruit ^a	34.1%	18.3%	13.8%	10.0%	3.0%	19.5%	1.3%
Vegetables ^b	29.2%	18.1%	13.9%	11.6%	4.1%	21.0%	2.1%
Fluid milk ^c	86.8%	3.2%	3.8%	1.1%	0.7%	1.8%	2.5%
Other dairy ^d	32.2%	21.1%	12.8%	11.9%	4.1%	11.3%	6.6%
Protein ^e	30.9%	15.8%	12.8%	13.4%	8.0%	14.7%	4.6%
Grains ^f	45.6%	18.4%	12.3%	8.4%	3.6%	8.0%	3.8%
Other ^g	31.2%	19.6%	9.0%	12.5%	8.6%	18.2%	0.9%

Note: Respondents were asked about serving frequency only for items they reported purchasing locally in Question 34. As a result, the N and missing data vary by each food group.

^a N = 6,128, Missing = 77, Weighted N = 8,885.

^b N = 5,942, Missing = 77, Weighted N = 8,617.

^c N = 4,849, Missing = 67, Weighted N = 7,100.

^d N = 2,218, Missing = 50, Weighted N = 3,263.

^e N = 1,924, Missing = 55, Weighted N = 2,798.

^f N = 2,072, Missing = 53, Weighted N = 3,029.

^g N = 416, Missing = 319, Weighted N = 628.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Source: 2019 Farm to School Census Q36 (On average, in SY 2018-2019, about how frequently did your SFA's meals or snacks include at least one local food from the categories below?)

Exhibit D-5.15. Food spending by expenditure type

Expenditure type	Mean	Std dev	Min	Max	Total
All food, excluding USDA Foods/USDA DoD Fresh ^a	\$700,468.58	\$3,055,399.60	\$1.00	\$170,000,000.00	\$7,283,652,195.07
Local food, including fluid milk ^b	\$114,046.59	\$535,105.43	\$0.00	\$22,000,000.00	\$1,263,117,870.78
Local fluid milk ^c	\$65,836.82	\$306,828.06	\$0.00	\$10,000,000.00	\$725,120,643.53
Local food, excluding fluid milk ^d	\$48,189.44	\$297,015.99	\$0.00	\$12,000,000.00	\$518,755,282.49
USDA DoD Fresh ^e	\$20,411.91	\$87,867.35	\$0.00	\$3,023,299.00	\$227,988,808.51
Local USDA DoD Fresh ^f	\$15,943.73	\$48,054.00	\$0.00	\$1,153,792.00	\$96,809,991.43

Note:

^a N = 8,393, Missing = 1,248, Weighted N = 12,315. This does not include USDA Foods or USDA DoD Fresh expenditures.

^b N = 8,393, Missing = 800, Weighted N = 12,315. This does not include USDA Foods or USDA DoD Fresh expenditures.

^c N = 8,393, Missing = 830, Weighted N = 12,315. This does not include USDA Foods or USDA DoD Fresh expenditures.

^d N = 8,393, Missing = 992, Weighted N = 12,315. This does not include USDA Foods or USDA DoD Fresh expenditures.

^e N = 8,393, Missing = 733, Weighted N = 12,315.

^f N = 5,056, Missing = 768, Weighted N = 7,268. Responses limited to SFAs that reported having costs of USDA DoD Fresh.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Total expenditures are equal to the sum of expenditures reported by F2S SFAs.

Source: 2019 Farm to School Census Q37-Q41 (For SY 2017-2018, what were your SFA's approximate costs of [CATEGORY] (in dollars)? (Please round to the nearest dollar.))

Exhibit D-5.16. Percent of food spending on local foods

	Mean	Std dev	Min	Max	Median
Percent local, including fluid milk ^a	19.9%	23.6%	0.0%	100.0%	13.7%
Percent local of USDA DoD Fresh ^b	55.7%	42.6%	0.0%	100.0%	53.8%

Note:

^a N = 8,393, Missing = 1,337, Weighted N = 12,315. Spending on local foods does not include USDA Foods or USDA DoD Fresh expenditures.

^b N = 8,393, Missing = 4,105, Weighted N = 12,315. Responses limited to SFAs that reported having costs of USDA DoD Fresh.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Source: 2019 Farm to School Census Q37-Q39 (Percent calculated from Q37-Q39 which reported local food expenditures and overall food expenditures).

Exhibit D-5.17. Percent of food spending on local foods, by free or reduced-price lunch eligibility

FRPL eligibility	Mean	Std dev	Min	Max	Median
All F2S SFAs	19.9%	23.6%	0.0%	100.0%	13.9%
Quartile 1 FRPL ^a	18.4% ^{Q3, Q4}	22.7%	0.0%	100.0%	12.5%
Quartile 2 FRPL ^b	18.6% ^{Q3, Q4}	21.7%	0.0%	100.0%	14.3%
Quartile 3 FRPL ^c	21.1% ^{Q1, Q2}	23.5%	0.0%	100.0%	15.6%
Quartile 4 FRPL ^d	21.5% ^{Q1, Q2}	25.7%	0.0%	100.0%	13.1%

Note: FRPL = Free or Reduced-Price Lunch

^a Quartile 1 FRPL (31% or fewer students eligible) SFAs N = 2,026, Missing = 318, Weighted N = 2,957.

^b Quartile 2 FRPL (more than 31% and up to 51% students eligible) SFAs N = 2,096, Missing = 303, Weighted N = 3,028.

^c Quartile 3 FRPL (more than 51% and up to 86% students eligible) SFAs N = 2,110, Missing = 311, Weighted N = 2,961.

^d Quartile 4 FRPL (more than 86% students eligible) SFAs N = 1,895, Missing = 319, Weighted N = 2,778.

Responses limited to SFAs participating in farm to school in SY 2018-2019.

Spending on local foods does not include USDA Foods or USDA DoD Fresh expenditures.

Q1, Q2, Q3, Q4 superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census Q37-Q39 (Percent calculated from Q37-Q39 which reported local food expenditures and overall food expenditures).

Exhibit D-5.18. Percent of food spending on local foods, by robust participation

	Mean	Std dev	Min	Max
All F2S SFAs	19.9%	23.6%	0.0%	100.0%
Robust ^a	22.1% ^{NR}	23.0%	0.0%	100.0%
Non-robust ^b	17.8% ^{RB}	24.1%	0.0%	100.0%

Note:

^a Robust N = 3,993, Missing = 462, Weighted N = 5,720. Robust refers to participation in at least 7 farm to school activities.

^b Non-robust N = 4,400, Missing = 875, Weighted N = 6,595.

Responses limited to SFAs participating in farm to school in SY 2018-2019.

Spending on local foods does not include USDA Foods or USDA DoD Fresh expenditures.

RB and NR superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census Q37-Q39 (Percent calculated from Q37-Q39 which reported local food expenditures and overall food expenditures).

Exhibit D-5.19. Percent of food spending on local foods, by number of farm to school activities

Number of activities F2S SFAs participated in	Mean	Std dev	Min	Max
All F2S SFAs	19.9%	23.6%	0.0%	100.0%
1 activity ^a	15.5%	24.0%	0.0%	100.0%
2-3 activities ^b	17.3%	23.8%	0.0%	100.0%
4-6 activities ^c	19.6%	24.2%	0.0%	100.0%
7-9 activities ^d	22.1%	24.5%	0.0%	100.0%
10-20 activities ^e	22.2%	22.8%	0.0%	100.0%
20-30 activities ^f	21.7%	16.9%	0.0%	100.0%

Note:

^a 1 Activity N = 1,032, Missing = 254, Weighted N = 1,548.

^b 2-3 activities N = 1,587, Missing = 315, Weighted N = 2,406.

^c 4-6 activities N = 1,781, Missing = 306, Weighted N = 2,642.

^d 7-9 activities N = 1,305, Missing = 184, Weighted N = 1,914.

^e 10-20 activities N = 2,352, Missing = 255, Weighted N = 3,352.

^f 20-30 activities N = 336, Missing = 23, Weighted N = 454.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Spending on local foods does not include USDA Foods or USDA DoD Fresh expenditures.

Source: 2019 Farm to School Census Q37-Q39 (Percent calculated from Q37-Q39 which reported local food expenditures and overall food expenditures).

Exhibit D-5.20. Total and local food spending per student, by free or reduced-price lunch eligibility

Expenditure type	Mean	Std dev	Min	Max
All F2S SFAs				
Total spending per student	\$304.39	\$506.02	\$0.00	\$5,000.00
Local spending per student	\$55.81	\$191.58	\$0.00	\$5,000.00
Quartile 1 – FRPL ^a				
Total spending per student	\$167.33 ^{Q2, Q3, Q4}	\$226.66	\$0.00	\$3,799.93
Local spending per student	\$25.30 ^{Q2, Q3, Q4}	\$69.15	\$0.00	\$1,710.38
Quartile 2 –FRPL ^b				
Total spending per student	\$194.25 ^{Q1, Q3, Q4}	\$220.85	\$0.00	\$4,516.13
Local spending per student	\$29.13 ^{Q1, Q3, Q4}	\$55.61	\$0.00	\$793.78
Quartile 3 –FRPL ^c				
Total spending per student	\$243.23 ^{Q1, Q2, Q4}	\$241.01	\$0.00	\$4,629.63
Local spending per student	\$42.31 ^{Q1, Q2, Q4}	\$71.08	\$0.00	\$1,527.84
Quartile 4 –FRPL ^d				
Total spending per student	\$368.43 ^{Q1, Q2, Q3}	\$401.30	\$0.00	\$4,000.00
Local spending per student	\$67.13 ^{Q1, Q2, Q3}	\$173.12	\$0.00	\$3,299.49

Note: FRPL = Free or Reduced-Price Lunch

^a Quartile 1 – FRPL (31% or fewer students eligible) SFAs N = 2,026, Missing = 301, Weighted N = 2,957.

^b Quartile 2 – FRPL (more than 31% and up to 51% students eligible) SFAs N = 2,096, Missing = 288, Weighted N = 3,028.

^c Quartile 3 – FRPL (more than 51% and up to 86% students eligible) SFAs N = 2,110, Missing = 285, Weighted N = 2,961.

^d Quartile 4 – FRPL (more than 86% students eligible) SFAs N = 1,895, Missing = 293, Weighted N = 2,778.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Total and local spending does not include USDA Foods or USDA DoD Fresh expenditures.

Q1, Q2, Q3, Q4 superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census (Calculated spending per student based on number of students in CCD Data, total food expenditures, and local food expenditures.)

Exhibit D-5.21. Total and local food spending per student, by robust participation

Expenditure type	Mean	Std dev	Min	Max
All F2S SFAs				
Total spending per student	\$304.39	\$506.02	\$0.00	\$5,000.00
Local spending per student	\$55.81	\$191.58	\$0.00	\$5,000.00
Non-Robust ^a				
Total spending per student	\$332.56 ^{RB}	\$564.54	\$0.00	\$5,000.00
Local spending per student	\$53.23	\$211.49	\$0.00	\$5,000.00
Robust ^b				
Total spending per student	\$274.79 ^{NR}	\$434.20	\$0.00	\$4,861.11
Local spending per student	\$58.62	\$167.12	\$0.00	\$3,299.49

Note:

^a Non-Robust N = 4,400, Missing = 813, Weighted N = 6,595.

^b Robust N = 3,993, Missing = 435, Weighted N = 5,720. Robust refers to participation in at least 7 farm to school activities.

Responses limited to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Total and local spending does not include USDA Foods or USDA DoD Fresh expenditures.

RB and NR superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census (Calculated spending per student based on number of students in CCD Data, total food expenditures, and local food expenditures.)

Exhibit D-5.22. Source of information on spending, by expenditure type

	Financial records/ receipts	Procurement records, including bid documents	Budget	Estimated costs	Fresh Fruits and Vegetables Order Receipt System (FFAVORS)
Expenditure type	Percent of SFAs				
All food ^a	62.5%	6.1%	19.2%	34.2%	0.0%
Local food, including fluid milk ^b	47.7%	6.8%	11.0%	53.9%	0.0%
Local fluid milk ^c	49.2%	6.8%	9.4%	48.5%	0.0%
USDA DoD Fresh ^d	41.4%	0.0%	9.5%	38.1%	21.7%
Local USDA DoD Fresh ^e	15.0%	0.0%	3.4%	29.9%	12.5%

Note:

^a N = 7,145, Missing = 26, Weighted N = 10,398.

^b N = 7,593, Missing = 147, Weighted N = 11,075.

^c N = 7,563, Missing = 164, Weighted N = 11,014.

^d N = 7,401, Missing = 127, Weighted N = 10,765.

^e N = 7,660, Missing = 205, Weighted N = 11,169. Responses limited to SFAs that reported having costs of USDA DoD Fresh.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Farm to School Census Q37A (What source did you use for your answer to the previous question (approximate [FOOD CATEGORY] food costs)?)

Tables from Chapter 6

Exhibit D-6.1. Benefits from participating in farm to school

Benefit	Percent of F2S SFAs
Higher quality foods in school meals	41.7%
Increased student knowledge about local and healthful foods	31.5%
Increased consumption of items in school meals	26.5%
Increased food cooked from scratch in school meals	19.4%
Increased student knowledge about how to grow food	19.4%
Increased student experiential learning opportunities	17.7%
Increased participation in school meals	16.7%
Lower school meal program costs	15.0%
Reduced food waste	14.5%
Increased kitchen staff satisfaction	14.4%
Increased skill building or job training for students	6.4%
Other	6.1%
No benefits	9.0%
Don't know	29.7%

Note: N = 8,393, Missing = 4,113, Weighted N = 12,315.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Farm to School Census Q13 (Which of the following benefits do you feel has resulted from your participation in farm to school activities?)

Exhibit D-6.2. Benefits from participating in farm to school, by SFA size

Benefit	All F2S SFAs	Small (S) ^a	Medium (M) ^b	Large (L) ^c	Very large (VL) ^d
	Percent of F2S SFAs				
Higher quality foods in school meals	41.7%	37.6% ^{M, L, VL}	46.5% ^{S, VL}	46.6% ^{S, VL}	59.8% ^{S, M, L}
Increased student knowledge about local and healthful foods	31.5%	26.4% ^{M, L, VL}	35.2% ^{S, L, VL}	42.9% ^{S, M, VL}	63.2% ^{S, M, L}
Increased consumption of items in school meals	26.5%	22.4% ^{M, L, VL}	31.2% ^{S, VL}	31.1% ^{S, VL}	48.3% ^{S, M, L}
Increased food cooked from scratch in school meals	19.4%	20.1%	19.1%	16.4%	21.8%
Increased student knowledge about how to grow food	19.4%	17.4% ^{M, L, VL}	20.0% ^{S, L, VL}	25.3% ^{S, M, VL}	35.5% ^{S, M, L}
Increased student experiential learning opportunities	17.7%	15.9% ^{M, L, VL}	18.7% ^{S, VL}	21.7% ^{S, VL}	36.8% ^{S, M, L}
Increased participation in school meals	16.7%	14.5% ^{M, VL}	19.4% ^{S, VL}	17.7% ^{VL}	31.1% ^{S, M, L}
Lower school meal program costs	15.0%	15.3%	15.5%	12.2%	13.8%
Reduced food waste	14.5%	14.5%	14.6%	12.5% ^{VL}	21.9% ^L
Increased kitchen staff satisfaction	14.4%	12.8% ^{M, L}	16.0% ^S	17.2% ^S	20.7%
Increased skill building or job training for students	6.4%	6.2% ^{L, VL}	5.8% ^{L, VL}	8.7% ^{S, M}	13.5% ^{S, M}
Other	6.1%	6.4%	5.4%	6.0%	8.3%
No benefits	9.0%	8.6%	9.5%	9.2%	9.0%
Don't know	29.7%	34.5% ^{M, L, VL}	25.0% ^{S, VL}	21.0% ^{S, VL}	10.5% ^{S, M, L}

Note:

^a Small (S) SFAs (1–999 students) N = 4,111, Missing = 1,839, Weighted N = 6,459.

^b Medium (M) SFAs (1,000–4,999 students) N = 2,979, Missing = 1,569, Weighted N = 4,195.

^c Large (L) SFAs (5,000–24,999 students) N = 1,085, Missing = 574, Weighted N = 1,406.

^d Very large (VL) SFAs (> = 25,000 students) N = 218, Missing = 131, Weighted N = 254.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

S, M, L, VL superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census Q13 (Which of the following benefits do you feel has resulted from your participation in farm to school activities?)

Exhibit D-6.3. Benefits from participating in farm to school, by FRPL eligibility

Benefit	All F2S SFAs	Quartile 1 FRPL ^a	Quartile 2 FRPL ^b	Quartile 3 FRPL ^c	Quartile 4 FRPL ^d
	Percent of F2S SFAs				
Higher quality foods in school meals	41.7%	43.9%	40.9%	39.8%	40.4%
Increased student knowledge about local and healthful foods	31.5%	32.9%	32.4%	29.6%	31.0%
Increased consumption of items in school meals	26.5%	27.0%	25.8%	28.0%	26.3%
Increased food cooked from scratch in school meals	19.4%	19.5%	18.6%	18.3%	18.7%
Increased student knowledge about how to grow food	19.4%	18.5%	19.1%	18.7%	20.9%
Increased student experiential learning opportunities	17.7%	17.2%	17.9%	16.3%	19.1%
Increased participation in school meals	16.6%	17.5%	15.8%	17.1%	18.3%
Lower school meal program costs	15.0%	14.3%	14.9%	14.9%	14.6%
Reduced food waste	14.5%	14.1%	14.6%	13.1%	14.9%
Increased kitchen staff satisfaction	14.4%	16.3% ^{Q3, Q4}	15.0%	12.1% ^{Q1}	12.1% ^{Q1}
Increased skill building or job training for students	6.4%	5.1%	6.0%	6.0%	6.8%
Other	6.1%	5.0% ^{Q4}	6.1%	5.5%	7.5% ^{Q1}
No benefits	9.0%	10.2%	8.6%	9.4%	8.5%
Don't know	29.7%	28.6%	29.4%	31.6%	29.6%

Note: FRPL = Free or Reduced-Price Lunch

^a Quartile 1 FRPL (31% or fewer students eligible) SFAs N = 2,026, Missing = 930, Weighted N = 2,957.

^b Quartile 2 FRPL (more than 31% and up to 51% students eligible) SFAs N = 2,096, Missing = 997, Weighted N = 3,028.

^c Quartile 3 FRPL (more than 51% and up to 86% students eligible) SFAs N = 2,110, Missing = 1,067, Weighted N = 2,961.

^d Quartile 4 FRPL (more than 86% students eligible) SFAs N = 1,895, Missing = 1,005, Weighted N = 2,778.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

The All F2S SFAs column includes some SFAs for which valid values of FRPL are not available.

Responses may not sum to 100% because multiple responses were permitted.

Q1, Q2, Q3, Q4 superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census Q13 (Which of the following benefits do you feel has resulted from your participation in farm to school activities?)

Exhibit D-6.4. Benefits from participating in farm to school, by length of participation

Benefit	All F2S SFAs	Less than 3 years ^a	3 years or more ^b
	Percent of F2S SFAs		
Higher quality foods in school meals	41.7%	27.7% ³⁺	60.7% ^{<3}
Increased student knowledge about local and healthful foods	31.5%	17.4% ³⁺	50.7% ^{<3}
Increased consumption of items in school meals	26.5%	15.8% ³⁺	41.1% ^{<3}
Increased food cooked from scratch in school meals	19.4%	12.1% ³⁺	29.4% ^{<3}
Increased student knowledge about how to grow food	19.4%	9.9% ³⁺	32.2% ^{<3}
Increased student experiential learning opportunities	17.7%	9.6% ³⁺	28.6% ^{<3}
Increased participation in school meals	16.7%	10.3% ³⁺	25.3% ^{<3}
Lower school meal program costs	15.0%	10.3% ³⁺	21.4% ^{<3}
Reduced food waste	14.5%	9.5% ³⁺	21.2% ^{<3}
Increased kitchen staff satisfaction	14.4%	8.3% ³⁺	22.7% ^{<3}
Increased skill building or job training for students	6.4%	3.1% ³⁺	10.9% ^{<3}
Other	6.1%	8.1% ³⁺	3.3% ^{<3}
No benefits	9.0%	10.7% ³⁺	6.6% ^{<3}
Don't know	29.7%	42.4% ³⁺	12.5% ^{<3}

Note:

^a Less than 3 years N = 4,663, Missing = 2,257, Weighted N = 6,982.

^b 3 years or more N = 3,714, Missing = 1,850, Weighted N = 5,309.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

The All F2S SFAs column includes some SFAs for which valid values of length of participation are not available.

Responses may not sum to 100% because multiple responses were permitted.

< 3, 3+ indicate differences between Less than 3 years SFAs compared to 3 years or more SFAs that are statistically significant at the 0.05 level.

Source: 2019 Farm to School Census Q13 (Which of the following benefits do you feel has resulted from your participation in farm to school activities?)

Exhibit D-6.5. Local foods procurement challenges

Challenge	Percent of F2S SFAs
Availability	59.7%
Limited availability of local foods	45.0%
Too difficult to find local producers, suppliers, and distributors	27.0%
Local foods unavailable from primary vendors	25.9%
Lack of availability of precut/processed local foods	22.5%
Lack of variety by local vendors	19.7%
Too difficult to get local products that meet requirements	14.0%
Producers unable to meet food safety requirements (e.g., Good Agricultural Practices)	8.2%
Procurement & delivery processes	50.7%
Local foods are not identified or marked as local by distributor/vendor	22.9%
Delivery challenges	22.3%
Too difficult to coordinate procurement of local foods and non-local foods	17.9%
Local producers do not bid on Invitations for Bids (IFBs) or Requests for Proposals (RFPs)	14.1%
Lack information to write specifications targeting local foods	11.6%
School/district payment procedures do not align with farmers' needs	9.1%
Unclear on how to apply the geographic preference option	9.0%
Problems receiving ordered items	8.1%
Cost	36.8%
Cost of local items	33.0%
Unstable product prices	13.1%
Staff/Kitchen	36.1%
Lack of staff time to prepare local foods	30.6%
Lack of kitchen equipment to process/prepare local foods	12.4%
Lack of trained staff to prepare local foods	11.2%
Lack of interest in preparing local foods	5.9%
Other	12.1%
No challenges	19.2%

Note: N = 8,393, Missing = 4,086, Weighted N = 12,315.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Farm to School Census Q14 (Which, if any, of the following challenges have you experienced in procuring local products?)

Exhibit D-6.6. Local foods procurement challenges, by SFA size

Challenge	All F2S SFAs	Small (S) ^a	Medium (M) ^b	Large (L) ^c	Very large (VL) ^d
	Percent of F2S SFAs				
Availability	59.7%	52.8% ^{M, L, VL}	67.34% ^S	70.2% ^S	83.5% ^S
Limited availability of local foods	45.0%	39.1% ^{M, L, VL}	52.1% ^S	52.7% ^S	64.6% ^S
Too difficult to find local producers, suppliers, and distributors	27.0%	24.1% ^{M, L}	31.1% ^S	29.6% ^S	30.9%
Local foods unavailable from primary vendors	25.9%	22.2% ^{M, L}	30.2% ^S	31.5% ^S	32.6%
Lack of availability of precut/processed local foods	22.5%	16.8% ^{M, L, VL}	28.5% ^S	33.1% ^S	37.4% ^S
Lack of variety by local vendors	19.7%	15.4% ^{M, L}	25.0% ^S	26.8% ^S	22.0%
Too difficult to get local products that meet requirements	14.0%	10.6% ^{M, L, VL}	16.2% ^{S, L, VL}	23.8% ^{S, M}	27.5% ^{S, M}
Producers unable to meet food safety requirements (e.g., Good Agricultural Practices)	8.2%	5.4% ^{M, L, VL}	10.8% ^{S, VL}	13.7% ^{S, VL}	22.5% ^{S, M, L}
Procurement & delivery processes	50.7%	42.5% ^{M, L, VL}	59.5% ^S	63.2% ^S	79.6% ^S
Local foods are not identified or marked as local by distributor/vendor	22.9%	20.2% ^{M, L, VL}	24.6% ^{S, L, VL}	29.9% ^{S, M}	35.1% ^{S, M}
Delivery challenges	22.3%	17.0% ^{M, L, VL}	26.5% ^{S, L, VL}	34.4% ^{S, M, VL}	49.0% ^{S, M, L}
Too difficult to coordinate procurement of local foods and non-local foods	17.9%	13.8% ^{M, L, VL}	22.9% ^S	24.2% ^S	25.1% ^S
Local producers do not bid on Invitations for Bids (IFBs) or Requests for Proposals (RFPs)	14.1%	9.7% ^{M, L, VL}	18.3% ^{S, VL}	22.2% ^{S, VL}	34.3% ^{S, M, L}
Lack information to write specifications targeting local foods	11.6%	10.6% ^M	13.4% ^S	11.8%	9.1%
School/district payment procedures do not align with farmers' needs	9.1%	6.8% ^{M, L, VL}	10.3% ^{S, L}	16.2% ^{S, M}	15.8% ^S
Unclear on how to apply the geographic preference option	9.0%	8.3% ^M	10.5% ^S	7.6%	12.7%
Problems receiving ordered items	8.1%	5.9% ^{M, L, VL}	10.0% ^{S, VL}	12.1% ^S	19.2% ^{S, M}
Cost	36.8%	30.0% ^{M, L, VL}	44.8% ^S	46.8% ^S	53.8% ^S
Cost of local items	33.0%	27.0% ^{M, L, VL}	39.9% ^S	42.7% ^S	48.4% ^S
Unstable product prices	13.1%	9.4% ^{M, L, VL}	17.6% ^S	18.1% ^S	23.2% ^S
Staff/Kitchen	36.1%	31.5% ^{M, L}	41.7% ^S	43.2% ^S	41.7%
Lack of staff time to prepare local foods	30.6%	26.0% ^{M, L, VL}	36.0% ^S	37.4% ^S	37.1% ^S
Lack of kitchen equipment to process/prepare local foods	12.4%	11.0% ^{M, L, VL}	13.9% ^S	14.3% ^S	21.4% ^S
Lack of trained staff to prepare local foods	11.2%	7.5% ^{M, L, VL}	14.8% ^{S, L}	19.0% ^{S, M}	17.6% ^S
Lack of interest in preparing local foods	5.9%	5.2%	6.9%	7.5%	4.8%
Other	12.1%	14.0% ^M	9.2% ^S	11.1%	9.6%
No challenges	19.2%	23.7% ^{M, L, VL}	14.2% ^{S, VL}	11.6% ^S	5.5% ^{S, M}

Note:

^a Small (S) SFAs (1–999 students) N = 4,111, Missing = 1,829, Weighted N = 6,459.

^b Medium (M) SFAs (1,000–4,999 students) N = 2,979, Missing = 1,558, Weighted N = 4,195.

^c Large (L) SFAs (5,000–24,999 students) N = 1,085, Missing = 569, Weighted N = 1,406.

^d Very large (VL) SFAs (> = 25,000 students) N = 218, Missing = 130, Weighted N = 254.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

S, M, L, VL superscripts indicate a statistically significant difference with the noted group at the 0.05 level.

Source: 2019 Farm to School Census Q14 (Which, if any, of the following challenges have you experienced in procuring local products?)

Exhibit D-6.7. Local foods procurement challenges, by length of participation

Challenge	All F2S SFAs	Less than 3 years ^a	3 years or more ^b
	Percent of F2S SFAs		
Availability	59.7%	53.7% ³⁺	67.8% ^{<3}
Limited availability of local foods	45.0%	40.2% ³⁺	51.4% ^{<3}
Too difficult to find local producers, suppliers, and distributors	27.0%	24.3% ³⁺	30.6% ^{<3}
Local foods unavailable from primary vendors	25.9%	22.6% ³⁺	30.1% ^{<3}
Lack of availability of precut/processed local foods	22.5%	17.9% ³⁺	28.6% ^{<3}
Lack of variety by local vendors	19.7%	16.4% ³⁺	24.2% ^{<3}
Too difficult to get local products that meet requirements	14.0%	11.2% ³⁺	17.7% ^{<3}
Producers unable to meet food safety requirements (e.g., Good Agricultural Practices)	8.2%	6.1% ³⁺	11.1% ^{<3}
Procurement & delivery processes	50.7%	44.5% ³⁺	58.9% ^{<3}
Local foods are not identified or marked as local by distributor/vendor	22.9%	19.6% ³⁺	27.2% ^{<3}
Delivery challenges	22.3%	17.3% ³⁺	29.1% ^{<3}
Too difficult to coordinate procurement of local foods and non-local foods	17.9%	14.9% ³⁺	21.9% ^{<3}
Local producers do not bid on Invitations for Bids (IFBs) or Requests for Proposals (RFPs)	14.1%	11.2% ³⁺	18.0% ^{<3}
Lack information to write specifications targeting local foods	11.6%	12.3%	10.7%
School/district payment procedures do not align with farmers' needs	9.1%	7.2% ³⁺	11.6% ^{<3}
Unclear on how to apply the geographic preference option	9.0%	8.8%	9.3%
Problems receiving ordered items	8.1%	6.9% ³⁺	9.7% ^{<3}
Cost	36.8%	30.7% ³⁺	45.1% ^{<3}
Cost of local items	33.0%	27.1% ³⁺	41.1% ^{<3}
Unstable product prices	13.1%	11.1% ³⁺	15.9% ^{<3}
Staff/Kitchen	36.1%	33.5% ³⁺	39.6% ^{<3}
Lack of staff time to prepare local foods	30.6%	27.0% ³⁺	35.2% ^{<3}
Lack of kitchen equipment to process/prepare local foods	12.4%	12.0%	13.0%
Lack of trained staff to prepare local foods	11.2%	10.5% ³⁺	12.1% ^{<3}
Lack of interest in preparing local foods	5.9%	5.9%	6.1%
Other	12.1%	14.3% ³⁺	9.0% ^{<3}
No challenges	19.2%	22.0% ³⁺	15.3% ^{<3}

Note:

^a Less than 3 years N = 4,663, Missing = 2,262, Weighted N = 6,982.^b 3 years or more N = 3,714, Missing = 1,817, Weighted N = 5,309.

Sample restricted to SFAs participating in farm to school in SY 2018-2019 (F2S SFAs).

The All F2S SFAs column includes some SFAs for which valid values of length of participation are not available.

Responses may not sum to 100% because multiple responses were permitted.

< 3, 3+ indicate differences between Less than 3 years SFAs compared to 3 years or more SFAs that are statistically significant at the 0.05 level.

Source: 2019 Farm to School Census Q14 (Which, if any, of the following challenges have you experienced in procuring local products?)

Exhibit D-6.8. Reasons provided for not participating in farm to school

Reason	Percent of never participated SFAs
Availability	55.2%
Limited availability of local foods	41.9%
Local foods not available from primary vendors	27.1%
Too difficult to find local producers, suppliers, and distributors	26.6%
Lack of availability of precut/processed local foods	19.5%
Too difficult to get local products that meet quality requirements & other specifications (e.g., size)	13.8%
Local food vendors don't offer a broad range of products	12.1%
Producers unable to meet food safety requirements (e.g., Good Agricultural Practices)	8.2%
Procurement & delivery processes	41.7%
Local foods are not identified or marked as local by distributor/vendor	18.3%
Too difficult to coordinate procurement of local foods with non-local foods	14.7%
Unclear on how to apply to write specifications targeting local foods	13.9%
Delivery challenges	13.7%
Local producers aren't bidding on Invitations for Bids (IFBs) or Requests for Proposals (RFPs)	12.9%
Unclear on how to apply the geographic preference option	11.3%
School/district payment procedures do not align with farmers' needs	9.3%
Don't always receive ordered items	3.4%
Cost	19.9%
Local foods are more expensive than conventional products	17.1%
Unstable product prices	8.1%
Staff/Kitchen	43.9%
Too time consuming for staff to prepare local foods	32.3%
Lack of kitchen equipment to process/prepare local foods	19.6%
Lack of skilled/trained staff to prepare local foods	14.2%
Lack of interest in preparing local foods	8.4%
Other	20.1%
There are no challenges	14.6%

Note: N = 1,746, Missing = 18, Weighted N = 2,721.

Responses limited to SFAs that never participated in farm to school and have no plans to in the future.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Farm to School Census Q18 (Why does your SFA choose not to participate in and have no plans to participate in farm to school activities?)

Exhibit D-6.9. Reasons provided for no longer participating in farm to school

Reason	Percent of no longer participating SFAs
No staff available to lead farm to school activities	35.2%
Unable to find local food vendors	31.0%
Nearby producers unable to provide needed items	25.7%
High cost of local foods	20.1%
Lack funds to conduct farm to school activities	19.0%
No interest in farm to school activities	7.9%
Lack of buy-in from school district	3.6%
Lack of administrative support	2.6%
Other	17.9%
Does not see benefit in farm to school activities	2.2%
Don't know	21.2%

Note: N = 297, Missing = 0, Weighted N = 448.

Responses limited to SFAs no longer participating in farm to school.

Responses may not sum to 100% because multiple responses were permitted.

Source: 2019 Farm to School Census Q10 (Why are you no longer participating in farm to school activities?)

Appendix E: Longitudinal Analysis Methods and Findings

This appendix describes the longitudinal analyses used to examine selected trends across the 2013, 2015, and 2019 Censuses. For this analysis, the study team used data from SFAs that completed all three Censuses. Because this is a small subsample of the total respondents, findings should not be considered representative of all SFAs. The appendix first describes the methods used for the longitudinal analyses, the topics analyzed, and the limitations involved; and then presents the key longitudinal findings and full tables supporting these findings.

Study Methods for Longitudinal Analyses

The longitudinal analyses report on changes over time for the sample of SFAs that responded to the 2019 Census and could be linked to their previous 2013 and 2015 Census responses. The data for these comparisons were limited to public school SFAs, as the 2013 Census did not include other types of SFAs.

SFA identifiers used in the Census sample frames have been inconsistent over time. In order to match the SFAs across Census responses, the study team performed matching in several stages, employing both exact and fuzzy matching.⁸³ The study team made exact matches to earlier Census files using the SFA identifiers in the sample frame for the 2019 Census in cases where SFA identifiers were consistent. The study team also used a partial crosswalk between SFA identifiers and LEA identifiers that had been developed previously for another data collection effort but only covered a subset of States. Previous Census files included partial information on LEA codes, which allowed the study team to match some of the 2019 responses for SFAs covered by this crosswalk to earlier Censuses.

The study team then leveraged these “direct” exact matches to identify “indirect” exact matches. For some SFAs that had responded to at least one previous Census, the study team was able to use identifying information to link the SFA to its LEA identifier or to the other previous Census if it had initially matched to only one of the two Censuses.

For SFAs that were not matched to records from previous Censuses, the study team conducted a fuzzy match based on SFA name, State, and ZIP Code. Cases where the match quality was marginal or where more than one 2019 record matched to a single record from another source (or vice versa) were reviewed manually to determine whether the match was appropriate.

This procedure resulted in 11,968 matches between the 2019 Census and the 2015 Census, and 9,538 matches between the 2019 Census and the 2013 Census.⁸⁴ The study team used SFA-LEA matches generated for longitudinal analyses as part the process of matching the 2019 Census to the CCD, as discussed in [Appendix C](#). For trends examining specific farm to school-related activities, the team further restricted analyses to the 1,507 SFAs that reported participation in farm to school activities in SY 2011-

⁸³ Fuzzy matching allows for matching when no unique identifiers are available. It identifies probable matches by breaking strings of text into smaller pieces, weighting these pieces based on how common they are in the data overall, and calculating similarity scores that measure the degree of similarity between two text strings. We use the Stata command `matchit` for fuzzy matching. See <https://github.com/julioraffo/matchit> for more information.

⁸⁴ The 2015 Census included a target sample of 18,104 public, private, and charter school SFAs; and 12,585 completed usable responses. The 2013 Census included a target sample of 13,133 public school SFAs, and 9,896 completed usable responses.

2012, SY 2013-2014, and SY 2018-2019. Longitudinal analyses were not weighted, as no information was available for those SFAs that did not respond to the earlier Censuses.

Because each Census changed the wording of some questions, the longitudinal analyses were limited to those questions whose meaning did not change substantively across the Censuses.⁸⁵

Limitations of Longitudinal Analyses

Key differences exist in how participation in farm to school was determined across Census efforts. In the 2013 and 2015 Census efforts, farm to school participation was determined based on the SFA's response to a question asking about their participation in farm to school activities in general (see Exhibit E-1). In contrast, in the 2019 Census, SFA participation was determined based on reported participation in any of 30 specified activities, including activities that might not always be thought of as part of farm to school (e.g., utilizing a geographic preference or using USDA Team Nutrition materials). In fact, some SFAs that reported participating in one or more of these activities in the 2019 Census indicated in open-ended responses that they did not believe that they participated in farm to school. This change likely contributed to the higher levels of participation in farm to school reported in the 2019 Census.

SFAs that were surveyed in 2019 were systematically different from those surveyed in earlier years, due to expansions of the sample frame. The 2019 Census included a target sample of 18,832 public, private, and charter school SFAs, as well as RCCIs; the 2015 Census included a target sample of 18,104 public, private, and charter school SFAs; and the 2013 Census included a target sample of 13,133 public school SFAs. In order to make comparisons across a more consistent sample, the study team limited longitudinal analyses over time to the 5,785 public school SFAs that had responded to each of the three Censuses. This represents almost half (46 percent) of respondents to the 2019 Census; however, private and charter school SFAs and RCCIs are not represented. Using

Exhibit E-1. Questions used to define farm to school "participation" in the 2013, 2015, and 2019 Censuses



- ✓ Did your district or any schools in your district participate in farm to school activities*?

**Farm to school activities center around procurement of local or regional foods; serving local foods in school meals, snacks or classrooms; conducting educational activities related to local foods; or tending a school garden.*



Did you participate in any of these 30 farm to school activities?

- ✓ Use local foods in the NSLP
- ✓ Serve local foods as a snack
- ✓ Hold taste tests/cooking demos of local or garden-grown foods
- ✓ Conduct educational edible school garden activities
- ✓ Conduct student field trips to farms, farmers' markets, or producers
- ✓ Integrate farm to school activities into curriculum
- ✓ Promote local foods at school in general
- ✓ Celebrate National Farm to School Month
- ✓ Search for local vendors, farmers, co-ops to procure local foods
- ✓ ...

Note: For the full list of farm to school activities from the 2019 Census, see question 4 in the 2019 Census questionnaire in [Appendix B](#).

⁸⁵ See [Exhibit E-8](#) for the questions that were examined longitudinally and the wording of the questions in each Census. The full questionnaire from the 2019 Census is included in [Appendix B](#). Full questionnaires from the 2013 and 2015 Censuses can be found at: <https://farmtoschoolcensus.fns.usda.gov>.

only respondents that completed each Census may bias the sample toward those SFAs that had the resources and willingness to respond to each of the Censuses.

Further, the longitudinal analyses did not use non-response weighting. The longitudinal sample might be expected to be more heavily engaged in farm to school than the larger sample of participants or to have a different set of experiences with the program. Thus, these longitudinal analyses cannot be assumed to be generalizable to all SFAs or even all public school SFAs.

Finally, each Census differed in question wording, response options, and overall format. These variations may have influenced SFA responses and resulted in differences in reporting across years. Thus, comparisons over time should be interpreted with caution.

Longitudinal Findings

Findings on participation are based on the 5,785 SFAs that responded to each of the three Censuses. All other longitudinal findings are based on the 1,507 SFAs that reported participating in farm to school activities in each Census (hereafter referred to as longitudinal F2S SFAs). Note that 2019 findings from these restricted samples do not match findings included from the larger samples included in the body of the report.

There was an increase in participation in farm to school over time.

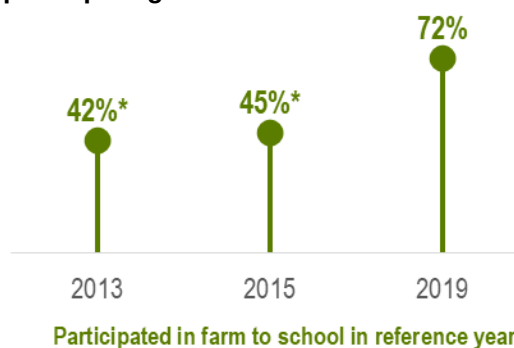
The level of reported farm to school participation was fairly steady in 2013 and 2015, but it increased sharply in 2019 ($p < 0.01$ compared to both 2013 and 2015 levels). Less than half of SFAs reported participating in farm to school in the 2013 and 2015 Censuses (42 percent and 45 percent, respectively), whereas 72 percent reported participating in the 2019 Census (Exhibit E-2).

Some of this change may be due to differences in the way participation was determined in each of the Censuses. As described in the limitations section above, participation rates for the 2013 and 2015 Censuses were determined based on the SFA's response to the question, "Do you participate in farm to school?" In contrast, in the 2019 Census, participation was determined based on reported participation in any of 30 specified activities, even though some of these SFAs may not have considered themselves to be participating in farm to school.

SFAs often did not fulfill plans to begin participating in farm to school activities.

Among those SFAs that had reported in an earlier Census that they planned to begin farm to school activities in the future, the share that actually reported having implemented those activities in SY 2018-2019 ranged from 11 percent to 53 percent, depending on the activity. For example, among the SFAs that

Exhibit E-2. Participation in farm to school increased over time among SFAs participating in all three Censuses



Notes: 2013 N = 5,785, Missing = 0, I don't know = 264; 2015 N = 5,785, Missing = 0; 2019 N = 5,785, Missing = 1. Sample restricted to SFAs that responded to the 2013, 2015, and 2019 Farm to School Censuses.

* Indicates a statistically significant difference with 2019 at the 0.05 level.

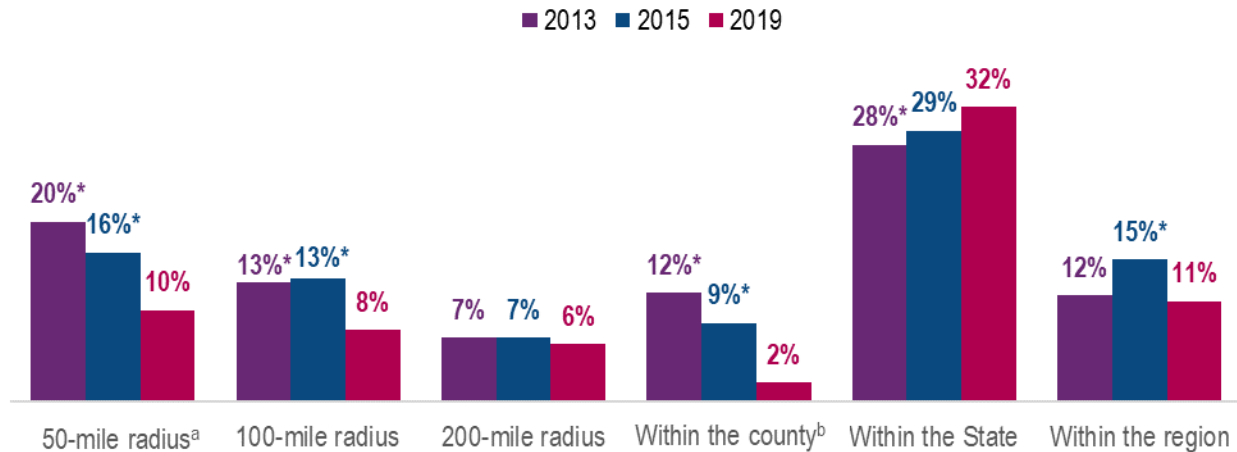
Sources: 2013 Farm to School Census, Q2; 2015 Farm to School Census, Q3; 2019 Farm to School Census, calculated based on selections in Q4. See Appendix Exhibit E-9 for all response options.

had indicated future plans to serve products from school- or district-based gardens in a school meal, only 21 percent reported having done so in SY 2018-2019.⁸⁶ This pattern may be exacerbated in the next Census, particularly for those planning to initiate farm to school activities in SY 2020-2021, given the COVID-19 pandemic.⁸⁷

Longitudinal F2S SFAs used more expansive definitions of “local” over time.

Among the longitudinal F2S SFAs, the proportion of SFAs that used a more restrictive definition of “local” decreased over time. For example, in 2013, 20 percent of respondents defined local as produced within a 50-mile radius and 12 percent defined local as produced in the same county; in 2019, only 10 percent and 2 percent of SFAs defined local that way ($p < 0.01$ for each; Exhibit E-3). However, for this longitudinal sample, in the 2019 Census 22 percent of SFAs selected “No set definition” and 5 percent selected “Do not know,” which were not options in the 2013 or 2015 Censuses. The pattern of responses in previous years might have been different had these options been available.

Exhibit E-3. Local was defined using larger distances over time



Notes: 2013 N = 1,507, Missing = 0; 2015 N = 1,507, Missing = 0; 2019 N = 1,507, Missing = 0. Sample restricted to respondents from all three Censuses that participated in farm to school in SYs 2011-2012, 2013-2014, and 2018-2019 (longitudinal F2S SFAs).

^a 2019 includes produced within a 20-mile radius.

^b 2013 and 2015 specified the same city/county.

* Indicates a statistically significant difference with 2019 at the 0.05 level.

Sources: 2013 Farm to School Census Q5/18; 2015 Farm to School Census Q4/16; 2019 Farm to School Census Q3. See Appendix [Exhibit E-11](#) for all response options and significance levels.

Engagement in promotion activities increased over time.

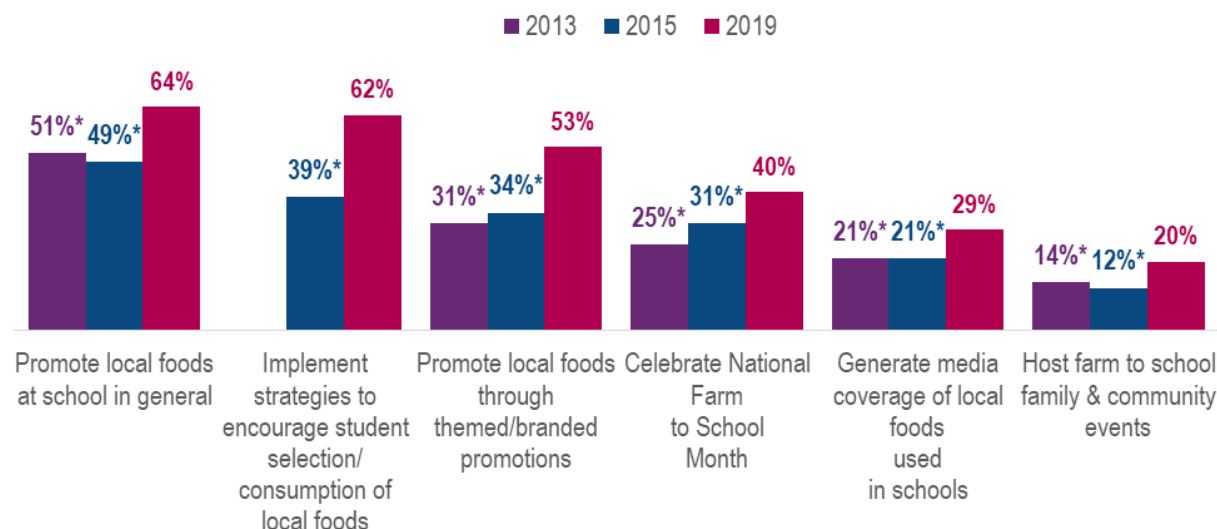
Longitudinal F2S SFAs indicated that they did more to promote local foods over time (Exhibit E-4). For example, the percentage of longitudinal F2S SFAs generally promoting local foods through strategies such as cafeteria signs and newsletters increased from 51 percent in 2013 to 64 percent in 2019 ($p < 0.01$). Longitudinal F2S SFAs also more frequently promoted local foods through themed or branded

⁸⁶ It is possible that they may have implemented these activities before SY 2018-2019 but did not do them in SY 2018-2019.

⁸⁷ Because the 2019 Census was administered prior to COVID-19, SFAs would not have accounted for changes due to the pandemic.

promotions, National Farm to School Month, media coverage, and farm to school family and community events. They also more frequently implemented strategies to encourage students to select and consume local foods in 2019 than in 2015 (from 39 percent to 62 percent, $p < 0.01$).

Exhibit E-4. Promotion of local foods by longitudinal F2S SFAs increased over time



Note: 2013 N = 1,507, Missing = 0; 2015 N = 1,507, Missing = 0; 2019 N = 1,507, Missing = 0. Sample restricted to respondents from all three Censuses that participated in farm to school in SYs 2011-2012, 2013-2014, and 2018-2019 (longitudinal F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

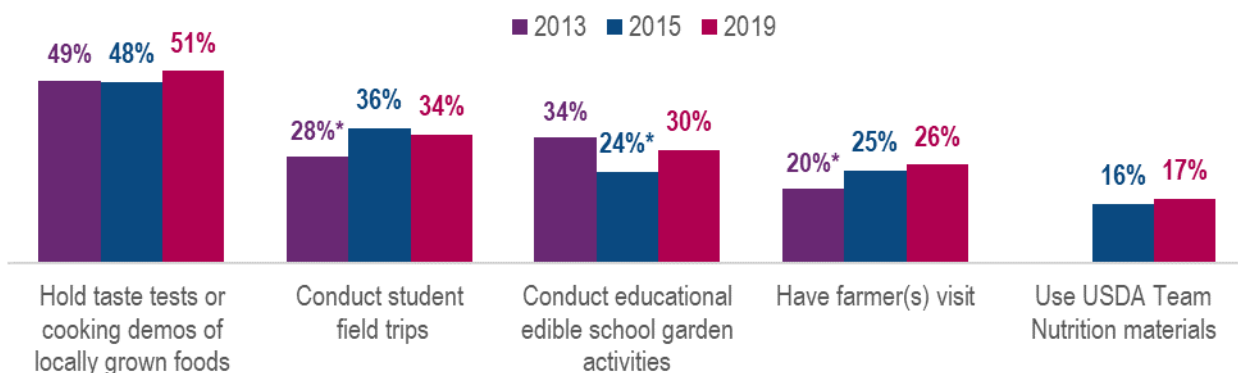
* Indicates a statistically significant difference with 2019 at the 0.05 level.

Sources: 2019 Farm to School Census Q4; 2015 Farm to School Census Q27; 2013 Farm to School Census Q14. See Appendix [Exhibit E-12](#) for all response options and significance levels.

Engagement in field trips, farmer visits, and garden activities increased over time.

The study team also examined change in education activities over time. The proportion of longitudinal F2S SFAs that reported conducting field trips increased from 28 percent in 2013 to 34 percent in 2019 ($p < 0.01$; Exhibit E-5), as did those having farmer visits (from 20 percent to 26 percent; $p < 0.01$).

Exhibit E-5. More longitudinal F2S SFAs participated in field trips and farmer visits, and fewer SFAs used edible gardens in their curricula in the 2019 Census compared to the 2013 Census



Notes: 2013 N = 1,507, Missing = 0; 2015 N = 1,507, Missing = 0; 2019 N = 1,507, Missing = 0. Sample restricted to respondents from all three Censuses that participated in farm to school in SYs 2011-2012, 2013-2014, and 2018-2019 (longitudinal F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

* Indicates a statistically significant difference with 2019 at the 0.05 level.

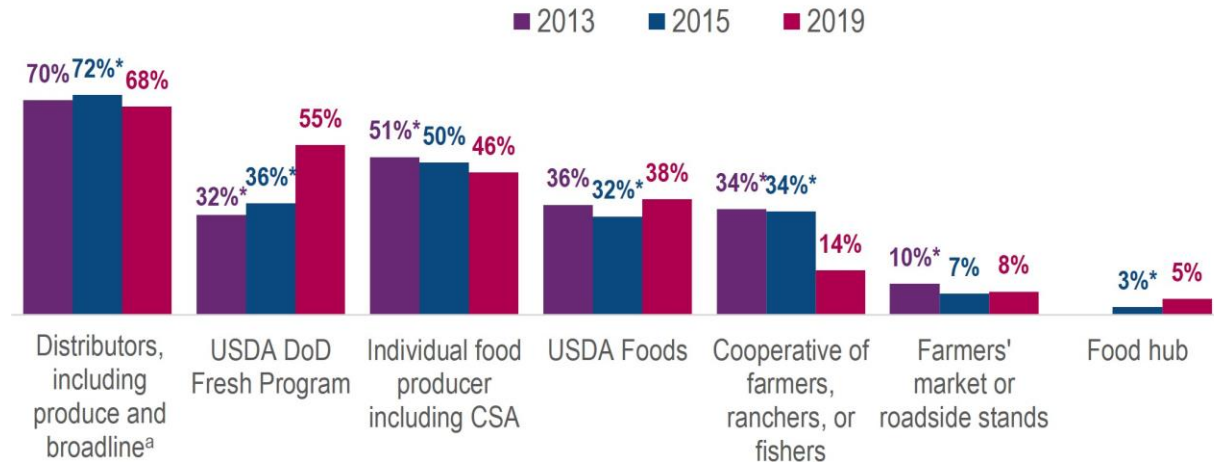
Sources: 2019 Farm to School Census Q4, 2015 Farm to School Census Q27, 2013 Farm to School Census Q14. See Appendix [Exhibit E-13](#) for all response options and significance levels.

Sourcing from USDA DoD Fresh increased over time, while sourcing from cooperatives decreased.

Among the longitudinal F2S SFAs, sourcing local foods from the USDA DoD Fresh program increased from 32 percent in 2013 to 55 percent in 2019 ($p < 0.01$; Exhibit E-6). This growth may be attributed to increased awareness of produce origins from State of origin information provided in the Fresh Fruit and Vegetable Order Receipt System (FFAVORS), the system SFAs use to order produce through USDA DoD Fresh. Prior to a recent requirement that vendors indicate the State of origin, vendors voluntarily included this information.

While many sources for local foods remained relatively stable, the use of food hubs increased from 2015 to 2019 (from 3 percent to 5 percent; $p < 0.01$). Longitudinal F2S SFAs' use of farmer, rancher, or fisher cooperatives decreased (from 34 percent to 14 percent; $p < 0.01$), as did purchasing from individual food producers, and farmers' markets or roadside stands ($p < 0.01$ and $p < 0.05$, respectively).

Exhibit E-6. More longitudinal F2S SFAs sourced foods from USDA DoD Fresh and fewer from cooperatives over time



Notes: 2013 N = 1,507, Missing = 0; 2015 N = 1,507, Missing = 0; 2019 N = 1,507, Missing = 0. Sample restricted to respondents from all three Censuses that participated in farm to school in SYs 2011-2012, 2013-2014, and 2018-2019 (longitudinal F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

^a 2019 offered separate response options for produce distributors and broadline distributors.

^b The 2013 Census did not ask about food hubs.

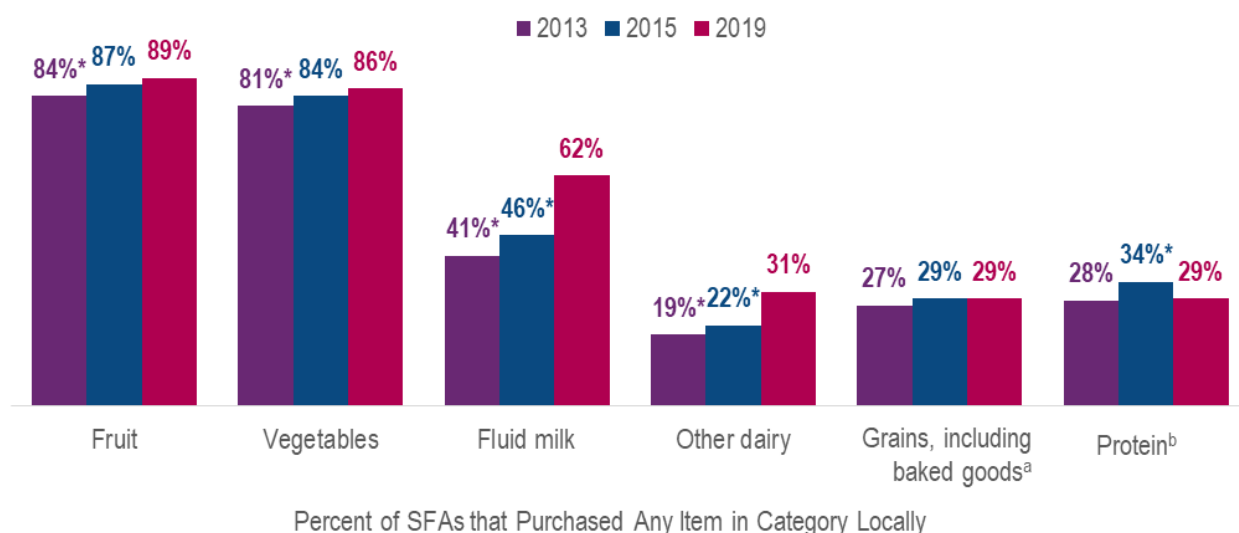
* Indicates a statistically significant difference with 2019 at the 0.05 level.

Sources: 2019 Farm to School Census Q32. 2015 Farm to School Census Q18 and Q19. 2013 Farm to School Census Q24 and Q25.

See Appendix [Exhibit E-14](#) for all response options and significance levels.

Local purchases of fluid milk and other dairy products increased over time.

Among longitudinal F2S SFAs, the percentage that purchased local foods from each food group stayed fairly steady over time, with the exception of fluid milk and other dairy products, which increased over the period (Exhibit E-7). In 2013, 41 percent of longitudinal F2S SFAs reported purchasing at least some fluid milk locally; in 2019, this had increased to 62 percent ($p < 0.01$). The purchase of other local dairy products increased from 19 percent in 2013 to 31 percent in 2019 ($p < 0.01$). Some of this reported increase may be due to increased awareness on the part of SFAs that fluid milk is usually distributed locally.

Exhibit E-7. The purchase of local fluid milk and other dairy products increased over time

Notes: 2013 N = 1,507, Missing = 0; 2015 N = 1,507, Missing = 0; 2019 N = 1,507, Missing = 0. Sample restricted to respondents from all three Censuses that participated in farm to school in SYs 2011-2012, 2013-2014, and 2018-2019 (longitudinal F2S SFAs).

Responses may not sum to 100% because multiple responses were permitted.

^a 2013 and 2015 had separate categories for grains/flour and bakery products.

^b 2013 and 2015 had separate categories for meat/poultry, eggs, seafood, and plant-based protein.

* Indicates a statistically significant difference with 2019 at the 0.05 level.

Sources: 2019 Farm to School Census Q34. 2015 Farm to School Census Q20. and 2013 Farm to School Census Q6. See Appendix [Exhibit E-16](#) for all response options and significance levels.

Longitudinal Supplemental Tables

Exhibit E-8. Census questions examined longitudinally from the 2013, 2015, and 2019 Censuses

2013	2015	2019
Q2. Based on the definition above, did your district or any schools in your district participate in farm to school activities during the 2011/2012 school year?	Q2. Based on the definition above, did your district or any schools in your district participate in farm to school activities during the 2013-2014 school year?	Calculated from responses to Q4.
Q14. To the best of your knowledge, please check the activities that any of your district's schools engaged in during 2011-12 (Please check all that apply)	Q27. To the best of your knowledge, please check the activities that any of your district's schools engaged in during school year 2013-2014. (Please check all that apply.) Q17. Please indicate whether your district or any schools in your district used local products IN ANY FORM (fresh, minimally processed, or processed) for any of the following federal nutrition programs during the 2013-2014 school year. (Please check all that apply.)	Q4. For each activity below, please indicate if your SFA has never done this activity; used to do this activity before 2018-2019 school year; <i>did this activity in the 2018-2019 school year</i> ; is currently doing this in the 2019-2020 school year; or plan to do this activity in the future.
Q18. How does your district define "local" as it relates to your food procurement?	Q16. How does your district define "local" as it relates to your food procurement? (Please check one.)	Q3. How does your SFA define "local" for the majority of its school food procurement? (Please choose one. If your definition of local varies by product, please select the most commonly used definition.)
Q24. For the 2011-2012 school year, please indicate whether your district obtained local foods DIRECTLY from the following sources. (Please check all that apply.) Q25. For the 2011-2012 school year, please indicate whether your district obtained local foods from any of the following INTERMEDIARY sources. (Please check all that apply.)	Q18. For the 2013-2014 school year, please indicate whether your district obtained local foods DIRECTLY from the following sources. (Please check all that apply.) Q19. For the 2013-2014 school year, please indicate whether your district obtained local foods from any of the following INTERMEDIARY sources. (Please check all that apply.)	Q32. For the 2018-2019 school year, please indicate if your SFA procured local foods from any of the following sources. (Please choose all that apply.)
<i>Not asked.</i>	Q15. To the best of your knowledge, approximately how many schools had salad bars during the 2013-2014 school year?	Q7. To the best of your knowledge, approximately how many schools in your SFA had salad bars during the 2018-2019 school year?
Q26. Please indicate if your district or any schools in your district purchased any of the following foods – IN ANY FORM -- from local growers/ producers/ processors/ manufacturers during the 2011-2012 school year or would like to in the future.	Q20. Please indicate if your district or any schools in your district purchased any of the following foods – IN ANY FORM -- from local growers/ producers/ processors/ manufacturers during the 2013-2014 school year or would like to in the future.	Q34. Please indicate if your district SFA or any schools in your district SFA purchased any of the following local foods – IN ANY FORM -- during the 2018-2019 school year or would like to in the future.

Exhibit E-9. Farm to school participation over time

Participation Status	2013 ^a	2015 ^b	2019 ^c
	Percent of SFAs		
Participated in farm to school in previous school year ^d	41.7% ^{15, 19}	44.8% ^{13, 19}	72.4% ^{13, 15}
Began farm to school in this school year	4.2% ¹⁹	4.4% ¹⁹	11.8% ^{13, 15}
Plan to begin farm to school in the future	13.1% ^{15, 19}	15.2% ^{13, 19}	3.5% ^{13, 15}
Have never participated in farm to school and do not plan any future participation	36.5% ¹⁹	35.6% ¹⁹	10.2% ^{13, 15}
Have previously participated in farm to school but do not plan any future participation	0.0% ¹⁹	0.0% ¹⁹	2.2% ^{13, 15}

Note: Sample restricted to SFAs that responded to the 2013, 2015, and 2019 Farm to School Censuses.

^a 2013 N = 5,785, Missing = 0, I don't know = 264. Responses do not sum to 100% because it does not include the "I don't know" responses.

^b 2015 N = 5,785, Missing = 0.

^c 2019 N = 5,785, Missing = 1.

^d SY 2011-2012 was the reference year for the 2013 Census; SY 2013-2014 was the reference year for the 2015 Census; SY 2018-2019 was the reference year for the 2019 Census.

2013 and 2015 Censuses provided a general description of farm to school and asked respondents to indicate their SFA's participation. 2019 asked respondents about participation in 30 specific activities and assigned participation status based on responses to these questions.

13, 15, 19 superscripts indicate a statistically significant difference with the noted year at the 0.05 level.

Source: 2013 Farm to School Census Q2 (Based on the definition above, did your district or any schools in your district participate in farm to school activities during the 2011-2012 school year?); 2015 Farm to School Census Q2 (Based on the definition above, did your district or any schools in your district participate in farm to school activities during the 2013-2014 school year?); 2019 Farm to School Census (Participation status is calculated based on selections in Q4).

Exhibit E-10. SFAs that fulfilled plans to start farm to school activities in SY 2018-2019

Farm to School Activity	N	Percent of SFAs
Promote local foods through themed or branded promotions (e.g., Harvest of the Month, Local Day, Taste Washington Day)	142	53.2%
Promote local foods at school in general via cafeteria signs, posters, and newsletters	118	53.1%
Implement strategies to encourage student selection and consumption of local foods (e.g., product placement, food prompts, creative signage)	292	43.7%
Hold taste tests or cooking demonstrations of locally grown foods in the cafeteria, classroom, or other school setting	355	36.6%
Conduct student field trips to farms, farmers' markets, producers, and processors	140	36.4%
Celebrate National Farm to School Month (October)	284	35.3%
Generate media coverage of local foods used in schools	114	32.3%
Serve local foods as a snack in any context	185	30.3%
Use food coaches to promote the consumption of local foods (e.g., adults or students in the cafeteria encouraging kids to eat local foods)	149	28.9%
Serve local foods or provide farm to school activities as part of afterschool programs	154	28.0%
Provide training to school food service staff about farm to school or school gardens	225	27.5%
Conduct educational edible school garden activities as part of a school, summer, or afterschool curriculum	204	24.2%
Evaluate the impact of farm to school activities (e.g., measuring changes in food waste, student acceptance of local items, changes in participation rates)	173	22.8%
Host farm to school family and community events (e.g., parents invited to lunch, corn shucking contests, farmers' markets at schools)	343	22.5%
Serve products from school- or district-based gardens in any school meal (i.e., including SFSP and CACFP)	99	20.5%
Have farmer(s) visit the cafeteria, classroom, or other school-related setting	89	20.4%
Work with local food producers to develop specific food products using local foods	292	15.7%
Use USDA Team Nutrition materials (e.g., The Great Garden Detective Adventure or Dig In!) as part of taste testing or other educational activities	149	10.8%

Note: Responses limited to SFAs that planned to start each farm to school activity in the future as of the 2013 or 2015 Census and indicated in the 2019 Census that they participated in the activity in SY 2018-2019.

Responses may not sum to 100% because multiple responses were permitted.

Sources: 2013 Farm to School Census Q9 (What activities are you starting in the future?); 2015 Farm to School Census Q7 (What activities are you planning to start in the future?); 2019 Farm to School Census Q4 (For each activity below, please indicate if your SFA did this activity in the 2018-2019 school year.).

Exhibit E-11. Definition of "local" for school food procurement over time

Definition of Local	2013 ^a	2015 ^b	2019 ^c
	Percent of SFAs		
Produced within a 50-mile radius ^d	19.6% ^{15, 19}	16.3% ^{13, 19}	10.0% ^{13, 15}
Produced within a 100-mile radius	12.9% ¹⁹	13.5% ¹⁹	7.8% ^{13, 15}
Produced within a 200-mile radius	7.0%	7.0%	6.3%
Produced within the county ^e	11.9% ^{15, 19}	8.6% ^{13, 19}	2.1% ^{13, 15}
Produced within the State	27.9% ¹⁹	29.5%	32.1% ¹³
Produced within the region	11.5% ¹⁵	15.5% ^{13, 19}	10.9% ¹⁵
No set definition	0.0% ¹⁹	0.0% ¹⁹	21.6% ^{13, 15}
Do not know	-	-	4.8%
Other ^f	9.1% ¹⁹	9.8% ¹⁹	4.5% ^{13, 15}

Note: Sample restricted to respondents from all three Censuses that participated in farm to school in SY2011-2012, SY2014-2015, and SY 2018-2019 (longitudinal F2S SFAs).

^a 2013 N = 1,507, Missing = 0.

^b 2015 N = 1,507, Missing = 0.

^c 2019 N = 1,507, Missing = 0.

^d 2019 includes food produced within a 20-mile radius.

^e 2013 and 2015 response options were "within the city/county."

^f Other includes geographic along with other restrictions (2013 and 2015) and produced within a day's drive (2013 and 2015).

13, 15, 19 superscripts indicate a statistically significant difference with the noted year at the 0.05 level.

Sources: 2013 Farm to School Census Q18; 2015 Farm to School Census Q16; 2019 Farm to School Census Q3 (How does your SFA define "local" for the majority of its school food procurement?).

Exhibit E-12. Participation in farm to school promotion activities over time

Farm to School Activity	2013 ^a	2015 ^b	2019 ^c
	Percent of SFAs		
Promote local foods at school in general via cafeteria signs, posters, and newsletters	51.2% ¹⁹	48.6% ¹⁹	64.5% ^{13, 15}
Implement strategies to encourage student selection and consumption of local foods (e.g., product placement, food prompts, creative signage)	-	38.6% ¹⁹	62.2% ¹⁵
Promote local foods through themed or branded promotions (e.g., Harvest of the Month, Local Day, Taste Washington Day)	30.9% ¹⁹	34.0% ¹⁹	52.9% ^{13, 15}
Use food coaches to promote the consumption of local foods (e.g., adults or students in the cafeteria encouraging kids to eat local foods)	29.5% ¹⁵	21.1% ^{13, 19}	31.1% ¹⁵
Celebrate National Farm to School Month (October)	24.8% ^{15, 19}	30.9% ^{13, 19}	39.9% ^{13, 15}
Generate media coverage of local foods used in schools	20.8% ¹⁹	20.8% ¹⁹	29.3% ^{13, 15}
Host farm to school family and community events (e.g., parents invited to lunch, corn shucking contests, farmers' markets at schools)	14.0% ¹⁹	12.3% ¹⁹	20.0% ^{13, 15}

Note: Sample restricted to respondents from all three censuses that participated in farm to school in SY 2011-2012, SY 2013-2014, and SY 2018-2019 (longitudinal F2S SFAs).

^a 2013 N = 1,507, Missing = 0.

^b 2015 N = 1,507, Missing = 0.

^c 2019 N = 1,507, Missing = 0.

Responses may not sum to 100% because multiple responses were permitted.

13, 15, 19 superscripts indicate a statistically significant difference with the noted year at the 0.05 level.

Sources: 2013 Farm to School Census Q14 (To the best of your knowledge, please check the activities that any of your district's schools engaged in during school year 2011-2012); 2015 Farm to School Census Q27 (To the best of your knowledge, please check the activities that any of your district's schools engaged in during school year 2013-2014.); 2019 Farm to School Census Q4 (For each activity below, please indicate if your SFA did this activity in SY 2018-2019).

Exhibit E-13. Participation in farm to school education activities over time

Farm to School Activity	2013 ^a	2015 ^b	2019 ^c
	Percent of SFAs		
Hold taste tests or cooking demonstrations of locally grown foods in the cafeteria, classroom, or other school setting	48.6%	48.2%	51.2%
Conduct student field trips to farms, farmers' markets, producers, and processors	28.3% ^{15, 19}	36.0% ¹³	34.3% ¹³
Conduct educational edible school garden activities as part of a school, summer, or afterschool curriculum	33.5% ¹⁵	24.3% ^{13, 19}	30.2% ¹⁵
Have farmer(s) visit the cafeteria, classroom, or other school-related setting	19.6% ^{15, 19}	24.7% ¹³	26.1% ¹³
Use USDA Team Nutrition materials (e.g., The Great Garden Detective Adventure or Dig In!) as part of taste testing or other educational activities	-	15.8%	17.2%

Note: Sample restricted to respondents from all three censuses that participated in farm to school in SY2011-2012, SY2013-2014, and SY 2018-2019 (longitudinal F2S SFAs).

^a 2013 N = 1,507, Missing = 0.

^b 2015 N = 1,507, Missing = 0.

^c 2019 N = 1,507, Missing = 0.

Responses may not sum to 100% because multiple responses were permitted.

13, 15, 19 superscripts indicate a statistically significant difference with the noted year at the 0.05 level.

Sources: 2013 Farm to School Census Q14 (To the best of your knowledge, please check the activities that any of your district's schools engaged in during 2011-2012); 2015 Farm to School Census Q27 (To the best of your knowledge, please check the activities that any of your district's schools engaged in during school year 2013-2014.); 2019 Farm to School Census Q4 (For each activity below, please indicate if your SFA did this activity in SY 2018-2019).

Exhibit E-14. Local food sources over time

Source	2013 ^a	2015 ^b	2019 ^c
	Percent of SFAs		
Distributors, including produce and broadline ^d	69.9%	71.6% ¹⁹	67.8% ¹⁵
USDA DoD Fresh Program	32.4% ^{15, 19}	36.3% ^{13, 19}	55.3% ^{13, 15}
Individual food producer (i.e., farmer, rancher, fisher), including, but not limited to, items purchased through a CSA	51.4% ¹⁹	49.6%	46.3% ¹³
USDA Foods	35.8% ¹⁵	32.1% ^{13, 19}	37.7% ¹⁵
Cooperative of farmers, ranchers, or fishers	34.4% ¹⁹	33.6% ¹⁹	14.5% ^{13, 15}
Farmers' market or roadside stands	10.1% ^{15, 19}	6.9% ¹³	7.6% ¹³
Food hub	-	2.6% ¹⁹	5.2% ¹⁵
Other ^e	51.9% ^{15, 19}	46.9% ^{13, 19}	40.2% ^{13, 15}

Note: Sample restricted to respondents from all three censuses that participated in farm to school in SY2011-2012, SY2013-2014, and SY 2018-2019 (longitudinal F2S SFAs).

^a 2013 N = 1,507, Missing = 0.

^b 2015 N = 1,507, Missing = 0.

^c 2019 N = 1,507, Missing = 0.

^d 2019 offered separate response options for produce and broadline distributors.

^e Each year had other options that are not included in this count.

Responses may not sum to 100% because multiple responses were permitted.

13, 15, 19 superscripts indicate a statistically significant difference with the noted year at the 0.05 level.

Sources: 2013 Farm to School Census Q24 and Q25 (For the 2013-2014 school year, please indicate whether your district obtained local foods DIRECTLY from the following sources. For the 2013-2014 school year, please indicate whether your district obtained local foods from any of the following INTERMEDIARY sources.); 2015 Farm to School Census Q18 and Q19 (For the 2013-2014 school year, please indicate whether your district obtained local foods DIRECTLY from the following sources. For the 2013-2014 school year, please indicate whether your district obtained local foods from any of the following INTERMEDIARY sources.); 2019 Farm to School Census Q32 (For SY 2018-2019, please indicate if your SFA procured local foods from any of the following sources?)

Exhibit E-15. Percentage of schools with salad bars over time

	Mean	Std dev	Min	Max	Median
2015 ^a	29.3%	30.7%	0.0%	98.4%	21.4%
2019 ^b	27.5%	29.7%	0.0%	98.8%	18.2%

Note: Sample restricted to respondents of the 2015 and 2019 Censuses that participated in farm to school activities in SY 2014-2015 and SY 2018-2019 (longitudinal F2S SFAs).

^a 2015 N = 2,191, Missing = 562.

^b 2019 N = 2,191, Missing = 648.

13, 15, 19 superscripts indicate a statistically significant difference with the noted year at the 0.05 level.

Sources: 2015 Farm to School Census Q15 (To the best of your knowledge, approximately how many schools had salad bars during the 2013-2014 school year?); 2019 Farm to School Census Q7 (To the best of your knowledge, approximately how many schools in your SFA had salad bars during the 2018-2019 school year?)

Exhibit E-16. Local foods purchases by food group over time

Food Group	2013 ^a	2015 ^b	2019 ^c
	Percent of F2S SFAs		
Fruit	84.0% ^{15, 19}	87.3% ¹³	88.9% ¹³
Vegetables	81.4% ^{15, 19}	84.1% ¹³	86.1% ¹³
Fluid milk	40.6% ^{15, 19}	46.2% ^{13, 19}	62.4% ^{13, 15}
Protein ^d	28.5% ¹⁵	33.5% ^{13, 19}	29.1% ¹⁵
Grains, including baked goods ^e	27.1%	29.1%	29.1%
Other dairy	19.3% ¹⁹	21.8% ¹⁹	30.9% ^{13, 15}
Other product type ^f	20.3% ¹⁹	20.6% ¹⁹	5.6% ^{13, 15}

Note: Sample restricted to respondents from all three Censuses that participated in farm to school in SY 2011-2012, SY 2013-2014, and SY 2018-2019 (longitudinal F2S SFAs).

^a 2013 N = 1,507, Missing = 0.

^b 2015 N = 1,507, Missing = 0.

^c 2019 N = 1,507, Missing = 0.

^d 2013 and 2015 offered separate categories for meat/poultry, eggs, seafood, and plant-based protein.

^e 2013 and 2015 offered separate categories for grains and flour and bakery products.

^f 2013 and 2015 Censuses included response options for herbs.

Responses may not sum to 100% because multiple responses were permitted.

13, 15, 19 superscripts indicate a statistically significant difference with the noted year at the 0.05 level.

Sources: 2013 Farm to School Census Q26 (Please indicate if your district or any schools in your district purchased any of the following foods – IN ANY FORM -- from local growers/producers/processors/manufacturers during the 2011-2012 school year or would like to in the future.); 2015 Farm to School Census Q20 (Please indicate if your district or any schools in your district purchased any of the following foods – IN ANY FORM -- from local growers/producers/processors/manufacturers during the 2013-2014 school year or would like to in the future.); 2019 Farm to School Census Q34 (Please indicate if your SFA or any schools in your SFA purchased any of the following local foods IN ANY FORM -- during SY 2018-2019 or would like to in the future.).