



Farm to School Grantee Report

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List of Acronyms and Abbreviations

Abt	Abt Associates
FNS	Food and Nutrition Service
FY	fiscal year
GAP	Good Agricultural Practices
ITO	Indian Tribal Organization
N/A	not applicable
NSLP	National School Lunch Program
SFA	School Food Authority
USDA	U.S. Department of Agriculture

Executive Summary

The U.S. Department of Agriculture (USDA) Farm to School Grant Program supports planning, developing, and implementing programs that initiate, expand, and institutionalize farm to school efforts.¹ Farm to school activities might include local and regional food procurement efforts; serving locally produced foods in school cafeterias; hands-on learning activities such as school gardening, farm visits, and culinary classes; or integration of food and agriculture related education into the regular curriculum. The USDA Farm to School Grant Program annually awards funding on a competitive basis to schools or school food authorities (SFAs), school districts, State and local agencies, Indian Tribal Organizations (ITOs), food producers, and nonprofit organizations.

In 2017, the USDA Food and Nutrition Service (FNS) contracted with Abt Associates (Abt) to design and conduct the *Farm to School Census and Comprehensive Review*, a multiple year study that examines and describes the multiple facets of farm to school efforts across the country. The project includes the following components:

- A descriptive review of the USDA Farm to School Grant Program;
- A review of published research on farm to school since the 2010 reauthorization of the Richard B. Russell National School Lunch Act;
- Interviews with food distributors that capture their experiences and perspectives; and
- The 2019 Farm to School Census of public, charter, and private SFAs that participated in the National School Lunch Program in all 50 States, as well as Guam, Puerto Rico, the Virgin Islands, American Samoa, and Washington, DC.

This report provides an assessment of Farm to School grantee efforts nationwide by summarizing aggregate findings from baseline, progress, and final reports submitted by 365 Farm to School grantees that received awards in fiscal year (FY) 2013 through FY 2017. Fifty percent of the grantees were SFAs and 14 percent were State agencies; the remaining grantees included other types of organizations, such as local agencies, ITOs, agricultural producers, and nonprofit organizations.

Four main research objectives guided this study's analyses. The full list of research questions can be found in Appendix A.

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

¹ Farm to School Grant Program, <https://www.fns.usda.gov/cfs/farm-school-grant-program>.

Summary of Findings

The study team analyzed baseline, progress, and final reports for all 365 grantees. The reporting instrument was not the same in every year, rendering some reports incomparable. The study team used three different methods, each relying on a different set of reports. To examine **change over the grant period**, the study team analyzed closed-ended responses from 133 grantees that submitted both a baseline and final report in the FY 2015-2017 cohorts. To understand **grantee experiences throughout the grant period**, the study team analyzed closed-ended responses from all progress reports from 218 grantees in FY 2014–2017. To paint a **more detailed picture of how grantees operated** and to gather information that was not asked directly of grantees, the study team qualitatively analyzed broad, open-ended responses from 365 grantees in FY 2013–2017.

All comparisons over time should be interpreted with caution because the question and response options changed, as did the grantees that responded to each item. Because grantees were already interested in doing farm to school related activities and may have implemented some of these activities even in absence of the grants, changes over time should not be directly attributed to the Farm to School Grants.

Key findings for each theme are provided below.

Local Procurement Activities

- Nearly half of grantees (47 percent) defined local foods as those produced within the State.
- Grantees worked with both direct and intermediary suppliers to source local foods.
- Almost all grantees reported that their partner schools served local foods in their cafeterias.
- Grantees reported that schools and districts increased the percent of spending on locally sourced foods, including fluid milk, from 16 percent to 23 percent over the grant period

Activities to Incorporate Local Foods in Schools

- Farm to School grantees facilitated a range of activities focused on local foods, including taste tests, field trips, farmer visits, and themed farm to school festivities.
- Three-quarters of grantees reported that they integrated farm to school concepts into their mathematics, science, and language arts curricula and aligned their nutrition curriculum with national or State standards.
- Grantees often incorporated garden produce and scratch cooking into their school meals. The proportion of grantees that reported that their schools served school meals made from scratch more than 25 percent of the time increased from 31 to 44 percent over the grant period.
- By the end of their grant period, 43 grantees reported that they implemented activities to reduce food waste and 39 grantees reported evaluating changes in student acceptance and food waste.
- As grantees developed and implemented strategies to engage students in multiple aspects of program activities, they reported that students were enthusiastic about trying new foods (as reported by 46 of 57 grantees).

Farm to School Policies and Administration

- The number of grantees that reported that the schools or school districts they worked with had policies in place to support farm to school activities increased over the grant period, with policies focusing on wellness, procurement, and fundraising.
- Almost all grantees (91 percent) reported that grant funds were sufficient for meeting the project goals. Grantees were also required to provide matching funds and reported funding through general school or school food service funds; local, State, or private grants; in-kind contributions; fundraising; other federal grants; and corporate partnerships and donations.
- Grantees reported learning about how to manage the planning and implementation of the grant and that bringing on key personnel (e.g., hiring a program coordinator) was an essential part of their efforts.
- Although all grantees with final reports indicated that at least some of their farm to school activities would be sustained after their Farm to School Grant ended, they also reported challenges finding additional resources to ensure sustainability.

Farm to School Grant Stakeholders

- By the end of their grant period, grantees reported increased involvement of schools and school districts; supply chain actors; and community, higher education, nonprofit, and local government partners. For example, across all grantees, the percentage of grantees reporting involvement with farmers and producers increased by 12 percentage points over their grant periods (from 77 to 89 percent), on average, and the percentage of grantees reporting involvement with students increased by 19 percentage points (from 73 to 92 percent).
- Grantees indicated the importance of coordination and communication with partners; consideration of staff and partner capacity and enthusiasm; flexibility and creativity; and setting reasonable expectations and goals.
- Grantees provided training for food service staff, food suppliers, and teachers; the majority of trainings were focused on local foods promotion (73 percent), fresh fruits and vegetables preparation (67 percent), and food handling and safety (66 percent).

Farm to School Grantee Experiences

- Grantees reported challenges related to procuring local foods, assembling their farm to school team and partners, and promoting farm to school activities, with at least 20 percent of grantees reporting challenges in each of these areas during at least one point during their grant. Over one-fourth of grantees also indicated they experienced challenges with program sustainability.
- Grantees also reported achievements in several of the areas they had challenges. The areas of greatest achievements were related to assembling their farm to school team and partners, promoting farm to school activities, procuring local foods, and integrating activities into their curriculums. Over one-third of grantees reported achievements in each of these areas at some point during their grant.

Future Considerations

In their reporting to USDA, grantees requested additional guidance, particularly with financial reporting and securing funding to sustain program efforts. They also made recommendations to USDA in hopes of improving the Farm to School Grant Program for future grantees. Grantees recommended that USDA should:

- Provide additional guidance around the financial reporting required for the grant program and additional opportunities to secure funding to sustain program efforts.
- Streamline communications; provide additional guidance on grant timelines and expectations; and provide more opportunities for either face-to-face meetings or phone calls with FNS Regional Office staff.
- Align the grant period with the school year; shrink the gap between planning and implementation grant periods; and extend the time allotted to complete grant projects.
- Increase opportunities for Farm to School grantees to connect with each other to share ideas and experiences.
- Provide access to pre-developed curriculum and activities as grantees begin their farm to school projects.

1. Introduction and Methods

In 2012, the U.S. Department of Agriculture (USDA) launched a comprehensive, nationwide effort to connect eligible entities with local farmers in an effort to better incorporate fresh, local foods in school meals.² Under Section 18 of the Richard B. Russell National School Lunch Act, USDA distributes Farm to School Grants on a competitive basis to schools or school food authorities (SFAs), school districts, State or local agencies, Indian Tribal Organizations (ITOs), agricultural producers or groups of agricultural producers, and nonprofit organizations to increase local food procurement for school meals, provide training and technical assistance, and disseminate research and data on existing farm to school programs to facilitate program expansion. Grants provide funding to establish or expand farm to school activities that can be sustained in the future. Common activities include creating new menu items, establishing supply chains, purchasing equipment, planning school gardens, and organizing field trips.³

USDA awarded funding to the first cohort of 68 Farm to School grantees in fiscal year (FY) 2013 and additional cohorts had been provided approximately \$5 million each year through FY 2018 (Exhibit 1.1). A record 126 grantees received Farm to School Grant Program funding in FY 2019 for a total of over \$9 million in grants, surpassing the number of grantees awarded in any of the previous years.⁴

Exhibit 1-1. Farm to School Grant Funding over Time

	Fiscal Year of Grant Award							Grand Total
	2013	2014	2015	2016	2017	2018	2019	
Number of Grantees	68	71	82	79	65	73	126	564
Total Funding Amount (in millions)	\$4.7 M	\$5.1 M	\$5.2 M	\$5.3 M	\$5.0 M	\$5.2 M	\$9.5 M	\$40.0 M

SOURCE: FNS data.

1.1. Current Study

In 2017, FNS contracted with Abt Associates (Abt) to design and conduct the *Farm to School Census and Comprehensive Review*, a multiple-year research project that examines and describes the multiple facets of farm to school across the country. This project includes: this descriptive review of the USDA Farm to School Grant Program; a review of published research on farm to school since the 2010 reauthorization of the Richard B. Russell National School Lunch Act; interviews with food distributors that capture their experiences and perspectives; and the 2019 Farm to School Census of public and private SFAs that participated in the National School Lunch Program (NSLP) in all 50 States, as well as American Samoa, Guam, Puerto Rico, the Virgin Islands, and Washington, DC.

This report provides an assessment of Farm to School grantee efforts nationwide by summarizing aggregate findings from baseline, progress, and final reports submitted by 365 Farm to School grantees that received awards in FY 2013–2017, with a focus on grantee-reported achievements, challenges, and

² Resources for Farm to School Grant Program Applicants, <https://www.fns.usda.gov/cfs/resources-farm-school-grant-program-applicants>.

³ USDA Farm to School Grant Program Frequency Asked Questions, https://fns-prod.azureedge.net/sites/default/files/resource-files/FY2020FAQs_12519.pdf.

⁴ Reports from FY 2018–2019 grantees were not available in time to include in this report. See “USDA Announces Record-Breaking Funding for 2019 Farm to School Grants”, <https://www.usda.gov/media/press-releases/2019/07/16/usda-announces-record-breaking-funding-2019-farm-school-grants>.

lessons learned. The report addresses the four research objectives listed below. The full list of research questions and data sources for each objective can be found in Appendix A.

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

Five main themes arose from these grantees' reports, which form the basis of the structure for this report:

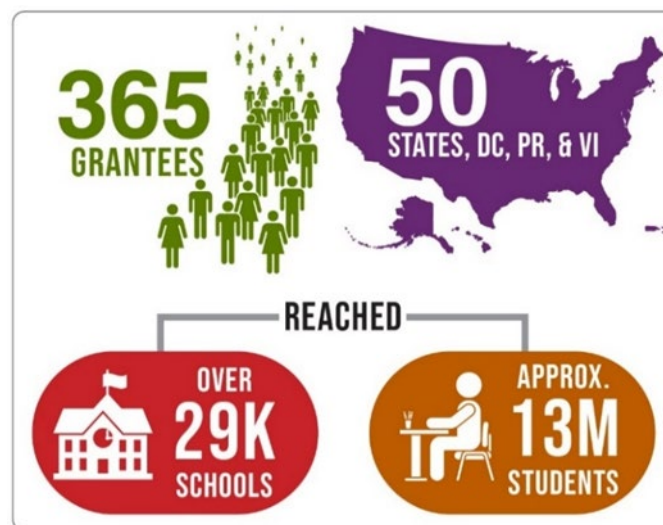
1. The Farm to School Grant affected the **procurement process**, prompting changes to the local foods that schools sourced and offered;
2. Farm to School grantees promoted **local foods** in schools and undertook a range of activities to educate students about local foods;
3. Various mechanisms guided the **planning and implementation** of administering a Farm to School Grant;
4. Grantees built relationships with **stakeholders** involved in farm to school projects by engaging them in farm to school activities and providing training opportunities; and
5. Grantees shared their overarching **experiences** with the Farm to School Grants and considerations for future cohorts.

1.2. Grantee Overview

This report focuses on grants awarded in FY 2013–2017. During this time, USDA awarded 365 Farm to School Grants across all 50 States, Washington, DC, Puerto Rico, and the U.S. Virgin Islands, serving over 29,000 schools and approximately 13 million students (Exhibit 1-2). Grants were awarded for 12 or 24 months, depending on grant type.

Grants awarded between 2013 and 2017 included the following types:⁵

Exhibit 1-2. Overview of Farm to School Grants FY 2013-2017



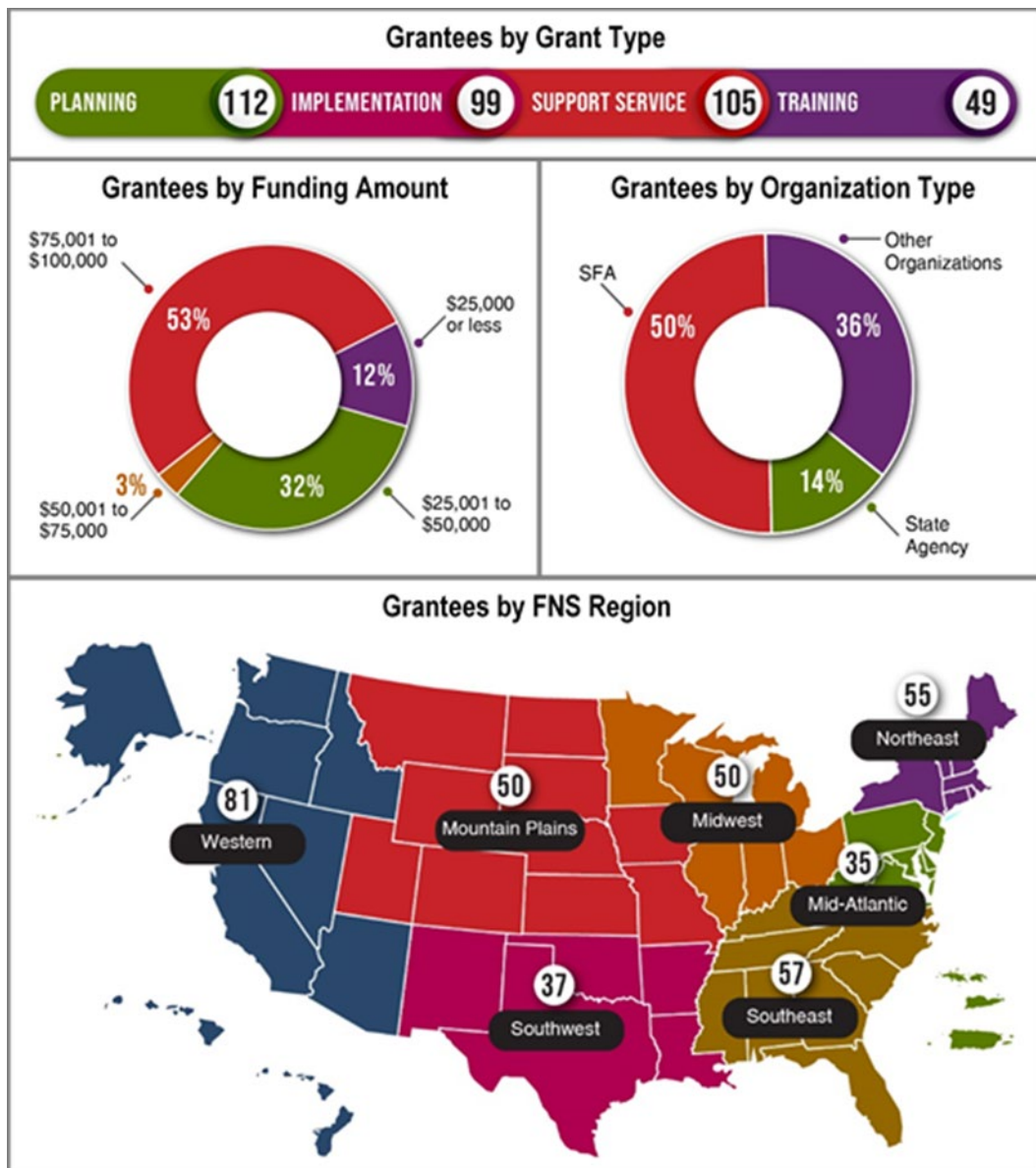
⁵ USDA Farm to School Grant Program Frequency Asked Questions, https://fns-prod.azureedge.net/sites/default/files/resource-files/FY2020FAQs_12519.pdf

- **Planning grants** allow eligible entities to strategically organize and structure their farm to school activities, based on known best practices, to successfully launch their programs. Planning grantees were typically SFAs.
- **Implementation grants** allow eligible entities to scale or further develop existing farm to school initiatives. Implementation grantees were typically SFAs.
- **Support service grants** allowed awardees working with schools or school districts to further develop existing farm to school programs and provide broad-reaching support services. Eligible entities were State or local agencies, ITOs, agricultural producers or groups of agricultural producers, or nonprofit organizations.⁶
- **Training grants** allowed awardees to develop trainings that strengthen farm to school supply chains or provide technical assistance to support farm to school activities. Eligible entities were State and local agencies, ITOs, agricultural producers or groups of agricultural producers, and nonprofit organizations.⁷

Over half of grants (53 percent) were between \$75,000 and \$100,000, and the next most frequent size of grant awards was between \$25,000 and \$50,000 (Exhibit 1-3). Grants were awarded to a variety of entities. Half of grants were awarded to SFAs; 14 percent were awarded to State agencies; and the remaining 36 percent were awarded to other organizations such as local agencies, ITOs, agricultural producers, and nonprofit organizations. Farm to School grants have a national presence: grants were distributed across all Food and Nutrition Service (FNS) Regions of the country, with the most (81 grants) awarded in the FNS Western Region.

⁶ The Support service grant track was subsumed into the Implementation track starting in FY 2018. See USDA Farm to School Program FY 2013–FY 2018 Summary of Grant Awards, https://fns-prod.azureedge.net/sites/default/files/f2s/FY13-FY18Summary_of_Awards.pdf

⁷ Training grants were discontinued in FY 2020.

Exhibit 1-3. Grantees by Grant Type, Funding Amount, Organization Type, and FNS Region

NOTE: In FY 2020, the FNS Regions were reorganized. The updated States and territories in each region can be found at: <https://www.fns.usda.gov/fns-regional-offices>

SOURCE: FNS data (N=365 grantees, 0 missing).

1.3. Data Sources, Samples, and Methods

To address the larger study's research questions and objectives and to gain an understanding of Farm to School Grant implementation and outcomes, the study team analyzed grantee responses to selected questions from baseline, progress, and final Farm to School Grant Program reports.

- **Baseline reports** were submitted by planning, implementation, and support service grantees within 60 days of their grant period commencing.
- **Progress reports** were submitted by all grantees either quarterly or semiannually, depending on the grantee type (see Exhibit B-4 in Appendix B for a progress report schedule by grant type).
- **Final reports** were submitted by all grantees within 90 days after their grant period ended.

The study team examined grantee experiences using three different methods, where each method relied on a different set of reports. The set of grantees included in each method is summarized in Exhibit 1-2.

- **Comparison of baseline and final responses:** To understand grantee activities that occurred throughout the grant period, the study team analyzed responses to the closed-ended questions from three cohorts of grantees (FY 2015–2017), where data were available. These analyses relied on final and baseline grantee reports from 133 planning, implementation, and support service grantees that submitted both reports.⁸ Where baseline and final report questions were comparable, the study team conducted statistical significance testing on aggregate differences in grantee responses between the start and the end of the grant period. While all grantees included in these analyses submitted both baseline and final reports, they may not have responded to each item. Differences between baseline and final responses were calculated at the aggregate level using t-tests and chi-square tests. T-tests were used to examine changes over time in items that included a single value, and chi-square tests were used to examine changes in items that included more than two mutually exclusive and collectively exhaustive response options.
- **Analysis of responses to closed-ended questions:** To provide additional information about grantee experiences throughout the grant period, the study team analyzed responses to closed-ended questions from four cohorts of grantees (FY 2014–2017). These analyses used all progress and final reports of 218 planning, implementation, and support service grantees.
- **Analysis of responses to open-ended questions:** To paint a more detailed picture of how grantees operated and provide illustrative examples, the study team qualitatively analyzed open-ended responses from five cohorts of grantees (FY 2013–2017). The team examined broad questions about program achievements, challenges, lessons learned, and suggestions for improvement, available from all final reports, and a sample of progress reports submitted from all 365 grantees. Due to the high volume of progress reports submitted (up to 12 per grantee), two progress reports were selected per grantee, as available, in addition to the final report.⁹ Though responses to the broad, open-ended questions provided important contextual and descriptive information to complement the closed-ended responses, the sample of grantees that

⁸ Closed-ended responses from training grantees were not included in any of the analyses since their activities and progress reports differed significantly from other grantees.

⁹ See Appendix B for more detail on samples and methodologies.

chose to report on a particular topic in their open-ended responses cannot be assumed to represent all Farm to School grantees.

Data Limitations

In order to analyze Farm to School Grant activities, the study team reviewed grantee reports from several cohorts of grantees and summarized the data across grantees. Changes in question and response option wording and item format made it **difficult to summarize responses across years and cohorts**. First, due to changes in reporting templates over the years and across grant types, not all grantees received the same questions, nor did every grantee respond to all of them. Some questions were only available in certain years. Where feasible, the team attempted to only report on questions that were included in all reporting templates. Second, even for questions on the same topic, the text of the question may have been modified across years. While this often allowed for more detailed reporting, it also meant that not all grantees responded to exactly the same questions. As long as the meaning of the questions did not differ greatly, these questions were combined across years so that they could be reported for the full sample. Finally, the response options in reporting templates also changed across years, which sometimes meant that response options were combined or split into multiple options, or even eliminated altogether. In instances where response options were split or combined, data were recoded from the split options and reported from the combined response. Although the study team attempted to only combine responses that were similar across years, changes in the wording of a question or the availability of response options may have led grantees to respond differently than they would have otherwise.

Findings that summarize comparisons over time should be interpreted with caution because the question and response options changed, as did the grantees that responded to each item. Given that grantees were already interested in doing farm to school related activities, they may have implemented some of these activities even in absence of the grants; changes over time should not be directly attributed to the Farm to School Grants.

The complete sample is needed in order to provide information on the proportion of grantees that participated in an activity. However, two main factors affected the study team's ability to determine the total sample. The first is the broadness of the open-ended questions, which provided grantees with flexibility in whether to respond and on what topics. Grantees may have had experiences related to a specific topic that they did not include in their responses. The second factor is related to numeric entry questions, like questions that asked grantees to report the number of students involved in a particular activity. These questions did not have a "not applicable" (N/A) option, so grantees could choose to either enter "0" or skip the question completely if their schools or districts did not conduct that activity. It is not possible to determine whether a grantee did not respond because the question did not apply or because they just chose not to respond to the question.

1.4. Report Organization

The remainder of this report includes six chapters, each discussing a main theme from the analyses:

- **Chapter 2** – local procurement activities, including supply chains and food offerings
- **Chapter 3** – activities to incorporate local foods in cafeterias and nutrition education curricula
- **Chapter 4** – farm to school policies, funding, and administration that affected grant planning and implementation success, and expectations for sustainability

- **Chapter 5** – types of stakeholders who participated in the grant and available training opportunities
- **Chapter 6** – Farm to School grantees’ general experiences in terms of their broader achievements, challenges, lessons learned, and suggestions for USDA

Following the main chapters are two appendices: Appendix A includes the study objectives and research questions, and Appendix B describes the sampling and methods. Throughout the report, the most appropriate data source is used for each analysis, including both closed- and open-ended questions submitted in Farm to School Grant Program progress reports, based on varying cohorts and types of grantees. Thus, findings are meant to provide a general picture of the Farm to School grantees, but they cannot be considered representative of all grantees.

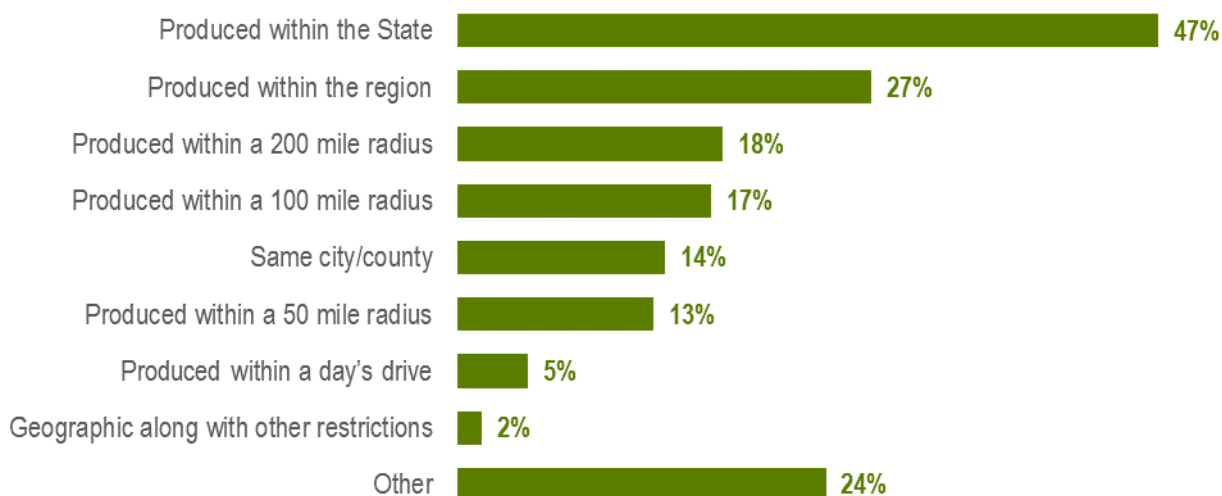
2. Local Procurement Activities

Farm to School grantees engaged in a variety of activities to refine their local procurement procedures, connect with local food producers, and offer new, local foods to students.¹⁰ This chapter first examines how grantees defined “local” and describes the local procurement objectives of a small number of grantees. It includes information on the new supply chains and procurement processes used by grantees to purchase local foods and the types of local foods purchased. Finally, it examines the ability of grantees to provide procurement data and the changes in spending based on their available data.

2.1. Defining “Local”

As the Farm to School Grant Program does not provide a standard definition of “local” for foods, grantees were asked how they defined “local.” Nearly half of grantees (47 percent) reported that their partner schools and/or school districts define “local” food as food produced within the State (Exhibit 2-1). Approximately one-fourth of grantees (27 percent) reported that schools or school districts define “local” food as produced within the region.¹¹ Other schools and school districts defined “local” food as produced within a 200-, 100-, or 50-mile radius (13–18 percent) or within the same city or county (14 percent). Other responses indicated variation by program or district, the inclusion of nearby states, and other specified distances.

Exhibit 2-1. School/School District Definition of “Local”



NOTE: Two percent of grantees selected “I don’t know” for this question. Percentages sum to more than 100% because grantees could select multiple options. Question wording and response options may differ across grantee reports for the data presented here.

SOURCES: FY 2015–2017 planning, implementation, and support service grantee final reports (*N* = 131 grantees, 2 missing).

¹⁰ The procurement of foods includes drafting specifications, advertising the request for proposals (RFP) or invitation for bids (IFB), and awarding and managing the contracts. While the overall process for procuring foods is the same for all foods, the focus on local procurement may involve identifying new suppliers, learning local or regional policies surrounding local foods, determining how to store and prepare new types of foods, and encouraging students to try new foods.

¹¹ The definition of *region* was left open to interpretation by grantees in the reporting templates.

2.2. SFA Procurement Objectives

To better understand grantee objectives with respect to procuring local foods, the study team reviewed broad open-ended grantee responses from SFA grantees.¹² While they were not asked directly about procurement, 14 grantees described specific food procurement objectives, the majority of which focused on generating internal and/or external systems for the procurement of local foods (see text box). In addition, three grantees reported more general goals about increasing the proportion of local foods relative to overall food procurement. Grantees' plans to accomplish these general goals sometimes included budget allocations for local products.

SFA Procurement Objectives

- Establishing a new bid process for local foods.
- Understanding local and regional policies and regulations related to procurement.
- Identifying and building relationships with new local foods suppliers
- Merging food purchasing arrangements with local purchasing processes.
- Increasing the proportion of local foods procured.

Of the 14 grantees that reported specific procurement objectives, five indicated that they completely met one or more of their procurement goals. These accomplishments included establishing bid processes, building relationships with local suppliers or distributors, increasing the level of local procurement, and developing internal systems to accommodate new purchasing and food processing procedures. Ten grantees reported that they were unable to meet their procurement goals or that they were only able to partially meet them.¹³ Most often, these grantees reported struggling to locate suppliers, incorporate more local items during menu planning, and design new systems to accommodate local bid processes and procurement policies.

2.3. Supply Chains to Procure Local Items

In open-ended comments forty-one SFA grantees¹⁴ described establishing new supply chains to incorporate more local foods in school meal offerings. Grantees described how shifting to more locally focused food sourcing resulted in working with suppliers who were new to school food systems and may have been initially less capable than large distributors of providing food in quantities appropriate for schools. As a solution, grantees built on existing partnerships with trusted farmers, sometimes via partnerships with other school districts. As one grantee noted, working with other nearby districts supplied them with “ready-made relationships with farmers.” Another grantee even paid for a produce audit for one farm that they wanted to continue working with but that did not meet their requirements for a local supplier of that specific produce item.

The relationships developed through the new supply chains proved beneficial to some grantees. One grantee reported connecting with a supplier dedicated to local sourcing, which provided the grantee with local produce while reducing the burden of finding and developing relationships with several individual producers. Some grantees partnered with other schools and programs to centralize purchasing,

¹² The sample was limited to SFA grantees since they are the only ones who do procurement. It includes 183 planning, implementation, and training SFA grantees, FY 2013–2017.

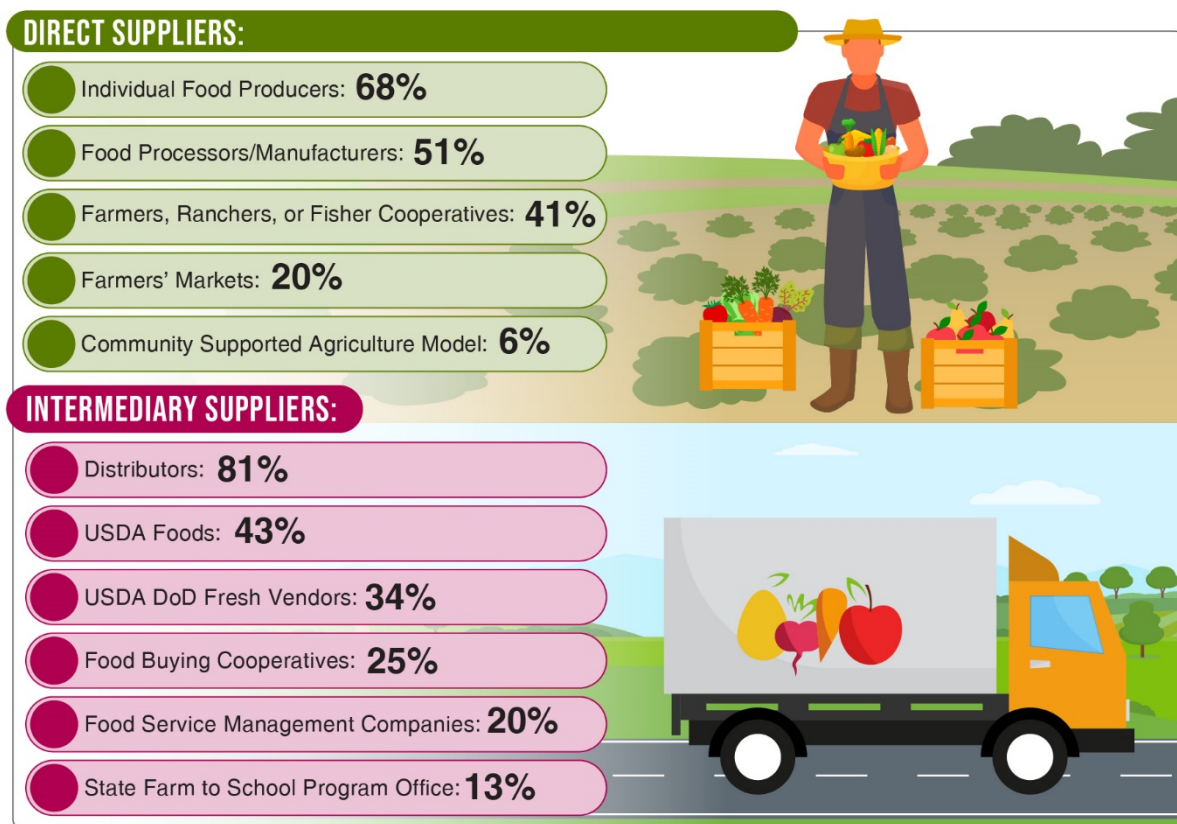
¹³ Grantees could have both completely met one or more of their procurement objectives *and* only partially met the remainder of their procurement objectives. In one instance, one grantee reported completely meeting one of their objectives as stated, and meeting the others with limitations.

¹⁴ Sample includes 183 planning, implementation, and training SFA grantees, FY 2013–2017.

distribution, and food-preparation efforts. These partnerships included sharing procurement costs across schools, partnering with other school districts to connect to larger locally focused distributors, simplifying distribution to a single delivery site, and using district or county resources to find appropriate kitchen facilities for food processing.

Throughout the grant period, schools and school districts obtained local foods from both direct and intermediary sources. As seen in Exhibit 2-2, grantees reported that their partner schools and/or school districts most commonly worked directly with individual food producers (such as farmers, fishers, and ranchers; 68 percent); food processors or manufacturers (51 percent); and farmer, rancher, or fisher cooperatives (41 percent). In addition to direct sources, most grantees also reported sourcing local foods through food distributors (81 percent). Less frequently, grantees sourced directly from farmers' markets (20 percent) and community supported agriculture models, as well as indirectly through USDA programs, food service management companies, food buying cooperatives, and the State farm to school program office.

Exhibit 2-2. Percentage of Grantees that Worked with Direct and Intermediary Suppliers



NOTE: Percentages are based on those grantees that reported working with any supplier. Question wording and response options may differ across grantee reports for the data presented.

SOURCES: FY 2015–2017 planning, implementation, and support service grantee final reports (N = 89 grantees, 44 missing).

2.4. Planning for Procuring More Local Foods

In open-ended comments, SFA grantees¹⁵ described their planning efforts for procuring more local foods, including menu planning to align with the growing season, accounting for costs of local products, and ensuring food safety.

Grantees described broad efforts to plan for increased local procurement during the grant period. They reported needing to align timing of planting, growing, and harvesting of foods with their school menus. For instance, one grantee originally intended to serve local foods in schools on a weekly basis but had difficulty identifying farms with the capacity to source year-round. Another grantee successfully planned their menus and farm to school activities to align with their school garden harvest. In doing so, they were able to incorporate the same food items in both their salad bar and in their nutrition education programs simultaneously to provide a common theme for students. Grantees reported the importance of adequately researching and planning procurement practices in advance since well-designed plans were found key to success. They also found it important to be flexible in implementing the plan. For example, weather events, such as cold snaps or droughts, sometimes impacted the timing of farm to school activities.

Further, grantees indicated that considering the costs of local items at the onset of procurement helps minimize the risks of significant menu changes triggered by high-cost food items down the road. One grantee, for instance, learned that salad greens from a small local supplier cost \$8.00 per pound, compared to the \$1.25 per pound procured from its larger distributor. This grantee served greens-based meals weekly rather than daily to reduce its costs.

Finally, grantees recommended researching food safety regulations and requirements in advance due to their complicated nature. For example, Good Agricultural Practices (GAP) is a voluntary USDA food safety audit and certification program to verify that fruits and vegetables are produced, packed, handled, and stored as safely as possible. Compliance with GAP or other food safety verification standards was reported as challenging. While the USDA does not require GAP audits for items served in its school meal programs, States, SFAs, or school districts sometimes have stricter requirements, which can be cost-prohibitive, especially for small farms. SFAs reported conducting extensive research to understand GAP and other food safety requirements before bringing local foods into schools. One SFA consulted with a child nutrition specialist to provide information on the function of GAP and address school administrators' local food safety concerns.

2.5. Local Foods Offered and Spending on Those Foods

With greater energy invested in sourcing local, grantees worked with suppliers to offer an assortment of new foods in school meals. Almost all grantees (83–92 percent, data not shown)¹⁶ reported that their partner schools served local foods in their cafeterias. Additionally, by the end of their grant, schools used products from local suppliers as part of the National School Lunch Program (98 percent), the School Breakfast Program (88 percent), the Summer Food Service Program or Summer Seamless Option (69 percent), Smart Snacks (54 percent), and the Fresh Fruit and Vegetable Program (53 percent).

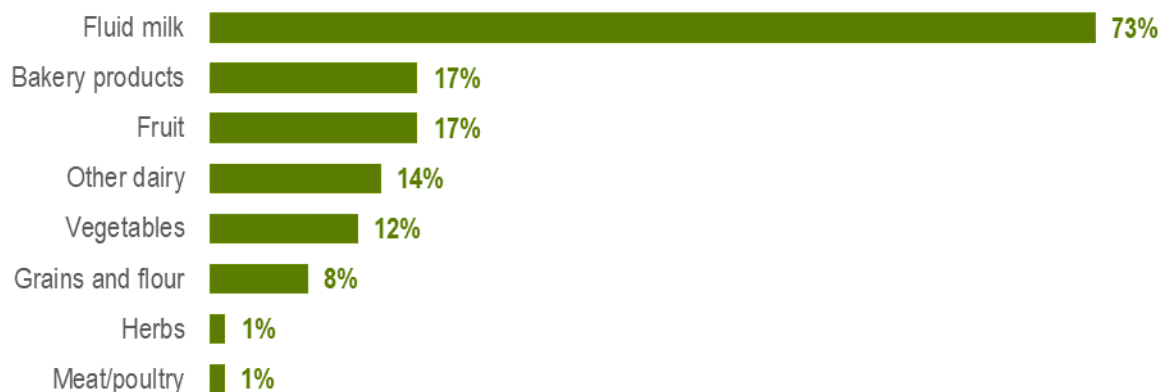
As part of school meals and snacks, schools served local products such as produce, dairy, meat and poultry, and baked goods. About three-quarters of grantees (73 percent) reported that the schools served

¹⁵ Sample includes 183 planning, implementation, and training SFA grantees, FY 2013–2017.

¹⁶ Sample includes 133 planning, implementation, and support service grantees, FY 2015–2017.

local fluid milk daily. Between 8 and 17 percent of grantees reported that schools served local fruit, vegetables, grains and flour, bakery goods, and other dairy products daily (Exhibit 2-3).

Exhibit 2-3. Percentage of Grantees Reporting Partner Schools/School Districts Incorporated Locally Sourced Foods in School Meals Daily

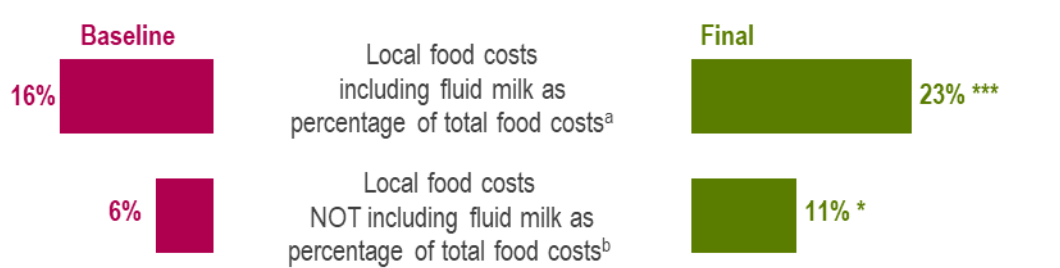


NOTE: No grantees reported including eggs, seafood, or plant-based protein in school meals daily. Percentages sum to more than 100% because grantees could select multiple options. Question wording and response options may differ across grantee reports for these data.

SOURCES: FY 2015–2017 planning, implementation, and support service grantee final reports (N = 92 grantees, 41 missing).

Most grantees reported that the proportion of total food costs spent on local foods increased over the grant period ($p < .01$; Exhibit 2-4). Grantees reported that schools and districts increased the percent of spending on locally sourced foods, including fluid milk, from 16 percent to 23 percent over the grant period. Similarly, they reported that the percent of spending on locally sourced foods, not including fluid milk, increased from 6 percent to 11 percent over the grant period ($p < .10$). Fluid milk made up the largest share of local food costs. In fact, at the end of the grant period, the median cost of local foods, including fluid milk, was \$337,684, while the median cost of local foods, not including fluid milk, was only \$75,000.

Exhibit 2-4. Mean Locally Sourced Food Costs as a Percentage of Total Food Costs



NOTE: Question wording and response options may differ across grantee reports for the data presented here. Sample includes 133 planning, implementation, and support service grantees that submitted both a baseline and a final report and whose total food costs did not decrease by more than 50 percent or increase by more than 200 percent between baseline and final reports.

* $p < .10$, ** $p < .05$, *** $p < .01$

SOURCES: FY 2015–2017 planning, implementation, and support service grantee baseline reports and final reports.

^a Baseline reports (N = 74 grantees, 59 missing) and Final reports (N = 71 grantees, 52 missing)

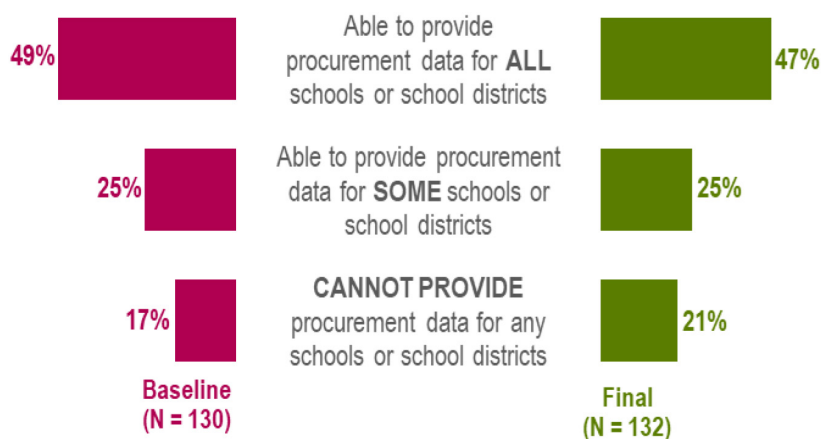
^b Baseline reports (N = 71 grantees, 62 missing) and Final reports (N = 70 grantees, 63 missing)

Fifty grantees elaborated on their efforts to increase the amount of local foods purchased, including a few that explained some community or school meals were 100 percent locally sourced. In addition to buying more local products, grantees discussed using school gardens, greenhouses, aquaponics, and other infrastructure to grow their own produce. Supplementing school menus with items from onsite growing units enabled grantees to increase agricultural education while decreasing the cost of food purchased from local farms. One grantee harvested red salmon via a student-built fish wheel¹⁷ and grew leafy greens using a hydroponic building facility to combat a cold climate and an increase in food costs, making local procurement more feasible. Additional school garden and agriculture educational activities are discussed in Chapter 3.

2.6. Procurement Data

Grantees indicated whether they were able to report on procurement data, such as the amount and type of local purchasing as well as numbers and types of suppliers, for their partner districts and schools. As seen in Exhibit 2-5, there was little change in the ability to provide procurement data over the course of the grant. About half of the grantees reported that they were able to provide procurement data for all schools and school districts at both the beginning and the end of their grant period (49 and 47 percent; as reported in their baseline and final reports, respectively). An additional quarter of grantees were able to provide data for at least some schools and school districts. Roughly one-fifth (17–21 percent) were not able to provide procurement data for any schools or districts throughout the grant period. Sixty-eight percent of those unable to provide procurement data at the end of their grant reported that their schools or districts did not systematically track these data (results not shown). A small proportion of grantees (7-8 percent) reported that they did not work directly with schools or school districts and thus were not able to provide any procurement data.

Exhibit 2-5. Grantees' Ability to Provide Procurement Data



NOTE: Some (7–8%) grantees reported that they did not work directly with schools or school districts to support purchasing of local foods for school meals. Question wording and response options may differ across grantee reports. Sample includes 133 planning, implementation, and support service grantees that submitted both a baseline and a final report.

* p<.10, **p<.05, ***p<.01

SOURCES: FY 2015–2017 planning, implementation, and support service grantee baseline reports (N = 130 grantees, 3 missing) and final reports (N = 132 grantees, 1 missing).

¹⁷ A fish wheel, or salmon wheel, is a device positioned in rivers to catch fish.

3. Activities to Incorporate Local Foods in Schools

Farm to school efforts include a variety of activities, from hands-on, experiential learning such as school gardening, farm visits, and culinary classes to the integration of food-related curriculum into the classroom. This chapter describes grantees' farm to school activities within schools. It begins by examining how grantees promoted local foods within their schools and engaged in farm to school related educational activities, including school gardens. Then it reviews how garden produce and scratch cooking were incorporated in school meals. Finally, it examines food waste and student attitudes toward local foods.

3.1. Promoting Local Foods

Schools offered farm to school programming through experiential learning activities such as student taste tests of local foods, field trips to farms, farmer visits to schools, farm to school themed festivities (such as Farm to School Month), and integration of farm to school concepts into school curricula (Exhibit 3-1). To better understand how grantees are promoting local foods in schools, the study team reviewed open-ended descriptions of their activities.¹⁸ Grantees also promoted local food with staff and students, and many indicated successes introducing more local foods during the grant period.

Exhibit 3-1. Number of Grantees Who Participated in Select Farm to School Activities



NOTE: Question wording and response options may differ across grantee reports for the data presented here.

SOURCES: FY 2015–2017 planning, implementation, and support service grantee final reports (N = 60–110 grantees, 19–50 missing).

Student Taste Tests

Serving more than 580,000 students, 110 grantees¹⁹ reported leading taste tests (Exhibit 3-1). Grantees reported success in engaging students and teaching them about local foods and the local foods economy and in students' increased willingness to try new foods as a result of taste tests. One grantee attributed students' willingness to try new foods to the way the grantee engaged students. Rather than simply offering students new foods to try, they actively solicited student feedback.

¹⁸ Sample includes 365 planning, implementation, support service, and training grantees, FY 2013–2017.

¹⁹ Sample includes 133 planning, implementation, and support service grantees, FY 2015–2017.

Field Trips and Farmer Visits

Ninety grantees²⁰ reported organizing student field trips to farms or orchards (Exhibit 3-1), together reporting more than 45,000 students participating (median of 200 students per grantee). Sixty grantees reported hosting farmers in their cafeterias, classrooms, or other school-related settings, reporting a median of 300 students per grantee and together almost 50,000 students. One grantee increased student interest in local foods by creating trading cards that profiled local farmers.

The educational value of field trips for both students and staff was evident in the narratives of the 72 grantees²¹ that described their field trip experiences. Students learned lessons, including the steps taken to produce, prepare, and serve local foods. School nutrition directors learned about food safety procedures required of food suppliers. Finally, field trips provided visibility to the grantees, giving them a platform to share their future farm to school plans and activities, and garner greater community support. To be most effective, grantees reported the need for logistical coordination with farmers, students, and staff, such as aligning schedules and effectively communicating with farmers.

Themed Farm to School Festivities

Eighty-two grantees²² reported participating in Farm to School Month in October (Exhibit 3-1). Grantees also reported participating in other farm to school themed festivities, such as Field to Fork,²³ California Thursdays,²⁴ and Harvest of the Month, in which schools and SFAs highlight a locally-grown seasonal product each month, to help them increase local purchasing, provide culinary training, and increase community awareness. These types of festivities helped grantees engage key stakeholders, including students and staff, parents, USDA personnel, and other community members.

Local Foods Promotion

Raising student and staff awareness of local foods required grantees to tailor current programs and test new methods of engagement. Grantees reported the importance of formulating effective marketing plans and developing strategies to gain traction, especially in communities with low levels of engagement among families and community members. Sixty-three grantees reported that their schools hosted a farm to school community event during their grant period.²⁵ Grantees also came up with creative ideas to minimize the additional effort needed to do promotion. For example, one grantee reported that by joining other partners' existing events, farm to school programs

Farm to School Program Spotlight: Farm-to-Table Dinner

One grantee developed a Farm-to-Table Dinner that showcased the collaborative nature of the school's farm to school program and the emphasis on sourcing local.

Open to the staff, students, and their families, participants selected one of three soups made from scratch with products from local farmers, fresh bread from a local bakery, and homemade desserts.

As part of the evening program, families toured the school's new salad bar filled with produce from two local farms. Staff also took the opportunity to explain changes to the school's breakfast and lunch programs.

²⁰ Sample includes 133 planning, implementation, and support service grantees, FY 2015–2017.

²¹ Sample includes 365 planning, implementation, support service, and training grantees, FY 2013–2017.

²² Sample includes 133 planning, implementation, and support service grantees, FY 2015–2017.

²³ See <http://www.fieldtoforkcafe.com/>

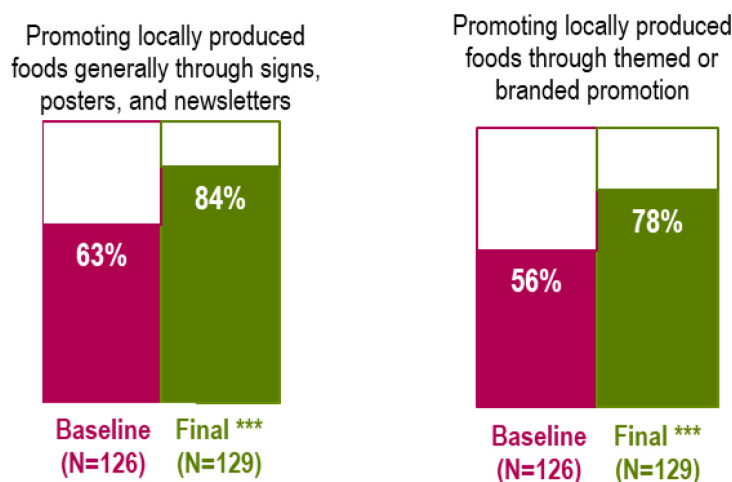
²⁴ See <https://www.californiafoodforcaliforniakids.org/california-thursdays>

²⁵ Because of varying reporting templates, not all grantees were asked about hosting community events. Of the 133 grantees with a final report, 110 received this question.

could still promote their activities without so much planning involved, through avenues such as information booths. Some grantees also encouraged the participation of students and staff in the implementation of farm to school program activities as a way to garner their buy-in and increase students' enthusiasm and engagement in promoting local foods. Some of the strategies mentioned in open-ended responses include engaging cafeteria coaches (adults or children in the cafeteria who encourage students to eat healthy, local foods) and gathering student input on marketing materials. One grantee reported that a group of students documented their farm to school experience through films, which the grantee later shared with other students and potential partners.

Grantees²⁶ also promoted local foods in schools using signs, posters, newsletters, and other materials, and this type of activity increased over the course of the grant period (Exhibit 3-2). At the start of the grant period, 63 percent of grantees reported working with schools using signs, posters, newsletters, and other materials to promote locally produced foods, and, by the end of the grant period, this increased to 84 percent of grantees. Similar increases were seen in efforts to promote locally produced foods via themed or branded promotion, such as Harvest of the Month, with levels increasing from 56 percent of grantees at the start of the grant period to 78 percent at the end of the grant period. Both increases were statistically significant ($p < .01$ for each).

Exhibit 3-2. Percentage of Grantees Working with Schools that Promote Locally Produced Foods



NOTE: Question wording and response options may differ across grantee reports for the data presented here. Sample includes 133 planning, implementation, and support service grantees that submitted both a baseline and a final report.

* $p < .10$, ** $p < .05$, *** $p < .01$

SOURCES: FY 2015–2017 planning, implementation, and support service grantee baseline reports ($N = 126$ grantees, 7 missing) and final reports ($N = 129$ grantees, 4 missing).

²⁶ Sample includes 133 planning, implementation, and support service grantees, FY 2015–2017.

3.2. Farm to School Educational Activities

Grantees reported developing new nutrition educational materials and curricula and designing processes to weave farm to school activities, including gardening, into existing lesson plans. Three-quarters of grantees reported integrating farm to school concepts into their mathematics, science, and language arts curricula (97 grantees) and aligning their nutrition curriculum with national or State standards (99 grantees) during their grant period.²⁷ However, grantees indicated having to be mindful of adding to teachers' heavy workloads. To garner buy-in and create connections with busy teachers, grantees attended teacher workshops and staff meetings to help cultivate community and better understand teachers' workloads. Grantees also reported developing materials that teachers could easily integrate, which some grantees indicated led to greater teacher enthusiasm and willingness to participate in farm to school programming.

Integrating School Gardens into the Curriculum

Grantees incorporated garden-related activities into the curriculum across grade levels. As reported by 96 grantees,²⁸ their partner schools or school districts engaged a median of 400 students each in edible gardening or orchard activities. Through garden tours, cooking classes, and other activities in and out of the classroom, students learned about composting, food preservation techniques, and even how to run a business. One grantee used its school garden to provide horticulture therapy to students with physical and developmental disabilities. Six grantees reported researching requirements and shifting curricula to ensure their garden educational activities met State and district curriculum standards.

Integrating Gardens into Curriculum: Numbers to Know

- Nearly **100 grantees reported engaging students** via edible gardening or orchard activities.
- Schools or school districts engaged a median of **400 students each** with edible gardening or orchard activities.

SOURCES: FY 2015–2017 planning, implementation, and support service grantee final reports.

Although securing administrative support, engaging teachers, and aligning garden educational efforts with the school calendar were cited as challenges, grantee reports included solutions to engaging students, teachers, and administrators. For example, grantees reported providing mandatory training and seasonal workshops, along with professional development opportunities, targeted to teachers. They also described school administrators who attended taste tests and cooking classes and helped codify garden-based educational activities in school curricula, which contributed to more successful and sustainable programs.

Several grantees described using gardens in afterschool programs and in summer program curricula, in addition to regular school day activities. Afterschool activities included cooking classes, learning to garden, eating items harvested from the garden, and nutrition education. Summer programs included weekly garden programs that focused on lessons such as the nutritional benefits of fresh produce.

²⁷ Sample includes 133 planning, implementation, and support service grantees, FY 2015–2017.

²⁸ Sample includes 133 planning, implementation, and support service grantees, FY 2015–2017.

3.3. Incorporating Garden Products and Scratch Cooking in School Meals

To incorporate local foods into school cafeterias, some grantees had to modify existing kitchen facilities to handle different processes. Grantees described using new recipes and increasing their amount of scratch cooking to incorporate garden produce and other fresh, local foods into their school meals. Grantees described the activities that supported planning for, processing, and preparing local foods for use in school meals and noted the challenges that slowed or impeded the process.

Incorporating School Garden Produce

By the end of the grant period, nearly two-thirds of grantees²⁹ (63 percent) reported that their partner schools and/or school districts incorporated products from their school-based garden or farm into their cafeteria's offerings. Grantees typically reported working with five school or community gardens at the beginning of their grants and seven by the end of the grant period, and 115 grantees reported working with at least one school or community garden.

Grantees described the type of produce from their school gardens included in school meals, the process for incorporating that produce, and helpful suggestions and lessons learned throughout the process. Grantees reported serving school garden produce in school meals in a variety of ways, such as using garden vegetables to supplement their menus and filling the salad bar with garden-grown greens. One grantee chose to place a hydroponic garden in the cafeteria to grow heirloom lettuce to incorporate into salads.

Grantee responses also highlighted the importance of strong partnerships and a supportive infrastructure to help them incorporate local foods in schools. For instance, two grantees attributed the success of their school gardens to the partnerships they had created with farmers, while one grantee expressed the need for stronger district-level support and guidance to help schools implement high-volume growing best practices in order to expand their garden-to-cafeteria program.

Incorporating Scratch Cooking

Nearly all grantees (99 percent) reported incorporating scratch cooking in school meals at least some of the time. There was an increase in the proportion of grantees that reported that schools served meals prepared from scratch more than 25 percent of the time. At the start of the grant period, 31 percent of grantees reported this level of scratch cooking; this increased to 44 percent of grantees by the end of the grant period ($p<.05$; Exhibit 3-3). Further, the proportion of grantees that reported incorporating scratch cooking in school meals only up to 10 percent of the time decreased from 30 percent at the beginning of the grant to only 18 percent by the end of the grant ($p<.05$).

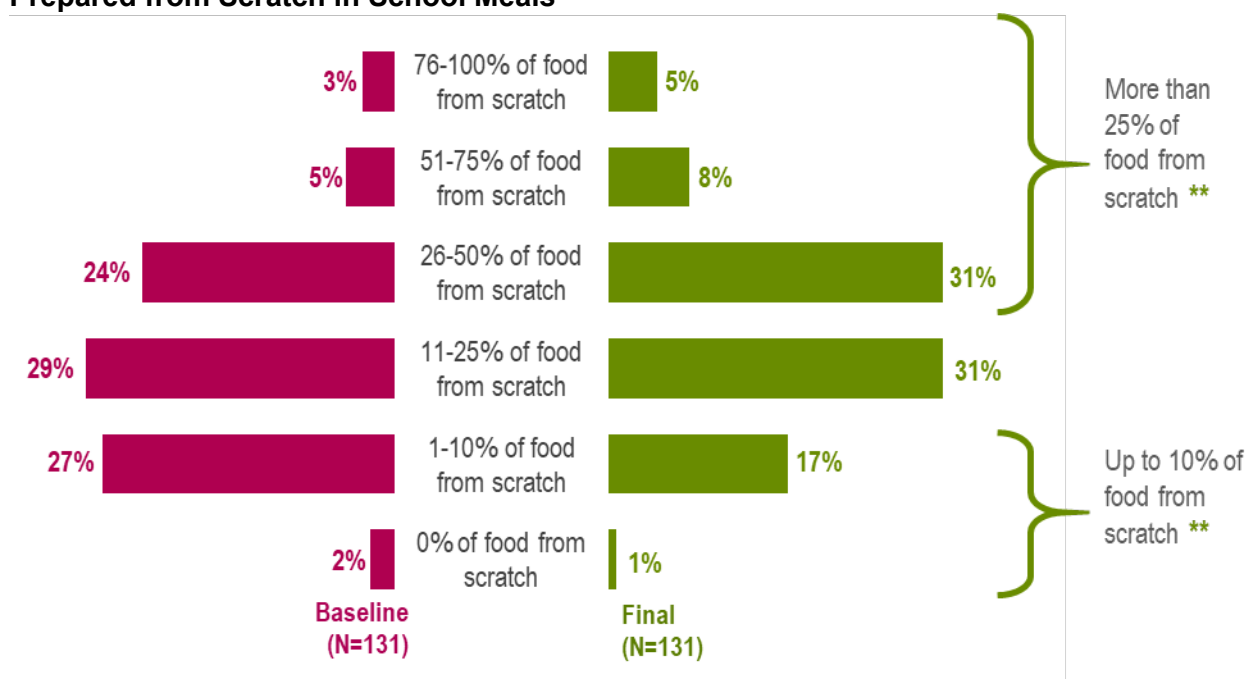
Ways to Support Incorporating Fresh Local Foods in School Meals

- **Align menus** with local seasonal food availability.
- Clarify **food safety regulations** and ensure all parties have the tools to meet these regulations.
- Use **partnerships** to uphold a successful program.
- Modify school **kitchen facilities** to handle processing fresh foods.

SOURCES: FY 2013–2017 grantee progress and final reports.

²⁹ Sample includes 133 planning, implementation, and support service grantees, FY 2015–2017.

Exhibit 3-3. Percentage of Grantees Whose Schools/School Districts Used Food Prepared from Scratch in School Meals



NOTE: Eight to ten percent of grantees did not know what percentage of the time schools/school districts they worked with used food prepared from scratch in school meals. Question wording and response options may differ across grantee reports for the data presented here. Sample includes 133 planning, implementation, and support service grantees that submitted both a baseline and a final report.

* $p < .10$, ** $p < .05$, *** $p < .01$

SOURCES: FY 2015–2017 planning, implementation, and support service grantee baseline reports ($N = 131$ grantees, 2 missing) and final reports ($N = 131$ grantees, 2 missing).

Adapting Kitchen Facilities to Handle Fresh Foods

Appropriate kitchen facilities were vital to grantees' ability to incorporate fresh food into meals and increase scratch cooking. Grantees strove to overcome inadequate refrigerator or freezer space, a shortage of utensils and other supplies to process fresh foods, and a lack of available facilities designed for preparing meals from scratch instead of only reheating food.

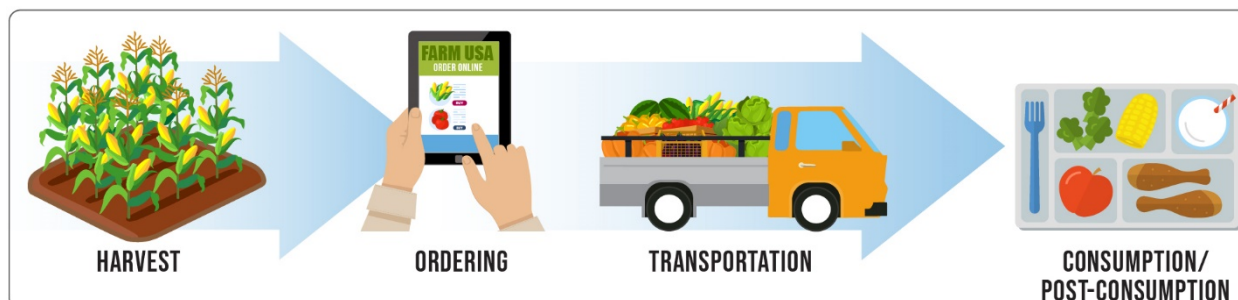
Grantees reported that the Farm to School Grant helped them update kitchen equipment either directly with the grant funds or indirectly by leveraging their grant funds to obtain additional funding. For example, one grantee used their Farm to School Grant funds to purchase and install salad bar units, and was then able to leverage those funds to secure city funding for refrigeration infrastructure required for the salad bar food. Other grantees reported that their communities had wanted to update their school kitchens for some time and that the grant funds allowed such projects to finally occur.

Efforts to purchase more local foods and grow food onsite also exposed the need to establish new processes and retrain school kitchen staff on methods to handle raw meat and fresh produce. For example, one grantee that sourced local chicken needed to retrain some of its kitchen staff who had not cooked raw poultry in the school for several decades.

3.4. Food Waste

As part of their programs, grantees sought to reduce the amount of plate and food waste in their meal programs, reporting specific points where waste could be reduced (Exhibit 3-4).

Exhibit 3-4. Reducing Waste in School Meals



At the end of their grant period, 43 grantees³⁰ reported that they implemented activities to reduce food waste and 39 grantees reported evaluating changes in student acceptance and food waste.³¹ Twenty-two grantees³² described their efforts, challenges, and general experiences with food waste at multiple points along the food access pipeline: harvest, ordering, transportation, and post-consumption. Grantees also offered strategies they had used to reduce food waste.

Two grantees discussed food waste at the point of **harvest**. For example, one grantee reported that cold, snowy weather spoiled crops and interfered with the harvest season, which affected the amount of produce available for grant activities. Another grantee found that food waste can unnecessarily occur when **ordering** food if the person responsible is unfamiliar with how much food to request. That grantee used extra produce as part of hands-on lessons in math and science classrooms. Although the grantee did not use the produce for eating as initially intended, it decreased waste and made the lesson plans more accessible and interesting to students in the process.

Strategies to Reduce Food Waste

- Incorporate **leftover produce** into school lessons.
- Use **vented boxes** rather than wax boxes to store food.
- Pique students' interest through **taste tests** so they are less likely to throw food away.
- **Compost** food scraps.

SOURCES: FY 2013–2017 grantee progress and final reports.

Grantees also reported concerns about crop loss or food waste in the **transportation** of produce from farm to school, due to inadequate storage ventilation and inconsistent temperatures. To prevent spoilage at this point, one support service grantee worked with a farmer to create a new system for storing and transporting large quantities of produce. Rather than storing all produce in wax boxes in the farmer's coolers before distribution, the farmer switched to storing harvested produce in vented, washable plastic containers that allowed for better airflow.

³⁰ Sample includes 133 planning, implementation, and support service grantees, FY 2015–2017.

³¹ Because of varying reporting templates, not all grantees were asked about their plate waste activities or about their efforts evaluating changes in student acceptance and food waste. Ninety-four grantees responded to this question.

³² Sample includes 365 planning, implementation, support service, and training grantees, FY 2013–2017.

Finally, some grantees reported on food waste at schools at the point of **consumption** and after. One grantee indicated that the amount of plate waste might decrease as students' consumption of fresh fruits and vegetables increases. Two grantees described reducing food waste by using taste tests and other educational activities to determine the foods students liked most and including those in school meals. Further, one grantee reported their composting efforts as a way to reduce **post-consumption** food waste. A sixth-grade class associated with a support service grantee developed a multi-tiered green strategy that included a microenterprise: the class created and sold compost made from its school food waste. The class also recycled food packaging containers and donated the non-compostable waste to a local community member who raised pigs.

3.5. Students' Attitudes toward School Meals including Local Foods

Fifty-seven grantees³³ reported on students' attitudes toward trying new local foods. Among these, 46 grantees highlighted students' enthusiasm for trying new foods, reporting that students showed greater willingness to try new things than school staff anticipated. Moreover, 19 grantees indicated that students' willingness to try new foods increased over the grant period. Thirteen grantees described specific farm to school products that were popular among their students (see text box).

Although grantees mostly discussed successes in shifting students' attitudes and behaviors, 11 grantees reported challenges. Two grantees reported a difference between the foods that students willingly tried at events (e.g., taste tests, Harvest of the Month) and the foods they preferred to eat as part of school meals. One of these grantees emphasized the role of food presentation in students' willingness to eat dishes that included local produce. For example, that grantee had incorporated a corn chowder recipe with local carrots into the school lunch, which had received overwhelmingly positive student feedback during a taste test.

Popular Farm to School Foods

Meat dishes

- Fish and beef tacos
- Hamburgers
- Local chicken sandwiches
- Roasted chicken drumsticks

Vegetarian dishes

- Asian broccoli
- Asparagus
- Blueberry smoothies
- Chef salad
- Corn chowder
- Local popcorn
- Ratatouille pizza
- Watermelon

SOURCES: FY 2013–2017 grantee progress reports.

³³ Sample includes 365 planning, implementation, support service, and training grantees, FY 2013–2017.

4. Farm to School Policies, Funding, and Administration

This chapter first reviews the policies that grantees described as influencing their farm to school activities. It then describes grantee experiences with funding and grant administration, including planning, team building, data collection and evaluation, and reporting. Finally, it examines the technical support available to grantees and their plans for the sustainability of their work after the conclusion of their grants.

4.1. Farm to School Policies

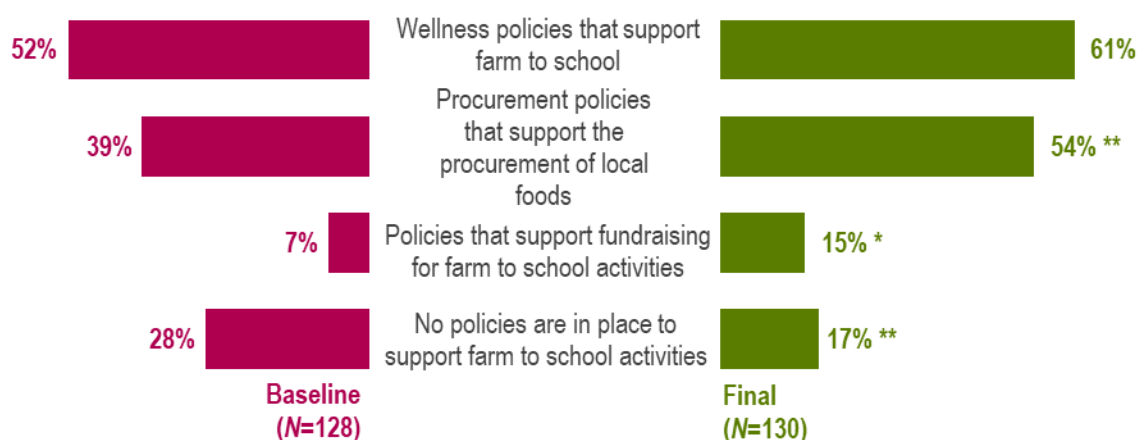
According to the National Farm to School Network (2019), between 2002 and 2018, 46 States, the District of Columbia, and the U.S. Virgin Islands introduced a combined total of 453 bills and resolutions to establish, support, or expand farm to school efforts.³⁴ Almost all had passed farm to school legislation that related to local procurement, food and agriculture education, or school gardens. Furthermore, schools participating in the NSLP were required to have a local school wellness policy.³⁵ These policies include goals for nutrition education as well as nutrition guidelines. Farm to school efforts can be a part of these wellness policies.

In fact, as seen in Exhibit 4-1, the percent of grantees that worked with schools and districts that had policies supporting farm to school activities generally increased from the start to the end of the grant periods. Grantees indicated that most often, farm to school activities were supported by wellness and procurement policies. Additionally, grantees that reported school or district policies in support of local food procurement increased from 39 percent at the beginning of the grant period to 54 percent at the end ($p < .05$). Less frequently, grantees reported that schools or districts maintained policies to support farm to school fundraising, but this also showed an increasing trend, from 7 percent to 15 percent over the course of the grant period ($p < .10$). In line with these findings, the proportion of grantees that reported that their schools or school districts did not have any policies to support farm to school activities decreased from 28 percent to 17 percent ($p < .05$).

³⁴ Legislation in Guam, Puerto Rico, and the U.S. Virgin Islands had existed since the 1920s. State Farm to School Policy Handbook: 2002–2018, <http://www.farmtoschool.org/resources-main/statepolicyhandbook>.

³⁵ Local School Wellness Policy Implementation under the Healthy, Hunger-Free Kids Act of 2010, <https://www.federalregister.gov/d/2016-17230>

Exhibit 4-1. Percentage of Grantees that Work with Schools/Districts Using Policies that Support Wellness, Procurement, or Fundraising Activities



NOTE: A total of 12–17% of grantees reported other policies, and 8–9% of grantees reported that they did not know about policies in their schools/districts. Percentages sum to more than 100% because grantees could select multiple options. Question wording and response options may differ across grantee reports for the data presented here. The sample includes 133 planning, implementation, and support service grantees that submitted both a baseline and a final report.

* $p < .10$, ** $p < .05$, *** $p < .01$

SOURCES: FY 2015–2017 planning, implementation, and support service grantee final reports ($N = 130$ grantees, 3 missing).

In open-ended comments, 15 grantees³⁶ reported working with a wellness committee during the grant period. Roughly half of them included committee members in planning farm to school activities. Further, 12 grantees described how they had successfully incorporated, or were in the process of incorporating, farm to school efforts, such as experiential curricula and local procurement, into wellness plans at the district or school level.

Five grantees addressed specific policy changes at the district and State levels. District-level policies included the creation of a safe food handling policy and local resolutions supporting school gardens. State-level policies included State adoption of federal food code regulations and the creation of new inspections that allow school garden produce as an “approved source.”

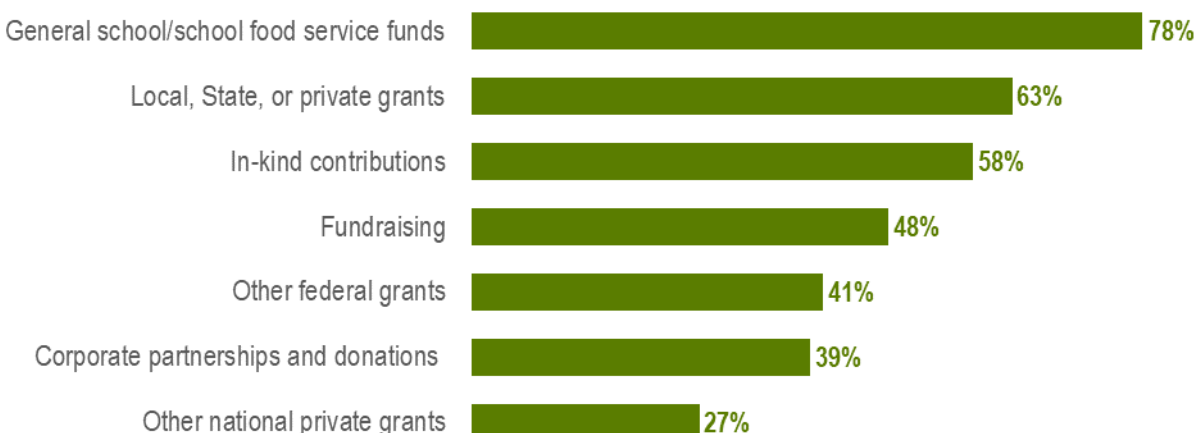
Additionally, five State agency grantees reported broad system changes related to opening up channels of communication and providing networking opportunities and resources to foster collaboration for farm to school efforts across their State. For example, one grantee created an online platform to share resources and increase networking across garden groups, farmers, and schools to find farm and school information within their State. A State Agency grantee created a newsletter and ran a farm to school network that provided peer-to-peer learning and strengthened partnerships with key agencies.

³⁶ Sample includes 365 planning, implementation, support service, and training grantees, FY 2013–2017.

4.2. Grant Funding

Grantees and their partners used multiple funding sources to support farm to school activities. Almost all grantees³⁷ (91 percent) reported that grant funds were sufficient to cover project expenses (data not shown). Grantees were also required to provide a 25 percent match on grant funds in the form of cash or in-kind contributions. The majority of grantees reported funding activities with general school funds or school food service funds (78 percent); local, State, or private grants (63 percent); and in-kind contributions (58 percent; Exhibit 4-2). In addition to other federal grants, corporate partnerships and donations, and other national private grants, grantees reported fundraising to pay for farm to school

Exhibit 4-2. Financial Support for Farm to School Activities



NOTE: Twenty-three percent of grantees received other financial support for farm to school activities. Percentages sum to more than 100% because grantees could select multiple options. Question wording and response options may differ across grantee reports for the data presented here.

SOURCES: FY 2015–2017 planning, implementation, and support service grantee final reports ($N = 132$ grantees, 1 missing).

In their open-ended responses, grantees³⁸ expanded upon their funding sources. Forty-five grantees reported specific sources such as funding via grant partners (e.g., one grantee worked with a partner that received a separate source of funding for hiring staff to work with teachers on garden education), fundraising or program activities designed to generate income (e.g., garden tours, hosted dinners), individual donors, foundations (e.g., Blue Cross Foundation, Captain Planet Foundation, New Hampshire Charitable Foundation), and State-level departments (e.g., New York State Department of Agriculture, Office of the Superintendent of Public Instruction). Only seven grantees reported any kind of State budget allocation.

Thirteen grantees described funding mechanisms specifically for school gardens. The development and maintenance of school gardens were generally supported by grants and donations from their fundraising efforts. One grantee described hosting an annual garden tour to support its farm to school program, with all proceeds from the tours benefiting farm to school activities. Another grantee described running a farmers' market where students sold school garden produce to raise money for their gardening club.

³⁷ Sample includes 133 planning, implementation, and support service grantees, FY 2015–2017.

³⁸ Sample includes 297 planning, implementation, support service, and training grantees, FY 2013–2017.

Finally, 13 grantees reported challenges maintaining sufficient resources to continue carrying out farm to school activities after their grant period ended, and 12 grantees reported that they encountered delays in receiving their Farm to School Grant funds or that the grant period (typically one to two years) was too short to complete program activities and ensure their continuance. Grantees recommended grant periods of three years for implementation and support service grants and two years for planning grants.

4.3. Grant Administration

Over the course of their project, grantees learned how to improve the administration of their Farm to School grants. Grantees described their experiences with planning, team building, collecting and evaluating data, and preparing reports.

Planning Grant Activities

Twenty-four grantees commented on the value of carefully planning and scheduling grant activities. Some grantees recommended having the planning done in advance of the grant period, while others suggested using downtime during the grant period to take care of such details, for a smoother process when the pace picks back up. Other grantees recommended flexibility regarding unanticipated changes in implementation (29 grantees), using partners or volunteers from the start (20 grantees), developing early support from stakeholders (20 grantees), understanding existing systems and factors within the community before applying (20 grantees), and being persistent and patient across all aspects of the grant (nine grantees).

Relatedly, 28 grantees across grant types, particularly planning grantees, encouraged future grantees to set reasonable expectations and goals for their projects. Grantees either reported learning this lesson in retrospect or noted that setting realistic expectations early in the grant process led to their success.

Team Building

Building cohesive and collaborative team dynamics played a vital role in grantees' program administration. Grantees³⁹ reported that bringing on key staff was an essential part of their efforts. These personnel might include farm to school coordinators or project managers, chefs, interns, and FoodCorps members. In particular, grantees indicated that hiring a program coordinator enabled them to complete goals they would not otherwise have been able to accomplish. In contrast, staff turnover led to a loss of momentum and the loss of institutional or program knowledge. The departure of high-level school or district staff particularly affected program support and buy-in. A few grantees also reported that delays at the State or district level held up approvals for hiring staff

Plan for Staffing

- **Define partner roles and responsibilities**, including designating a project coordinator.
- **Hire a full-time project or grantee coordinator** to combat turnover and manage transition.
- **Maintain strong internal and external communications** to ensure buy-in and that all stakeholders are aware of grant and program details and expectations throughout the grant.
- **Consider partner and staff capacity and enthusiasm** and plan for frequent turnover.
- **Develop proactive transition plans** to weather staffing changes.

SOURCES: 2013–2017 grantee progress and final reports.

³⁹ Sample includes 365 planning, implementation, support service, and training grantees, FY 2013–2017.

and starting their farm to school activities. Grantees shared lessons learned related to staff turnover (see text box).

Data Collection and Evaluation

Farm to School Grant requirements included collecting and evaluating data on program activities. Some grantees indicated the progress they were able to make in setting up systems to collect data to inform future program activities. Other grantees commented on challenges with data collection and evaluation, including difficulty in gathering data themselves. Busy school calendars often thwarted data collection from students and other stakeholders.

Reporting Process

In their progress and final reports, grantees⁴⁰ described the elements of the reporting process they thought worked well and those perceived as burdensome. Twenty-four grantees described strengths, including the helpfulness of the reporting for internal tracking purposes, and the overall ease of the process and of using the online template, especially compared to reporting requirements for other grants.

Forty-five grantees described challenges with the reporting system. Eighteen grantees reported that the federal financial reporting systems (e.g., the Food Program and Reporting System [FPRS] and the Automated Standard Application for Payments [ASAP]) were difficult to navigate. Moreover, 15 grantees noted that the overall reporting process was time intensive, taking staff time away from other grant activities. Finally, 11 grantees reported being frustrated with the lack of feedback or clear instruction from USDA on required reporting elements.

4.4. Technical Support

In addition to describing their experiences with grant administration, grantees⁴¹ also reported on the technical support they received from USDA. Sixty-five grantees described the positive experiences they had with USDA staff and 45 grantees cited helpful materials made available to grantees such as handbooks and links to technical resources, recommending that future grantees fully use USDA technical support in their Farm to School Grant journey. Grantees also reported that USDA's facilitation of communication with other Farm to School grantees was helpful, as was the availability and quality of USDA training sessions and webinars.

Thirty-nine grantees reported on challenges with USDA's grant support, most frequently citing a lack of feedback from USDA staff on submitted materials or specific questions and the absence of clarity in

"We would have liked more feedback and learning opportunities from our USDA contacts.... The USDA is the expert on food safety nationally, and it would be nice to feel like we have a contact there to lean on."

~ FY 2016 Support Service Grantee

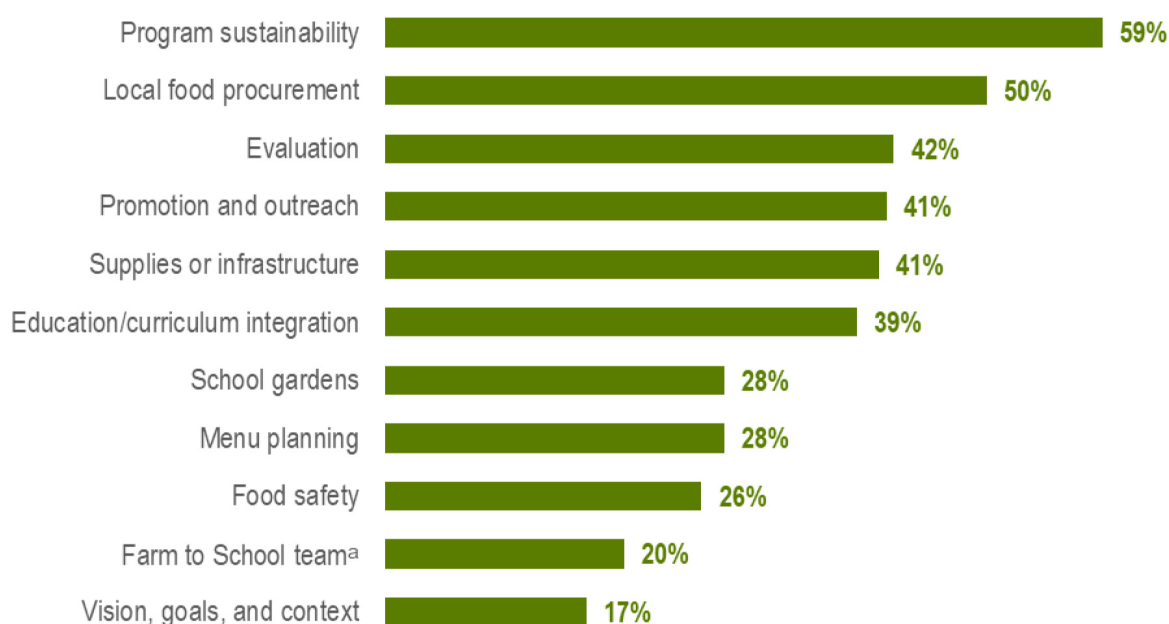
guidance received from USDA. Grantees also reported having challenges with the financial reporting of the grant, with some grantees specifically requesting additional guidance on navigating the system, and a few grantees citing general technical challenges, including software requirements and account access.

⁴⁰ Sample includes 365 planning, implementation, support service, and training grantees, FY 2013–2017.

⁴¹ Sample includes 365 planning, implementation, support service, and training grantees, FY 2013–2017.

In a closed-ended question about additional areas of support that would be most helpful, grantees reported ways that technical assistance could help them navigate the challenges they encountered (Exhibit 4-3). Grantees selected from a list of areas of technical assistance that would be most useful for them in carrying out farm to school efforts. Grantees indicated that the areas of support that would be most beneficial to receive training or technical assistance on include program sustainability (59 percent), local food procurement (50 percent), evaluation (42 percent), promotion and outreach (41 percent), food service supplies or infrastructure (41 percent), and integrating farm to school with other education and curricular activities (39 percent), requesting each of these areas of support at least once throughout the duration of the grant. In contrast, 41 percent of grantees reported that they did not have any additional training or technical assistance needs.

Exhibit 4-3. Areas of Support That Would Be Most Beneficial to Grantees



NOTE: Nineteen percent of grantees requested other support. In at least one of their progress reports, 41% of grantees reported they had no need for support. Percentages sum to more than 100% because grantees could select multiple areas of support. Question wording and response options may differ across grantee reports for the data presented here.

SOURCES: FY 2014–2017 planning, implementation, and support service grantee progress reports ($N = 218$ grantees, 61 missing).

^a This term was defined as creating a team or working with project partners.

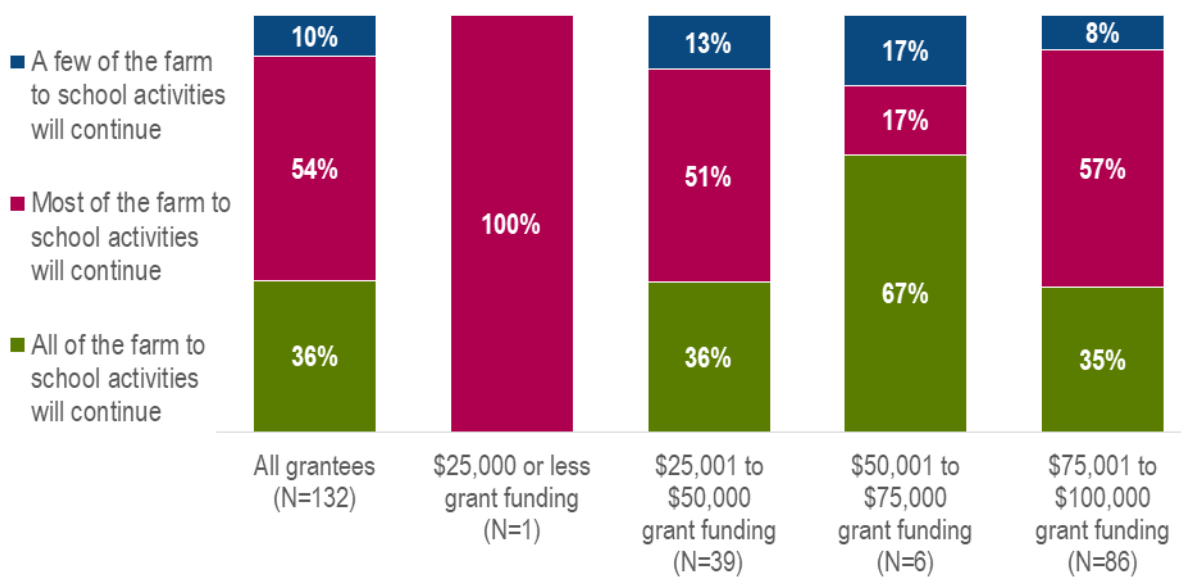
Finally, in open-ended comments, grantees⁴² suggested additional areas of improvement. The most common requests for types of technical support included additional training sessions and resources (both on specific topics and in general); more opportunities to connect with other Farm to School grantees and share lessons learned (one grantee recommended a mentor-mentee pairing of grantees within a region); and improved communications with USDA personnel (e.g., more consistent check-ins between the USDA contact and the grantee). Less frequently, grantees also proposed improvements in scheduling and planning of the grant period or grant activities such as conferences and improvements in the organization of available resources, particularly on the website.

⁴² Sample includes 365 planning, implementation, support service, and training grantees, FY 2013–2017.

4.5. Sustainability of Farm to School Activities

Developing and implementing a sustainability plan is a key grant requirement for ensuring program activities continue after the grant period ends. Across grant funding amounts, 90 percent of grantees reported that most or all of their farm to school activities would continue after the grant funding ended (Exhibit 4-4). The remaining grantees reported anticipating only a few farm to school activities continuing, and no grantees indicated that none of their activities would continue.

Exhibit 4-4. Sustainability, by Grant Funding Amount



NOTE: Question wording and response options may differ across grantee reports for the data presented here. No grantees selected the response option "None of the farm to school activities funded by the USDA Farm to School Grant will continue now that funding has ended."

SOURCES: FY 2015–2017 planning, implementation, and support service grantee final reports (N = 132 grantees, 1 missing).

Grantees⁴³ commented on program sustainability in their open-ended responses in their final report. They reported that the Farm to School Grant provided them with the opportunity to build a foundation for future farm to school activities and relationships. They credited program success to the creation of toolkits or documentation of best practices; the equipment secured during their grant period; completion of a sustainability plan; and staff efforts to train volunteers, teachers, and administrators to carry on activities beyond the grant period.

In progress report responses, grantees often associated successful program sustainability with relationship building, community and district support, strategic

USDA Could Support Sustainability by Providing:

- **Examples from other grantees** with sustained farm to school activities, including marketing material and contract bids.
- Systems to coordinate and convene **farm to school networks**.
- **Examples of strong partnerships**, particularly public-private partnerships.
- More **clarity on funding options** and the renewal process for Farm to School Grants
- Flexibility in the timeline to apply for the next Farm to School Grant.

SOURCES: FY 2013–2017 grantee progress and final reports.

⁴³ Sample includes 297 planning, implementation, support service, and training grantees, FY 2013–2017.

planning, and developing toolkits or documenting best practices. Responses on sustainability across the grant period most frequently cited the importance of garnering the general community's support, followed by developing and nurturing relationships with food suppliers and school district stakeholders. Students' acceptance and excitement about farm to school programming complemented by support from teachers were also cited. Finally, grantees suggested a few ways for USDA to support sustainability efforts (see text box).

5. Stakeholder Involvement

The success of the USDA Farm to School Grant Program depends on the contribution and collaboration of key stakeholders, including grant staff, school staff, food suppliers and producers, students, and others. This chapter discusses the types of stakeholders involved in farm to school programs and their level of involvement. It also examines the training opportunities provided for stakeholders.

5.1. *Involvement with Various Stakeholders*

Farm to School grantees engaged various types of stakeholders, including schools and school districts; supply chain actors; and community, higher education, nonprofit, and local government partners. Grantees⁴⁴ typically worked with one school district or may have been a single school district, but they may have worked with up to 150 school districts. The number of individual schools that grantees worked with ranged from one to almost 3,000, with typical grantees working with 12 schools.

In open-ended comments, grantees discussed the importance of creating connections and building buy-in with key stakeholders. Grantees successfully did so by hosting onsite visits for community members to display their team's work and to obtain feedback on farm to school plans and activities. Grantees also stressed the importance of regular and consistent communication with stakeholders, including holding regularly scheduled meetings and providing updates between meetings. Grantees observed that building high-profile farm to school connections was an ideal opportunity to foster enthusiasm across the school community. For example, one grantee indicated that their students were invited to the White House and met with Michelle Obama. Another grantee report that they were excited to have the Under Secretary of USDA visit their school for National School Lunch Week. A third grantee indicated that the County Health Department Director was committed to their efforts. These connections increased the support for farm to school activities in their communities. Likewise, grantees' partnerships with local growers and other community groups helped grantees get students excited, especially for taste tests.

The following sections examine the level of involvement between grantees and these key stakeholders, as well as the change in involvement over the grant period.

⁴⁴ Sample includes 133 planning, implementation, and support service grantees, FY 2015–2017.

School and School District Stakeholders

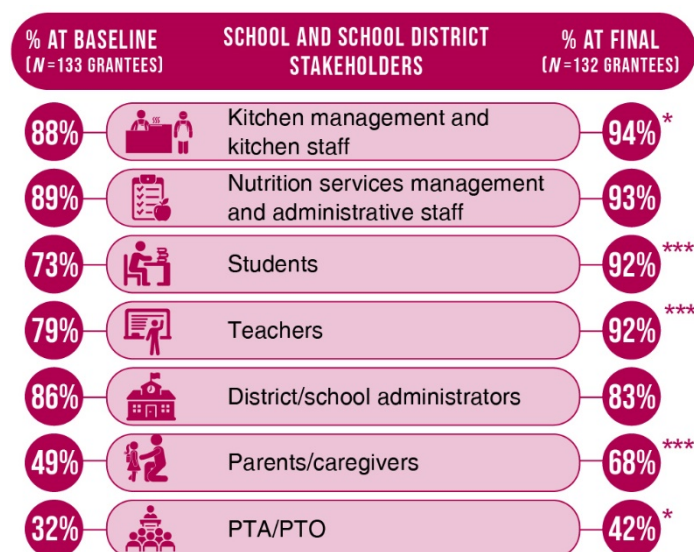
Grantees engaged with several types of school and district stakeholders, including kitchen management and staff, nutrition services management and administrative staff, students, teachers, district and school administrators, parents and other caregivers, and Parent Teacher Association (PTA) or Parent Teacher Organization (PTO) groups (Exhibit 5-1). Involvement between grantee staff and school and district stakeholders increased for almost all categories from the start to the end of the grant. The largest increases were seen with both students and parents/caregivers, which each increased by 19 percentage points over the course of the grant ($p < .01$). The only category in which involvement was reported to decrease slightly was district and school administrators, but this change was not found to be significant. By the end of the grant reporting period, almost all grantees reported involvement with kitchen management and staff (94 percent), nutrition services management and administrative staff (93 percent), students (92 percent), and teachers (92 percent). A majority of grantees also reported engaging district and school administrators (83 percent) and parents and caregivers (68 percent) in their farm to school activities.

In the open-ended comments, some grantees⁴⁵ described their experiences working with kitchen management and staff. School kitchen management and staff played a pivotal role in planning and executing farm to school meals and encouraging students to try new menu items. Grantees acknowledged kitchen staff's support and enthusiasm for farm to school activities and reported providing farm to school training sessions for kitchen staff that were well-attended. Grantees also helped kitchen staff forge relationships with other stakeholders, such as food suppliers.

"As staff felt less overwhelmed with their everyday work, their attitudes toward farm to school evolved from initial resistance to enthusiastic participation."

~ FY 2016 Support Service Grantee

Exhibit 5-1. Involvement of School and School District Stakeholders



NOTE: Due to changes in grant reporting templates over time, question wording and response options for this item may differ across periods, and grantees may have responded differently across time points due to the different response options available. Sample includes 133 planning, implementation, and support service grantees that submitted both a baseline and a final report.

* $p < .10$, ** $p < .05$, *** $p < .01$

SOURCES: 2015–2017 planning, implementation, and support service grantee baseline reports (N = 133 grantees, 0 missing) and final reports (N = 132 grantees, 1 missing).

Twenty-seven grantees reported having trouble generating buy-in from busy kitchen employees who often faced a sudden change in the scope of their work

⁴⁵ Sample includes 365 planning, implementation, support service, and training grantees, FY 2013–2017

with the additional emphasis on serving fresh foods and promoting local menu items to students. Kitchen staff may have lacked the time to dedicate to championing farm to school and also did not always understand the importance of their role in the process. Thus, grantees worked to increase kitchen staff's understanding of farm to school efforts. For example, grantees reported clarifying misinformation, explaining how farm to school efforts could work along with the National School Lunch Program, demonstrating the benefits of farm to school, and providing field trips and farm tours to help kitchen staff see the value of fresh local foods and to inspire them in the cafeteria.

Supply Chain Actors

Supply chain actors include farmers and producers, distributors and aggregators, and processors and manufacturers (Exhibit 5-2). Involvement with farmers and producers and with distributors and aggregators increased by 12 and 18 percentage points over the grant period, respectively ($p < .01$ for each). By the end of the reporting period, 89 percent of grantees indicated involvement with farmers and producers, and 77 percent indicated involvement with distributors and aggregators. Fewer grantees (40 percent) engaged processors and manufacturers.⁴⁶

SFA grantees⁴⁷ reported on their experiences building and nurturing direct relationships with local farmers and growers. The lack of capacity of small, local farmers was a common theme in grantee responses. During the reporting period, grantees learned the importance of placing orders far in advance to maintain positive relationships with farmers and to ensure that farmers had the capacity to handle the order volume. Grantees addressed the ways they interacted with farmers, including field trips to farms, harvest festivals, and collaborations on other farm to school activities. While some grantees reported success in fostering a flexible culture that accounted for both farmer and grantee needs, others reported challenges establishing relationships with farmers and ensuring consistent levels of produce requested.

Exhibit 5-2. Supply Chain Actors



NOTE: Due to changes in grant reporting templates over time, question wording and response options for this item differed across periods, and grantees may have responded differently across time points due to the different response options available.

Sample includes 133 planning, implementation, and support service grantees that submitted both a baseline and a final report.

* $p < .10$, ** $p < .05$, *** $p < .01$

SOURCES: FY 2015–2017 planning, implementation, and support service grantee baseline reports (N = 133 grantees, 0 missing) and final reports (N = 132 grantees, 1 missing).

⁴⁶ Note that there are differences between responses to this item and the item in which grantees reported working with various suppliers (Exhibit 2-2). These differences may be based on the differences in samples and the fact that the questions were asked in various ways.

⁴⁷ Sample includes 183 planning, implementation, and training SFA grantees, FY 2013–2017.

Community, Higher Education, Nonprofit, and Local Government Partners

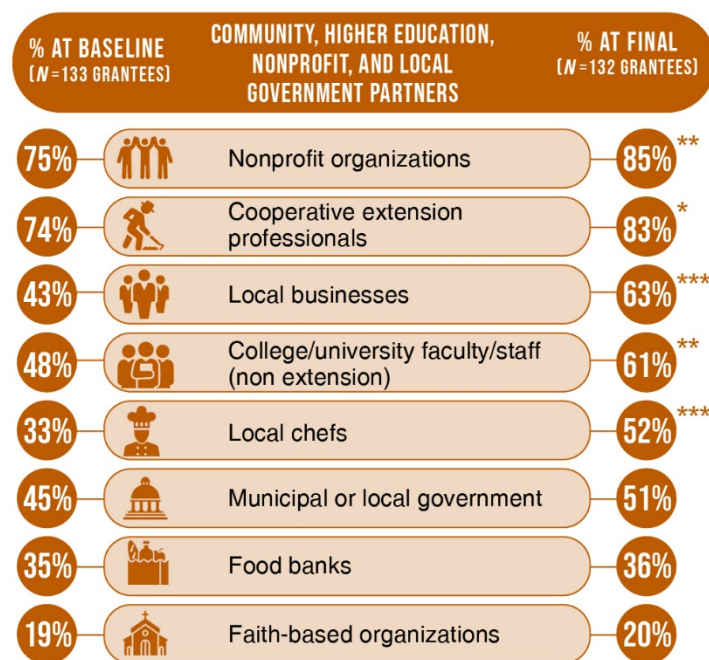
Grantees interacted with stakeholders beyond schools and supply chains, involving community organizations and government entities. As seen in Exhibit 5-3, Farm to School Grant partners also included non-profit organizations, cooperative extension professionals, local businesses, college and university faculty and staff, local chefs, municipal or local government, food banks, and faith-based organizations. The largest increases in interaction over the grant period were seen with local businesses and local chefs, which increased by 20 and 18 percentage points, respectively, over the course of the grant ($p < .01$ for each). Significant increases were also seen for colleges and universities and non-profit organizations, which increased by 12 and 10 percentage points, respectively ($p < .05$ for each), and for cooperative extension professionals, which increased 9 percentage points ($p < .10$).

In open-ended comments, grantees described some of their experiences with these partners. One grantee reported working with food banks, chefs, and university food centers to develop programming for students and their families. Another grantee partnered with the city government to enhance the mayor's policy initiative on healthier communities. Finally, a third grantee reported that the local paper gave their Farm to School project a monthly column to update the community on their project activities.

5.2. Training Stakeholders

Grantees provided training to food service staff, teachers, and food suppliers. By the end of the grant period, grantees⁴⁸ typically reported working with 19 school food service staff,⁴⁹ with 115 grantees reporting having trained food service staff in local and regional foods procurement for school meal programs (data not shown). Grantees reported providing training on local foods promotion (73 percent),

Exhibit 5-3. Community, Higher Education, Nonprofit, and Local Government Partners



NOTE: Question wording and response options may have differed across grantee reports for the data presented here. Sample includes 133 planning, implementation, and support service grantees that submitted both a baseline and a final report.

* $p < .10$, ** $p < .05$, *** $p < .01$

SOURCES: FY 2015–2017 planning, implementation, and support service grantee baseline reports (N = 133 grantees, 0 missing) and final reports (N = 132 grantees, 1 missing).

⁴⁸ Sample includes 133 planning, implementation, and support service grantees, FY 2015–2017.

⁴⁹ The instrument did not define who should be included in school food service staff or kitchen management and kitchen staff (referenced above).

preparation of fresh fruits and vegetables (67 percent), and food handling and safety (66 percent; Exhibit 5-4).

Exhibit 5-4. Percentage of Grantees Offering Specific Training to Food Service Staff



NOTE: Seventeen percent of grantees trained on other topics. Percentages may sum to more than 100% as each grantee was able to select multiple topics. Question wording and response options may differ across grantee reports for the data presented here.

SOURCES: FY 2015–2017 planning, implementation, and support service grantee final reports ($N = 124$ grantees, 9 missing).

Farm to school teacher training and professional development opportunities were offered by 96 grantees. They reported that the training provided to teachers covered gardening skills (72 percent), general nutrition education (66 percent), and agricultural education (63 percent). Fewer grantees offered training on cooking skills (43 percent; Exhibit 5-5).

Exhibit 5-5. Percentage of Grantees Offering Specific Training to Teachers

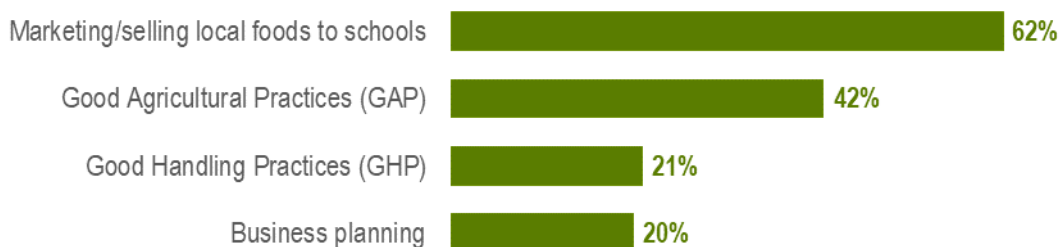


NOTE: Thirty-one percent of grantees trained on other topics. Percentages may sum to more than 100% as each grantee was able to select multiple topics. Question wording and response options differed across grantee reports for the data presented here.

SOURCES: FY 2015–2017 planning, implementation, and support service grantee final reports ($N = 108$ grantees, 25 missing).

Seventy-five grantees⁵⁰ also reported training farmers on selling local or regional foods for school meal programs, with typical grantees training eight farmers (data not shown). Grantees reported most commonly providing training to farmers in marketing and selling local foods to schools (62 percent). Grantees also organized training sessions on GAP (42 percent) and Good Handling Practices (21 percent) and business planning (20 percent) (Exhibit 5-6). Other training topics included procurement regulations and networking.

Exhibit 5-6. Percentage of Grantees Offering Specific Training to Farmers



NOTE: Forty-one percent of grantees trained on other topics. Percentages may sum to more than 100% as each grantee was able to select multiple topics. Question wording and response options may differ across grantee reports for the data presented here.

SOURCES: FY 2015–2017 planning, implementation, and support service grantee final reports (N = 98 grantees, 35 missing).

Although training sessions for different stakeholder groups were often held separately, responding grantees described the benefits of bringing together different types of stakeholders, such as a joint training event for farmers and food service staff which resulted in shared learning. Grantees also reported disseminating information through pre-existing platforms instead of formal training sessions to minimize additional burden on stakeholders. For instance, one grantee used teacher workshops and staff meetings to offer trainings.

“There was great success doing farm and food safety training with farmers and school food service together. They better understood each other’s perspectives and needs. Also the food service staff were encouraged by the farmers present to visit their farms and ask about their farm safety plans.”

~ FY 2014 Implementation Grantee

⁵⁰ Sample includes 133 planning, implementation, and support service grantees, FY 2015–2017.

6. Summary of Farm to School Grantee Experiences

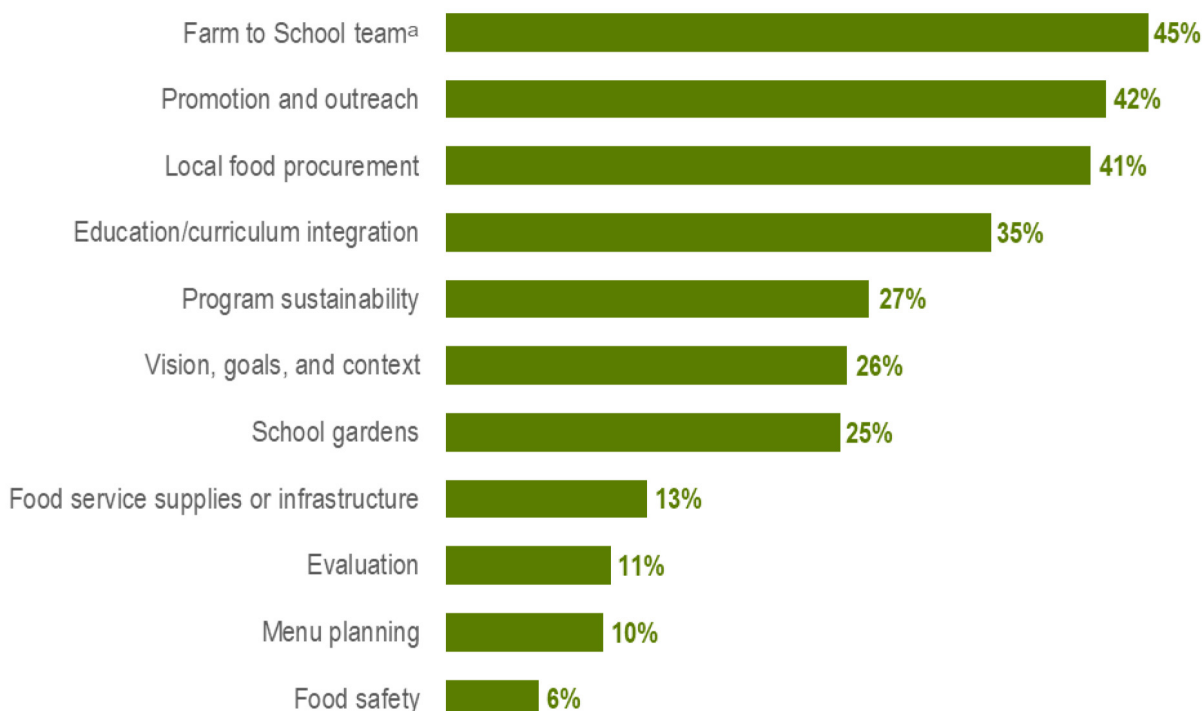
In addition to reporting on their experiences with various farm to school activities, grantees also reported on their overarching experiences with the USDA Farm to School Grant Program, including suggestions for future grantees. This chapter summarizes grantees' general achievements, challenges, lessons learned, and suggestions for USDA.

6.1. Achievements

In their final report, 73 percent of grantees⁵¹ reported that they achieved all their project goals or objectives. These grantees attributed greater community support for school meals (76 percent of grantees), higher acceptance of new meal patterns (45 percent of grantees), and increased participation in school meals (44 percent of grantees) to their Farm to School Grant activities.

Ninety-five percent of grantees reported at least one area of achievement related to their Farm to School Grant. Grantees most commonly reported achievement in creating the Farm to School team (45 percent); promotion and outreach (42 percent); local food procurement (41 percent); and integrating farm to school with other education and curricular activities (35 percent) (Exhibit 6-1). Less frequently, grantees cited program sustainability (27 percent); vision, goals, and context (26 percent); and school gardens (25 percent). Fewer than 15 percent of grantees selected food service supplies or infrastructure, evaluation, menu planning, or food safety among their achievements.

⁵¹ Sample includes 133 planning, implementation, and support service grantees, FY 2015–2017.

Exhibit 6-1. Areas of Grantee Achievements

NOTE: Fifteen percent of grantees reported other achievements. Five percent of grantees reported they had no achievements to share at the time. Percentages sum to more than 100% because grantees could select multiple areas over the course of their grant. Question wording and response options differed across grantee reports for the data presented here.

SOURCES: FY 2014–2017 planning, implementation, and support service grantee progress reports (*N* = 218 grantees, 0 missing).

^a This term was defined as creating a team or working with project partners.

In open-ended comments, grantees ascribed a variety of farm to school achievements, from small wins within schools to statewide systematic changes, to the Farm to School Grant Program funding.

Implementation grantees reported the widest range of farm to school influence, affecting collaborations with grant partners as well as statewide systems. For example, one grantee reported an increase from zero to 16 in the number of schools in the State certified to serve food from a school garden in the cafeteria. A State Agency grantee reported that the Farm to School Grant led to new collaborations across the State with the community, school districts, and farmers.

“One of the most rewarding experiences of this project was to work with originally doubtful food service staff and farmers, and to recognize them now as local farm to school heroes.”

~ FY 2014 Support Service Grantee

“We are on the brink of great change in our State and have the potential to really turn the sad statistics of childhood obesity and nutrient deficiencies around. Our project is becoming a pilot for the State...we are aware of the importance of our success.”

~ FY 2014 Support Service Grantee

Support service grantees reported changes in local procurement processes and increasing enthusiasm for the Farm to School Grant Program. Grantees cited the new producers they engaged; the new, local foods the schools purchased; and the overall engagement among food service directors, suppliers, community members, and other organizations.

Planning grantees primarily reported creating change in awareness of farm to school at school and community levels. They described a change in food culture in the communities they served and were able to plan out school meal menus that incorporated local foods based on availability and student preferences.

Farm to school activities conducted by training grantees resulted in greater recognition of and enthusiasm for farm to school efforts across several states and regions. Achievements reported were commonly attributed to large-scale farm to school training sessions or conferences. The grant money assisted with securing venues, hiring partners, and event planning.

6.2. Challenges

In their final report, 27 percent of grantees⁵² reported that they had not achieved all their project goals or objectives. In open-ended items, grantees explained that unaccomplished goals and barriers to completion were often due to relationship tensions with stakeholders, training activities, the inability to align school calendars and agricultural timelines for scheduling program activities, and local foods procurement.

Nineteen grantees attributed their partial completion of goals to the lack of strong relationships with stakeholders. Challenges included team tension and turnover, lack of enthusiasm from the community and students, and poor relationships with farmers. Grantees also reported struggling with lack of cooperation from schools and school districts due to overworked teachers, general district disinterest, and school leadership turnover.

Eleven grantees reported challenges in connecting staff to training sessions, which prevented grantees from achieving their project goals. Although some grantees tried to boost participation in training sessions by providing financial assistance to potential attendees, attendance was often low. One support service grantee had a project goal of providing free training or scholarships to farmers and food service professionals but reported challenges getting farmers to complete the scholarship paperwork to attend the training sessions.

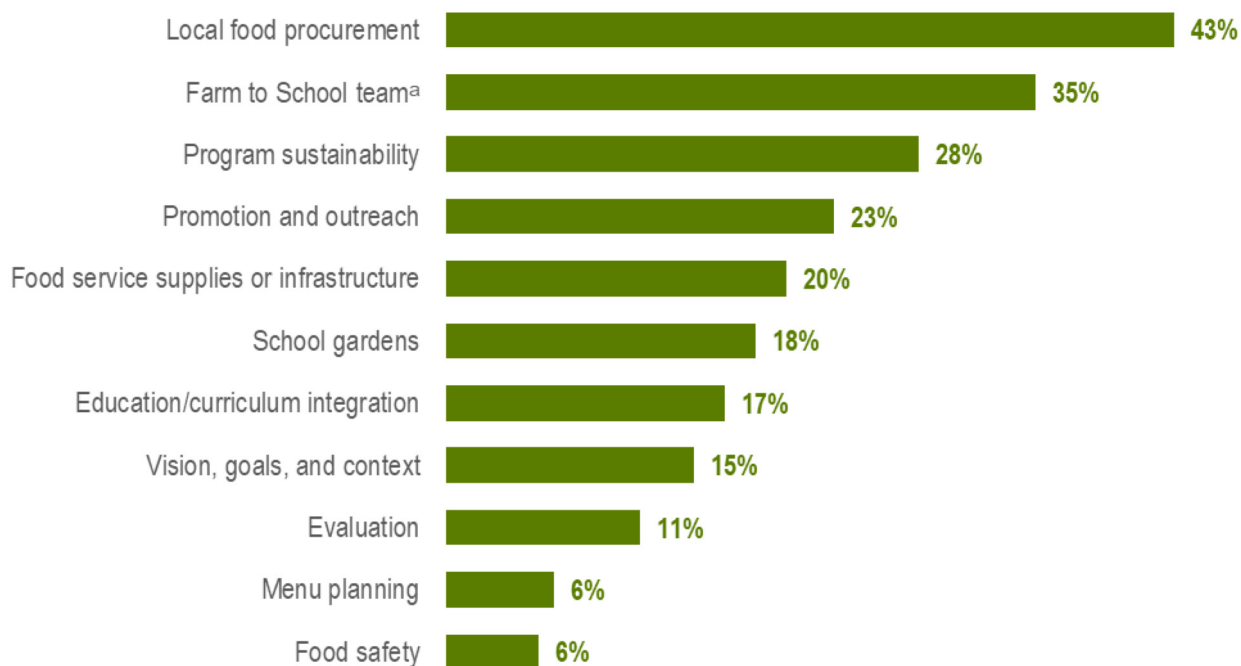
Eleven grantees reported on challenges aligning timelines across districts, which hindered the successful completion of program objectives. Grantees working with multiple schools or districts had to juggle divergent timelines, a challenge to creating a formal calendar and organizing meetings to keep multiple stakeholders engaged.

"Schools have different schedules and timeframes... [what] will work with one school does not necessarily work with another school."

~ FY 2013 Implementation Grantee

Grantees reported on the biggest challenge they encountered in each grant reporting period (Exhibit 6-2). Local food procurement was reported most frequently (43 percent). Notably, fewer planning grantees reported that procurement was a challenge than did implementation or support service grantees (32 percent of planning grantees reported local food procurement as a challenge as opposed to 46 and 47 percent of implementation and support service grantees, respectively). Approximately one-fourth of grantees (28 percent) cited program sustainability as one of their largest challenges at some point during the grant. Other common challenges cited included promotion and outreach (23 percent), issues with food service supplies or infrastructure (20 percent), working with school gardens (18 percent), and integration of farm to school activities into the curriculum (17 percent).

⁵² Sample includes 133 planning, implementation, and support service grantees, FY 2015–2017.

Exhibit 6-2. Areas of Grantees' Biggest Challenges

NOTE: Fifty percent of grantees reported other challenges. Eighteen percent of grantees said they had no challenges to share at the time. Percentages sum to more than 100% because grantees could select multiple areas over the course of their grant. Question wording and response options differed across grantee reports for the data presented here.

SOURCES: FY 2014–2017 planning, implementation, and support service grantee progress reports ($N = 218$ grantees, 0 missing).

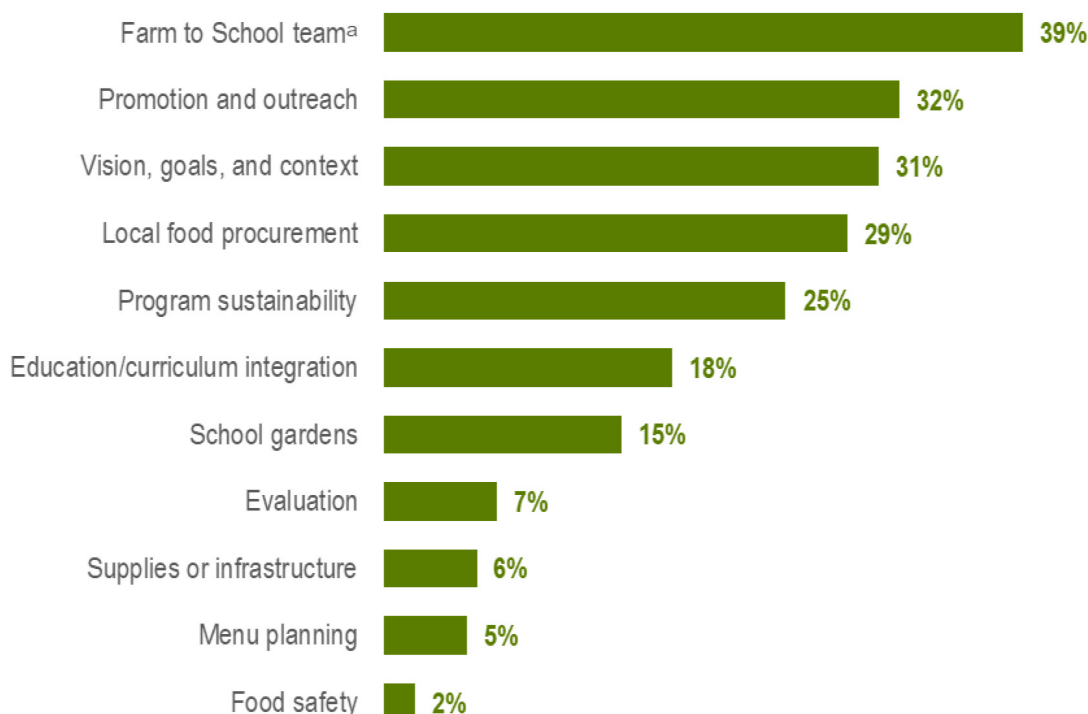
^a This term was defined as creating a team or working with project partners.

Other challenges described in open-ended comments include those related to partner collaboration, staffing, administration, financial reporting, scheduling, equipment, and weather.

6.3. Lessons Learned

Throughout the reporting period, grantees reported the lessons they learned from their Farm to School Grant experiences, selecting from a list of defined areas (Exhibit 6-3). Overall, grantees reported that the most common areas in which they learned lessons were their Farm to School team (39 percent); promotion and outreach (32 percent); vision, goals, and context (31 percent); and local food procurement (29 percent).

Exhibit 6-3. Areas of Grantees' Lessons Learned



NOTE: Fourteen percent of grantees reported other lessons learned. Nineteen percent of grantees said they had no lessons to share at the time. Percentages sum to more than 100% because grantees could select more than one lesson learned over the course of their grant. Question wording and response options may differ across grantee reports for the data presented here.

SOURCES: FY 2014–2017 planning, implementation, and support service grantee progress reports (*N* = 218 grantees, 61 missing).

^a This term was defined as creating a team or working with project partners.

6.4. Suggestions for USDA

In their reporting, grantees⁵³ offered suggestions for improving the USDA Farm to School Grant Program for future grantees. Forty-three grantees explicitly mentioned positive experiences and interactions with USDA FNS Regional Office staff, conference sessions, and communications. Ninety-seven grantees recommended improvements to the grant program. Across all the recommendations, the most common fell into the areas of financial and administrative assistance, communications with USDA, the grant timeline, developing a platform for sharing among grantees, and the need for pre-developed curriculum or other materials.

⁵³ Sample includes 365 planning, implementation, support service, and training grantees, FY 2013–2017.

- **Financial and administrative assistance:** Grantees requested additional guidance on the process of submitting financial reports, which they found confusing and time-consuming. Grantees also sought opportunities for additional funding to sustain program efforts. One grantee suggested making successful grantees eligible for an additional round of funding while they are still completing their first Farm to School Grant in order to continue program momentum.
- **Communications with USDA staff:** While grantees reported mostly positive interactions with USDA staff, they also made recommendations to improve lines of communication. Specifically, grantees requested that USDA staff summarize information more succinctly in order to decrease the number of emails they send; provide additional guidance on grant timelines and expectations, including feedback on their grant and reporting performance; and include more contact from their FNS Regional Office staff, either face-to-face or via regular check-in phone calls.
- **Grant timeline:** Grantees recommended shrinking the amount of time typically between planning and implementation grant periods, aligning the grant period with the school year, and providing longer grant periods to complete projects.
- **Sharing among grantees:** Grantees reported benefiting greatly from interactions with one another and suggested additional opportunities to learn from their grantee peers (e.g., through cohort sessions at the grantee gathering, social media groups, and cohort webinars).
- **Pre-developed curriculum or other materials:** Grantees reported that pre-developed curriculum and activities would be helpful, particularly as they get their programs off the ground and did not have the capacity to design a new curriculum given other programmatic and school requirements.

Sources

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Appendix A: Objectives and Research Questions

The research objectives and questions presented in this appendix apply to the larger study of the USDA Farm to School Grant Program, not just the component evaluating grantee reports that is the focus of this report. Four main research objectives guided the study's analyses:

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.

Exhibit A-1 shows the grantee report data sources Abt used to address each research question under the four main research objectives. Research questions not addressed in this component of the study are marked as N/A and other documents where the information is reported are indicated.

Exhibit A-1. Data Sources by Research Question

Research Question	Grantee Report Data Source
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?	Baseline and final reports Baseline and final reports ^a
b. How much money do SFAs spend on local food?	Baseline and final reports
c. How many full- and part-time positions are dedicated to farm to school efforts, if any (State-, SFA-, and school level)?	Baseline and final reports ^b
d. In what ways does the number of producers and/or distributors used to source local items for NSLP impact overall procurement?	N/A ^c
e. What goals do SFAs have regarding local purchasing and have goals been reached?	Final reports
f. Are distributors recruited or used by SFAs for their ability to "buy local?"	N/A ^{c,d}
g. Do different SFAs procure from the same distributors?	N/A ^c
h. What are the most common foods purchased locally, by region, in weight and volume, and by cost?	N/A ^{c,d}
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?	Progress and final reports Progress and final reports
j. Do SFAs have to establish new supply chains to purchase local items and, if so, what is that process?	Progress and final reports
k. To what extent has the volume of local sales by SFAs claimed by producers and distributors shifted with farm to school efforts?	N/A ^{c,d}

Research Question	Grantee Report Data Source
I. To what extent do SFAs have direct relationships with local farmers and producers?	Progress and final reports
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)?	N/A ^e Progress and final reports
b. How often is garden produce integrated into school operations (e.g., salad bars, sampling in the cafeteria)?	Progress and final reports
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?	Progress and final reports
ii. How have gardens been integrated into the curriculum at various grade levels (e.g., nutrition education, cooking classes, agricultural coursework)?	Progress and final reports
c. How many SFAs and schools have salad bars?	Progress and final reports ^f
d. Is “local” promoted to students? If yes, how is it promoted?	Baseline, progress, and final reports
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)?	Final reports ^g
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)?	Progress and final reports
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?	Progress and final reports
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?	Progress and final reports Progress and final reports Progress and final reports Progress and final reports
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?	Progress and final reports
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?	Baseline, progress, and final reports Baseline, progress, and final reports
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)?	Progress and final reports Progress and final reports
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?	Progress and final reports ^h Progress and final reports

Research Question	Grantee Report Data Source
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?	Progress and final reports Progress and final reports
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?	N/A ^{c,e}
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?	Progress and final reports ⁱ Progress and final reports
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?	Progress and final reports
b. How did activities, as implemented, track with the original grant proposal?	N/A ⁱ
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)? What were the measurable outcome(s) of the projects and were they accomplished?	Progress and final reports Progress and final reports Progress and final reports
d. What challenges did grantees face in the implementation of their projects? How did they overcome these challenges?	Progress and final reports
e. Did grantees have additional funding for farm to school efforts?	Progress and final reports
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?	Final reports Final reports Final reports Final reports

^a As there were no significant differences in definitions of “local” across SFAs, States, or regions, they are not reported here.

^b The study team attempted to analyze results from the grantee reports to answer this question, but the reporting templates differed enough that conclusions could not be drawn. Information on this question is included in the Farm to School literature review and the Farm to School Census report, both prepared as part of the *Farm to School Census and Comprehensive Review*.

^c Information on this question is included in the Farm to School literature review prepared as part of the *Farm to School Census and Comprehensive Review*.

^d Information on this question is included in the summary of distributor interviews included as an appendix to the Farm to School literature review prepared as part of the *Farm to School Census and Comprehensive Review*.

^e Information on this question is included in the Farm to School Census report prepared as part of the *Farm to School Census and Comprehensive Review*.

^f Few grantees mentioned salad bars, so the number of salad bars could not be determined. However, salad bars are described throughout this report, when feasible. Additional information on this question is included in the Farm to School literature review and the Farm to School Census report, both prepared as part of the *Farm to School Census and Comprehensive Review*.

^g There was insufficient information in final reports to provide this level of detail. Additional information on this question is included in the Farm to School literature review and the Farm to School Census report, both prepared as part of the *Farm to School Census and Comprehensive Review*.

^h Grantee progress and final reports did not contain information specifically on policies instituted since 2010, but grantee statements of policies or changes in policies are reported, when available.

ⁱ Findings for this analysis are not separated out from the additional funding sources used across all grantees, as the themes were similar. Additional information on this question is included in the Farm to School literature review and the Farm to School Census report, both prepared as part of the *Farm to School Census and Comprehensive Review*.

^j The study team was not able to answer this question as it did not review grantee proposals.

Appendix B: Sampling and Methods

The study team used three methods to analyze data from grants awarded in FY 2013–2017. Grants were awarded for 12 or 24 months, depending on grant type. Data from grants awarded in FY 2018–2019 were not included as those grantees had not yet submitted all of their grant reports. A summary of the methods used by grantee cohort and type is provided in Exhibit B-1. Each of these methods is described in detail below.

Exhibit B-1. Grantees Included in Each Study Method, Fiscal Year, and Grant Type

Method	Fiscal Year of Grant Award					Grant Type				Total
	2013	2014	2015	2016	2017	P	I	S	T	
Comparison of baseline and final responses			X	X	X	X	X	X		133
Analysis of responses to closed-ended questions		X	X	X	X	X	X	X		218
Analysis of responses to open-ended questions	X	X	X	X	X	X	X	X	X	365

NOTE: P = planning, I = implementation, S = support service, T = training.

SOURCES: FY 2013–2017 grantee baseline, progress, and final reports ($N = 365$ grantees, 0 missing).

B.1. Comparison of Baseline and Final Responses

Sample

To examine change over the grant period, the study team used closed-ended data from baseline and final reports. The study team only included planning, implementation, and support service grantees in these analyses. The reports that training grantees completed were too dissimilar from those for other grantees, as training grantees were not required to submit a baseline report, and the data from training grantees did not correspond with the rest of the data.

Of the 177 planning, implementation, and support service grantees in FY 2015–2017, 133 grantees had both baseline and final data and thus could be included in the analysis (Exhibit B-2).

Exhibit B-2. Quantitative Baseline and Final Report Sample by Grantee Type and Fiscal Year Awarded

Grantee Type	Fiscal Year Awarded			Total
	2015	2016	2017	
Planning	16	17	7	40
Implementation	14	15	5	34
Support service	25	26	8	59
Total	55	58	20	133

NOTE: The sample of grantees was limited to those that also had both baseline and final report data.

SOURCES: FY 2015–2017 planning, implementation, and support service grantee baseline and final reports ($N = 133$ grantees, 44 missing).

Analysis

FNS provided the study team with closed-ended response data from baseline and final reports in Microsoft Excel format for FY 2015–2017 grantees. The study team used STATA to clean, compile, and analyze the closed-ended question responses by merging the data so that each grantee record contained both baseline and final report data. Questions from baseline, progress, and final reports were mapped to each of the research objectives and questions (see Appendix A), and then coded for variables and response options to develop the compiled analytical dataset. Where possible, the study team consolidated responses to questions that varied across templates (e.g., a question phrased as a Yes/No response in one version but as a select-all-that-apply question in another version).

Using this analytical process, frequencies and percentages were prepared for non-numeric responses (select-one or select-all-that-apply questions) and summary statistics (mean, median, minimum, maximum) for numeric responses. Differences between baseline and final responses were calculated at the aggregate level using t-tests and chi-square tests to determine whether changes were statistically significant. T-tests were used to examine changes over time in items that included a single value, and chi-square tests were used to examine changes in items that included more than two mutually exclusive and collectively exhaustive response options.

B.2. Analysis of Responses Closed-Ended Questions

Sample

To examine grantee experiences during the grant period, the study team used quantitative data from closed-ended questions from all baseline, progress, and final reports. Planning, implementation, and support service grantees were included in this analysis; training grantees differed greatly from the other grant types (see above).

Of 248 planning, implementation, and support service grantees in FY 2014–2017, 218 grantees submitted at least 1 progress report and thus were included the analysis (Exhibit B-3).

Exhibit B-3. Quantitative Progress Report Sample by Grantee Type and Fiscal Year Awarded

Grantee Type	Fiscal Year Awarded				Total
	2014	2015	2016	2017	
Planning	0	16	19	15	50
Implementation	15	14	16	18	63
Support service	26	25	26	28	105
Total	41	55	61	61	218

SOURCES: FY 2014–2017 planning, implementation, and support service grantee progress reports (N = 248 grantees, 31 missing).

Analysis

Similar to the baseline and final report data, FNS provided the study team with closed-ended response data from progress reports in Microsoft Excel format. These data were analyzed to investigate achievements, challenges, lessons learned, and technical assistance needs that grantees regularly reported during their grant period.

Using Python, counts for each grantees' responses were de-duplicated across reporting periods (i.e., the count for a given response includes grantees that chose that response option at least once across their progress reports).

Using this analytical process, the study team produced frequencies and percentages for the sample of grantees responding to each of the questions about challenges, achievements, lessons learned, and technical assistance needs.

B.3 Analysis of Responses to Open-Ended Questions

Sample

The study team also used responses to open-ended questions in progress and final reports to examine grantee experiences. In contrast to the closed-ended analyses, the study team included all grantee types (planning, implementation, support service, and training) in FY 2013–2017.

Due to the high volume of progress reports submitted, with up to 12 progress reports per grantee, data were included from just two progress reports per grantee, as available: (1) the first progress report a grantee submitted, for a representation of a phase early in the grant period; and (2) an interim progress report. The frequency of progress reports across grantee type and years can be seen in Exhibit B-4. The interim progress report selected was either the fourth quarter or the second semiannual progress report, depending on grant type, if that report had not already been selected as the first progress report and was not missing. If the fourth quarter or second semiannual progress report either was already marked for sampling or was missing, the next available progress report was included.

Exhibit B-4. Progress Reporting Schedule by Grantee Type and Fiscal Year

Grantee Type	Fiscal Year				
	2013	2014	2015	2016	2017
Planning	Semi-annually	Semi-annually	Semi-annually	Semi-annually	Semi-annually
Implementation	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly
Support service		Quarterly	Quarterly	Quarterly	Quarterly
Training			Semi-annually	Semi-annually	Semi-annually

NOTE: Support service grants did not begin until FY 2014 and training grants did not begin until FY 2015.

SOURCES: FY 2013–2017 planning, implementation, support service, and training grantee progress reports.

Analysis

FNS provided the study team with progress and final reports in PDF format for FY 2013–2017 grantees. The study team used NVivo qualitative analysis software to analyze grantee responses providing general feedback and describing achievements, challenges, and lessons learned. A preliminary codebook of common themes was created from inductive coding of a small sample of the final reports. The study team then worked with FNS to fine-tune the codebook to better reflect USDA Farm to School Grant Program objectives and research questions (see Appendix A for a full list of the study's objectives and research questions).

Team members were trained on the codebook of themes and the NVivo coding process. Next they went through a series of interrater reliability tests to ensure the similar coding by all coders. Over the eight-month coding period, all coders also regularly participated in interrater reliability exercises to maintain

consistency. All discrepancies in coding were resolved, and the coding instructions were updated as needed to clarify any ambiguities that emerged during the process.

Once all of the reports included in the sample were coded into themes in NVivo, the study team ran queries to analyze the relationships among those themes. From the patterns in this first round of analysis, additional categories of themes were created to answer specific research questions under each of the study's overarching objectives, which were then analyzed in NVivo by study team members.