# Appendix A. Study Objectives and Research Questions

## Table 1. Summary of Study Objectives, Research Questions, and Report Location

Study Objective	Research Questions	Report Location
	What competitive solicitation mechanisms do SFAs employ (e.g., invitation for bid versus	2 2 1
	request for proposal) to procure goods and services for school meals?	5:2:1
	What factors influence which mechanism or mechanisms are used?	3.2.1
	What kinds of guidance and/or templates do SFAs rely on in developing their solicitations?	3.2.2
	How are these provided and what are the requirements, if any, associated with their use, such as local or State procurement rules and regulations?	3.2.2
	What specifications and preferences are integrated into the contracts for school foods (e.g., seeking small, minority, or women-owned businesses; geographic preferences)?	3.2.1
	How are these preferences determined, and in what situations are they most commonly applied?	3.2.1
OBJECTIVE 1: Identify and describe the various means through which SFAs develop and publish solicitations, evaluate and award contracts, and monitor procurement contracts for all school food purchases (i.e., goods and services paid from the nonprofit food service	To what degree is the procurement process consolidated or separated to achieve more economy across the programs in which SFAs participate (e.g., NSLP, SBP, after school)?	2.1
	How does the SFA conduct a price/cost analysis before publishing a solicitation?	3.2.1
	What types of contracts do SFAs award (e.g., fixed-price, fixed-price with price adjustment tied to a standard index, cost-reimbursable with or without a fixed fee for management and administrative services, a combination of cost-reimbursable and fixed-price)?	3.2.2
account, including, but not limited to, USDA	What factors influence which contract type is awarded?	3.2.1
Foods and commercial foods procurement,	What are the perceived benefits and challenges of the different contract types?	3.2.2
processing, and distribution).	Are forward contracts utilized?	3.2.2
	If so, in what capacity?	3.2.2
	Are contract types limited by State-level regulations?	3.2.2
	To what extent are SFAs using other procurement methods, both formal and informal, for purchasing goods (specifically food) and services: (a) informal purchases (small purchase procedures); (b) micro-purchases; (c) non-competitive procurement methods; (d) other mechanisms; and (e) for the procurement of local foods specifically? To what extent are SFAs using (a) cooperative purchasing arrangements (SFAs only); (b) agents; (c) group purchasing organizations (non SFAs-only); (d) other mechanisms; and (e) for the procurement of local foods specifically?	3.2.1
	To what extent is the procurement of local foods different in terms of the procurement method used?	3.4

Study Objective	Research Questions	Report Location
	What types of suppliers or food sources do SFAs use when purchasing food (e.g., direct purchase from farmers, food hubs, school gardens, distributors, manufacturers, or FSMCs)?	3.3.1
	To what extent is the process different for the procurement of end-product delivery of USDA bulk-purchased items (and any differences in distributor versus direct delivery)?	3.5
	What internal decision-making processes do SFAs use to determine their procurement strategy?	3.1.1
	To what degree do they develop internal recordkeeping systems (e.g., to track average daily participation or the sale of non-program foods that support forecasting and planning) to inform their procurement activities?	3.1.1
	To what extent do "buying local" or supporting Farm to School efforts matter?	3.4
	What practices do SFAs follow to monitor contractor performance after award, such as compliance with the Buy American provision and documentation of exceptions thereto (e.g., to purchase nondomestic foods when domestic foods are prohibitively costly or there is an insufficient quantity)?	3.6.6
	How do SFAs track discounts, rebates, and credits for commercially purchased foods in cost-reimbursable contracts?	3.6.4
	What is the process for rectifying accounting errors?	3.6.4
	To what extent do State Agencies, if at all, monitor SFA procurement procedures for goods (specifically food) and services for school meals (e.g., processors of USDA Foods, use of FSMCs, informal and formal procurement methods, and local foods)?	3.6 (if CN-OPS-II analysis is completed and available)
	How does this differ by State?	3.6 (if CN-OPS-II analysis is completed and available)
	What reasons do SFAs provide for contracting with FSMCs?	3.3.3
	To what degree are the FSMCs involved in the process of transferring to an FSMC?	3.3.3
	What are the perceived benefits and challenges of contracting with an FSMC?	3.3.3
	To the degree possible, determine whether the expected benefits are measurable or observed in practice.	3.3.3
OPIECTIVE 2. Identify and describe the	To what extent do the FSMCs contract with multiple SFAs together?	3.3.3
OBJECTIVE 2: Identify and describe the rationale, procedures, and recordkeeping practices used by SFAs with respect to their contracts with FSMCs.	To what extent do the FSMCs manage one aspect, rather than all aspects, of total procurement for school meals (e.g., contracting for meal preparation but not procurement services, or program administration but not USDA Food ordering)?	3.3.3
	To what extent do SFAs use FSMCs in addition to other contracting or procurement mechanisms? (e.g., menu planning, hiring, or managing personnel)	3.3.3
	What procedures do SFAs use in establishing and monitoring contracts with FSMCs, including, but not limited to, compliance with the Buy American provision?	3.3.3, 3.6.6
	How, if at all, do these differ from the procedures used for in-house food procurements or from SFAs that rely only on in-house procurement?	3.3.3, 3.6.6

Study Objective	Research Questions	Report Location
	What recordkeeping practices do SFAs employ to track discounts, rebates, and credits for commercial foods when awarding a cost-reimbursable contract, and for USDA Foods when awarding either a cost-reimbursable or fixed-price contract, when contracting with FSMCs?	3.6.4
	How do they track allowable program costs?	3.6.4
	To what extent do FSMCs support SFA Farm to School efforts?	3.4.2
	To what extent do SFAs procure food together under cooperative purchasing agreements?	3.3.2
	What are the different types of cooperative/group purchasing arrangements?	3.3.2
	How do they differ in structure, services, fees, and availability?	3.3.2
	How is the competitive procurement process conducted?	3.2.1
<b>OBJECTIVE 3: Identify and describe the forms</b>	What reasons do SFAs provide for using these arrangements?	3.3.2
of cooperative purchasing arrangements (e.g.,	To what extent do SFAs seek out these types of agreements?	3.3.2
State- or SFA-run cooperative agreements,	What are the perceived benefits and challenges of these purchasing agreements?	3.3.2
inter-entity agreements, group purchasing organizations, group buying organizations.	To the degree possible, determine whether the expected benefits are measurable (or financial) or observed in practice.	3.3.2
third-party vendors) SFAs use to purchase food products and services.	What products and services are most commonly sourced through cooperative purchasing arrangements relative to other procurement practices?	3.3.2
	To what degree does the use of cooperative purchasing agreements vary by State and how do State laws differ on them?	3.3.2
	To what degree do SFAs use interstate cooperatives?	3.3.2
	To what extent is statewide purchasing utilized?	3.3.2
	To what extent are cooperative purchases used to target local products?	3.4.1
	What individuals and/or groups of individuals are responsible for procurement (i.e., ultimately evaluate price quotes and competitive proposals to make final contract award decisions)? (a) To what extent does this vary across SFA size or State?	3.1.2
OBJECTIVE 4: Assess the strengths and	(b) At what stages in the procurement process are these individuals or groups of individuals involved?	3.1.2
weaknesses of SFAs with respect to procurement-related expertise to develop	(c) What oversight mechanisms exist to monitor this individual or group of individuals in their evaluation and/or contract award decisions?	3.1.2
solicitation and contract documents, evaluate bids/responses, and negotiate terms and	(d) What resources and training opportunities do State Agencies provide to SFAs regarding procurement (i.e., forecasting, policy changes, buying local)?	4.2
conditions, and the availability of State Agency-provided technical assistance and	What challenges do SFAs encounter in understanding and applying federal, State, and local procurement standards and guidance?	4.1
training resources.	What aspects of the procurement process do SFAs find particularly complex or burdensome and what aspects are easily accomplished? Why?	4.1
	To what extent do SFAs perceive the procurement process inhibits the SFA's ability to buy local goods (specifically food) or try a different procurement mechanism, like a cooperative purchasing agreement?	4.1

Study Objective	Research Questions	Report Location
	What resources and training opportunities do SFAs use to build in-house capacity and expertise?	4.2
	Have SFAs identified best practices, templates, and other strategies to manage their procurement process?	
	Specifically, do SFAs have or desire best practices on the following topics:	
	(a) Availability of State Agency contract language or other prototypes for FSMCs,	
	processors, or broadline distributors	
	(b) Buy American Provision in solicitation and contracts	
	(c) Contract duration limits	4.1
	(d) Methods of public announcements/bid solicitations for IFBs and RFPs	
	(e) Product specifications such as food specifications, adherence to meal pattern	
	requirements (7 CFR 210.10), quality specifications (e.g., USDA Grade)	
	(f) Local bonding requirements	
	(g) Procurement timeframes	
	(h) Buying local products	
	If yes (to above questions), describe the best practices.	4.1
	If SFAs are seeking best practices and other guidance, what additional topics, if any, would be helpful?	4.1,4.2

## Appendix B. Study Approach and Methodology

This study has four main research objectives:

**Objective 1**: Identify and describe the various means through which SFAs develop and publish solicitations, evaluate and award contracts, and monitor procurement contracts for all school food purchases (i.e., goods and services paid from the nonprofit food service account, including, but not limited to, USDA Foods and commercial foods procurement, processing, and distribution)

**Objective 2**: Identify and describe the rationale, procedures, and recordkeeping practices used by SFAs with respect to their contracts with FSMCs

**Objective 3**: Identify and describe the forms of group purchasing efforts (e.g., cooperatives, agents, and third-party entities) SFAs use to purchase food products and services

**Objective 4**: Assess the availability of State Agency-provided technical assistance and training resources and assess the strengths and weaknesses of SFAs with respect to procurement-related expertise to develop solicitation and contract documents, evaluate bids/responses, negotiate terms and conditions, and conduct contract oversight.

Each of these objectives includes several key research questions, which are shown in Table 1, which were addressed using data from (1) CN-OPS-II surveys, (2) a web-based procurement practices survey (web survey) of SFAs, and (3) in-depth interviews with SFAs. Because both the CN-OPS-II and the web survey for this study were based on statistically valid samples of all SFAs nationally, the data collected from these surveys were used to make inferences on SFAs nationally. The in-depth interviews obtained more in-depth, qualitative information on a subset of SFAs that completed the web survey. The mixed-methods approach of using quantitative and qualitative data collections and analyses resulted in a comprehensive examination of SFA procurement practices for CN meal programs to inform FNS policy and program operations.

Posoarch Study Objectives	Research Questions		Corresponding Data Collection Tools, by Question	
Research Study Objectives		CN-OPS-II Modules	Web Survey	In-Depth Interviews
	What competitive solicitation methods do SFAs employ (e.g., invitation for bid versus request for proposal) to procure goods and services for school meals?	x	х	
	What factors influence which method or methods are used?		Х	х
	What kinds of guidance and/or templates do SFAs rely on in developing their solicitations?		х	х
	How is guidance provided and what are the requirements, if any, associated with their use, such as local or State procurement rules and regulations?		х	x
OBJECTIVE 1: Identify and describe	What specifications and preferences are integrated into the contracts for school foods (e.g., seeking small, minority, or women-owned businesses; geographic preferences)?		х	
the various means through which SFAs develop and publish solicitations, evaluate and award contracts, and monitor procurement contracts for all school food purchases (i.e., goods and services paid from the nonprofit food service account, including, but not limited to, USDA Foods and commercial foods procurement, processing, and distribution).	How are these preferences determined, and in what situations are they most commonly applied?			х
	To what degree is the procurement process consolidated or separated to achieve more economy across the programs in which SFAs participate (e.g., NSLP, SBP, after school)?		х	х
	How does the SFA conduct a price/cost analysis before publishing a solicitation?			x
	What types of contracts do SFAs award (e.g., fixed-price, fixed-price with price adjustment tied to a standard index, cost-reimbursable with or without a fixed fee for management and administrative services, a combination of cost-reimbursable and fixed-price)?		х	х
	What factors influence which contract type is awarded?		Х	x
	What are the perceived benefits and challenges of the different contract types?		х	х
	Are forward contracts utilized?		Х	Х
	If so, in what capacity?			Х
	Are contract types limited by State-level regulations?		Х	
	To what extent are SFAs using other contracting vehicles, both formal and informal, for purchasing goods and services: (a) cooperative purchasing arrangements (SFAs only); (b) informal purchases, or group purchasing	x	x	

Research Study Objectives	Research Questions	Corresponding Data Collectic Tools, by Question		Collection tion
Research Study Objectives		CN-OPS-II Modules	Web Survey	In-Depth Interviews
-	organizations (non SFA-only); (c) micro-purchases; (d) other methods; and (e) for the procurement of local foods specifically?			
	To what extent is the procurement of local foods different in terms of contract vehicle?		х	
	What types of suppliers or food sources do SFAs contract with when purchasing food (e.g., direct purchase from farmers, food hubs, school gardens, distributors, or FSMCs)?	x	x	
	To what extent is the process different for the procurement of end-product delivery of USDA bulk-purchased items (and any differences in distributor versus direct delivery)?		х	
	What internal decision-making processes do SFAs use to determine their procurement strategy?		х	х
	To what degree do they develop internal recordkeeping systems (e.g., to track average daily participation or the sale of non-program foods that support forecasting and planning) to inform their procurement activities?		х	х
	To what extent do "buying local" or supporting Farm to School efforts matter?			х
	What practices do SFAs follow to monitor contractor performance after			
	award, such as compliance with the Buy American provision and documentation of exceptions (e.g., to purchase nondomestic foods when domestic foods are prohibitively costly or there is an insufficient quantity)?		х	x
	How do SFAs track discounts, rebates, and credits for commercially purchased foods and in cost-reimbursable contracts?		х	Х
	What is the process for rectifying accounting errors?		Х	Х
	To what extent do SAs, if at all, monitor SFA procurement procedures for			
	goods and services for school meals (e.g., processors of USDA Foods, use of FSMCs, micro-purchases, and local foods)?	X	х	
	How does this differ by State?	х		
OPIECTIVE 2: Identify and describe	What reasons do SFAs provide for contracting with FSMCs?		Х	Х
the rationale, procedures, and	To what degree are the FSMCs involved in the process of transferring to an FSMC?		х	x
recording practices used by	What are the perceived benefits and challenges of contracting with an FSMC?			х
SFAs with respect to their contracts with FSMCs.	To the degree possible, determine whether the expected benefits are measurable or observed in practice.			x

Posoarch Study Objectives	Research Questions		Corresponding Data Collec Tools, by Question	
Kesearch Study Objectives		CN-OPS-II	Web	In-Depth
		Modules	Survey	Interviews
	To what extent do FSMCs contract with groups of SFAs?		Х	
	To what extent do FSMCs manage one aspect, rather than all aspects, of total procurement for school meals (e.g., contracting for meal preparation but not procurement services, or program administration but not USDA Foods ordering)?		x	
	To what extent do SFAs use FSMCs in addition to other contracting or procurement methods?		х	
	What procedures do SFAs use in establishing and monitoring contracts with FSMCs, including, but not limited to, compliance with the Buy American provision?			x
	How, if at all, do these differ from the procedures used for in-house food procurement or from SFAs that rely only on in-house procurement?			Х
	What recordkeeping practices do SFAs employ to track discounts, rebates, and credits for commercial foods when awarding a cost-reimbursable contract, and USDA Foods when awarding either a cost-reimbursable or fixed-price contract, when contracting with FSMCs?			х
	How do they track allowable program costs?			x
	To what extent do FSMCs support SFA Farm to School efforts?		Х	
OBJECTIVE 3: Identify and describe	To what extent do SFAs procure food together from group purchasing entities (cooperatives, agents, or third-party services)?	х	х	х
	What are the different types of group purchasing entities (cooperatives, agents, or third-party services)?		х	X
the forms of cooperative purchasing	How do they differ in structure, services, fees, and availability?			Х
arrangements (e.g., state- of SFA-	How is the competitive procurement process conducted?			Х
ontitu agreements, group purchasing	What reasons do SFAs provide for using these arrangements?			Х
organizations, group buying	To what extent do SFAs seek out these types of agreements?			Х
organizations, bird-party vendors)	What are the perceived benefits and challenges of doing so?			X
SFAs use to purchase food products	To the degree possible, determine whether the expected benefits are			x
and services.	measurable (or financial) or observed in practice.			
	What goods and services are most commonly sourced through group		v	
	other procurement practices?		~	

Research Questions		Corresponding Data Colle Tools, by Question	
	CN-OPS-II Modules	Web Survey	In-Depth Interviews
To what degree does the use of group purchasing entities (cooperatives, agents, or third-party services) vary by State and how do State laws differ on them?	x		
To what degree do SFAs use interstate group purchasing entities (cooperatives, agents, or third-party services)?		x	
To what extent is statewide purchasing utilized?		Х	
To what extent are cooperative purchases used to target local products?		Х	
What individuals and/or groups of individuals are responsible for procurement (i.e., ultimately evaluate price quotes, bids, and competitive proposals to make final contract award decisions)? (a) To what extent does this vary across SFA size or State?	х	x	х
(b) At what stages in the procurement process are these individuals or groups of individuals involved?			х
(c) What oversight mechanisms exist to monitor this individual or group of individuals in their evaluation and/or contract award decisions?		х	x
(d) What resources and training opportunities do SAs provide to SFAs regarding procurement (i.e., forecasting, policy changes, buying local)?		х	
What challenges do SFAs encounter in understanding and applying Federal, State, and local procurement standards and guidance?			x
What aspects of the procurement process do SFAs find particularly complex or burdensome and what aspects are easily accomplished? Why?			x
To what extent do those aspects inhibit the SFA's ability to buy local goods or try a different procurement method, such as a group purchasing entity (cooperatives, agents, or third-party services)?			х
What resources and training opportunities do SFAs use to build in-house capacity and expertise?			X
<ul> <li>Have SFAs identified best practices, templates, and other strategies to manage their procurement process?</li> <li>Specifically, do SFAs have or desire best practices on the following topics:</li> <li>(a) Availability of State Agency contract language or other prototypes for FSMCs, processors, or broadline distributors</li> <li>(b) Buy American provision in food solicitation and contracts to ensure the</li> </ul>		x	
	Research Questions         To what degree does the use of group purchasing entities (cooperatives, agents, or third-party services) vary by State and how do State laws differ on them?         To what degree do SFAs use interstate group purchasing entities (cooperatives, agents, or third-party services)?         To what extent is statewide purchasing utilized?         To what extent is cooperative purchases used to target local products?         What individuals and/or groups of individuals are responsible for procurement (i.e., ultimately evaluate price quotes, bids, and competitive proposals to make final contract award decisions)? (a) To what extent does this vary across SFA size or State?         (b) At what stages in the procurement process are these individuals or groups of individuals involved?         (c) What oversight mechanisms exist to monitor this individual or group of individuals in their evaluation and/or contract award decisions?         (d) What resources and training opportunities do SAs provide to SFAs regarding procurement (i.e., forecasting, policy changes, buying local)?         What challenges do SFAs encounter in understanding and applying Federal, State, and local procurement process do SFAs find particularly complex or burdensome and what aspects are easily accomplished? Why?         To what extent do those aspects inhibit the SFA's ability to buy local goods or try a different procurement method, such as a group purchasing entity (cooperatives, agents, or third-party services)?         What resources and training opportunities do SFAs use to build in-house capacity and expertise?         Have SFAs identified best practices, templates, and other str	Research Questions         Correspontion           To what degree does the use of group purchasing entities (cooperatives, agents, or third-party services) vary by State and how do State laws differ on them?         X           To what degree do SFAs use interstate group purchasing entities (cooperatives, agents, or third-party services)?         X           To what extent is statewide purchasing utilized?         To what extent is statewide purchases used to target local products?           What individuals and/or groups of individuals are responsible for procurement (i.e., ultimately evaluate price quotes, bids, and competitive proposals to make final contract award decisions)? (a) To what extent does this vary across SFA size or State?         X           (b) At what stages in the procurement process are these individuals or groups of individuals involved?         X           (c) What oversight mechanisms exist to monitor this individual or group of individuals in their evaluation and/or contract award decisions?         X           (d) What resources and training opportunities do SAs provide to SFAs regarding procurement (i.e., forecasting, policy changes, buying local)?         What challenges do SFAs encounter in understanding and applying Federal, State, and local procurement process do SFAs find particularly complex or burdensome and what aspects are easily accomplished? Why?           To what extent do those aspects inhibit the SFA's ability to buy local goods or try a different procurement method, such as a group purchasing entity (cooperatives, agents, or third-party services)?           What taspects of the procurement process?         What aspects idmuniting opportun	Research Questions         Corresponding Data Tools, by Quest On-OPS-II         Web Wodules           To what degree does the use of group purchasing entities (cooperatives, agents, or third-party services) vary by State and how do State laws differ on them?         X           To what degree do SFAs use interstate group purchasing entities (cooperatives, agents, or third-party services)?         X           To what extent is statewide purchasing utilized?         X           To what extent is statewide purchases used to target local products?         X           What individuals and/or groups of individuals are responsible for procurement (i.e., utimately evaluate price quotes, bids, and competitive proposals to make final contract award decisions)? (a) To what extent does this vary across SFA size or State?         X           (b) At what stages in the procurement process are these individuals or groups of individuals involved?         X           (c) What oversight mechanisms exist to monitor this individual or group of individuals in their evaluation and/or contract award decisions?         X           (d) What resources and training opportunities do SAs provide to SFAs regarding procurement (i.e., forecasting, policy changes, buying local)?         X           What aspects of the procurement process do SFAs find particularly complex or burdensome and what aspects are easily accomplished? Why?         X           To what extent do those aspects inhibit the SFA's ability to buy local goods or try a different procurement method, such as a group purchasing entity (cooperatives, agents, or third-party services)?         X

Research Study Objectives	Personal Quantions	Corresponding Data Collection Tools, by Question			
		CN-OPS-II Web I Modules Survey Ir	In-Depth Interviews		
-	<ul> <li>(c) Contract duration limits</li> <li>(d) Methods of public announcements/bid solicitations for IFBs and RFPs</li> <li>(e) Product Specifications such as food specifications; adherence to meal pattern requirements (7 CFR 210.10); quality specifications (e.g., USDA Grade)</li> <li>(f) Local bonding requirements</li> <li>(g) Procurement timeframes</li> <li>(h) Buying local products</li> </ul>				
	If yes (to above questions), describe the best practices.			х	
	If SFAs are seeking best practices and other guidance, what additional topics, if any, would be helpful?			x	

## Sampling Strategy

Sampling strategies required for the two data collection components included in the SFA Procurement study: (1) the web survey which was completed by a subsample of the CN-OPS-II respondents, and (2) the in-depth interviews that involved a subset of SFAs that completed the web survey. The survey responses to select procurement questions in the CN-OPS-II survey were used to identify the procurement models used by SFAs.

## WEB SURVEY SAMPLE DESIGN AND WEIGHTS

To ensure adequate representation of SFAs across multiple dimensions, the sampling frame for the web survey was composed of all responding SFAs to CN-OPS-II that also completed questions within the a procurement module and then placed into one of the procurement models (Appendix C. SFA Procurement Model Memo).<sup>61</sup> SFAs were selected from the sampling frame using a stratified sampling design where explicit strata are defined by the procurement models. SFAs were also stratified (i.e., sorted) the SFAs by other characteristics such as SFA size and urbanicity. Enough SFAs were selected to achieve 560 total completed web surveys. Specifically, each of the major procurement model strata collected 40 completed survey responses and each of the minor procurement model strata collected 40 completed survey responses. To ensure that the target number of completed survey in random order until the target number of completes is achieved. Assuming an 80 percent response rate, 125 SFAs were sampled and released at a time from each of the major procurement model strata and 50 SFAs from each of the minor procurement model strata and 50 SFAs from each of the minor procurement model strata and 50 SFAs from each of the minor procurement model strata and 50 SFAs from

Web survey weights were created at the SFA level to account for the stratified sampling design and sample release. The weights were additionally calibrated to the population control totals so they could be used to produce nationally representative estimates. Final weights were checked for outliers and trimmed as needed to ensure that no single SFA has too much influence on weight-based estimates.

## WEB SURVEY PRECISION AND MINIMUM DETECTABLE DIFFERENCES

Table 2 presents expected precision and minimum detectable differences (MDDs) for the web survey sample. At this stage of the project, the model-level precision estimates were calculated with the assumption that there would be four major and four minor models. The sample sizes were selected to balance multiple objectives, including minimizing the burden that some SFAs faced in completing the CN-OPS-II survey, the web survey, and in-depth interview; conducting the survey within project resources; and providing a sufficient level of statistical precision to detect meaningful differences between model types, and for the SFA population as a whole. The final expected sample of 560 completed web surveys yielded an overall level of statistical precision of plus or minus 4.3 percentage points for a 95 percent confidence interval under conservative design assumptions.<sup>62</sup> For any major

<sup>&</sup>lt;sup>61</sup> For the CN-OPS-II sampling design, some SFAs were selected with certainty. For the web survey and in-depth interview sampling designs, however, SFAs were not selected with a probability proportional to size methodology or with certainty.

<sup>&</sup>lt;sup>62</sup> The precision calculations assumed a binary outcome of 50 percent and a design effect due to weighting of 1.1 to account for unequal weighting due to the stratified design and weighting adjustments for nonresponse and other factors. These are conservative assumptions since outcomes with less or greater than 50 percent response in the affirmative would likely yield smaller confidence intervals and the design effect due to weighting may be smaller than 1.1, also yielding smaller confidence intervals.

procurement model, the completed sample was expected to yield an overall level of statistical precision of plus or minus 10.3 percentage points for a 95 percent confidence interval. When comparing two of the major procurement models, an expected MDD of 15.0 percentage points was calculated, suggesting that any estimated differences of 15.0 percent or larger will be statistically significant at the .05 level.<sup>63</sup> For the minor procurement models, the statistical precision was expected to be lower, since smaller samples were selected from the minor procurement model groups. However, the calculated precision levels were sufficient enough to obtain meaningful estimates and explore differences across and within major and minor procurement models.

Sample	Precision (95% Confidence Interval Half Width)	Minimum Detectable Difference (Comparing Two Procurement Models)
Overall	4.3	NA
Major Procurement Model	10.3	15.0
Minor Procurement Model	16.3	24.0

#### Table 2. Statistical Precision and Minimum Detectable Differences for the Web Survey Sample

**Notes:** Calculations assume a binary outcome with 50 percent responding in the affirmative (most conservative assumption) and a design effect due to weighting of 1.1 (also a conservative assumption) to account for unequal weighting due to the stratified design and additional weighting adjustments. For a binary outcome with less than or greater than 50 percent responding in the affirmative, 95 percent confidence intervals and MDDs will likely be smaller.

Table 3 presents the planned and final precision levels for the web survey sample by major and minor models and Table 4 presents the final precision levels by SFA characteristics (i.e., SFA size, urbanicity, F/RP rates, and FNS Region). Table 3 reflects the evolution of the number and size of the major and minor procurement models. Precision levels by SFA characteristics were not calculated during the planning periods.

<sup>&</sup>lt;sup>63</sup> This MDD is a product of the target sample size of 560 SFAs for the web surveys which is set according to the budget and burden constraints of the study. One way to improve the power (and reduce the MDD) is to collapse across procurement models (i.e., have fewer models) so that each model has more SFAs.

	Planne	d Precision	Final Precision		
Sample	Sample Size	Precision (95 Percent Confidence Interval Half Width)	Sample Size	Precision (95 Percent Confidence Interval Half Width)	
Overall	560	4.3	563	4.3	
		Procurement Models			
Major Models					
Model 1	100	10.3	184	7.6	
Model 2	100	10.3	151	8.4	
Minor Models					
Model 3	40	16.3	82	11.4	
Model 4	40	16.3	66	12.7	
Model 5	40	16.3	80	11.5	

## Table 3. Planned and Final Statistical Precision for the Web Survey Sample, by Procurement Models

**Notes:** Calculations assume a binary outcome, with 50 percent responding in the affirmative (most conservative assumption) and a design effect due to weighting of 1.1 (also a conservative assumption) to account for unequal weighting from the stratified design and additional weighting adjustments. For a binary outcome with less than or greater than 50 percent responding in the affirmative, 95 percent confidence intervals will likely be smaller.

## Table 4. Final Statistical Precision for the Web Survey Sample, by SFA Characteristics

	Final Precision			
Sample	Sample Size	Precision (95 Percent Confidence Interval Half Width)		
	SFA Size (Students)			
Small (1–999 students)	159	8.2		
Medium (1,000–4,999 students)	273	6.2		
Large (5,000–24,999 students)	108	9.9		
Very large (25,000 or more students)	23	21.4		
	Urbanicity			
Urban/city	73	12.0		
Suburban	157	8.2		
Town	123	9.3		
Rural	201	7.3		
No Match to CCD	9	34.3		
Percentag	e of Students Approved for F/RP Me	eals		
F/RP ≤ 30 percent	212	7.1		
31 percent–60 percent	255	6.4		
F/RP > 60 percent	96	10.5		
	FNS Region			
Mid-Atlantic	63	13.0		
Midwest	139	8.7		
Mountain Plains	72	12.1		
Northeast	61	13.2		
Southeast	68	12.5		
Southwest	80	11.5		
Western	80	11.5		

**Notes:** Calculations assume a binary outcome, with 50 percent responding in the affirmative (most conservative assumption) and a design effect due to weighting of 1.1 (also a conservative assumption) to account for unequal weighting from the stratified design and additional weighting adjustments. For a binary outcome with less than or greater than 50 percent responding in the affirmative, 95 percent confidence intervals will likely be smaller.

Table 5 presents the calculated MDDs across the final major and minor procurement models. For comparison, the planned MDDs for both major and models are also included. As can be observed, larger samples and fewer models improved the statistical precision over what was initially planned. Since Model 1 and Model 2 are major models comprised of larger samples than originally planned, the comparison between models has a lower MDD at 11.7 percent than originally planned for the major models (15.0 percent). Statistical precision for minor models was similarly improved with MDDs for minor model comparisons ranged from 16.7 to 18.2 percent. MDDs for comparisons between major and minor models ranged from 14.2 to 15.8 percent.

	Model Comparisons and Calculated MDDs						
Planned Major	Planned Minor						
Procurement Models =	Procurement Models =						
15.0 percent	24.0 percent						
Model 1 and Model 2 =							
11.7 percent							
Model 1 and Model 3 =	Model 2 and Model 3 =						
14.2 percent	14.6 percent						
Model 1 and Model 4 =	Model 2 and Model 4 =	Model 3 and Model 4 =					
15.3 percent	15.8 percent	17.6 percent					
Model 1 and Model 5 =	Model 2 and Model 5 =	Model 3 and Model 5 =	Model 4 and Model 5 =				
14.3 percent	14.7 percent	16.7 percent	18.2 percent				

#### **Table 5. Planned and Final MDDs Across Final Procurement Models**

**Notes**: Calculations assume a binary outcome, with 50 percent responding in the affirmative (most conservative assumption) and a design effect due to weighting of 1.1 (also a conservative assumption) to account for unequal weighting from the stratified design and additional weighting adjustments.

#### **IN-DEPTH INTERVIEW SAMPLE DESIGN**

In-depth interviews were conducted with a total of 100 SFAs that participated in the web survey. The indepth interviews were designed to provide greater depth of information about the models from a smaller sample of SFAs to supplement the web survey. The sampling frame for the in-depth interviews consisted of all SFAs that completed the web survey, which were stratified by each procurement model as was done for the web survey along with a set of factors that describe the characteristics of the SFAs of each model. Such characteristics were identified on a flow basis using preliminary analysis of the web survey data. For example, some SFAs may have used competitive contracting with no State monitoring, in which case one or more SFAs with those characteristics would have been selected for the in-depth interviews.

## **Data Analysis for Reporting Study Results**

As described in Table 1, data for addressing the study objectives and associated research questions came from either or both the quantitative web survey and the qualitative in-depth interviews. The following section discusses the frameworks used to analyze the web survey data and in-depth interview data and concludes with a review of how quantitative and qualitative findings were integrated.

## FRAMEWORK FOR ANALYZING WEB SURVEY QUANTITATIVE DATA

The quantitative analysis portion of the study used the survey data to develop a descriptive summary of the decision-making processes used by SFAs across the procurement models identified in an earlier phase of the study. The quantitative analysis produced a set of analysis tables (Appendix E. Final Analysis Tables) and charts describing the differences in procurement practices. The process used for analysis included the following: data processing; data analysis, which included weighting; and planned tabulations.

## Data Processing

Strategies applied to monitor and verify collected web survey data quality included (1) comprehensive validation checks on specific input fields; (2) performing multiple preliminary analyses on the survey data to verify that collected data was complete and plausible; (3) running detailed frequencies on all data items collected, verifying skip patterns in the survey instrument and cross-checking that closed-ended questions or ratings are within the expected response ranges; and (4) identifying all outliers, unusual patterns of missing data, and any inconsistencies. If survey data were identified as implausible (e.g., a value was considered to be too low or too high), inconsistent with other data provided, to have unusual patterns of missing data, or to be an outlier, the SFA was contacted by phone to verify the data.

## Data Cleaning and Weighting

Web survey data was weighted to account for the stratified random sampling design and sample release. The data was also calibrated to SFA population control totals in order to produce nationally representative estimates.<sup>64</sup> Under this approach, the responding cases were weighted by the inverse of the predicted probability of response, using a weighting class methodology that divides the propensity scores into classes and assigns the average score within the class to each case. This approach, outlined by Wun et al.,<sup>65</sup> eliminated large adjustments to the survey weights to increase the survey precision in the estimates.

The analysis included descriptive statistics for the survey responses, including comparisons (statistical tests of differences) between SFAs, by procurement model type, and other demographic variables of interest, such as SFA size by student enrollment, SFA urbanicity, percentage of students approved for F/RP meals, and FNS Region. Given the complex nature of the sample design and the estimates, the study team utilized a jackknife variance replication method<sup>66</sup> to simplify the computation of the statistical significance of the descriptive statistics.<sup>67</sup>

<sup>&</sup>lt;sup>64</sup> Survey weights used for the CN-OPS-II analytic sample were used as a starting point for the construction of the Procurement web survey weights since the CN-OPS-II weights were adjusted to account for the CN-OPS-II design and nonresponse.

<sup>&</sup>lt;sup>65</sup> Wun, L.-M., Ezzati-Rice, T. M., Baskin, R., Greenblatt, J., Zodet, M., Potter, F. . . . & Touzani, M. (2004). Using propensity scores to adjust weights to compensate for dwelling unit level nonresponse in the Medical Expenditure Panel Survey (Agency for Healthcare Research and Quality Working Paper No. 04004). Retrieved from https://meps.ahrq.gov/data\_files/publications/workingpapers/wp\_04004.pdf

<sup>&</sup>lt;sup>66</sup> Shao, J., & Wu, C. J. (1989). A general theory for jackknife variance estimation. *Annals of Statistics*, 17(3), 1176–1197.

<sup>&</sup>lt;sup>67</sup> Replicate variance estimation methods such as jackknifing or bootstrapping are often used when calculating exact variances is not feasible or practical given the complex nature of a sampling design. More information on replicate variance estimation can be found in sampling textbooks such as Wolter, K. (2007). *Introduction to variance estimation*. Springer Science & Business Media.



Descriptive findings from the web survey are presented in tabular format as weighted percentages, accompanied by weighted and unweighted counts in Appendix E. Final Analysis Tables. Initial analysis of the web survey data identified emerging trends and used statistical comparisons to identify trends between SFA procurement practices. Such trends were then further explored with results from the qualitative analysis. The presentation of data varied depending on the nature of the question(s) and whether collected data was collected as continuous variables or categorical variables. For instance, in representing a continuous variable, the percentage of SFAs above or below a meaningful threshold or within certain ranges may be most informative.

## FRAMEWORK FOR ANALYZING IN-DEPTH INTERVIEW DATA

The objective of the qualitative analysis was to enhance the information obtained through the web survey data and expand upon the web survey descriptive summaries. The qualitative analysis yielded narrative summaries and illustrative quotes that further described the similarities and differences in procurement practices between SFAs in the various procurement models. Analyzing the collected indepth interview data involved both data processing and data analysis.

#### **Data Processing**

In-depth interviews were recorded and transcribed, cleaned, and then coded with NVivo software. NVivo promotes a transparent and reliable analysis process with standardized tools and useful features such as advanced search functions, the ability to merge codes from different coders, and effective codebook development and management. Prior to coding, a codebook was developed grounded in the study's research questions. The initial codebook was developed through deductive coding; a set of *a priori* codes were developed and applied to the data based on the research questions. This deductive coding helped identify top-level themes from the interview data and managed the dataset. Additionally, an inductive approach was further applied to identify new areas of meaning emerging from the interview text. The qualitative coding team were trained on the developed codebook and frequently participated in inter-reliability exercises.

#### **Data Analysis**

After coding the transcripts, qualitative data was analyzed for themes, a process that focuses on discovering similarities, differences, and patterns within the data.<sup>68</sup> Distilling the data into themes identified answers to the research questions and provided further understanding of the different procurement strategies. During the analysis, narrative summaries and illustrative quotes were identified to elaborate on research questions by demonstrating, for example, how SFAs operationalized their decision-making strategies or dealt with technical hurdles, among other factors that influence their procurement practices.

<sup>&</sup>lt;sup>68</sup> Crabtree, B., & Miller, W. (1999). Using codes and code manuals: A template organizing style of interpretation. In B. F. Crabtree & W. L. Miller (Eds.), *Doing qualitative research* (2nd ed.) (pp. 163–177). Thousand Oaks, CA: Sage Publications.



This memorandum describes the sampling procedure recommended for the SFA Procurement Practices web survey. More specifically, the following sections describe analyses of the CN-OPS-II Year 2 data used for developing SFA procurement models that were used for SFA sampling for the web survey. The memorandum concludes with model recommendations.

The SFA Procurement Practices study involved three data collection components. First, responses to procurement-focused questions from CN-OPS-II Year 2 were analyzed. Second, a subsample of the CN-OPS-II Year 2 respondents that completed this study's web survey. The sample for the web survey will be selected based on responses to the CN-OPS-II Year 2 survey. Third, SFA Procurement Practices In-Depth Interviews were conducted with a subset of SFAs that complete the web survey.

## **CN-OPS-II Year 2 Data**

Data from the CN-OPS-II Year 2 SFA survey provided the foundation for developing the models of SFA procurement on which the web survey sampling was based. For the CN-OPS-II Year 2 SFA survey, a nationally representative sample of 2,185 SFAs was sampled from a population of 14,755 public SFAs, including public charters, in school year (SY) 2016–2017, with SFAs explicitly stratified by size and poverty level. Within each stratum, SFAs were implicitly stratified by FNS Region and urbanicity status. Data collection was conducted from October 19, 2017 to January 26, 2018 with 1,679 SFAs completing the survey.

To build the procurement models, the study team mapped the CN-OPS-II Year 2 SFA survey questions and CN-OPS-II Year 2 State Agency survey questions to the procurement dimensions that were developed based on the SFA Procurement Practices study research questions (Table 1). Table 2 in the following section reports the eight CN-OPS-II Year 2 SFA survey questions that were ultimately deemed key to this analysis (i.e., Q4.1, Q4.3, Q4.4, Q4.5, Q4.8, Q4.8a, Q4.9, and Q4.10). Each of these CN-OPS-II Year 2 SFA survey questions were answered in their entirety by 82.2 percent of the responding SFAs; an additional 12.6 percent answered seven of these eight key questions. With roughly 95 percent of the respondents answering all, or nearly all, of the key questions in the CN-OPS-II Year 2 SFA survey procurement module, the study team was able to reliably build the SFA procurement models for the SFA Procurement Practices study. CN-OPS-II Year 2 SFA survey questions 4.6 and 4.7 (asking about whether SFAs use of competitive sealed bids, proposals, and other methods) were redundant with question 4.9 (the extent of use based on percentage of purchases under these methods) and were therefore not considered key. CN-OPS-II Year 2 SFA survey question 4.11 (the extent of supplier use based on the percentage of purchases under these suppliers) was not considered key because it was redundant with question 4.10. None of the CN-OPS-II Year 2 State Agency survey questions were considered key because these items did not capture monitoring of procurement methods and procedures at the SFA level.

## **Procurement Model Development**

The study team stratified the sample of SFAs that completed the procurement module in the CN-OPS-II Year 2 survey into five strata (referred to as "models") using the methodology described below. Each model represented a set of similar procurement methods (e.g., use of FSMCs or Cooperative Purchasing



Agreements [CPAs]) and policies (e.g., extent of procurement of local foods) identified from the CN-OPS-II Year 2 responses. The study team then implicitly stratified the SFAs that completed the CN-OPS-II Year 2 SFA survey procurement module by characteristics such as SFA size and urbanicity within the explicit model.

CN-OPS-II Year 2 data provided information from SFAs related to five dimensions of SFA procurement as described in Table 1.

Dimension	Definition
Contracting	The Contracting dimension feauses on which contracting vehicles are used by SEAs for
Contracting	The contracting dimension focuses on which contracting vehicles are used by SFAS for
	procurement of goods and services, including informal procedures (micro- and small-
	purchases) and formal procedures to award fixed-price and cost-reimbursable
	contracts, and the extent to which these contracting vehicles are used.
Management	The Management dimension focuses on the management structure of the SFA. The
	Management dimension distinguishes between SFAs that manage all their own
	procurements, those that share management responsibility with an FSMC, and/or
	those that share management responsibility with a group purchasing entity such as a
	cooperative purchasing group comprising SFAs only or SFAs and a third-party entity.
Suppliers	The Suppliers dimension identifies the types of suppliers used by SFAs for purchased
	procurements, such as farmers, food hubs, school gardens, distributors, or FSMCs,
	and the extent to which various suppliers are used.
Decision	The Decision Maker dimension focuses on which individuals and/or groups of
Makers	individuals are responsible for procurement (i.e., the use of micro-purchasing,
	evaluating price quotes, sealed bids, and competitive proposals to make final contract
	award decisions). These individuals may include SFA directors, food administration
	staff in the school districts (such as procurement staff), or other school district
	administrators
State	The State Monitoring dimension relates to the extent to which (if at all) States
Monitoring	monitor SEA procurement procedures for goods and services for school meals (e.g.
womoning	nonitor Si A procurement procedures for goods and services for school medis (e.g.,
	commercial rood processor contracts, FSIVIC contracts, small purchases, and micro-
	purchases).

## **Table 1. Dimensions of SFA Procurement**

SFA procurement model development began with mapping the key CN-OPS-II Year 2 SFA survey procurement module questions to the dimensions of SFA procurement as shown in Table 2.

## Table 2. Mapping Key CN-OPS-II Year 2 Survey Questions to Dimensions of SFA Procurement

Dimension	CN-OPS-II Year 2 SFA Survey Question
Contracting	4.9
Management	4.5, 4.8, 4.8a
Suppliers	4.10
Decision Makers	4.3, 4.4
State Monitoring	4.1

Response categories for the SFA survey questions listed in Table 2 were created after reviewing response patterns. Some of the key questions (i.e., Q4.3, Q4.4, and Q4.10) allowed the respondent to select multiple response options. This introduced numerous response patterns that were not easily mapped to prespecified response categories. Furthermore, using purely statistical methods to categorize SFAs based on response patterns often hid important subject matter-related relationships between questions. Ultimately, question response categories were defined for each question using a combination of statistical analysis and subject matter expertise. Response categories within each dimension. If equal distributions were not possible, response categories were created to account for at least 15 percent of SFAs in order to provide sufficient differentiation of SFAs within each dimension to create well-specified models.

The procurement models were developed using a mixture of cross-tab and cluster analyses of the response category variables. The variables were cross-tabulated to see if major and minor models could be identified. If a combination of variables contained 15 percent or more of the SFAs, this combination was classified as a major procurement model. If a combination of variables contained between 5 percent and 15 percent of the SFAs, this combination was classified as a minor procurement model. Records containing all other combinations of response variables for the remaining SFAs were then subject to a cluster analysis to create the remaining models. Hierarchical clustering was performed using PROC CLUSTER in SAS v 9.4 to group the SFAs into the remaining models. The sections that follow discuss model development for each procurement dimension.

## Contracting

The Contracting dimension was defined by response patterns to Q4.9 in the CN-OPS-II Year 2 SFA survey. The number of SFAs that reported using each contracting vehicle and the mean percentage of purchases coming from each contracting vehicle are presented in Table 3. SFAs could report using more than one contracting vehicle; therefore, the sum of the number of SFAs across vehicles is greater than the number of responding SFAs. Respondents could also enter zero for percentage of purchases (i.e., they use a certain contracting vehicle but did not make any purchases with it). The minimum percentage of purchases, 25<sup>th</sup> percentile percentage of purchases, median percentage of purchases, 75<sup>th</sup> percentile percentage of purchases by vehicle among SFAs using the vehicle are also presented to show the distributions of responses within each contracting vehicle.

	Number	Percentage of Purchases by Vehicle Among SFAs Using Vehicle					g Vehicle
Contracting Vehicle	of SFAs Using Vehicle	Mean	Minimum	25th Percentile	Median	75th Percentile	Maximum
FSMC	273	85.49	0.00	90.00	100.00	100.00	100.00
Competitive sealed bids using an invitation for bids	680	39.63	0.00	4.50	20.00	80.00	100.00
Competitive proposals using a request for proposals	641	22.57	0.00	0.04	6.04	30.00	100.00
Small purchases	808	14.34	0.00	4.00	5.00	10.00	100.00
Micro-purchases	535	8.80	0.00	2.00	5.00	10.00	100.00
Non-competitive proposals	148	13.17	0.00	1.00	5.00	10.00	100.00
Local produce auctions	17	9.29	0.00	5.00	5.00	10.00	25.00
Cooperative purchasing group comprising only SFAs	659	62.23	0.00	35.00	75.00	90.00	100.00
Cooperative purchasing group with a third party that is not an SFA	264	45.70	0.00	2.00	50.00	90.00	100.00
Other, excluding competitive methods and FSMCs	25	33.28	0.00	2.00	5.00	75.00	100.00

## Table 3. Purchases by Contracting Vehicle

Because respondents could enter valid zeros for percentage of purchases, the analyses also were run after removing SFAs from a vehicle if they reported using the vehicle but with zero reported purchases. This was done to determine if the estimates in Table 3 were affected by the reported zero purchases. Table 4 shows the distribution of SFAs who reported only positive purchase percentages for the Contracting dimension. Relative to Table 3, there was a decrease in the number of SFAs for each vehicle, meaning that some respondents did enter zero purchases for some vehicles they reported using. Mean purchase percentages were increased as expected after removing zero percentages. The largest difference in mean percentages reported in Table 3 and Table 4 was 10.9 percentage points for the "cooperative purchasing group with a third party that is not an SFA." The rest of the differences ranged between 0.52 percent and 8.24 percentage points.

Constant in a	Number of	Percentage of Purchases by Vehicle Among SFAs Using Vehicle					'ehicle
Vehicle	SFAs Using Vehicle	Mean	Minimum	25th Percentile	Median	75th Percentile	Maximum
FSMC	255	91.52	0.10	90.00	100.00	100.00	100.00
Competitive sealed bids using an invitation for bids	563	47.87	0.10	10.00	40.00	90.00	100.00
Competitive proposals using a request for proposals	481	30.08	0.04	5.00	12.00	50.00	100.00
Small purchases	768	15.08	<0.01	5.00	5.64	13.50	100.00
Micro-purchases	504	9.33	0.02	2.50	5.00	10.00	100.00
Non-competitive proposals	118	16.52	0.40	3.00	5.00	10.00	100.00
Local produce auctions	16	9.87	1.00	5.00	7.50	12.50	25.00
Cooperative purchasing group comprising only SFAs	599	68.46	0.25	50.00	80.00	90.00	100.00
Cooperative purchasing group with a third party that is not an SFA	213	56.64	<0.01	10.00	70.00	90.00	100.00
Other, excluding competitive methods and FSMCs	22	37.81	1.00	5.00	14.81	80.00	100.00

## Table 4. Non-Zero Purchases by Contracting Vehicle

Table 5 focuses on competitive contracting methods. The two rows in Table 5 on competitive methods correspond with rows 2 and 3 from Table 4 and indicate any SFAs from the full sample that used competitive methods regardless of use of other methods mentioned in Table 5. For example, SFAs that report using competitive methods may or may not use an FSMC (and vice versa). Similarly, SFAs that report not using any of the competitive methods listed in Table 4 may or may not use an FSMC (and vice versa). Table 4 shows that SFAs procure, on average, 48 percent of their goods and services from competitive sealed bids using an invitation for bids (row 2) and 30 percent of their goods and services through competitive proposals using a request for proposals (row 3). Using these averages and breakpoints, the study team categorized SFAs into three groups for the Contracting dimension for model development:

 "High users" of competitive invitations for bids and/or competitive requests for proposals — SFAs that report obtaining more than 48 percent of goods and services from competitive invitations for bids and/or more than 30 percent from competitive requests for proposals

- "Low users" of competitive invitations for bids and/or competitive requests for proposals —SFAs that report obtaining some goods and services from competitive invitations for bids and/or competitive requests for proposals but no more than 48 percent and 30 percent from each, respectively
- "Non-users" users of competitive invitations for bids and/or competitive requests for proposals
   —SFAs that report not procuring goods and services using either contract vehicle

These groups are considered the final categories for the Contracting dimension. The results are presented in Table 5.

#### **Table 5. Contracting Dimension Categories**

	Category	Response Pattern	Number of SFAs	Percentage of SFAs
1.	High users of either competitive invitations for bids or competitive requests for proposals	SFA Q4.9b > 48% or SFA Q4.9c > 30%	406	24.18
2.	Low users of either competitive invitations for bids or competitive requests for proposals	0% < SFA Q4.9b ≤ 48% and SFA Q4.9c ≤ 30% or 0% < SFA Q4.9c ≤ 30% and SFA Q4.9b ≤ 48%	269	16.02
3.	Do not use either competitive invitations for bids or competitive requests for proposals	SFA Q4.9b = 0 and SFA Q4.9c = 0	1,004	59.80

Notes:

Q4.9b = Percentage of SFA's total purchases of goods and services for school meals that were procured during SY 2016-17 using *Competitive sealed bids using Invitation for Bids.* 

Q4.9c = Percentage of SFA's total purchases of goods and services for school meals that were procured during SY 2016-17 using *Competitive proposals using a Request for Proposal.* 

## Management

Important aspects of procurement management are the use of FSMCs and involvement in cooperative purchasing groups that comprise only SFAs. Questions 4.5, 4.8, and 4.8a in the CN-OPS-II Year 2 SFA survey focus on these aspects of procurement management. Table 6 provides cross-tabulations of responses (yes, no, nonresponse) to these three questions. Four categorizations of SFAs are apparent from this table:

- 1. SFAs that do not use FSMCs or cooperative purchasing groups as a part of their management structures (Groups 1, 5, 6, 15, 17, 21, and 23)
- 2. SFAs that use FSMCs and do not use cooperative purchasing groups as a part of their management structure (Groups 7, 8, 12, and 14)
- 3. SFAs that use cooperative purchasing groups and do not use FSMCs as a part of their management structure (Groups 2, 3, 4, 16, 18, 19, 20, and 22)



4. SFAs that use both FSMCs and cooperative purchasing groups in their management structures (Groups 9, 10, 11, and 13)

The distribution of SFAs across these four categories is presented in Table 7.

## Table 6. Cross-Tab of Procurement Management Structures

Group	FSMCs (Q4.5)	SFA-Only Cooperative Purchasing Groups (Q4.8)	Third-Party Cooperative Purchasing Groups (Q4.8a)	Number of SFAs	Percentage of SFAs
1	Nonresponse	Nonresponse	Nonresponse	20	1.19
2	Nonresponse	Nonresponse	No	1	0.06
3	Nonresponse	Yes	Nonresponse	3	0.18
4	Nonresponse	Yes	Yes	3	0.18
5	Nonresponse	Yes	No	14	0.83
6	Nonresponse	No	Nonresponse	2	0.12
7	Nonresponse	No	No	5	0.3
8	Yes	Nonresponse	Nonresponse	14	0.83
9	Yes	Nonresponse	No	3	0.18
10	Yes	Yes	Nonresponse	2	0.12
11	Yes	Yes	Yes	37	2.2
12	Yes	Yes	No	47	2.8
13	Yes	No	Nonresponse	1	0.06
14	Yes	No	Yes	43	2.56
15	Yes	No	No	257	15.31
16	No	Nonresponse	Nonresponse	4	0.24
17	No	Nonresponse	Yes	1	0.06
18	No	Nonresponse	No	2	0.12
19	No	Yes	Nonresponse	8	0.48
20	No	Yes	Yes	220	13.1
21	No	Yes	No	550	32.76
22	No	No	Nonresponse	4	0.24
23	No	No	Yes	95	5.66
24	No	No	No	343	20.43

Notes:

Q4.5 = Does your SFA use an FSMC to manage the purchase of any goods and services used for school meals?

Q4.8 = Does your SFA belong to a cooperative purchasing group comprised only of SFAs?

Q4.8a = Does your SFA belong to a cooperative purchasing group with a third party that is not an SFA (e.g. group purchasing/buying organization, local or State government, or other for-profit or non-profit organizations not participating in Federal Child Nutrition programs)?

## Table 7. Major SFA Categories Identified from Table 6

Category	Number of SFAs	Percentage of SFAs
Do not use FSMCs or cooperative purchasing groups	381	22.69
Use FSMCs and do not use cooperative purchasing groups	275	16.38
Use cooperative purchasing groups and do not use FSMCs	894	53.25
Use both FSMCs and cooperative purchasing groups	129	7.68

Table 8 shows the final definition and distribution of response categories in the Management dimension. The second and fourth categories in Table 7 were combined to create a category representing SFAs that use FSMCs. This was done because of the small number of SFAs (7.68%) in the fourth category in Table 7 (SFAs that use both FSMCs and cooperative purchasing groups in their management structure). The small number of SFAs in the fourth category would present issues related to sampling from very small groups and subsequent data analysis for the small groups.

## **Table 8. Management Dimension Categories**

Category		Response Pattern	Number of SFAs	Percentage of SFAs
1.	Do not use FSMCs or cooperative purchasing groups	SFA Q4.5 = No and SFA Q4.8 = No and SFA Q4.8a = No	381	22.69
2.	Use FSMCs	SFA Q4.5 = Yes and SFA Q4.8 = Yes or No and SFA Q4.8a = Yes or No	404	24.06
3.	Use cooperative purchasing groups and do not use FSMCs	SFA Q4.5 = No and SFA Q4.8 = Yes or SFA Q4.8a = Yes	894	53.25

#### Notes:

Q4.5 = Does your SFA use an FSMC to manage the purchase of any goods and services used for school meals?

Q4.8 = Does your SFA belong to a cooperative purchasing group comprised only of SFAs?

Q4.8a = Does your SFA belong to a cooperative purchasing group with a third party that is not an SFA (e.g. group purchasing/buying organization, local or State government, or other for-profit or non-profit organizations not participating in Federal Child Nutrition programs)?

## **Suppliers**

The Suppliers dimension was defined by responses to question 4.10 in the CN-OPS-II Year 2 SFA survey. Table 9 shows the number of SFAs that selected each supplier type (source) in Q4.10 and the proportion of the total number of responding SFAs. SFAs could select more than one source; therefore, the sum of the counts is greater than the total number of respondents.

Supplier	Number of	Percentage of
	SFAs	SFAs
Manufacturers	321	19.51
Food processors	891	54.16
Distributors	1,377	83.71
Wholesale clubs	174	10.58
Farmers and/or community-supported agriculture entities (CSAs)	273	16.60
that supply at least some purchased foods		
Groups of farmers that sell products centrally, such as producer co-	92	5.59
ops or food hubs		
School gardens	87	5.29
Suppliers contracted by the FSMC, cooperative purchasing group,	472	28.69
and/or group buying organization		
Other food source supplier 1 <sup>a</sup>	181	11.00
Other food source supplier 2 <sup>a</sup>	30	1.82

<sup>a</sup> "Other food source supplier" text responses that matched the predefined categories in the survey were recoded as those responses as part of CN-OPS-II Year 2 data analyses.

Direct purchases from farmers and the use of school gardens are important food procurement sources. Table 10 provides response patterns to Q4.10 for the direct purchases from farmers, direct purchases from groups of farmers, and school garden supplier sources. Twenty-two percent of all responding SFAs selected at least one of these three groups. The remaining 78 percent of respondents selected one or more other suppliers. As a result, these three groups—direct purchases from farmers, direct purchases from groups of farmers, and school gardens—were combined into one category for the Suppliers dimension. The remaining SFAs were split into two groups: SFAs who only use distributors or only distributors and processors, and all other SFAs, as this provided the most balanced split. The final categories for the Suppliers dimension are listed in Table 11, along with the SFA counts and distribution.

## Table 10. SFAs that Reported Farmers, Groups of Farmers, or School Gardens as Suppliers

Farmers and/or CSAs that Supply At Least Some Purchased Foods	Groups of Farmers that Sell Products Centrally	School Gardens	Number of SFAs	Percentage of SFAs
Yes	Yes	No	21	1.25
Yes	Yes	Yes	12	0.71
Yes	No	No	207	12.33
Yes	No	Yes	33	1.97
No	Yes	No	52	3.10
No	Yes	Yes	7	0.42
No	No	No	1,312	78.15
No	No	Yes	35	2.08

## **Table 11. Suppliers Dimension Categories**

Category		Response Pattern	Number of SFAs	Percentage of SFAs	
1.	Farmers and/or school gardens	SFA Q4.10e = 1 or			
	are used along with other	SFA Q4.10f = 1 or	367	21.86	
	sources.	SFA Q4.10g = 1			
2.	Only distributors or distributors	(SFA Q4.10e ≠ 1 and SFA Q4.10f			
	and processors are used.	≠ 1 and SFA Q4.10g ≠ 1) and			
		(only SFA Q4.10b = 1) or	713	42.47	
		(only SFA Q4.10b = 1 and SFA			
		Q4.10c = 1)			
3.	Other sources are used.	All other response	F00	25.67	
		combinations to SFA Q4.10	299	35.07	

#### Notes:

Q4.10a = SFA procures foods for school meals through *manufacturers*.

Q4.10b = SFA procures foods for school meals through food processors (including but not limited to processed end products using USDA Foods - for example, Tyson Foods Inc., Dean Foods Co.).

Q4.10c = SFA procures foods for school meals through *distributors (for example, Sysco or US Foods)*.

Q4.10d = SFA procures foods for school meals through wholesale clubs (for example, Costco Wholesale, Sam's Club).

Q4.10e = SFA procures foods for school meals through farmers and/or CSAs that supply at least some purchased foods.

Q4.10f = SFA procures foods for school meals through groups of farmers that sell products centrally, such as producer co-ops or food hubs.

Q4.10g = SFA procures foods for school meals through *school gardens*.

Q4.10h = SFA procures foods for school meals through *suppliers contracted by the FSMC, cooperative purchasing group, and/or group buying organization.* 

Q4.10i and Q4.10j = SFA procures foods for school meals through other food source suppliers.

## **Decision Makers**

The Decision Makers dimension was defined by responses to Q4.3 (who evaluates price quotes and competitive proposals during the procurement process at your SFA) and Q4.4 (who makes final procurement contract award decisions for school meals at your SFA) in the CN-OPS-II Year 2 SFA survey. For these questions, respondents were instructed to select decision makers from an "all that apply" list with 13 response options that included an opportunity to specify someone as a decision maker other than those who were listed. Respondents selected 232 different combinations of decision makers based on the combined responses to Q4.3 and Q4.4. The large number of different combinations of responses did not allow for direct classification of SFAs based on responses to these questions.

Initially, the study team determined combinations important for further analysis. Decision makers were classified into three broad groups:

- SFA—Q4.3 = 1, 2 or Q4.4 = 1, 2
- District—Q4.3 = 3, 4, 5 or Q4.4 = 3, 4, 5
- Other—Q4.3 and Q4.4 ≠ 1, 2, 3, 4, 5

However, these groupings were not consistent with the data. Table 12 shows the distribution of SFAs by these classifications. Fifty-eight percent of respondents selected decision makers at both the SFA and district levels, meaning that SFAs could not be classified in by these groups.

SFA	District	Other	Number of SFAs	Percentage of SFAs
No	No	Yes	176	10.48
No	Yes	No	231	13.76
Yes	No	No	304	18.11
Yes	Yes	No	968	57.65

## Table 12. Distribution of Decision Maker Groups

Notes:

SFA includes SFA foodservice director or manager and SFA head cook or kitchen/cafeteria manger.

District includes district business office or purchasing department official, district superintendent, and district school board. Other includes all other individuals or groups.

The SFA and district groups were further classified by their place in the decision-making process (initial process, final process, full process, and not involved) based on responses to Q4.3 and Q4.4:

- Initial process only: Decision maker was selected in Q4.3 but not Q4.4
- Final process only: Decision maker was selected in Q4.4 but not Q4.3
- Full process: Decision maker was selected in both Q4.3 and Q4.4
- Not involved: Decision maker was not selected in both Q4.3 and Q4.4

Table 13 provides cross-tabulations of the SFA and district decision-maker groups by place in the decision-making process. Three distinct groups are apparent from Table 13:

- SFAs where the SFA reports that the SFA and district decision makers are fully involved in the decision-making process
- SFAs where the SFA reports that either the SFA decision makers or the district decision makers, but not both, are fully involved in the decision-making process
- SFAs where the SFA reports that neither the SFA nor the district decision makers are fully involved in the decision-making process

	District Decision Makers						
SFA Decision Makers	Initial Process Only (1)	Final Process Only (2)	Full Process (3)	Not Fully Involved (4)			
Initial Process Only (1)	15	49	272	54			
Final Process Only (2)	6	4	15	13			
Full Process (3)	65	71	425	283			
Not Fully Involved (4)	13	21	196	177			

# Table 13. Classification of SFA and District Decision-Maker Groups by Involvement in the Decision-Making Process (Number of SFAs)

Table 14 shows the final categories for the Decision Makers dimension, along with the counts of SFAs and distribution. Response pattern values in Table 14 (e.g., SFA = 3) relate to Table 13 categorizations (e.g., full process equals 3).

Category		Response Pattern	Number of SFAs	Percentage of SFAs
1.	SFA officials and district officials are fully involved in decision making.	SFA = 3 and District = 3	425	25.831
2.	SFA officials or district officials, but not both, are fully involved in decision making.	SFA = 3 and District ≠ 3 or SFA ≠ 3 and District = 3	892	53.72
3.	Neither SFA officials nor district officials are fully involved in decision making.	SFA ≠ 3 and District ≠ 3	352	20.96

## Table 14. Decision Makers Dimension Categories as Reported by SFAs

## **State Monitoring**

The State Monitoring dimension is defined by responses to Q4.1 in the CN-OPS-II Year 2 SFA survey. This question that asks if the State monitored any of the SFA's procurement policies and procedures in SY 2016–2017. The study team deemed this question to be more relevant than questions in the State Agency survey. The State Agency survey questions that ask about monitoring policies or procedures asked if the State ever reviewed these policies. States have the choice to review different contract vehicles in different years, meaning that the State may not be monitoring the same contract vehicles that an SFA uses in a given year. Furthermore, the State Agency survey questions on monitoring ask about monitoring in general rather than monitoring a specific contract vehicle in a particular year (i.e., SY 2016–2017). While the SFA survey asks about different contract vehicles used by the SFA, it does not link the vehicles to State monitoring. In short, no solid link between contract vehicle and State monitoring in SY 2016–2017 is present in the data. Table 15 provides the distribution of SFAs by their response (yes/no) to Q4.1n the CN-OPS-II Year 2 SFA survey.

## **Table 15. State Monitoring Dimension Categories**

Category		Response Pattern	Number of SFAs	Percentage of SFAs	
1.	SFA reports State monitoring of procurement in SY 2016–2017.	SFA Q4.1 = Yes	1,070	63.73	
2.	SFA does not report State monitoring of procurement in SY 2016–2017.	SFA Q4.1 ≠ Yes	609	36.27	

Notes:

Q4.1 = Did or will your State agency review your SFA's policies or procedures for procurement of goods and services for school meals during SY 2016-17?

## **Procurement Models**

## SFA PROCUREMENT DIMENSION CLASSIFICATION

Procurement model development began with classifying each SFA based on the dimension categories described above for each of the five dimensions. For example, an SFA was classified as either high-user,

low-user or non-user of competitive invitations for bids and/or competitive requests for proposals for purchases, as described in Table 5. Classifications for the other four dimensions were done in a similar way for each SFA, resulting in each SFA being identified by its five procurement dimension categories.

Table 16 provides a cross-tabulation of SFAs by procurement dimension category classifications, sorted by the number of SFAs in a given five-dimension classification. The number in each procurement dimension column in Table 16 represents the category number listed in the relevant Table above. For example, Contracting category 3 is "Do not use either competitive invitations for bids or competitive requests for proposals" as shown in Table 5. Of the possible 162 combinations of dimension categories, 139 included at least one SFA. No single combination of the five-dimension procurement classifications contained more than 4 percent of the responding SFAs. Given this result, a hierarchical cluster analysis was used to identify the major and minor procurement models.

	Procurement	Number	Deveortogo of			
Contracting	Management	Supplier	Decision Maker	State Monitoring	of SFAs	SFAs
3	3	2	2	1	60	3.57
3	3	2	2	2	59	3.51
3	2	3	2	1	55	3.28
3	2	2	2	1	53	3.16
3	3	3	2	1	53	3.16
3	3	1	2	1	42	2.50
3	2	3	3	1	38	2.26
1	3	2	2	1	36	2.14
1	1	2	2	1	35	2.08
3	3	2	1	1	35	2.08
3	3	2	3	1	33	1.97
2	3	2 2 1		1	32	1.91
3	2	2	3	1	32	1.91
3	3	3	1	1	30	1.79
3	3	1	1	1	28	1.67
3	2	2	2	2	27	1.61
2	3	3	2	1	25	1.49
3	1	2	2	1	25	1.49
3	2	2	3	2	24	1.43
3	3	1	2	2	24	1.43
3	2	3	3	2	23	1.37
1	1	3	2	1	22	1.31
1	3	1	2	1	22	1.31
3	3	2	1	2	22	1.31
3	2	3	2	2	21	1.25
3	3	3	3	1	20	1.19
2	3	2	2	2	19	1.13

#### **Table 16. Procurement Dimension Category Crosstabulation**

Procurement Dimension Categories						
Contracting	Managamont	Supplier	Decision	State		SEAs
contracting	wanagement	Supplier	Maker	Monitoring	UI JI AS	51 A5
2	3	3 1 1		19	1.13	
3	1	3	2	1	19	1.13
1	1	2	2	2	18	1.07
2	3	1	1	1	18	1.07
3	1	3	3	2	18	1.07
1	1	1	2	1	16	0.95
1	3	3	1	1	16	0.95
2	3	2	1	1	16	0.95
3	1	2	2	2	16	0.95
3	2	1	2	1	16	0.95
3	2	3	1	1	16	0.95
3	3	3	1	2	16	0.95
1	3	1	1	1	15	0.89
3	3	3	2	2	15	0.89
1	1	1	2	2	14	0.83
1	1	2	1	1	14	0.83
1	1	3	1	1	14	0.83
1	3	3	2	1	14	0.83
2	3	3	2	2	14	0.83
3	3	1	1	2	14	0.83
3	3	2	3	2	14	0.83
2	3	1	1	2	13	0.77
2	3	1	2	1	12	0.71
3	1	3	3	1	12	0.71
3	3	1	3	1	12	0.71
1	1	3	2	2	11	0.66
1	3	1	2	2	11	0.66
1	3	2	1	1	11	0.66
2	3	1	2	2	11	0.66
3	3	3	3	2	11	0.66
3	1	1	2	1	10	0.60
3	1	3	2	2	10	0.60
1	3	2	3	2	9	0.54
1	3	3	1	2	9	0.54
3	1	2	3	2	9	0.54
3	1	3	1	1	9	0.54
1	3	3	2	2	8	0.48
2	2	2	2	1	8	0.48
3	2	2	1	2	8	0.48
1	1	1	1	1	7	0.42

Procurement Dimension Categories						Demonstrate of
Contractions		Constitution	Decision	State	Number	Percentage of
Contracting	ivianagement	Supplier	Maker	Monitoring	OI SFAS	SFAS
1	1	3	1	2	7	0.42
1	1	3	3	1	7	0.42
1	2	2	2	1	7	0.42
1	2	3	2	1	7	0.42
1	3	1	3	1	7	0.42
1	3	2	2	2	7	0.42
2	1	2	2	1	7	0.42
2	3	2	1	2	7	0.42
2	3	3	1	2	7	0.42
3	1	2	1	1	7	0.42
3	1	2	3	1	7	0.42
3	2	1	3	1	7	0.42
3	2	2	1	1	7	0.42
3	2	3	1	2	7	0.42
3	3	1	3	2	7	0.42
1	1	1	1	2	6	0.36
1	1	2	3	1	6	0.36
2	2	2	2	2	6	0.36
2	3	3	3	2	6	0.36
3	2	1	2	2	6	0.36
1	1	3	3	2	5	0.30
1	2	2	2	2	5	0.30
1	3	1	1	2	5	0.30
1	3	2	1	2	5	0.30
2	2	3	2	1	5	0.30
3	1	1	2	2	5	0.30
3	2	1	1	1	5	0.30
1	3	3	3	1	4	0.24
1	3	3	3	2	4	0.24
2	1	2	1	1	4	0.24
2	1	3	1	2	4	0.24
2	3	2	3	2	4	0.24
2	3	3	3	1	4	0.24
3	1	3	1	2	4	0.24
3	2	1	3	2	4	0.24
1	1	2	1	2	3	0.18
1	3	1	3	2	3	0.18
2	1	1	2	1	3	0.18
3	1	1	1	2	3	0.18
1	1	1	3	1	2	0.12

	Procurement	Nimeleon	Deveoutors of			
Contracting	Management	Supplier	pplier Decision State Maker Monitoring		of SFAs	SFAs
1	1 1 1 3 2		2	0.12		
1	1	2	3	2	2	0.12
1	2	1	2	2	2	0.12
1	3	2	3	1	2	0.12
2	1	2	1	2	2	0.12
2	1	2	2	2	2	0.12
2	2	1	2	1	2	0.12
2	2	2	3	2	2	0.12
2	2	3	1	1	2	0.12
2	3	1	3	2	2	0.12
2	3	2	3	1	2	0.12
3	1	1	1	1	2	0.12
3	1	1	3	1	2	0.12
1	2	1	1	1	1	0.06
1	2	1	2	1	1	0.06
1	2	2	1	1	1	0.06
1	2	3	1	1	1	0.06
1	2	3	1	2	1	0.06
1	2	3	3	1	1	0.06
2	1	1	2	2	1	0.06
2	1	1	3	1	1	0.06
2	1	1	3	2	1	0.06
2	1	2	3	1	1	0.06
2	1	3	1	1	1	0.06
2	1	3	2	1	1	0.06
2	1	3	2	2	1	0.06
2	1	3	3	1	1	0.06
2	2	1	1	1	1	0.06
2	2	2	1	1	1	0.06
2	2	3	2	2	1	0.06
3	1	1	3	2	1	0.06
3	1	2	1	2	1	0.06

## **CLUSTER ANALYSIS**

The hierarchical cluster analysis produced eight clusters of varying size, as shown in Table 17 and detailed in Table 18. The largest cluster (Cluster 1) contained approximately one-third (32.2 percent) of the responding SFAs. The SFAs in Cluster 1 grouped across the five procurement dimensions as follows. Most SFAs in Cluster 1 reported not using competitive invitations for bids or competitive requests for proposals for purchases; reported using FSMCs to manage some or all of their purchasing; reported

either using only distributors, or distributors and processors, or other sources as suppliers; reported either SFA officials or district officials, but not both, are fully involved in decision making or neither SFA officials nor district officials are fully involved in decision making; and reported that the State agency monitors procurement.

The second largest cluster was Cluster 2, with slightly more than one-fourth (26.2 percent) of the responding SFAs. The distinguishing features of Cluster 2 relative to Cluster 1 are that the majority of SFAs in Cluster 2 reported that they manage procurement without an FSMC, but with a cooperative purchasing group, and that their State agency does not monitor procurement. Otherwise Cluster 2 is similar to Cluster 1. Most SFAs in Cluster 2 reported that they do not use competitive invitations for bids or competitive requests for proposals for purchases; have only distributors, or distributors and processors, as suppliers; and have SFA officials or district officials, but not both, fully involved in decision making.

Clusters 3, 5, and 6 were smaller than Clusters 1 and 2, but similar in size to each other, representing 236 (14.1 percent), 168 (10.0 percent), and 174 (10.4 percent) SFAs, respectively. These three clusters have some similarities in terms of the procurement classifications of the SFAs that comprised them. In particular, the majority of SFAs in all three clusters reported that they manage procurement without an FSMC. Specifically, most SFAs in Clusters 3 and 5 do not work with an FSMC, but rather with a cooperative purchasing group. Most SFAs in Cluster 6 do not work with either an FSMC or a cooperative purchasing group. Also, most SFAs in all three clusters report that their State agency monitors procurement. Otherwise, the three clusters are generally unique from each other, as would be expected with this analytic approach. The majority of SFAs in Cluster 3 and Cluster 6 reported being high users of competitive invitations for bids and/or competitive requests for proposals for purchases, whereas the majority of SFAs in Cluster 5 reported that they were low users of competitive invitations for bids or competitive requests for proposals for purchases. The majority of SFAs in Cluster 3 reported using farmers and/or school gardens as suppliers along with other sources; none of the SFAs in Clusters 5 or 6 reported using farmers and/or school gardens as a supply source. Rather, the majority of SFAs in Cluster 5 reported using "other sources," while the majority in Cluster 6 reported using only distributors or distributors and processors. As reported by the SFAs, both SFA officials and district officials are fully involved in decision making in the majority of SFAs in Cluster 5. This is not the case in Cluster 3 and Cluster 6, where the majority of SFAs report either SFA officials or district officials, but not both, are fully involved in decision making.

The three smallest clusters were Cluster 4 (66 SFAs, 3.9 percent); Cluster 7 (54 SFAs, 3.2 percent); and Cluster 8 (2 SFAs, 0.1 percent). The sizes of these clusters suggested that some collapsing of clusters was needed. As with Clusters 3, 5, and 6, similarities and differences existed between the SFAs represented by Clusters 4, 7, and 8. Nearly all of the SFAs in Cluster 4 reported not using competitive invitations for bids or competitive requests for proposals for purchases; nearly all SFAs in Cluster 7 reported being high users of invitations for bids and/or competitive requests for proposals for purchases. Nearly all SFAs in Cluster 7 reported managing procurement without an FSMC or involvement with a cooperative purchasing group. Likewise, both SFAs in Cluster 8 reported managing procurement on their own. The majority of SFAs in Cluster 4 worked with an FSMC. None of the SFAs in Cluster 4 reported using farmers or school gardens as suppliers. Rather, the SFAs in Cluster 4 mostly reported relying on other supply sources. All SFAs in Cluster 7 and 8 reported relying on farmers and/or school gardens along with other sources. All SFAs in Cluster 4 reported that both SFA officials and district officials are fully involved in

decision making. In contrast, the majority of SFAs in Cluster 7 reported that either SFA officials or district officials, but not both, are fully involved in decision making, while both SFAs in Cluster 8 indicated that neither SFA officials nor district officials are fully involved in decision making. Finally, the majority of SFAs in Cluster 4 and Cluster 7 reported State Agency monitoring of procurement. In Cluster 8, both SFAs reported that their State Agency does not monitor procurement.

## Table 17. SFA Clusters

Cluster Number	Number of SFAs	Percentage of SFAs
1	540	32.16
2	439	26.15
3	236	14.06
4	66	3.93
5	168	10.01
6	174	10.36
7	54	3.22
8	2	0.12

## Table 18. Dimension Distributions for the Clusters (Number of SFAs)

Contracting				Clus	ster			
Contracting	1	2	3	4	5	6	7	8
1. High users of competitive contracting vehicles for purchases	_	_	121	_	82	154	49	_
<ol><li>Low users of competitive contracting vehicles for purchases</li></ol>	2	33	115	7	86	20	5	1
3. Do not use competitive contracting vehicles for purchases	538	406	—	59	—	—	_	1
Management								
1. SFA only	138	_	_	25	_	164	52	2
2. SFA and FSMC	271	42	33	41	5	10	2	_
<ol> <li>SFA and cooperative purchasing group, excluding FSMCs</li> </ol>	131	397	203	—	163	—	_	—
Supplier								
1. Farmers and/or school gardens are used	45	142	124	_	_	_	54	2
2. Only distributors or distributors and processors are used	215	222	111	24	47	94	_	_
3. Other sources are used	280	75	1	42	121	80	_	_
Decision Maker								
<ol> <li>SFA officials and district officials are fully involved in decision making</li> </ol>	5	150	66	66	78	47	13	—
2. SFA officials or district officials are fully involved in decision making, but not both	283	266	154	_	59	104	36	_
3. Neither SFA officials nor district officials are fully involved in decision making	252	23	16	_	31	23	5	2
State Monitoring								
1. SFA reports State monitoring of procurement in SY 2016–2017	384	212	167	42	114	122	29	_
2. SFA does not report State agency monitoring of procurement in SY 2016–2017	156	227	69	24	54	52	25	2

## **CLASSIFICATION AND REGRESSION TREE (CART) ANALYSIS**

Exhibit 19 provides further elaboration on the determination and composition of the eight clusters. A classification and regression tree (CART) algorithm was run to determine how SFAs defined by their five procurement dimension classifications were clustered. The CART analysis maps the clustering process by identifying the most statistically significant splits within a dimension. The CART algorithm examines all possible differences within each dimension and splits the data based on the most statistically significant splits into the most representative clusters. The algorithm repeats iteratively until no statistically significant splits can be found.

Exhibit 19 shows the results of the CART analysis. In Exhibit 19, circles (referred to as "nodes") represent clusters with node values corresponding to the clusters identified in Table 17.<sup>69</sup> Above each node is/are the condition(s) that determine the split for that node. These conditions are based on the five procurement dimensions and the categories within each dimension. SFA responses that meet the condition ("yes") follow the left-hand path coming from the node, while SFA responses that do not meet the conditions ("no") follow the right-hand path. Using the top of the Table as an example, Exhibit 19 is read as follows. The condition of the top node in the chart (node value = 1) is based on the Contracting dimension of procurement. The "yes" condition is that the SFA is classified based on its responses to the survey as not using either competitive invitations for bids or competitive requests for proposals (= 3). The "no" condition is the other two Contracting dimension categorizations which, again based on SFA survey responses, are being either high or low users of competitive invitations for bids and/or competitive requests for proposals. As the CART analysis has determined this Contracting dimension condition to be the most significant split, this is the first step in the analysis; 100 percent (the right-side value within the node) of all SFAs are being assessed for this condition. An SFA meeting this single condition has a 32 percent probability (the left-side value within the node) of ultimately belonging to Cluster 1 (node value = 1) once all other conditions are assessed.

Using the left side of the Table as an example and progressing from the top node, an SFA that meets the first condition (Contracting = 3) has a 32 percent probability of being in Cluster 1. The next condition is being classified within the Management dimension as category 1 or 2. An SFA that meets these first two conditions (Contracting = 3 and Management = 1 or 2) has a 54 percent probability of being in Cluster 1. The third condition is being classified within the Decision Maker dimension as category 2 or 3. An SFA that meets all three of these conditions (Contracting = 3, Management = 1 or 2, and Decision Maker = 2 or 3) has a 91 percent probability of being in Cluster 1, with 26 percent of all SFAs meeting these three conditions.

The decision paths for Clusters 1 through 7 can be read from the Table in a similar fashion. Interestingly, an SFA could follow two distinct paths in route to being grouped into Cluster 1. The majority of SFAs that were grouped into Cluster 1 followed the decision path along the left side of the diagram as described above. A smaller number of SFAs were also grouped in Cluster 1 via a different decision path. For these SFAs, their Contracting dimension classification was also that they report not using either competitive invitations for bids or competitive requests for proposals (Contracting = 3); however, they report using a cooperative purchasing group excluding FSMCs (Management  $\neq$  1 or 2) and report that neither SFA officials nor district officials are fully involved with decision making (Decision Maker = 3). An SFA meeting all three of these conditions has an 80 percent probability of being in Cluster 1, with 6 percent of all SFAs meeting these three conditions.

Three points are worth noting from the CART analysis. First, the State Monitoring dimension was not determined by the clustering algorithm as a dimension that defines clusters. Note in Exhibit 19 that State Monitoring was not a condition associated with any of the nodes. Second, two of the smallest clusters (Cluster 4 and Cluster 7) can be collapsed into other clusters. More specifically, Cluster 7 (representing 3.22 percent of the SFAs), can be collapsed into Cluster 6. Similarly, Cluster 4 (representing 3.93 percent of the SFAs) can be collapsed into Cluster 1. Third, as noted, Cluster 8 with only two SFAs

<sup>&</sup>lt;sup>69</sup> Cluster 8 had too few SFAs to be included in the CART analysis with the SFAs having unique combinations of dimension classifications.
could not be included in the CART analysis because the SFAs have unique combinations of dimension classifications. Upon review, the two SFAs in Cluster 8 can be distributed between Clusters 1 and 6 based on their Contracting, Management, Supplier, and Decision Maker classifications. Collapsing Cluster 4, Cluster 7 and Cluster 8 into other clusters in this way would eliminate clusters with fewer than 5 percent of the SFAs. The remaining five clusters would equate to five models, two major and three minor models.

#### **Exhibit 19. CART Analysis**



### **SFA Sampling Recommendations**

The study team recommended the two major and three minor models as developed through the methodology described above and summarized in Table 20. Each SFA was assigned to one model and only one model.

Model Type	Model Number	Cluster Number(s) <sup>a</sup>	Number of SFAs	Percentage of SFAs
Major	1	1, 4 and part of 8 Combined	607	36.15
	2	2	439	26.15
	3	3	236	14.06
Minor	4	5	168	10.00
Minor	5	6, 7 and part of 8 Combined	229	13.64
Total			1679	100.00

#### Table 20. Summary of Major and Minor Models

<sup>a</sup> Cluster numbers refer to cluster numbering used in Tables 17, 18, and Exhibit 19. Upon review, the two SFAs in Cluster 8 were distributed between Clusters 1 and 6 based on their Contracting, Management, Supplier, and Decision Maker classifications.

Table 21 provides details for the five models with SFA counts by procurement dimension category for each model shown. For example, 121 SFAs out of the 1,679 responding SFAs were grouped into Model 3 (Cluster 3) and classified for the Contracting dimension as high users of competitive invitations for bids and/or competitive requests for proposals for purchases. Models 2, 3, and 4 are Clusters 2, 3, and 5, respectively, as described above. In summary, most SFAs in Model 2 (Cluster 2) reported not using competitive invitations for bids or competitive requests for proposals for purchases; reported using a cooperative purchasing group, excluding an FSMC, to manage some or all of their purchasing; reported having only distributors, or distributors and processors, as suppliers; reported having SFA officials or district officials, but not both, fully involved in decision making; and reported about evenly that their State Agency monitors or does not monitor procurement. All SFAs in Model 3 (Cluster 3) reported using competitive invitations for bids and/or competitive requests for proposals for purchases, with SFAs about evenly split between being classified as high or low users of these vehicles based on their survey responses. Model 3 SFAs reported managing procurement without an FSMC, but with a cooperative purchasing group; are about evenly split between having reported using farmers and/or school gardens as suppliers along with other sources and having reported using only distributors or distributors and processors; reported having either SFA officials or district officials, but not both, fully involved in decision making; and reported having their State Agency monitor procurement. For Model 4 (Cluster 5), all SFAs reported using competitive invitations for bids and/or competitive requests for proposals for purchases, with SFAs about evenly split between being classified as high or low users of these vehicles based on their survey responses. Model 4 SFAs reported managing procurement without an FSMC, but with a cooperative purchasing group; reported using suppliers other than farmers, school gardens, distributors and processors; reported having both SFA officials and district officials fully involved in decision making; and reported having procurement monitored by their State Agencies.

Collapsing Clusters 4 and part of 8 into Cluster 1 for Model 1 does not change the general characteristics of Cluster 1. That is, for SFAs in Model 1 (Clusters 1, 4, and part of 8), most reported not using competitive invitations for bids or competitive requests for proposals for purchases; reported managing procurement with an FSMC; reported relying on other supply sources; reported about evenly having either SFA officials or district officials, but not both, fully involved in decision making or having neither SFA officials nor district officials fully involved in decision making; and reported that their State Agency monitors procurement.



Similarly, the general characteristics of Model 5 (Clusters 6, 7, and part of 8) SFAs are not different from the general characteristics of Cluster 6 SFAs. Specifically, the majority of SFAs reported being high users of competitive invitations for bids and/or competitive requests for proposals for purchases. Nearly all SFAs reported managing procurement without an FSMC or involvement with a cooperative purchasing group. The SFAs are nearly evenly divided in terms of suppliers between having reported using farmers or school gardens along with other sources, having reported using only distributors or distributors and processors, and having reported relying on other supply sources. The majority of SFAs reported that either SFA officials or district officials, but not both, are fully involved in decision making. Finally, the majority of SFAs reported that their State Agency monitors procurement.

Table 22 provides SFA characteristics for the five models by poverty, FNS Region, urbanicity, SFA size based on number of schools, and SFA size based on number of students. There were more SFAs in the major models (Models 1 and 2) than the minor models (Models 3, 4, and 5), as was expected. Comparing the major models, Model 1 (Clusters 1, 4, and part of 8) had a higher proportion of high-poverty SFAs, urban/city SFAs, and small SFAs (by number of schools and students) than Model 2 (Cluster 2). Compared to Model 1, Model 2 had a higher proportion of medium-poverty SFAs, suburban and town SFAs, and medium and large SFAs (by number of schools and students) than Model 1. Among the minor models, the SFA characteristics were relatively similar.

Table 21. SFA Counts fo	or the Major and M	inor Models by Procure	ement Dimension Category

	Maj	or Mode	ls	Minc	or Models
Contracting	Mode	el (Cluste	r <sup>a)</sup>	Mode	(Cluster <sup>a)</sup>
	1 (1, 4, 8)	2 (2)	3 (3)	4 (5)	5 (6, 7, 8)
1. High users of competitive invitations for bids			, 		
and/or competitive requests for proposals for	0	0	121	82	203
purchases					
2. Low users of competitive invitations for bids					
and/or competitive requests for proposals for	10	33	115	86	25
purchases					
<ol><li>Do not use competitive invitations for bids or</li></ol>	507	106	0	0	1
competitive requests for proposals for purchases	557	400	0	0	T
Management					
1. SFA only	164	0	0	0	217
2. SFA and FSMC	312	42	33	5	12
3. SFA and cooperative purchasing group, excluding	131	397	203	163	0
FSMC	151	557	205	105	Ũ
Suppliers					
<ol> <li>Farmers and/or school gardens are used along</li> </ol>	46	142	124	0	55
with other sources		112	12 1		
2. Only distributors or distributors and processors	239	222	111	47	94
are used	233				51
3. Other sources are used	322	75	1	121	80
Decision Makers					
1. SFA officials and district officials are fully	71	150	66	78	60
involved in decision making	, -	100		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
2. SFA officials or district officials are fully involved	283	266	154	59	140
in decision making, but not both					
3. Neither SFA officials nor district officials are fully	253	23	16	31	29
involved in decision making					
State Monitoring					
1. SFA reports State monitoring of procurement in	426	212	167	114	151
SY 2016–2017			10,	<u> </u>	101
2. SFA does not report State monitoring of	181	227	69	54	78
procurement in SY 2016–2017	101	~~ ,	05	5.	,0

<sup>a</sup> Cluster numbers refer to cluster numbering used in Tables 17, 18, and Exhibit 19.

### Table 22. Model Characteristics

	Model (Cluster <sup>a)</sup>				Model (Cluster <sup>a)</sup>					
Dovortv	1 (2	1, 4, 8)		2 (2)	3	3 (3)		4 (5)	5 (	6, 7, 8)
Poverty	Ν	% of	N	% of	N	% of	N	% of	N	% of
		рор		рор		рор		рор		рор
Low (0–29 percent F/RP)	236	35.81	171	25.95	104	15.78	63	9.56	85	12.90
Medium (30–59 percent F/RP)	248	34.93	193	27.18	98	13.80	78	10.99	93	13.10
High (60 percent or higher F/RP)	123	39.68	75	24.19	34	10.97	27	8.71	51	16.45
FNS Region										
Northeast	59	32.78	47	26.11	36	20.00	20	11.11	18	10.00
Mid-Atlantic	101	51.01	44	22.22	23	11.62	13	6.57	17	8.59
Southeast	41	21.03	51	26.15	38	19.49	25	12.82	40	20.51
Midwest	152	36.54	123	29.57	66	15.87	36	8.65	39	9.38
Southwest	94	36.29	58	22.39	26	10.04	28	10.81	53	20.46
Mountain Plains	74	37.00	46	23.00	16	8.00	24	12.00	40	20.00
Western	86	37.23	70	30.30	31	13.42	22	9.52	22	9.52
Urbanicity										
Urban/city	78	38.81	39	19.40	26	12.94	19	9.45	39	19.40
Suburban	142	32.57	113	25.92	71	16.28	57	13.07	53	12.16
Town	117	33.82	103	29.77	46	13.29	34	9.83	46	13.29
Rural	249	37.67	182	27.53	91	13.77	56	8.47	83	12.56
Missing	21	60.00	2	5.71	2	5.71	2	5.71	8	22.86
SFA Size by School Number										
Small (≤2)	202	47.53	87	20.47	36	8.47	36	8.47	64	15.06
Medium (>2 & ≤8)	316	35.35	261	29.19	136	15.21	82	9.17	99	11.07
Large (>8 & ≤26)	74	27.72	75	28.09	50	18.73	31	11.61	37	13.86
Very large (>26)	15	16.13	16	17.20	14	15.05	19	20.43	29	31.18
SFA Size by Student Number										
Small (1–999)	242	46.90	111	21.51	47	9.11	39	7.56	77	14.92
Medium (1,000–4,999)	276	34.20	242	29.99	123	15.24	77	9.54	89	11.03
Large (5,000–24,999)	83	27.67	78	26.00	56	18.67	40	13.33	43	14.33
Very large (25,000+)	6	10.71	8	14.29	10	17.86	12	21.43	20	35.71

<sup>a</sup> Cluster numbers refer to cluster numbering used in Tables 17, 18, and Exhibit 19.



### Web Survey

The study team conducted web survey data collection for the study from February 14, 2019 through June 10, 2019; the survey referenced SY 2017–18. An invitation to complete the survey was sent to 700 sampled SFA directors. As explained below, 562 SFAs submitted valid responses.

#### SFA SAMPLE

The sample frame for the web survey consisted of the 1,679 SFAs that had valid responses to the CN-OPS-II Year 2 SFA Director Survey. From these valid responses, a sample of 700 SFAs was selected to participate in the SFA Procurement Practices web survey. Precision calculations confirmed that a responding sample of 560 SFAs allocated among the procurement models would meet the statistical requirements of the study.<sup>70</sup> Therefore, assuming an 80 percent response rate, a sample of 700 SFAs was appropriate.

#### SFA RECRUITMENT

Recruitment began with emails to FNS Regional Office liaisons, sent on December 18, 2018, notifying them of the web survey and asking them to contact the State Agency directors in their region about the study and web survey. A second email was sent to the FNS Regional Office liaisons on January 31, 2019 to remind them about the study and the upcoming survey.<sup>71</sup> Emails were sent to State Agency directors on February 4, 2019, also notifying them of the study and web survey and asking them to contact the SFA directors sampled in their State for the web survey to inform the SFA directors about the study and encourage them to complete the web survey. Study team communications with the sampled SFA directors began with a pre-survey notification email sent on February 11, 2019, informing the SFA directors that they had been selected to complete the upcoming web survey and encouraging them to participate in the study. The web survey opened on February 14, 2019, with emails sent to all sampled SFA directors; each email included an individualized link to the web survey and encouragement to complete the web survey as soon as possible. Throughout the data collection period, reminder emails (up to 11) and telephone calls (up to 4) were sent to SFA directors who had not yet submitted their web survey at the time of the communication. An additional email was sent to State directors on March 28, 2019, asking them to encourage their SFAs to complete the survey. Throughout the data collection period, SFA director contact information was updated to reflect any changes in SFA directors, phone numbers, mailing addresses, and web addresses.

#### SURVEY RESPONSE

In total, 562 SFAs completed their surveys. A survey response was considered complete if the submit button at the end of the survey was clicked. The resulting response rate for the survey was 80.3

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<sup>&</sup>lt;sup>70</sup> Details of the precision calculations can be found in Appendix B. Study Approach and Methodology.

<sup>&</sup>lt;sup>71</sup> The study team received a Stop Work Order for the project on December 22, 2018, due to a partial shutdown of the Federal Government. The Stop Work Order was rescinded on January 28, 2019.



percent.<sup>72</sup> Among the 138 nonresponding SFAs, 61 logged into the survey but did not submit it, while 77 never opened (logged into) the survey.<sup>73</sup>

Table 1 presents the unweighted characteristics of the sampled SFAs, SFAs that completed the web survey, and survey response rates. Response rates were balanced across SFA characteristics, with rates higher than 70 percent across all characteristics of interest.<sup>74</sup> Higher response rates were obtained from minor model SFAs, larger SFAs, SFAs located in towns, and SFAs in the Mountain Plains region.

		Unweighted Sample Charact	teristics
	SFAs Sampled (n)	Completed Surveys (n)	Survey Response Rate (%)
All SFAs	700	562	80.3
Model 1	253	184	72.7
Model 2	183	151	82.5
Model 3	98	82	83.7
Model 4	70	66	94.3
Model 5	96	80	83.3
SFA Size			
Small	212	159	75.0
Medium	335	272	81.2
Large	125	108	86.4
Very Large	28	23	82.1
Urbanicity			
City	94	76	80.9
Suburban	196	157	80.1
Town	143	123	86.0
Rural	259	203	78.4
Not matched to CCD	8	3	37.5
Amount of Students Approv	ed for F/RP Meals		
Low	268	211	78.7
Medium	308	255	82.8
High	124	96	77.4
FNS Region			
Mid-Atlantic	82	62	75.6
Midwest	189	153	81.0
Mountain Plains	60	54	90.0
Northeast	79	61	77.2
Southeast	81	68	84.0
Southwest	128	97	75.8
Western	81	67	82.7

#### Table 1. Response Rates by SFA Characteristics, Unweighted

<sup>&</sup>lt;sup>72</sup> The study team did not receive any surveys in any other format (e.g., mailed printed surveys).

<sup>&</sup>lt;sup>73</sup> During data collection, 15 SFAs refused to complete the survey for reasons that included limited time, retirement, limited knowledge of procurement processes, and that participation is not required.

<sup>&</sup>lt;sup>74</sup> Only the response rate for the small number of SFAs that were not matched to the CCD was below 70 percent, at 64 percent.

SFAs that completed the web survey were selected for in-depth interviews on a rolling basis within the sample distribution goals discussed below.<sup>75</sup> Interviews were conducted from March 5, 2019, through June 6, 2019. As planned, 100 in-depth interviews were completed.

#### IN-DEPTH INTERVIEW SAMPLE DISTRIBUTION GOALS

One hundred SFAs were identified to participate in the in-depth interviews based on the overall goal of conducting 100 in-depth interviews and the procurement model/SFA size sampling goals presented in Table 2. Associated with each model-size sample goal was a range acknowledging that the simultaneous data collection periods for the web survey and in-depth interviews would affect the availability of SFAs to participate in the interviews.

Table 2 also reports the number of in-depth interviews completed. Overall, the number of interviews met or exceeded the minimum number established by the range for 17 of the 20 model-size groups. The number of in-depth interviews with SFAs in minor models (Models 3–5) exceeded the goal. Among the major models, the number of in-depth interviews with Model 2 SFAs met the goal, while the number of in-depth interviews with Model 1 SFAs was less than the goal. Although the minimum number of interviews for three model-size groups was not achieved (i.e., Model 1. Medium, Model 1. Very Large, and Model 2. Very Large), preliminary analysis of the interview data indicated that the 100 interviews provided rich content, including specific and nuanced themes regarding the SFA procurement process and how it is similar and/or different across model-size groups.

SFA Procurement Model	SFA Size	Goal <sup>*</sup>	Goal Range	Interviews Completed	Interview Range Met or Exceeded (Yes/No)
1	Total	40	NA	33	NA
1	Small	15	13–17	17	Yes
1	Medium	15	13–17	12	No
1	Large	5	3–7	3	Yes
1	Very large	5	2–6	1	No
2	Total	40	NA	40	NA
2	Small	10	8–12	9	Yes
2	Medium	18	15-21	18	Yes
2	Large	7	5–9	12	Yes
2	Very large	5	2–6	1	No
3–5	Total	20	NA	27	NA
3	Small	2	1–2	2	Yes
3	Medium	3	2–3	3	Yes
3	Large	2	1–2	2	Yes
3	Very large	1	1-2	1	Yes

#### Table 2. In-Depth Interviews Sample, by Procurement Model and SFA Size

<sup>&</sup>lt;sup>75</sup> Project delays associated with receiving OMB clearance and the partial shutdown of the Federal Government led to simultaneous web survey and IDI data collection rather than these activities being conducted sequentially as initially planned.

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SFA Procurement Model	SFA Size	Goal <sup>*</sup>	Goal Range	Interviews Completed	Interview Range Met or Exceeded (Yes/No)
4	Small	2	1–2	2	Yes
4	Medium	3	2–3	5	Yes
4	Large	2	1–2	1	Yes
4	Very large	1	1–2	2	Yes
5	Small	2	1–2	2	Yes
5	Medium	3	2–3	3	Yes
5	Large	2	1–2	3	Yes

NA = Not applicable. Ranges were not established at the model level.

Very large

\*Sample goals sum to more than 100 due to rounding. Model sample goals were 40 in-depth interviews for Model 1, 40 for Model 2, and 20 for Models 3–5. These goals were distributed across the SFA size categories to arrive at the model-size goals presented in the table. Ranges were created for each sample goal to incorporate flexibility into the sampling as the exact number of interviews for each model-size group might not be completed given the time constraints of the data collection.

1-2

1

Yes

1

#### SFA RECRUITMENT

The study team interviewers followed recruitment procedures which involved the following three overarching activities:

- 1. **Notification of selection**: Interviewers sent a pre-interview notification email to the selected SFA directors informing them that they had been selected to participate in an in-depth interview.
- 2. Interview scheduling: Two days after sending the pre-interview notification email, the interviewer called the selected SFA director and attempted to schedule the interview. If the prospective participant did not answer, the interviewer left a message asking the participant to return the interviewer's call. The interviewer then followed up by email within 3 business days and by telephone within 5 business days of the initial call. Some scheduling was arranged exclusively by email to accommodate participant preference.
- 3. **Interview confirmation:** Once the prospective participant agreed to the date and time for an interview, the interviewer sent a confirmation email and meeting invitation.

The following procedures pertained to unresponsive SFAs:

- To reach prospective participants for scheduling, interviewers made a maximum of three contact attempts after sending the pre-interview notification email. However, interviewers were instructed to deviate from this procedure and make more than three contact attempts if necessary, to reach sampling goals for underrepresented model-size groups (e.g., Model 1. Very Large SFAs).
- Interviewers provided only one opportunity to reschedule interviews for prospective participants who did not call in to their initially scheduled telephone interview. If a participant did not call in to their rescheduled interview, the participant was considered unresponsive.

Overall, the study team notified and attempted to recruit 223 SFAs in an effort to complete the 100 indepth interviews. Among the 123 SFAs that were contacted but did not complete an in-depth interview, 26 were completely unresponsive, and 19 refused to participate in an interview. Recruitment efforts were cancelled for 13 SFAs because sampling goals had been met for that procurement model. Four prospective participants had nonworking telephone numbers, and four prospective participants did not call in to their scheduled interview, followed by unsuccessful rescheduling efforts. The remaining 57 SFAs did not complete an in-depth interview for various other reasons.

#### **INTERVIEW PARTICIPANTS**

Table 3 presents SFA characteristics of in-depth interview participants and the percentage of SFAs that participated in an interview. Overall, 17.8 percent of the 562 SFAs that completed a web survey also participated in an in-depth interview. Of the procurement models, Model 2 SFAs had the highest in-depth interview participation rate (26.5 percent), followed by Models 1 (17.9 percent) and 4 (15.2 percent). Interview participation rates are generally balanced overall. While very large SFAs were more likely to participate in an in-depth interview relative to SFAs of other sizes, the fewest interviews were completed by that size group, as relatively fewer very large SFAs were in the sample universe, were sampled, and had also completed the web survey.

	Number of SFAs Interviewed	Percentage of SFAs Interviewed
All SFAs	100	17.8
Model		
Model 1	33	18.0
Model 2	40	26.5
Model 3	8	9.8
Model 4	10	15.2
Model 5	9	11.3
SFA Size		
Small	32	20.1
Medium	41	15.1
Large	21	19.4
Very Large	6	26.1
Urbanicity		
City	14	18.4
Suburban	22	14.0
Town	23	18.7
Rural	41	20.2
Not matched to CCD	0	0
Amount of Students Approv	ed for F/RP Meals	
Low	27	12.8
Medium	58	22.7
High	15	15.6
FNS Region		
Mid-Atlantic	8	12.9
Midwest	26	17.0
Mountain Plains	11	20.4
Northeast	5	8.2
Southeast	14	20.6
Southwest	21	21.6
Western	15	22.4

#### Table 3. SFA Characteristics of In-Depth Interview Participants, Unweighted



#### **IN-DEPTH INTERVIEW SYNOPSIS**

Most interviews collected data for all relevant protocol topics from interview participants knowledgeable about the procurement practices of their SFA. On rare occasions, interviewers could not complete the protocol, or participants were unable to provide details about the procurement practices of their SFA in SY 2017–18. For example, one participant was unable to continue past the allotted 90 minutes and ended the interview before the interviewer could ask the final question(s) in the protocol. In two interviews, participants were new to their position and not knowledgeable about the procurement practices of their SFA during the defined study period. In such instances, interviewers captured as much information as possible. Given that these less complete interviews represented a small share of the 100 completed in-depth interviews, the study team did not find that they created information gaps or impacted the final analysis.

### **Appendix E. Final Analysis Tables**

Appendix E provides analysis tables from the SFA Procurement Practices web survey. Descriptive findings are presented as weighted percentages, accompanied by unweighted counts of responding SFAs (e.g., Table 1.2). Gray cells in tables are for presentation purposes only as certain strata require less columns than others (e.g., Table 2.5) or simply to separate results (e.g., Table 2.6).

Results are presented for all responding SFAs, with subgroup analyses presented when appropriate. Subgroup stratifications include the following:

- Procurement model: Model 1 and Model 2 are major models and Model 3, Model 4, and Model 5 are minor models, as described in the SFA Procurement Model Memo (Appendix C).
- SFA size: Small = 1–999 students; medium = 1,000–4,999 students; large = 5,000–24,999 students; very large = 25,000 or more students. These categories were derived using the student enrollment data provided by FNS in the School Year (SY) 2014–15 Verification Collection Report (FNS-742).
- SFA urbanicity: Location in city, suburban, town, and rural area as determined by the National Center for Education Statistics. Urbanicity information was obtained from the SY 2014–15 FNS-742. SFAs with missing urbanicity codes were excluded from the analyses.
- Amount of students approved for F/RP meals: Low = 0–29 percent; medium = 30–59 percent; high = 60–100 percent. These categories were derived using the percent of students eligible for F/RP meals as indicated in the SY 2014–15 FNS-742.
- FNS Region: MARO = Mid-Atlantic Regional Office; MWRO = Midwest Regional Office; MPRO = Mountain Plains Regional Office; NERO = Northeast Regional Office; SERO = Southeast Regional Office; SWRO = Southwest Regional Office; WRO = Western Regional Office.

The tables are organized in nine sections, beginning with an overview section that includes unweighted sample characteristics (Table 1.1), SFA CN Program participation (Table 1.2), and ways SFAs combine CN Program procurement (Table 1.3). The subsequent eight sections focus on procurement planning, solicitation and contracting, contract monitoring, sourcing, local procurement, FSMCs, cooperative purchasing, and procurement training and best practices.



#### Example Analysis Table. SFA Child Nutrition Program Participation, by SFA Procurement Model

	Child Nutrition Program			SFA M Weighted Perc	Model entage of SFAs		
Subgroup percentages are		All SFAs	Model 1 (a)	Model 2 (b)	Model 3 (c)	Model 4 (d)	Model 5 (e)
presented after aggregate percentages (i.e., "All SFAs").	National School Lunch Program	100.0	100.0	100.0	100.0	100.0	100.0
The following tables present findings by SFA Procurement	School Breakfast Program	73.5	65.7 <sup>b,d</sup>	79.9ª	75.6	86.8ª	76.4
model, SFA size, SFA urbanicity, the amount of	Fresh Fruit and Vegetable Program	21.0	20.9	24.0	20.6	15.4	20.3
students approved for F/RP meals, or FNS region,	Summer Food Service Program	26.7	19.6 <sup>b,c,d</sup>	29.3ª	39.4ª	33.5ª	28.9
depending on the variable analyzed.	Child and Adult Care Food Program	12.0	6.9 <sup>c</sup>	15.1	17.6ª	14.7	15.7
Weighted and unweighted	NSLP Afterschool Snack Services	3.5	1.3	2.4	4.6	6.5	8.8
sample sizes for all SFAs and	Seamless Summer Option	1.7	0.7 <sup>b,c</sup>	2.9ª	2.7ª	2.6	1.5
presented in the last two	Other <sup>1</sup>	2.1	2.4	1.6	4.2	1.0	1.1
rows of the table.	Weighted <i>n</i>	14,755	6,176	3,547	1,747	1,273	2,013
	Unweighted <i>n</i>	562	183	151	82	66	80

gnificant differences are entified by letter perscripts to the right of rcentages. Superscripts dicate differences between e subgroup denoted by the perscript and the current ell's subgroup. In this ample, the superscript "a" the right of 33.5 indicates at the Model 4 subgroup timate (33.5 percent) is nificantly different from e Model 1 subgroup timate (19.6 percent).

Numerical superscripts indicate notes for specific row labels, columns, or percentages. Notes provide additional information for significance testing or analysis.

<sup>1</sup> Examples of "Other" Programs include Head Start, the Special Milk Program, and USDA DoD Fresh.

Notes: Multiple responses were permitted. Letter superscripts to the right of percentages indicate a statistically significant pair-wise difference (Bonferroni, p-value < 0.05) between the subgroup with the superscript and the subgroup denoted by the superscript letter. For example, the superscript "a" denotes a statistically significant difference between the subgroup with the superscript and the Model 1 subgroup. Subgroup estimates without superscripts reflect differences that are not statistically significant. Weighted n's for subgroups may not sum to weighted *n* for all SFAs due to rounding.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 1.1.

Source provides the websurvey question that collected survey responses for the cross-tabulated percentages.

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### **Section 1. Overview**

#### **TABLE 1.1. UNWEIGHTED SAMPLE CHARACTERISTICS**

	Unweighted Sample Characteristics							
SFA Model	All SFAs	Model 1	Model 2	Model 3	Model 4	Model 5		
SFAs sampled (n)	700	253	183	98	70	96		
Completed surveys (n)	562	183	151	82	66	80		
Survey response rate (%)	80.3	72.3	82.5	83.7	94.3	83.3		
SFA Size	All SFAs	Small	Medium	Large	Very Large			
SFAs sampled (n)	700	212	335	125	28			
Completed surveys (n)	562	159	272	108	23			
Survey response rate (%) <sup>1</sup>	80.3	75.0	81.2	86.4	82.1			
Urbanicity	All SFAs	City	Suburban	Town	Rural	Not matched to CCD <sup>1</sup>	l	
SFAs sampled (n)	700	94	196	143	259	8		
Completed surveys (n)	562	76	157	123	203	3		
Survey response rate (%)	80.3	80.9	80.1	86.0	78.4	37.5		
Amount of Students Approved for F/RP Meals	All SFAs	Low	Medium	High				
SFAs sampled (n)	700	268	308	124				
Completed surveys (n)	562	211	255	96				
Survey response rate (%)	80.3	78.7	82.8	77.4				
FNS Region	All SFAs	MARO	MWRO	MPRO	NERO	SERO	SWRO	WRO
SFAs sampled (n)	700	82	189	60	79	81	128	81
Completed surveys (n)	562	62	153	54	61	68	97	67
Survey response rate (%)	80.3	75.6	81.0	90.0	77.2	84.0	75.8	82.7

<sup>1</sup> The unit of analysis for the Study of School Food Authority (SFA) Procurement Practices Survey was the SFA. SFAs usually coincided with a local education agency (LEA), as defined in the Local Education Agency Universe Survey File of the U.S. Department of Education's Common Core of Data (CCD), which is maintained by the National Center for Education Statistics. In some cases, however, SFAs operate school food Programs for multiple school districts and for individual schools (e.g., some public charter schools). Approximately 98 percent of the eligible SFAs for this study matched to a district (LEA) in the CCD universe file. Those SFAs that did not match remained in the sample frame with an indicator denoting that they do not have associated CCD data. SFAs not matched to CCD are not included in analysis tables that present data by urbanicity. **Note:** The survey response rate (RR) is the number of completed surveys divided by the number of SFAs sampled.

Source: Study of School Food Authority (SFA) Procurement Practices Survey.

Child Nutrition	SFA Model Weighted Percentage of SFAs								
Program	All SFAs	Model 1 (a)	Model 2 (b)	Model 3 (c)	Model 4 (d)	Model 5 (e)			
National School Lunch Program	100.0	100.0	100.0	100.0	100.0	100.0			
School Breakfast Program	73.5	65.7	79.9	75.6	86.8	76.4			
Fresh Fruit and Vegetable Program	21.0	20.9	24.0	20.6	15.4	20.3			
Summer Food Service Program	26.7	19.6 <sup>d</sup>	29.3	39.4	33.5ª	28.9			
Child and Adult Care Food Program	12.0	6.9	15.1	17.6	14.7	15.7			
NSLP Afterschool Snack Services	3.5	1.3	2.4	4.6	6.5	8.8			
Seamless Summer Option	1.7	0.7 <sup>b</sup>	2.9ª	2.7	2.6	1.5			
Other <sup>1</sup>	2.1	2.4	1.6	4.2	1.0	1.1			
Weighted n	14,755	6,176	3,547	1,747	1,273	2,013			
Unweighted n	562	183	151	82	66	80			

#### TABLE 1.2.A. SFA CHILD NUTRITION PROGRAM PARTICIPATION, BY SFA MODEL

<sup>1</sup> Examples of "Other" Programs include Head Start, the Special Milk Program, and USDA DoD Fresh.

**Notes:** Multiple responses were permitted. Letter superscripts to the right of percentages indicate a statistically significant pairwise difference (Bonferroni, *p*-value < 0.05) between the subgroup with the superscript and the subgroup denoted by the superscript letter. For example, the superscript "a" denotes a statistically significant difference between the subgroup with the superscript and the Model 1 subgroup. Subgroup estimates without superscripts reflect differences that are not statistically significant. Weighted *n*'s for subgroups may not sum to weighted *n* for all SFAs due to rounding. **Source:** Study of School Food Authority (SFA) Procurement Practices Survey, question 1.1.

Child Nutrition		SFA Size Weighted Percentage of SFAs								
Program	All SFAs	Small (a)	Medium (b)	Large (c)	Very Large (d)					
National School Lunch Program	100.0	100.0	100.0	100.0	100.0					
School Breakfast Program	73.5	65.4 <sup>c</sup>	76.5	91.1ª	93.9					
Fresh Fruit and Vegetable Program	21.0	22.7	<b>16.1</b> <sup>d</sup>	24.0 <sup>d</sup>	53.1 <sup>b,c</sup>					
Summer Food Service Program	26.7	16.4 <sup>b,c</sup>	29.5 <sup>a,c</sup>	50.2 <sup>a,b,d</sup>	62.8 °					
Child and Adult Care Food Program	12.0	6.7 <sup>b,c</sup>	10.5 <sup>a,d</sup>	31.7 <sup>a,d</sup>	40.4 <sup>b,c</sup>					
NSLP Afterschool Snack Services	3.5	3.0	3.0	5.4	9.3					
Seamless Summer Option	1.7	0.0	1.8	7.2	6.6					
Other <sup>1</sup>	2.1	2.4	1.8	1.7	6.1					
Weighted <i>n</i>	14,755	6,907	5,686	1,809	353					
Unweighted <i>n</i>	562	159	272	108	23					

#### TABLE 1.2.B. SFA CHILD NUTRITION PROGRAM PARTICIPATION, BY SFA SIZE

<sup>1</sup> Examples of "Other" Programs include Head Start, the Special Milk Program, and USDA DoD Fresh.

**Notes:** Multiple responses were permitted. Letter superscripts to the right of percentages indicate a statistically significant pairwise difference (Bonferroni, *p*-value < 0.05) between the subgroup with the superscript and the subgroup denoted by the superscript letter. For example, the superscript "a" denotes a statistically significant difference between the subgroup with the superscript and the Small SFA Size subgroup. Subgroup estimates without superscripts reflect differences that are not statistically significant.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 1.1.

Child Nutrition	Urbanicity Weighted Percentage of SFAs						
Program	All SFAs	City (a)	Suburban (b)	Town (c)	Rural (d)		
National School Lunch Program	100.0	100.0	100.0	100.0	100.0		
School Breakfast Program	73.6	87.0	69.1	81.7	68.8		
Fresh Fruit and Vegetable Program	21.3	29.9	16.4	19.5	22.2		
Summer Food Service Program	27.1	30.5	22.9	37.2	24.1		
Child and Adult Care Food Program	12.2	20.8	10.2	14.7	9.6		
NSLP Afterschool Snack Services	3.5	7.6	5.7	2.7	1.4		
Seamless Summer Option	1.7	3.5	4.0	1.7	0.0		
Other <sup>1</sup>	2.2	0.7	2.4	1.5	2.8		
Weighted <i>n</i>	14,577	1,919	3,567	2,653	6,438		
Unweighted <i>n</i>	559	76	157	123	203		

#### TABLE 1.2.C. SFA CHILD NUTRITION PROGRAM PARTICIPATION, BY URBANICITY

<sup>1</sup> Examples of "Other" Programs include Head Start, the Special Milk Program, and USDA DoD Fresh.

**Notes:** SFAs with missing urbanicity codes were excluded from the analyses. Multiple responses were permitted. Letter superscripts to the right of percentages indicate a statistically significant pair-wise difference (Bonferroni, *p*-value < 0.05) between the subgroup with the superscript and the subgroup denoted by the superscript letter. For example, the superscript "a" denotes a statistically significant difference between the subgroup with the superscript and the City subgroup. Subgroup estimates without superscripts reflect differences that are not statistically significant.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 1.1.



# TABLE 1.2.D. SFA CHILD NUTRITION PROGRAM PARTICIPATION, BY AMOUNT OF STUDENTS APPROVED FOR F/RP MEALS

Child Nutrition	Amount of Students Approved for F/RP Meals Weighted Percentage of SFAs						
Program	All SFAs	Low (a)	Medium (b)	High (c)			
National School Lunch Program	100.0	100.0	100.0	100.0			
School Breakfast Program	73.5	71.1	74.2	76.4			
Fresh Fruit and Vegetable Program	21.0	28.1 <sup>c</sup>	14.8	22.7 <sup>a</sup>			
Summer Food Service Program	26.8	24.7	28.8	25.5			
Child and Adult Care Food Program	12.0	14.7	9.1	14.0			
NSLP Afterschool Snack Services	3.5	4.1	2.5	4.5			
Seamless Summer Option	1.7	1.2	1.5	3.1			
Other <sup>1</sup>	2.1	1.3	2.6	2.7			
Weighted <i>n</i>	14,755	5,164	6,669	2,921			
Unweighted <i>n</i>	562	211	255	96			

<sup>1</sup> Examples of "Other" Programs include Head Start, the Special Milk Program, and USDA DoD Fresh.

**Notes:** Multiple responses were permitted. Letter superscripts to the right of percentages indicate a statistically significant pairwise difference (Bonferroni, *p*-value < 0.05) between the subgroup with the superscript and the subgroup denoted by the superscript letter. For example, the superscript "a" denotes a statistically significant difference between the subgroup with the superscript and the Low F/RP Meals subgroup. Subgroup estimates without superscripts reflect differences that are not statistically significant. Weighted *n*'s for subgroups may not sum to weighted *n* for all SFAs due to rounding. **Source:** Study of School Food Authority (SFA) Procurement Practices Survey, question 1.1.

Drograms Combined	Weighted Percentage of All SFAs Type of Goods and Services Procured						
for Procurement	Any Goods and Services	Food	Supplies	Equipment	Services		
NSLP and SBP	36.0	35.3	32.1	23.2	21.2		
NSLP, SBP, and SFSP	11.7	11.7	10.9	9.2	8.0		
NSLP, SBP, and FFVP	5.5	5.5	4.7	3.3	3.0		
NSLP, SBP, FFVP, and SFSP	4.4	4.4	3.9	3.3	2.9		
NSLP, SBP, and CACFP	3.5	3.5	3.0	2.3	1.9		
NSLP, SBP, SFSP, and CACFP	3.4	3.3	3.3	2.4	2.4		
Other CN Program combinations <sup>1</sup>	20.0	19.9	17.6	12.8	12.8		
Did not combine CN Programs for procurement	15.4	+	+	+	+		
Weighted n			11,825				
Unweighted <i>n</i>			476				

#### TABLE 1.3. CHILD NUTRITION PROGRAMS COMBINED FOR PROCUREMENT

+ Not applicable.

<sup>1</sup> "Other Program combinations" is the sum of all other program combinations. In all, 18 other combinations were reported by SFAs, accounting for 20.0 percent of all SFAs. Examples of the most frequently reported other combinations included NSLP and FFVP (3.7 percent); NSLP, SBP, and a program other than SFSP, FFVP, or CACFP (3.4 percent); NSLP and SFSP (2.8 percent); and NSLP, SBP, SFSP, FFVP, and CACFP (2.3 percent).

**Notes:** Table does not include SFAs that participate only in NSLP (weighted n = 2,913, unweighted n = 85). **Source:** Study of School Food Authority (SFA) Procurement Practices Survey, question 2.10.

### Section 2. Procurement Planning

#### TABLE 2.1. PRIORITIES SHAPING APPROACH TO PROCUREMENT, BY SFA SIZE

Priority	SFA Size Weighted Percentage of SFAs					
	All SFAs	Small	Medium	Large	Very Large	
Menu items/variety	76.0	72.7	75.2	89.9	78.7	
Regulatory meal pattern requirements	65.3	60.8	66.1	76.6	81.7	
Food service operations	54.9	45.6	61.8	66.8	63.4	
Child Nutrition Programs participation rates	52.0	44.8	55.0	67.5	61.2	
Food service equipment and supply needs	50.5	45.4	48.2	72.1	74.1	
SFA or school size	49.7	54.6	40.7	56.8	61.7	
Food service equipment and supply costs	48.8	42.8	49.2	66.4	66.9	
Storage capacity	44.0	43.1	40.3	52.3	77.3	
Local wellness policies and nutrition goals	43.9	39.9	48.0	46.4	42.7	
Food service staffing needs	36.9	32.7	36.6	47.9	66.3	
Food service staffing costs	35.5	27.2	42.1	44.9	42.7	
Input from the student body	34.0	29.2	36.2	42.2	49.6	
Program management/administration needs	24.7	17.0	30.4	35.5	25.8	
Input from State Agency and/or State Distributing Agency	21.8	18.0	24.8	27.5	17.9	
Input from other SFAs	17.5	14.2	20.4	22.3	10.4	
Input from the community	14.4	12.2	13.1	25.3	24.5	
School board	14.4	13.5	14.8	17.5	10.1	
Input from an advisory council	12.6	8.7	15.2	17.5	22.5	
Other <sup>1</sup>	2.1	2.6	1.2	3.0	0.0	
Weighted <i>n</i>	14,532	6,768	5,603	1,809	353	
Unweighted <i>n</i>	555	156	268	108	23	

<sup>1</sup> Examples of "Other" priorities include past experience with procurement, student participation, and student preferences. **Notes:** Multiple responses were permitted. Weighted *n*'s for subgroups may not sum to weighted *n* for all SFAs due to rounding.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 4.2.

Staff	SFA Size Weighted Percentage of SFAs						
Stall	All SFAs	Small (a)	Medium (b)	Large (c)	Very Large (d)		
SFA food service director or manager	57.9	53.4	60.6	64.0	71.1		
SFA nutrition director	48.5	38.3 <sup>b,c</sup>	50.6ª	71.5 ª	93.7		
SFA head cook or kitchen/cafeteria manager	38.4	41.4	36.4	34.1	33.2		
District business office or purchasing department official	35.5	31.0	37.7	41.0	60.3		
District superintendent	27.7	40.6	20.4	5.8	4.2		
Chief Financial Officer or SFA business office	19.3	15.8	21.2	26.9	19.2		
Group purchasing entity (cooperative, agent, or third-party service) <sup>1</sup>	18.7	12.3	26.6 °	21.5 <sup>b</sup>	5.2		
District school board	15.7	17.8	15.6	7.0	24.4		
Cooperative that only includes Child Nutrition Program operators <sup>1</sup>	13.5	9.3	14.9	22.8	23.2		
FSMC liaison <sup>2</sup>	13.2	11.5	15.2	14.9	6.3		
Non-managerial food service staff	12.6	10.4	11.7	21.8	24.1		
State Agency Child Nutrition director or staff	7.8	5.9	10.2	6.9	8.2		
Governing or advisory board	3.2	1.5	6.3	0.8	0.0		
Sales broker	2.3	0.6	3.3	6.2	0.0		
Other <sup>3</sup>	3.8	2.2	3.8	6.8	20.5		
None of the above	2.2	3.5	1.4	0.0	0.0		
Weighted <i>n</i>	14,671	6,907	5,603	1,809	353		
Unweighted <i>n</i>	558	159	268	108	23		

#### TABLE 2.2. STAFF INVOLVED IN PROCUREMENT PLANNING, BY SFA SIZE

<sup>1</sup> A total of 207 SFAs (unweighted) reported not participating in any group purchasing entities for any CN Programs for SY 2017–2018 at question 2.11; however, at question 4.4, 3 of these SFAs indicated a group purchasing entity was involved in procurement planning, and 2 of these SFAs indicated a cooperative was involved in procurement planning.

<sup>2</sup> A total of 427 SFAs (unweighted) reported not using an FSMC to procure goods or services for their CN Programs for SY 2017–2018 at question 2.1; however, at question 4.4, 1 of these SFAs indicated an FSMC liaison was involved in procurement planning.

<sup>3</sup> Examples of "Other" responses include students, community, executive director, assistant directors, nutrition coordinator, wellness coordinator, and hired consultant.

**Notes:** Multiple responses were permitted. Letter superscripts to the right of percentages indicate a statistically significant pair-wise difference (Bonferroni, *p*-value < 0.05) between the subgroup with the superscript and the subgroup denoted by the superscript letter. For example, the superscript "a" denotes a statistically significant difference between the subgroup with the superscript and the Small SFA Size subgroup. Subgroup estimates without superscripts reflect differences that are not statistically significant. Weighted *n*'s for subgroups may not sum to weighted *n* for all SFAs due to rounding. **Source:** Study of School Food Authority (SFA) Procurement Practices Survey, question 4.4.

# TABLE 2.3.A. MOST IMPORTANT CONSIDERATION FOR DETERMINING OVERALL PROCUREMENT METHODS, BY SFA SIZE

Consideration	SFA Size Weighted Percentage of SFAs						
Consideration	All SFAs	Small	Medium	Large	Very Large		
Meal pattern requirements	28.4	31.1	24.2	31.4	29.2		
Menu items/variety	15.4	12.6	15.0	25.5	23.8		
Food service operations	13.2	12.7	14.4	12.8	6.1		
Food service equipment and supply costs	8.4	10.2	7.5	5.6	3.9		
Child Nutrition Program participation rates	7.7	7.9	8.6	4.5	4.7		
Food service staffing needs	3.9	3.5	5.4	0.8	1.9		
SFA or school size	3.6	4.4	3.2	1.0	9.6		
State Agency and/or State Distributing Agency	3.4	3.0	4.4	1.8	4.4		
Food service equipment and supply needs	3.2	1.7	4.2	5.3	4.4		
Food service staffing costs	3.1	2.0	3.0	5.6	12.2		
Local wellness policies and nutrition goals	2.5	4.1	1.5	0.0	0.0		
Program management/administration needs	2.1	1.1	3.4	1.8	0.0		
Student body preferences	1.2	0.7	2.0	0.8	0.0		
Storage capacity	1.1	1.1	1.4	0.7	0.0		
School board input	0.7	1.2	0.3	0.0	0.0		
Community input	0.5	0.0	1.1	1.1	0.0		
Other SFAs	0.3	0.6	0.0	0.0	0.0		
Other	1.3	2.2	0.5	1.1	0.0		
Weighted <i>n</i>	14,461	6,737	5,562	1,809	353		
Unweighted n	552	155	266	108	23		

**Notes:** Respondents were instructed to rank the three most important information sources by indicating the most important with a "1," the second most important with a "2," and the third most important with a "3." This table reports sources ranked with a "1" (i.e., the most important consideration). See Table 2.4 for information sources ranked among the three most important without consideration for whether those factors were ranked first, second, or third. **Source:** Study of School Food Authority (SFA) Procurement Practices Survey, question 4.3.

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# TABLE 2.3.B. MOST IMPORTANT CONSIDERATION FOR DETERMINING OVERALL PROCUREMENT METHODS, BY URBANICITY

Consideration	Urbanicity Weighted Percentage of SFAs					
	All SFAs	City	Suburban	Town	Rural	
Meal pattern requirements	28.2	37.0	26.4	25.3	27.7	
Menu items/variety	15.6	14.3	18.9	18.2	13.1	
Food service operations	13.1	15.5	6.5	16.4	14.8	
Food service equipment and supply costs	8.5	0.7	12.1	10.1	8.3	
Child Nutrition Program participation rates	7.8	2.6	6.1	8.4	10.0	
Food service staffing needs	3.9	7.9	2.4	6.0	2.8	
SFA or school size	3.7	7.7	1.6	4.5	3.2	
State Agency and/or State Distributing Agency	3.5	0.8	5.0	3.3	3.5	
Food service equipment and supply needs	3.2	1.7	5.6	1.4	3.1	
Food service staffing costs	3.1	3.6	5.0	1.2	2.7	
Local wellness policies and nutrition goals	2.5	2.6	3.6	1.1	2.4	
Program management/administration needs	2.1	0.0	4.6	2.1	1.3	
Student body preferences	1.2	0.0	0.4	0.9	2.2	
Storage capacity	1.1	2.6	1.7	1.0	0.4	
School board input	0.7	0.9	0.0	0.0	1.2	
Other SFAs	0.3	0.0	0.0	0.0	0.6	
Community input	0.1	1.0	0.0	0.0	0.0	
Other	1.3	1.1	0.0	0.0	2.7	
Weighted <i>n</i>	14,283	1,899	3,515	2,516	6,352	
Unweighted <i>n</i>	549	75	155	119	200	

**Notes:** SFAs with missing urbanicity codes were excluded from the analyses. Respondents were instructed to rank the three most important information sources by indicating the most important with a "1," the second most important with a "2," and the third most important with a "3." This table reports sources ranked with a "1" (i.e., the most important consideration). See Table 2.4 for information sources ranked among the three most important regardless of whether those factors were ranked first, second, or third. Weighted *n*'s for subgroups may not sum to weighted *n* for all SFAs due to rounding. **Source:** Study of School Food Authority (SFA) Procurement Practices Survey, question 4.3.



Consideration	SFA Size Weighted Percentage of SFAs						
Consideration	All SFAs	Small	Medium	Large	Very Large		
Menu items/variety	48.8	41.0	55.0	58.0	54.0		
Meal pattern requirements	44.9	44.3	43.1	50.5	55.4		
Food service operations	31.4	29.4	31.8	38.2	27.6		
Child Nutrition Program participation rates	25.7	22.7	30.4	22.0	29.2		
Food service equipment and supply costs	20.5	20.9	20.2	18.4	25.4		
SFA or school size	17.6	27.0	9.5	8.5	13.5		
Food service equipment and supply needs	15.7	15.9	13.7	20.6	17.3		
Local wellness policies and nutrition goals	12.2	15.5	11.4	3.5	5.2		
Student body preferences	11.2	11.0	12.0	9.1	12.4		
Storage capacity	10.8	10.9	9.5	15.0	8.0		
Food service staffing costs	10.5	7.7	13.0	12.4	17.0		
Food service staffing needs	10.3	6.9	12.3	15.0	22.1		
State Agency and/or State Distributing Agency	7.4	6.7	8.4	7.8	4.4		
Program management/administration needs	5.9	3.9	8.7	5.5	4.2		
Other SFAs	3.0	3.7	2.5	2.7	0.0		
School board input	2.5	4.1	1.3	0.8	0.0		
Advisory council	1.5	0.0	2.8	3.0	0.0		
Community input	1.1	0.9	1.1	1.9	0.0		
Other	1.8	2.7	0.9	2.1	0.0		
Weighted <i>n</i>	14,461	6,737	5,562	1,809	353		
Unweighted <i>n</i>	552	155	266	108	23		

**Notes:** Respondents were instructed to rank the three most important information sources by indicating the most important with a "1," the second most important with a "2," and the third most important with a "3." Table percentages report whether an information source was ranked among the three most important regardless of whether those factors were ranked first, second, or third. See Table 2.3 for sources ranked first (i.e., the most important consideration).

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 4.3.

# TABLE 2.4.B. CONSIDERATIONS FOR DETERMINING OVERALL PROCUREMENT METHODS, BY URBANICITY

Consideration	Urbanicity Weighted Percentage of SFAs					
	All SFAs	City	Suburban	Town	Rural	
Menu items/variety	49.2	36.9	51.6	64.4	45.6	
Meal pattern requirements	44.8	46.6	44.1	45.5	44.5	
Food service operations	31.1	35.4	31.4	35.5	28.0	
Child Nutrition Program participation rates	25.4	30.3	24.6	24.3	24.9	
Food service equipment and supply costs	20.3	8.2	24.2	21.3	21.4	
SFA or school size	17.8	30.0	7.1	14.8	21.3	
Food service equipment and supply needs	15.9	28.3	12.6	7.9	17.3	
Local wellness policies and nutrition goals	12.3	9.5	15.8	11.1	11.7	
Student body preferences	11.3	4.2	16.7	5.6	12.7	
Storage capacity	10.9	5.6	14.5	11.1	10.5	
Food service staffing needs	10.2	19.5	8.9	10.9	8.0	
Food service staffing costs	10.1	8.0	13.1	8.8	9.5	
State Agency and/or State Distributing Agency	7.5	3.2	10.2	4.6	8.5	
Program management/administration needs	6.0	3.7	9.1	8.3	4.1	
Other SFAs	3.1	3.1	4.8	4.4	1.6	
School board input	2.6	6.4	0.0	2.7	2.8	
Advisory council	1.5	1.1	2.9	3.5	0.0	
Community input	0.6	1.0	0.4	0.0	0.9	
Other	1.9	1.1	0.0	1.6	3.2	
Weighted n	14,283	1,899	3,515	2,516	6,352	
Unweighted <i>n</i>	549	75	155	119	200	

**Notes:** SFAs with missing urbanicity codes were excluded from the analyses. Respondents were instructed to rank the three most important information sources by indicating the most important with a "1," the second most important with a "2," and the third most important with a "3." Table percentages report whether an information source was ranked among the three most important regardless of whether those factors were ranked first, second, or third. See Table 2.3 for sources ranked first (i.e., the most important source). Weighted *n*'s for subgroups may not sum to weighted *n* for all SFAs due to rounding. **Source:** Study of School Food Authority (SFA) Procurement Practices Survey, question 4.3.



Uses Internal Recordkeeping Systems	SFA Size Weighted Percentage of SFAs						
	All SFAs	Small	Medium	Large	Very Large		
Yes	75.0	64.5	82.3	88.0	95.6		
No	25.0	35.5	17.7	12	4.4		
Weighted <i>n</i>	14,585	6,820	5,603	1,809	353		
Unweighted <i>n</i>	556	157	268	108	23		

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 4.1.

# TABLE 2.5.B. USE OF INTERNAL RECORDKEEPING SYSTEMS FOR PROCUREMENT DECISIONS, BY URBANICITY

Uses Internal Recordkeeping Systems	Urbanicity Weighted Percentage of SFAs						
	All SFAs	City	Suburban	Town	Rural		
Yes	75.3	83.9	82.7	81.0	66.3		
No	24.7	16.1	17.3	19.0	33.7		
Weighted <i>n</i>	14,407	1,919	3,567	2,569	6,352		
Unweighted <i>n</i>	553	76	157	120	200		

**Note:** SFAs with missing urbanicity codes were excluded from the analyses.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 4.1.

## TABLE 2.5.C. USE OF INTERNAL RECORDKEEPING SYSTEMS FOR PROCUREMENT DECISIONS, BY AMOUNT OF STUDENTS APPROVED FOR F/RP MEALS

Uses Internal Recordkeeping Systems	Amount of Students Approved for F/RP Meals Weighted Percentage of SFAs					
	All SFAs	Low	Medium	High		
Yes	75.0	77.9	70.4	80.5		
No	25.0	22.1	29.6	19.5		
Weighted <i>n</i>	14,585	5,019	6,645	2,921		
Unweighted n	556	206	254	96		

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 4.1.

Decoud Turce	SFA Size Weighted Percentage of SFAs								
kecora i ype	All SFAs	Small	Medium	Large	Very Large				
Invoice records	64.0	62.9	61.7	74.6	67.3				
Meal production records	56.0	56.3	54.8	55.3	71.2				
Meal count records	53.4	55.2	50.6	58.6	38.5				
Cost records	46.0	46.2	43.4	50.7	58.6				
Meal claim records	43.6	41.9	44.0	50.6	34.3				
Revenue records	33.8	33.1	34.0	36.0	31.0				
Procurement plan	33.1	28.1	34.0	41.9	69.8				
Signed codes of conduct	24.8	22.6	26.3	24.5	46.3				
RFP or IFB documentation	23.5	14.9	24.6	42.9	71.3				
FSMC monitoring forms	14.0	13.3	16.5	11.8	0.0				
SFA does not monitor procurement decisions	5.0	5.7	5.1	1.8	4.4				
Weighted <i>n</i>	14,299	6,627	5,523	1,795	353				
Unweighted <i>n</i>	547	153	264	107	23				

#### TABLE 2.6.A. RECORDS USED TO MONITOR PROCUREMENT DECISIONS, BY SFA SIZE

**Notes:** Multiple responses were permitted. See Table 2.7 for documentation used to monitor staff procurement decisions and Table 2.8 for communications and other approaches used to monitor staff procurement decisions. Respondent universe limited to SFAs who selected one or more options regarding staff involved in procurement planning for CN Programs for SY 2017–2018 (question 4.4). Weighted *n*'s for subgroups may not sum to weighted *n* for all SFAs due to rounding. **Source:** Study of School Food Authority (SFA) Procurement Practices Survey, question 4.5.



Communication Moons	SFA Size Weighted Percentage of SFAs							
	All SFAs	Small	Medium	Large	Very Large			
Site visits	31.2	19.1	37.4	53.1	51.4			
Meetings	30.9	24.5	34.2	40.9	49.7			
Email communications	27.6	22.8	28.6	38.3	48.5			
Telephone communications	15.0	12.1	16.9	18.1	26.1			
Other <sup>1</sup>	3.8	3.0	4.4	5.3	3.9			
SFA does not monitor procurement decisions	5.0	5.7	5.1	1.8	4.4			
Weighted <i>n</i>	14,299	6,627	5,523	1,795	353			
Unweighted n	547	153	264	107	23			

<sup>1</sup> Examples of "Other" means to monitor staff procurement decisions include usage reports, expense reports, ordering guides, State regulation requirements, and truck and facility inspections.

**Notes:** Multiple responses were permitted. See Table 2.6 for records used to monitor staff procurement decisions and Table 2.7 for documentation used to monitor staff procurement decisions. Respondent universe limited to SFAs that selected one or more options regarding staff involved in procurement planning for CN Programs for SY 2017–2018 (question 4.4). Weighted *n*'s for subgroups may not sum to weighted *n* for all SFAs due to rounding.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 4.5.

# TABLE 2.7.B. COMMUNICATION MEANS USED TO MONITOR PROCUREMENT DECISIONS, BY AMOUNT OF STUDENTS APPROVED FOR F/RP MEALS

Communication Means	Amount of Students Approved for F/RP Meals Weighted Percentage of SFAs					
	All SFAs	Low	Medium	High		
Site visits	31.2	36.1	29.2	27.3		
Meetings	30.9	34.1	30.4	26.7		
Email communications	27.6	29.7	25.1	29.8		
Telephone communications	15.0	17.2	13.8	14.1		
Other <sup>1</sup>	3.8	5.2	3.9	1.1		
SFA does not monitor procurement decisions	5.0	1.8	9.1	1.1		
Weighted <i>n</i>	14,299	4,974	6,521	2,803		
Unweighted n	547	204	250	93		

<sup>1</sup> Examples of "Other" means to monitor staff procurement decisions include usage reports, expense reports, ordering guides, State regulation requirements, and truck and facility inspections.

**Notes:** Multiple responses were permitted. See Table 2.6 for records used to monitor staff procurement decisions and Table 2.7 for documentation used to monitor staff procurement decisions. Respondent universe limited to SFAs that selected one or more options regarding staff involved in procurement planning for CN Programs for SY 2017–2018 (question 4.4). Weighted *n*'s for subgroups may not sum to weighted *n* for all SFAs due to rounding.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 4.5.

Solicitation Method		SFA Size Weighted Percentage of SFAs								
	All SFAs	Small (a)	Medium (b)	Large (c)	Very Large (d)					
Small purchase procedures	56.8	49.6 <sup>b,d</sup>	58.0ª	74.9 <sup>a</sup>	87.3					
Sealed bids	50.0	41.2 <sup>c</sup>	54.4	64.7 <sup>a</sup>	80.3					
Competitive proposals (RFP and IFB)	48.8	40.7 <sup>c</sup>	50.4	67.9 <sup>a,d</sup>	87.3 <sup>c</sup>					
Micro-purchases	47.0	36.5 <sup>b,c</sup>	50.9 <sup>a,c</sup>	68.7 <sup>a,b,d</sup>	81.0 <sup>c</sup>					
Non-competitive proposals	16.5	17.4	13.4	20.1	31.0					
Weighted n	14,332	6,742	5,521	1,759	310					
Unweighted <i>n</i>	546	156	264	105	21					

#### TABLE 3.1.A. SOLICITATION METHODS UTILIZED, BY SFA SIZE

**Notes:** Multiple responses were permitted. The majority of SFAs (unweighted n = 372, weighted n = 8,536 or 59.6 percent) reported using multiple solicitation methods. SFAs using multiple solicitation methods reported the following solicitation combinations: IFB, RFP, micro-purchases, and small purchase procedures (14.6 percent); IFB, micro-purchases, and small purchase procedures (11.0 percent); micro-purchases, and small purchase procedures (11.0 percent); micro-purchases, and small purchase procedures (11.0 percent); micro-purchases, and small purchase procedures (10.6 percent); IFB, RFP, micro-purchases, small purchase procedures, and non-competitive (7.1 percent); 17 other combinations (42.4 percent). Letter superscripts to the right of percentages indicate a statistically significant pair-wise difference (Bonferroni, *p*-value < 0.05) between the subgroup with the superscript and the subgroup denoted by the superscript letter. For example, the superscript "a" denotes a statistically significant difference between the subgroup with the superscripts reflect differences that are not statistically significant.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 1.2.

## TABLE 3.1.B. SOLICITATION METHODS UTILIZED, BY AMOUNT OF STUDENTS APPROVED FOR F/RP MEALS

Solicitation Method	Amount of Students Approved for F/RP Meals Weighted Percentage of SFAs								
	All SFAs	Low (a)	Medium (b)	High (c)					
Small purchase procedures	56.8	54.2	58.5	57.5					
Sealed bids	50.0	61.6 <sup>c</sup>	48.0 <sup>c</sup>	34.1 <sup>a,b</sup>					
Competitive proposals (RFP and IFB)	48.8	48.4	50.5	45.6					
Micro-purchases	47.0	47.4	48.7	42.4					
Non-competitive proposals	16.5	12.0	16.7	23.8					
Weighted n	14,332	5,040	6,407	2,885					
Unweighted n	546	206	246	94					

**Notes:** Multiple responses were permitted. The majority of SFAs (unweighted *n* = 372, weighted *n* = 8,536 or 59.6 percent) reported using multiple solicitation methods. SFAs using multiple solicitation methods reported the following solicitation combinations: IFB, RFP, micro-purchases, and small purchase procedures (14.6 percent); IFB, micro-purchases, and small purchase procedures (11.0 percent); micro-purchases, and small purchase procedures (11.0 percent); micro-purchases, and small purchase procedures (11.0 percent); micro-purchases, and small purchase procedures (10.6 percent); IFB, RFP, micro-purchases, small purchase procedures, and non-competitive (7.1



percent); 17 other combinations (42.4 percent). Letter superscripts to the right of percentages indicate a statistically significant pair-wise difference (Bonferroni, *p*-value < 0.05) between the subgroup with the superscript and the subgroup denoted by the superscript letter. For example, the superscript "a" denotes a statistically significant difference between the subgroup with the superscript and the Low F/RP Meals subgroup. Subgroup estimates without superscripts reflect differences that are not statistically significant.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 1.2.

Influencing Factor		Weighte	SFA Size ed Percentage	of SFAs	
	All SFAs	Small	Medium	Large	Very Large
Estimated cost	63.1	57.2	66.8	69.4	87.3
Child Nutrition Program standards	59.9	53.3	65.4	64.8	76.9
Foods available	47.6	47.3	48.2	43.6	64.2
Purchase quantity	41.5	36.2	40.9	56.4	79.1
Product standards	38.2	29.7	42.2	50.8	74.9
Preapproval of vendor by State Agency or USDA	36.2	36.2	38.3	26.2	56.8
SFA/school district size	32.6	37.6	26.5	30.8	40.9
State regulations	32.2	28.6	30.9	42.9	70.8
Desired brands available	31.8	30.7	35.1	27.5	24.8
Contract duration	26.8	22.4	29.2	30.6	54.5
Purchase complexity	25.7	21.4	24.0	40.5	62.2
Local regulations	24.6	17.1	25.8	38.8	80.6
Available planning time	24.0	18.7	25.7	35.5	39.8
Administrative capacity	18.9	14.3	22.8	21.7	35.1
Existing relationship with FSMC/GPE	8.4	7.3	10.9	5.8	0.0
Other <sup>1</sup>	2.0	2.5	1.7	1.5	0.0
Weighted n	14,411	6,751	5,540	1,789	331
Unweighted n	550	156	265	107	22

### TABLE 3.2.A. FACTORS INFLUENCING PROCUREMENT METHOD, BY SFA SIZE

<sup>1</sup> Examples of "Other" factors include product quality and delivery considerations.

Note: Multiple responses were permitted.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 1.3.

# TABLE 3.2.B. FACTORS INFLUENCING PROCUREMENT METHOD, BY AMOUNT OF STUDENTS APPROVED FOR F/RP MEALS

Influencing Factor	Amount	of Students A Weighted Per	pproved for F/R centage of SFAs	P Meals
	All SFAs	Low	Medium	High
Estimated cost	63.1	59.2	62.1	72.0
Child Nutrition Program standards	59.9	59.5	63.3	53.2
Foods available	47.6	42.3	49.3	52.8
Purchase quantity	41.5	41.8	45.4	32.4
Product standards	38.2	38.3	39.0	36.1
Preapproval of vendor by State Agency or USDA	36.2	37.8	34.1	38.1
SFA/school district size	32.6	32.4	33.9	29.9
State regulations	32.2	34.0	32.1	29.5
Desired brands available	31.8	31.6	33.8	27.8
Contract duration	26.8	28.1	26.5	25.1
Purchase complexity	25.7	24.8	22.9	33.5
Local regulations	24.6	27.3	24.5	20.3
Available planning time	24.0	27.7	23.5	18.7
Administrative capacity	18.9	18.2	20.4	17.0
Existing relationship with FSMC/GPE	8.4	9.5	9.5	3.8
Other <sup>1</sup>	2.0	1.0	2.6	2.4
Weighted n	14,411	5,035	6,435	2,914
Unweighted n	550	206	248	96

<sup>1</sup> Examples of "Other" factors include product quality and delivery considerations.

**Notes:** Multiple responses were permitted. Weighted *n*'s for subgroups may not sum to weighted *n* for all SFAs due to rounding.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 1.3.

Guidance Required	FNS Region Weighted Percentage of SFAs								
	All SFAs	MARO	MWRO	MPRO	NERO	SERO	SWRO	WRO	
Yes	60.2	61.7	50.0	60.3	62.2	84.1	68.1	50.7	
Provided by FNS	21.8	27.4	14.7	20.4	23.2	38.9	23.2	17.8	
Provided by State Agency	54.5	56.7	46.6	49.3	49.9	78.0	65.9	46.4	
Provided by Local Education Agency	17.7	16.6	8.5	18.2	25.8	25.2	29.2	9.9	
No requirements	8.8	4.9	10.0	8.5	10.7	1.0	7.7	16.6	
Don't know	31.0	33.4	40.1	31.3	27.0	14.9	24.1	32.7	
Weighted <i>n</i>	14,625	1,540	4,158	2,016	1,687	1,377	2,350	1,497	
Unweighted n	557	59	153	54	61	68	95	67	

### TABLE 3.3. GUIDANCE REQUIRED FOR SOLICITATION DEVELOPMENT, BY FNS REGION

Notes: Multiple responses were permitted.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 5.1.

<b>TABLE 3.4</b> .	GUIDANCE TYPE	USED, BY	SOURCE OF	GUIDANCE

	Weighted Percentage of SFAs							
Guidance Type	FN Guida	S ince	State A Guida	gency Ince	Local Educat Guida	Local Education Agency Guidance		
	SFA Received	SFA Used	SFA Received	SFA Used	SFA Received	SFA Used		
Memos	48.4	39.9	57.7	47.6	37.8	31.1		
FAQs	38.9	30.5	42.9	34.1	25.5	20.7		
Training	50.4	39.1	51.5	41.9	29.8	24.1		
Issue briefs	30.5	22.4	+	+	15.6	11.2		
Manuals/handbooks	40.0	30.7	+	+	32.8	27.6		
One-on-one guidance <sup>1</sup>	23.3	18.4	23.3	18.4	20.0	17.2		
Weekly correspondence <sup>1</sup>	15.6	11.2	15.6	11.2	10.3	8.6		
Institute of Child Nutrition online courses	38.7	27.7	38.7	27.7	+	+		
Institute of Child Nutrition in-person trainings	28.9	21.2	28.9	21.2	+	+		
Local procurement requirements	+	+	+	+	38.8	34.0		
Slide decks	+	+	+	+	5.8	3.8		
Webpages	+	+	+	+	22.4	18.8		
None received/None used <sup>2</sup>	3.2	5.8	3.2	5.8	10.9	12.5		
Other <sup>3</sup>	5.1	4.6	5.1	4.6	3.1	3.0		
Don't know <sup>4</sup>	22.6	28.7	22.6	28.7	28.1	33.9		
Weighted <i>n</i>			14,75	55				
Unweighted <i>n</i>		562						

<sup>+</sup> Not applicable. Type of guidance from respective agency was not included in the survey.

<sup>1</sup> The survey did not distinguish guidance as coming specifically from FNS or specifically from the State Agency for this item.

Percentages for FNS Guidance and State Agency Guidance are the same.

<sup>2</sup> "None used" includes SFAs that indicated no guidance was received and SFAs that indicated one or more types of guidance was received but none of the materials were used.

<sup>3</sup> Examples of "Other" guidance types include guidance from other State Agencies found through internet searches, School Nutrition Association webinars, guidance obtained at county director meetings, State Department of Education webinars, and guidance provided by other food service managers and directors and purchasing cooperatives.

<sup>4</sup> "Don't know" includes SFAs that did not know whether any guidance was received and SFAs that indicated one or more types of guidance was received but were unsure if the materials were used.

Note: Multiple responses were permitted.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, questions 5.2 and 5.4.

Template Required		FNS Region Weighted Percentage of SFAs								
	All SFAs	MARO	MWRO	MPRO	NERO	SERO	SWRO	WRO		
Template required	35.6	45.0	35.5	33.9	28.3	52.1	40.4	13.5		
Provided by FNS	11.7	13.2	7.4	6.9	10.6	24.2	21.1	2.9		
Provided by State Agency	30.7	39.3	33.2	32.8	16.5	40.2	34.1	13.5		
Provided by Local Education Agency	6.5	1.5	2.2	6.2	15.4	11.8	10.3	2.8		
Template not required	26.8	10.9	21.5	36.0	26.0	26.4	30.2	41.6		
Don't know	37.6	44.1	43.0	30.0	45.7	21.5	29.4	44.9		
Weighted <i>n</i>	14,731	1,586	4,158	2,016	1,687	1,377	2,410	1,497		
Unweighted <i>n</i>	561	61	153	54	61	68	97	67		

### TABLE 3.5. TEMPLATE REQUIREMENTS FOR DEVELOPING SOLICITATIONS, BY FNS REGION

Note: Multiple responses were permitted.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 5.5.

		Weight	ted Percentage	of SFAs	
Template Usage	Template Received	Provided by FNS	Provided by State Agency	Provided by Local Education Agency	Used by SFA
For competitive sealed bids, IFBs	31.4	13.2	24.9	12.0	22.5
For competitive proposals, RFPs	35.8	12.7	28.2	13.9	27.0
For small purchases	28.0	10.4	20.8	12.5	19.5
Other <sup>1</sup>	2.9	1.1	2.2	1.1	2.8
Don't know type	59.6	56.7	44.5	51.5	45.5
None received	34.2	26.1	19.1	29.0	18.0
Weighted n			14,755		
Unweighted n			562		

<sup>1</sup> Examples of "Other" template types include local guidelines provided by a Local Education Agency, documents developed by a purchasing cooperative or contracted agency, and templates provided by other directors.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 5.6.
TABLE 3.7.A. CONTRACT TYPES UTILIZED, BY SFA SIZ	<b>TABLE 3.7.A.</b>	CONTRACT	<b>TYPES</b>	UTILIZED,	BY SFA	SIZE
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Contract Turne	SFA Size Weighted Percentage of SFAs							
contract type	All SFAs	Small (a)	Medium (b)	Large (c)	Very Large (d)			
Fixed-price	57.6	53.4 <sup>c</sup>	56.0	72.5 <sup>a</sup>	87.8			
Fixed-price with economic price adjustment	46.5	42.1	47.3	53.9 <sup>d</sup>	82.0 <sup>c</sup>			
Cost-reimbursable with fixed fee	12.7	9.6	15.7	14.7	17.7			
Cost-reimbursable (no fixed fee)	7.1	8.8	5.2	8.1	0.0			
Forward contracts	9.5	6.5	12.5	9.1	21.7			
Other	8.4	10.7	7.7	3.6	0.0			
Weighted <i>n</i>	14,616	6,832	5,641	1,789	353			
Unweighted <i>n</i>	558	158	270	107	23			

<sup>1</sup> Examples of "Other" contract types include multiyear contracts with incentives.

**Notes:** Multiple responses were permitted. Table estimates include SFAs that provided a response to either question 1.4 or question 1.5. Letter superscripts to the right of percentages indicate a statistically significant pair-wise difference (Bonferroni, p-value < 0.05) between the subgroup with the superscript and the subgroup denoted by the superscript letter. For example, the superscript "a" denotes a statistically significant difference between the subgroup with the superscript and the Small SFA Size subgroup. Subgroup estimates without superscripts reflect differences that are not statistically significant. Weighted n's for subgroups may not sum to weighted n for all SFAs due to rounding.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, questions 1.4 and 1.5.

## TABLE 3.7.B. CONTRACT TYPES UTILIZED, BY AMOUNT OF STUDENTS APPROVED FOR F/RP MEALS

Contract Type	Amount of Students Approved for F/RP Meals Weighted Percentage of SFAs						
	All SFAs	Low (a)	Medium (b)	High (c)			
Fixed-price	57.6	61.2	56.7	53.3			
Fixed-price with economic price adjustment	46.5	41.7	50.5	46.0			
Cost-reimbursable with fixed fee	12.7	10.6	15.8	9.6			
Cost-reimbursable (no fixed fee)	7.1	9.0	7.1	4.0			
Forward contracts	9.5	11.2	7.8	10.2			
Other <sup>1</sup>	8.4	10.3	5.8	11.0			
Weighted <i>n</i>	14,615	5,145	6,550	2,921			
Unweighted <i>n</i>	558	210	252	96			

<sup>1</sup> Examples of "Other" contract types include multiyear contracts with incentives and micro-purchasing without contracts. **Notes:** Multiple responses were permitted. Table estimates include SFAs that provided a response to either question 1.4 or question 1.5. Letter superscripts to the right of percentages indicate a statistically significant pair-wise difference (Bonferroni, *p*-value < 0.05) between the subgroup with the superscript and the subgroup denoted by the superscript letter. For example, the superscript "a" denotes a statistically significant difference between the subgroup with the superscript and the Low F/RP Meals subgroup. Subgroup estimates without superscripts reflect differences that are not statistically significant. Weighted *n*'s for subgroups may not sum to weighted *n* for all SFAs due to rounding.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, questions 1.4 and 1.5.

State or Local		FNS Region Weighted Percentage of SFAs							
Regulations	All SFAs	MARO	MWRO	MPRO	NERO	SERO	SWRO	WRO	
Yes	20.2	25.0	13.6	29.6	20.2	27.4	19.3	15.4	
No	33.9	31.7	33.5	40.9	28.7	31.9	29.7	41.6	
Don't know	46.0	43.2	52.9	29.5	51.1	40.7	50.9	43.0	
Weighted n	14,561	1,502	4,130	2,016	1,668	1,377	2,371	1,497	
Unweighted <i>n</i>	554	58	152	54	60	68	95	67	

## TABLE 3.8. STATE OR LOCAL REGULATIONS THAT SPECIFY CONTRACT TYPES, BY FNS REGION

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 1.6.

Factor	SFA Size Weighted Percentage of SFAs							
Factor	All SFAs	Small	Medium	Large	Very Large			
Estimated cost	31.4	26.3	32.5	39.7	66.1			
Service quality	21.2	25.4	20.5	11.6	1.9			
Product consistency	17.3	16.3	20.4	15.2	0.0			
Pricing type	8.6	8.0	10.4	5.8	7.7			
Service type	4.8	5.3	2.7	7.9	12.6			
Small/micro-purchase thresholds	4.8	4.9	4.2	6.0	4.9			
Previous experience	3.9	6.5	1.5	2.6	0.0			
Administrative burden and required oversight	3.7	4.9	3.4	1.0	0.0			
Purchase quantity	2.0	1.6	1.0	5.4	6.8			
Required contract oversight	0.1	0.0	0.0	0.8	0.0			
Other <sup>1</sup>	2.2	0.7	3.4	4.0	0.0			
Weighted n	14,485	6,742	5,600	1,789	353			
Unweighted n	554	156	268	107	23			

#### TABLE 3.9. MOST IMPORTANT FACTOR INFLUENCING FINAL CONTRACT TYPE, BY SFA SIZE

<sup>1</sup> Examples of "Other" factors include FSMC contracts and purchasing cooperatives.

**Notes:** Respondents were instructed to rank the three most important factors by indicating the most important with a "1," the second most important with a "2," and the third most important with a "3." Table reports factors ranked with a "1" (i.e., the most important factor). See Table 3.10 for factors ranked among the three most important regardless of whether those factors were ranked first, second, or third. Weighted *n*'s for subgroups may not sum to weighted *n* for all SFAs due to rounding. **Source:** Study of School Food Authority (SFA) Procurement Practices Survey, question 1.7.

Factor	SFA Size Weighted Percentage of SFAs							
Factor	All SFAs	Small	Medium	Large	Very Large			
Previous service quality	70.4	73.1	72.8	56.6	50.0			
Product consistency	57.3	59.3	58.2	52.1	30.0			
Estimated cost	50.6	47.2	51.2	57.0	73.7			
Previous experience	27.3	27.4	28.8	25.8	8.2			
Service type	23.2	28.3	16.9	18.5	49.7			
Pricing type	21.8	20.3	24.2	21.7	12.1			
Small/micro-purchase thresholds	17.3	18.4	14.8	21.0	18.3			
Purchase quantity	13.0	10.5	10.0	27.1	37.4			
Administrative burden and required oversight	8.2	7.2	9.7	8.8	0.0			
Required contract oversight	3.4	4.5	2.4	1.6	4.7			
Contract risk level	1.2	0.5	2.6	0.0	0.0			
Other <sup>1</sup>	4.6	3.1	6.2	4.0	8.9			
Weighted <i>n</i>	14,485	6,742	5,600	1,789	353			
Unweighted n	554	156	268	107	23			

#### TABLE 3.10. FACTORS INFLUENCING FINAL CONTRACT TYPE, BY SFA SIZE

<sup>1</sup> Examples of "Other" factors include FSMC contracts and purchasing cooperatives.

**Notes:** Respondents were instructed to rank the three most important factors by indicating the most important with a "1," the second most important with a "2," and the third most important with a "3." Table percentages report whether a factor was ranked among the three most important regardless of whether those factors were ranked first, second, or third. See Table 3.9 for factors ranked first (i.e., the most important factor). Weighted *n*'s for subgroups may not sum to weighted *n* for all SFAs due to rounding.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 1.7.

## TABLE 3.11. STATE AGENCY PROVIDES CONTRACT LANGUAGE OR TEMPLATES, BY FNS REGION

Contract language or	_		Wei	FNS R ghted Perc	egion entage of S	SFAs		
templates provided for	All SFAs	MARO	MWRO	MPRO	NERO	SERO	SWRO	WRO
FSMC contracts with SFAs								
Yes	46.5	53.1	47.6	45.4	36.6	53.3	50.2	37.1
No	8.4	8.6	3.2	8.9	15.1	11.0	7.0	14.7
Don't know	45.1	38.2	49.2	45.7	48.4	35.7	42.8	48.2
Weighted <i>n</i>	14,728	1,610	4,158	2,016	1,687	1,350	2,410	1,497
Unweighted <i>n</i>	561	62	153	54	61	67	97	67
SFA contracts with processo	ors, includin	g processo	ors of USDA	Foods				
Yes	40.0	47.1	40.1	38.6	44.1	28.4	43.8	33.9
No	11.1	11.6	6.5	15.6	11.9	8.4	12.9	16.1
Don't know	48.9	41.2	53.3	45.9	44.0	63.2	43.3	50.0
Weighted <i>n</i>	14,728	1,610	4,158	2,016	1,687	1,350	2,410	1,497
Unweighted n	561	62	153	54	61	67	97	67
SFA contracts with broadlin	e distributo	ors						
Yes	24.1	30.4	26.7	27.1	12.8	23.0	26.1	17.0
No	15.8	13.9	10.6	20.4	22.5	17.7	12.0	22.9
Don't know	60.1	55.8	62.6	52.5	64.7	59.3	61.9	60.2
Weighted n	14,703	1,585	4,158	2,016	1,687	1,350	2,410	1,497
Unweighted n	560	61	153	54	61	67	97	67

**Source:** Study of School Food Authority (SFA) Procurement Practices Survey, questions 1.9–1.11.



		Weight	SFA Size ed Percentage	of SFAs	
Contract Provision Used	All SFAs	Small	Medium	Large	Very Large
Small business					
Formal procurement	17.7	15.7	15.2	26.1	51.4
Informal procurement	23.2	23.5	22.8	22.6	25.9
Minority-owned or woman-owned business					
Formal procurement	21.4	18.6	19.9	28.6	62.9
Informal procurement	16.6	14.7	16.4	22.6	26.4
Other <sup>1</sup>					
Formal procurement	4.8	2.4	6.4	7.0	12.6
Informal procurement	4.6	3.2	5.4	6.1	8.2
No provision included					
Formal procurement	63.4	69.1	65.9	42.1	21.5
Informal procurement	61.4	61.8	65.2	50.8	45.3
Weighted n	14,755	6,907	5,686	1,809	353
Unweighted n	562	159	272	108	23

<sup>1</sup> Examples of "Other" provisions include Native-owned businesses, support of State-listed companies, and professional references.

**Notes:** Informal procurement includes micro- and small purchases. Multiple responses were permitted. **Source:** Study of School Food Authority (SFA) Procurement Practices Survey, question 1.8.

## TABLE 3.12.B. CONTRACT PROVISIONS USED FOR FORMAL AND INFORMAL PROCUREMENT, BY AMOUNT OF STUDENTS APPROVED FOR F/RP MEALS

Contract Provision Used	Amount of Students Approved for F/RP Meals Weighted Percentage of SFAs						
	All SFAs	Low	Medium	High			
Small business							
Formal procurement	17.7	17.9	16.0	21.1			
Informal procurement	23.2	25.0	23.2	19.9			
Minority-owned or woman-owned business							
Formal procurement	21.4	23.2	19.9	21.4			
Informal procurement	16.6	17.3	15.8	17.1			
Other <sup>1</sup>							
Formal procurement	4.8	6.6	4.1	2.9			
Informal procurement	4.6	5.1	5.1	2.4			
No provision included							
Formal procurement	63.4	59.6	67.0	62.0			
Informal procurement	61.4	58.8	64.2	59.3			
Weighted <i>n</i>	14,755	5,164	6,669	2,921			
Unweighted n	562	211	255	96			

<sup>1</sup> Examples of "Other" provisions include Native-owned businesses, support of State-listed companies, professional references, Iran divestment, and prohibited ingredients. Weighted *n*'s for subgroups may not sum to weighted *n* for all SFAs due to rounding.

**Notes:** Informal procurement includes micro- and small purchases. Multiple responses were permitted. **Source:** Study of School Food Authority (SFA) Procurement Practices Survey, question 1.8.



	SFA Size Weighted Percentage of SFAs							
Geographic Preference Osed	All	Small	Medium	Large	Very Large			
Formal procurement	22.7	18.9	19.6	41.1	54.5			
Informal procurement	26.0	26.6	23.7	28.2	38.7			
Weighted n	14,755	6,907	5,686	1,809	353			
Unweighted n	562	159	272	108	23			

**Notes:** Informal procurement includes micro- and small purchases. Multiple responses were permitted. **Source:** Study of School Food Authority (SFA) Procurement Practices Survey, question 1.8.

# TABLE 3.13.B. GEOGRAPHIC PREFERENCE CONTRACT PROVISION USED IN FORMAL AND INFORMAL PROCUREMENT, BY AMOUNT OF STUDENTS APPROVED FOR F/RP MEALS

Geographic Preference Used	Amount of Students Approved for F/RP Meals Weighted Percentage of SFAs						
	All	Low	Medium	High			
Formal procurement	22.7	24.1	20.6	25.1			
Informal procurement	26.0	28.2	22.5	30.2			
Weighted <i>n</i>	14,755	5,164	6,669	2,921			
Unweighted n	562	211	255	96			

**Notes:** Informal procurement includes micro- and small purchases. Multiple responses were permitted. Weighted *n*'s for subgroups may not sum to weighted *n* for all SFAs due to rounding.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 1.8.

Desument	SFA Size Weighted Percentage of SFAs							
Document	All SFAs	Small (a)	Medium (b)	Large (c)	Very Large (d)			
RFP or IFB evaluation criteria and results	47.0	31.3 <sup>b,c</sup>	54.5 <sup>a,c</sup>	73.5 <sup>a,b,d</sup>	90.3 °			
Procurement plan	39.2	36.5	37.2	50.2	61.8			
Signed code of conduct	27.4	20.2	31.9	32.3 <sup>d</sup>	70.1 <sup>c</sup>			
Meetings/negotiation phase documents, if RFP	24.0	17.7	28.6	32.1	31.9			
Other <sup>1</sup>	10.1	12.2	9.1	6.4	6.6			
SFA does not monitor staff as they make award decisions	16.7	24.2 <sup>c</sup>	11.1 <sup>c</sup>	7.5 <sup>a,b</sup>	9.7			
Weighted n	14,250	6,627	5,461	1,809	353			
Unweighted <i>n</i>	545	153	261	108	23			

#### TABLE 3.14. DOCUMENTS USED TO MONITOR CONTRACT AWARD DECISIONS, BY SFA SIZE

<sup>1</sup> Examples of "Other" mechanisms include audits, administrative reviews, record checks, and reviews by director.

**Notes:** Respondent universe limited to SFAs who selected one or more options regarding staff involved in procurement planning for CN Programs for SY 2017–2018 (question 4.4). Letter superscripts to the right of percentages indicate a statistically significant pair-wise difference (Bonferroni, *p*-value < 0.05) between the subgroup with the superscript and the subgroup denoted by the superscript letter. For example, the superscript "a" denotes a statistically significant difference between the subgroup with the superscript and the Small SFA Size subgroup. Subgroup estimates without superscripts reflect differences that are not statistically significant.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 4.6.

TABLE 4.1.A. CONTRACTOR	PERFORMANCE MONITORING	METHODS. BY SFA SIZE
		,

Monitoring Mothod	SFA Size Weighted Percentage of SFAs				
	All SFAs	Small	Medium	Large	Very Large
Examine goods, services, invoices, and documentation provided by contractor	68.5	60.8	72.8	78.4	100.0
Confirm with people responsible for receiving goods and services	51.7	45.0	52.6	64.8	100.0
Review compliance reports	15.2	9.6	19.9	18.1	34.6
Request certification identifying percentage of U.S. content in supplied commercially procured foods	14.5	11.8	14.3	20.3	43.0
Review applicable contractor certification records	13.9	10.7	16.1	14.5	36.7
Other <sup>1</sup>	3.4	2.1	4.9	4.5	1.9
Don't know	20.5	28.5	16.7	6.1	0.0
Weighted <i>n</i>	14,650	6,866	5,622	1,809	353
Unweighted <i>n</i>	558	158	269	108	23

<sup>1</sup> Examples of "Other" methods include monitoring by State Agency or purchasing cooperative, reconciliation of accounting records and FSMC invoices, meeting with FSMC, and procurement audits.

Note: Multiple responses were permitted.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 4.9.



Monitoring Method	Amount of Students Approved for F/RP Meals Weighted Percentage of SFAs				
	All SFAs	Low	Medium	High	
Examine goods, services, invoices, and documentation provided by contractor	68.5	69.9	68.7	65.7	
Confirm with people responsible for receiving goods and services	51.7	56.2	45.5	57.9	
Review compliance reports	15.2	16.0	13.5	17.8	
Request certification identifying the percentage of U.S. content in supplied commercially procured foods	14.5	16.6	12.5	15.7	
Review applicable contractor certification records	13.9	15.2	11.7	16.7	
Other <sup>1</sup>	3.4	4.7	3.5	1.2	
Don't know	20.5	17.1	22.8	21.3	
Weighted <i>n</i>	14,650	5,084	6,645	2,921	
Unweighted <i>n</i>	558	208	254	96	

<sup>1</sup> Examples of "Other" methods include monitoring by State Agency or purchasing cooperative, reconciliation of accounting records and FSMC invoices, meeting with FSMC, and procurement audits.

Note: Multiple responses were permitted.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 4.9.



Method	SFA Size Weighted Percentage of SFAs				
	All SFAs	Small	Medium	Large	Very Large
Include Buy American or "domestic" clause in:					
Bid solicitations for food	48.9	35.6	56.0	70.0	82.9
Product specifications for food	42.9	35.5	48.6	50.1	57.9
Proposals for food	37.8	28.0	43.3	52.0	66.4
Procurement documents for food	28.0	18.2	37.5	34.1	34.9
Purchase orders for food	14.3	11.6	16.5	17.1	14.9
Examine food product packaging provided	47.6	42.9	50.0	49.9	87.4
Request certification on food product origin	34.9	30.4	37.8	35.5	74.7
Inquire about origin of food product	34.7	32.4	31.9	43.8	75.8
Require documentation showing exceptions for supplying nondomestic food products	27.0	21.0	29.4	35.3	61.2
Have process to request nondomestic food product substitutions	17.8	11.2	19.5	29.4	63.0
Monitor contractor performance and compliance	27.2	19.3	32.6	35.7	49.7
Require certification of domestic content of food components	8.7	5.7	11.0	10.4	21.0
Other <sup>1</sup>	6.3	7.0	5.3	7.1	5.2
None of the above	2.5	4.5	0.9	0.8	0.0
Don't know	12.7	16.6	11.4	4.6	0.0
Weighted <i>n</i>	14,704	6,880	5,662	1,809	353
Unweighted n	560	158	271	108	23

<sup>1</sup> Examples of "Other" methods or processes include using USDA Foods as well as reliance on FSMCs and purchasing cooperatives.

Note: Multiple responses were permitted.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 1.13.

Mathod	SFA Size Weighted Percentage of SFAs				
Method	All SFAs	Small	Medium	Large	Very Large
Examine goods, services, invoices, and/or documentation provided by contractor	58.1	57.7	56.8	59.9	78.8
Confirm with people responsible for receiving food	43.9	40.1	43.9	51.5	79.9
Request certification identifying percentage of U.S. content	16.1	11.9	19.0	20.5	28.2
Review applicable contractor certification records	10.0	6.9	12.9	11.8	15.8
Review compliance reports	9.0	9.8	7.3	11.9	5.8
Other <sup>1</sup>	4.6	3.0	4.9	8.9	9.6
Don't know	19.1	22.3	18.4	12.5	0.0
Weighted <i>n</i>	14,728	6,880	5,686	1,809	353
Unweighted <i>n</i>	561	158	272	108	23

### TABLE 4.3.A. METHODS TO VERIFY DOMESTIC COMMODITIES, BY SFA SIZE

<sup>1</sup> Examples of "Other" methods or processes include relying on the State Department of Education and other State Agencies, relying on FSMCs, participating in a purchasing cooperative, and using USDA Foods as much as possible.

Note: Multiple responses were permitted.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 1.14.

Method	Amount of Students Approved for F/RP Meals Weighted Percentage of SFAs				
	All SFAs	Low	Medium	High	
Examine goods, services, invoices, and/or documentation provided by contractor	58.1	61.0	53.9	62.8	
Confirm with people responsible for receiving food	43.9	47.5	39.6	47.5	
Request certification identifying percentage of U.S. content	16.1	17.9	13.9	18.0	
Review applicable contractor certification records	10.0	12.7	7.0	12.3	
Review compliance reports	9.0	11.6	8.6	5.1	
Other <sup>1</sup>	4.6	4.8	5.0	3.4	
Don't know	19.1	14.7	23.8	15.8	
Weighted n	14,728	5,137	6,669	2,921	
Unweighted n	561	210	255	96	

<sup>1</sup> Examples of "Other" methods or processes include relying on the State Department of Education and other State Agencies, relying on FSMCs, participating in a purchasing cooperative, and using USDA Foods as much as possible.

**Notes:** Multiple responses were permitted. Weighted *n*'s for subgroups may not sum to weighted *n* for all SFAs due to rounding.

Source: Study of School Food Authority (SFA) Procurement Practices Survey, question 1.14.

Pacard or Mathad	SFA Size Weighted Percentage of SFAs				
	All SFAs	Small	Medium	Large	Very Large
Invoices for expenses	74.3	63.5	84.2	75.6	100.0
Electronic accounting system	38.7	36.6	32.9	54.4	100.0
Profit and loss statements	36.7	32.2	41.2	39.5	29.5
Velocity reports <sup>1</sup> or sales information	26.4	10.2	35.7	46.3	64.2
Other procedures defined in contract	26.2	14.5	30.1	41.3	100.0
Broker/manufacturer recordkeeping method	20.7	9.1	21.0	53.3	65.3
Other <sup>2</sup>	2.6	2.9	1.6	5.8	0.0
Don't know	14.6	24.5	6.1	9.9	0.0
Weighted n	2,694	1,196	1,105	330	63
Unweighted n	106	31	53	19	3

<sup>1</sup> Velocity reports provide the product, quantity, date of purchase, and additional information of food items purchased.

<sup>2</sup> Examples of "Other" methods or processes include relying on the State Department of Education and other State Agencies, relying on purchasing cooperatives, usage reports, commodity tracker, analytic reviews, and manual verification.

**Note:** Multiple responses were permitted. Table includes only those SFAs that indicating using cost-reimbursable contracts. **Source:** Study of School Food Authority (SFA) Procurement Practices Survey, question 4.7.