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Final Report Volume 1:
School Meal Program Operations and School Nutrition Environments

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LIST OF ACRONYMS

CACFP	Child and Adult Care Food Program
CEP	Community Eligibility Provision
CN	child nutrition
DHHS	United States Department of Health and Human Services
DoD	Department of Defense
FNS	Food and Nutrition Service
FPL	Federal poverty level
FRAC	Food Research and Action Center
FSMC	foodservice management company
HHFKA	Healthy, Hunger-Free Kids Act of 2010
HUSSC	HealthierUS School Challenge
LEA	local educational agency
NSLP	National School Lunch Program
OVS	offer-versus-serve
PLE	paid lunch equity
SBP	School Breakfast Program
SFA	school food authority
SNAP	Supplemental Nutrition Assistance Program
SNDA	School Nutrition Dietary Assessment Study
SNM	school nutrition manager
SNMCS	School Nutrition and Meal Cost Study
SY	school year
TA	technical assistance
USDA	United States Department of Agriculture

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CONTENTS

ACKNOWLEDGEMENTS III

LIST OF ACRONYMS V

TABLES IX

FIGURES XI

EXECUTIVE SUMMARY XIII

1. INTRODUCTION 1

A. Overview of the School Nutrition and Meal Cost Study 2

1. Data Collection Instruments and Activities 3

2. Response Rates and Sample Sizes 5

3. Subgroup Analyses and Statistical Reporting Standards 6

B. Overview of the Volume 1 Report 6

2. SCHOOL MEAL PROGRAM OPERATIONS 9

A. Characteristics of Districts and Schools 9

B. Availability of the School Breakfast Program, Afterschool Snacks, and Suppers 12

1. The School Breakfast Program 12

2. Afterschool Snacks and Suppers 13

C. Universal Free Meals and Student Participation in the NSLP and SBP 14

1. Schools with Universal Free Meals for Lunch or Breakfast 15

2. Average Daily Participation 17

D. Meal Prices 19

1. Prices Charged for Reduced-Price and Paid Lunches 19

2. Prices Charged for Reduced-Price and Paid Breakfasts 21

3. Price Elasticity 24

E. Menu Planning and Meal Production 28

1. Menu Planning 28

2. Food Purchasing Practices 29

3. Meal Preparation Systems and Kitchen Equipment 32

4. Education and Experience of SFA Directors 34

5. Use of Foodservice Management Companies 36

F. Meal Service Practices 37

1. Time for Eating Lunch 37

2. Time for Eating Breakfast 37

3. Timing of Recess 38
4. Use of Smarter Lunchroom Techniques 40
5. Configuration of Serving Lines for Reimbursable Meals 40
6. Student Mobility During Lunch 42
7. Locations Where Students Eat Breakfast 43
8. Availability of Potable Water 44

G. Experiences Implementing the New Nutrition Standards 45

1. Perceived Helpfulness of the New Nutrition Standards in Achieving Underlying Nutrition Goals for Children 46
2. Perceived Challenges in Implementing the New Nutrition Standards 48
3. SFA Training and Technical Assistance 49

3. CHARACTERISTICS OF SCHOOL NUTRITION ENVIRONMENTS 51

A. Local Wellness Policies 51

1. District and School Wellness Coordinators 52
2. Content and Implementation of Local Wellness Policies 52
3. Evaluation of Local Wellness Policies 54
4. Nutrition Standards for Foods Sold and Served in Schools 56

B. Nutrition Outreach and Promotion Practices 59

1. Activities Implemented by SFA Staff 59
2. Activities Implemented by School Staff 59
3. School Participation in Team Nutrition and Other Nutrition and Wellness Initiatives 62

C. Competitive Foods 64

1. Types and Combinations of Competitive Food Sources 64
2. A la Carte Foods and Beverages 66
3. Vending Machine Foods and Beverages 67
4. Experiences Implementing the Smart Snacks in Schools Standards 71

REFERENCES 75

APPENDIX A: CHAPTER 2 SUPPLEMENTAL TABLES

APPENDIX B: SUPPLEMENTAL PRICE ELASTICITY ANALYSES

APPENDIX C: CHAPTER 3 SUPPLEMENTAL TABLES

TABLES

1.1 Data Collection Instruments 3

1.2 Completed Sample Sizes and Response Rates 6

2.1 Characteristics of Public School Districts That Participated in the NSLP 10

2.2 Characteristics of Public, Non-charter Schools That Participated in the NSLP 11

2.3 Schools That Offered Free Meals to All Students 16

2.4 Average Daily Participation Rates 18

2.5 Prices Charged for Reduced-Price and Paid Lunches 20

2.6 Prices Charged for Reduced-Price and Paid Breakfasts 22

2.7 Changes in Prices of Reduced-Price and Paid Meals Since SY 2012–2013 23

2.8 Price Elasticity of Paid Lunch Participation 26

2.9 Price Elasticity of Paid Breakfast Participation 27

2.10 Key Menu-Planning Practices and Procedures 28

2.11 Purchasing Practices Related to Branded Entrees and Prepared Foods 30

2.12 Practices Related to Acquiring Healthier Foods 31

2.13 Food Purchasing Specifications with Specific Requirements for *Trans* Fat 32

2.14 Use of Foodservice Management Companies 36

2.15 Policies Related to Recess 39

2.16 Use of HealthierUS School Challenge Smarter Lunchroom Techniques 41

2.17 Number of Serving Lines or Stations for Lunch and Breakfast 42

2.18 Locations Where Students Eat Breakfast 44

2.19 Availability of Potable Water in or Near the Cafeteria at Lunch 45

2.20 Perceived Helpfulness of the New Nutrition Standards in Achieving the Underlying Nutrition Goals 47

3.1 Schools Operating School Gardens 63

3.2 Types and Combinations of Competitive Food Sources Available in Schools 65

3.3 Policies Related to A la Carte Purchases 66

3.4 Availability of and Pricing Practices for Reimbursable Meal Components Sold A la Carte 68

3.5 Vending Machine Availability and Policies 69

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FIGURES

ES.1 Equipment Purchases Among SFAs That Reported Purchasing Equipment to Implement the New Nutrition Standards xvii

ES.2 Challenges Faced in Fully Implementing or Maintaining Compliance with the New Nutrition Standards (Mean Rating) xix

ES.3 Competitive Food Sources Available in Schools xxi

ES.4 Challenges Faced by SFAs That Have Not Yet Fully Implemented the Smart Snacks in Schools Standards for Competitive Foods (Mean Rating) xxii

2.1 NSLP and CACFP Provision of Afterschool Snacks and Suppers Among Schools That Provided Afterschool Snacks or Suppers 13

2.2 Provision of Afterschool Snacks and Suppers Among Schools with Afterschool Programs 14

2.3 Sources of Funding for Capital Equipment Purchases and Repairs 33

2.4 Equipment Purchases Among SFAs That Reported Purchasing Equipment to Implement the New Nutrition Standards 34

2.5 Highest Level of Education Completed by SFA Directors 35

2.6 Average Waiting Time and Average Length of Period for Lunch and Breakfast 38

2.7 Challenges Faced in Fully Implementing or Maintaining Compliance with the New Nutrition Standards (Mean Rating) 48

2.8 Topics Covered in Training and Technical Assistance Received by SFAs 50

3.1 Presence and Implementation of Local Wellness Policy Components 53

3.2 Findings About School Compliance with Wellness Policies Among SFAs That Evaluated Compliance (Mean Rating) 55

3.3 Nutrition Standards in Local Wellness Policies: School Meals and Foods Available in Other Settings 57

3.4 Nutrition Standards in Local Wellness Policies: Celebrations and Meetings 58

3.5 Nutrition Outreach and Promotion Activities Used by SFA Staff 60

3.6 Nutrition Outreach and Promotion Activities Used by School Foodservice Staff 61

3.7 Challenges Faced by SFAs That Have Not Yet Fully Implemented the Smart Snacks in Schools Standards for Competitive Foods (Mean Rating) 72

3.8 Extent of School Challenges in Implementing the Smart Snacks in Schools Standards for Competitive Foods (Mean Rating) 73

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EXECUTIVE SUMMARY

The National School Lunch Program (NSLP) and School Breakfast Program (SBP) form the cornerstone of the nation's nutrition safety net for low-income children. These programs, which are administered by the U.S. Department of Agriculture (USDA), Food and Nutrition Service (FNS), provide 30 million Federally subsidized lunches and 15 million Federally subsidized breakfasts to children each school day.[1]

In school year (SY) 2012–2013, the school meal programs began to undergo widespread changes, mainly stemming from the Healthy, Hunger-Free Kids Act of 2010 (HHFKA; Public Law 111-296). Key reforms included more fruits, vegetables, and whole grains in the school menu; updated nutrition standards to improve the nutritional quality of school meals and students' diets in order to reduce children's risk of developing chronic diseases; a new requirement that students select at least 1/2 cup of fruit or vegetables in order for their meal to be eligible for Federal reimbursement; equitable price-setting for full-price (also called "paid") meals; and the introduction of nutrition standards for all foods and beverages sold in competition with reimbursable meals in schools during the school day (competitive foods).

There is a critical need for information about how school food authorities (SFAs)[2] and schools are doing in implementing these changes made in response to HHFKA and about whether and how the changes are affecting school foodservice operations; the nutritional quality, cost, and acceptability of meals; student participation and satisfaction; plate waste; and the quality of students' diets. To ensure that this information would be available to policymakers and other stakeholders, FNS sponsored the School Nutrition and Meal Cost Study (SNMCS). The SNMCS continues FNS's long-standing commitment to periodically assess the school meal programs and is the first nationally representative, comprehensive assessment of these programs since major reforms began in SY 2012–2013.

A. Overview of the School Nutrition and Meal Cost Study

The SNMCS addressed a broad array of research questions of interest to stakeholders at the national, State, and local levels. The research questions are grouped under four broad domains:

- School meal program operations and school nutrition environments
- Food and nutrient content of school meals and afterschool snacks and overall nutritional quality of meals
- School meal costs and school foodservice revenues

[1] Statistics reported for the NSLP and SBP were obtained from national-level annual summary tables generated by FNS. These tables are available at http://www.fns.usda.gov/pd/child-nutrition-tables. Accessed August 3, 2017.

[2] SFAs, local educational agencies (LEAs), and districts are distinct governing bodies. SFAs are the governing bodies responsible for school foodservice operations, but some of the responsibilities are fulfilled by LEAs or districts, most notably determining eligibility for free or reduced-price meals, local wellness policies, and competitive food sales. Schools can also be responsible for the latter. In this report, the tables and text distinguish between SFAs and districts because of the topics covered. The report does not refer to LEAs, but readers should note that recent NSLP statutes and regulations refer to LEAs for some functions addressed in the report.

- Student participation, student and parent satisfaction, plate waste, and student dietary intakes.

To address these research questions, the SNMCS collected data from nationally representative samples of public SFAs and public, non-charter schools participating in the NSLP, students enrolled in these schools, and their parents. Data collection primarily occurred in spring of SY 2014–2015. Study findings are presented in four report volumes plus a summary report that highlights key findings across the volumes. Report Volume 1 (this volume) provides updated information about school meal program operations and characteristics of school nutrition environments.[3]

In all, 518 SFAs and up to 1,257 schools participated in the data collection activities that supported the analyses summarized in this report (sample sizes varied by instrument):

- SFA directors, school nutrition managers (SNMs),[4] and principals completed web surveys to answer questions about school meal program operations and school nutrition environments. SNMs also completed the A la Carte Checklist to describe items available for a la carte purchase.
- Other staff completed the Competitive Foods Checklists. These forms captured information about foods and beverages for sale to students in locations such as vending machines and school stores.
- Trained field interviewers observed the cafeteria environment during mealtimes using the Cafeteria Observation Guide. SNMs helped to answer some questions on the form.

B. Key Findings Related to School Meal Program Operations

The NSLP and SBP are administered at the State level by State child nutrition (CN) agencies and at the local level by SFAs. SFAs and schools have discretion in how they administer the programs within Federal and State guidelines. For example, SFAs and schools have options in how they set meal prices, plan their menus, select methods of food production, and use nutrition promotion techniques. FNS and State CN agencies may provide training and technical assistance (TA) to aid in implementation and program monitoring.

1. Characteristics of Districts and Schools

- Nationally, most SFAs (87 percent) had 5,000 or fewer students and half had 1,000 or fewer students. Just under half of schools that offered the NSLP (48 percent) were small (fewer

[3] Volume 2 (Gearan et al. 2019) focuses on the food and nutrient content of reimbursable meals and afterschool snacks and the overall nutritional quality of meals. Volume 3 (Logan et al. 2019) describes school meal costs and school foodservice revenues. Volume 4 (Fox et al. 2019) addresses students' participation in school meals, parents' and students' satisfaction with the meals, amounts of plate waste, and the influence of school meals on students' dietary intakes. A separate summary report (Fox and Gearan 2019) summarizes key findings across the report volumes, and a separate methodology report (Zeidman et al. 2019) provides technical details about study design, sampling, and data collection procedures.

[4] The term *school nutrition manager* is updated from prior SNDA studies, which used *foodservice manager* to refer to these staff.

than 500 students), and medium-sized schools (500-999 students) were more prevalent than large schools (1,000 or more students; 39 and 12 percent, respectively).

- Districts and schools were predominantly located in suburban and rural settings (37 and 50 percent of districts, respectively, and 44 and 35 percent of schools, respectively).
- Fifty-nine percent of districts and 54 percent of schools had child poverty rates below 20 percent. Two-thirds of schools (67 percent) had at least 40 percent of students certified to receive free or reduced-price meals.

2. Availability of the School Breakfast Program, Afterschool Snacks, and Suppers

- Most public, non-charter schools that participated in the NSLP in SY 2014–2015 (94 percent) also participated in the SBP.
- Twenty-five percent of all schools offered reimbursable afterschool snacks, suppers, or both. Of these schools, 80 percent offered snacks through the NSLP, 11 percent offered snacks through the CACFP, and 22 percent provided suppers through the CACFP. Across all schools with an afterschool program, 61 percent offered only afterschool snacks, 12 percent offered only suppers, 7 percent offered both snacks and suppers, and 20 percent provided neither.

3. Universal Free Meals and Student Participation in the NSLP and SBP

- About one in five schools (19 percent) offered free lunch to all students, and 29 percent of SBP-participating schools offered free breakfast to all students. Universal free meals were somewhat more common in elementary schools than in middle or high schools.
- The Community Eligibility Provision (CEP) was the most common means by which schools offered universal free meals.[5] Eighty percent of schools that offered free lunch to all students and 56 percent of schools that offered free breakfast to all students did so under CEP. By contrast, 19 percent of free lunch schools and 20 percent of free breakfast schools operated under Provisions 2 or 3.[6]
- Overall, an average of 61 percent of students participated in the NSLP on a typical school day in SY 2014–2015. Among students approved to receive free meal benefits or who attended schools with universal free lunch, the average NSLP participation rate was 75 percent. Among schools that did not offer universal free lunch, average NSLP participation rates were 74 and 70 percent, respectively, for students approved for free and reduced-price meal benefits, and 42 percent for students not approved for meal benefits. For the SBP, the average student participation rate was 30 percent overall, and 41 percent for students approved to receive free meal benefits or who attended schools with universal free breakfast. Among schools that did not offer universal free breakfast, average SBP participation rates

[5] The CEP, which became available nationwide in SY 2014–2015, allows schools and LEAs with 40 percent or more students directly certified for free meals to provide free breakfast and lunch to all students.

[6] Schools with higher percentages of low-income students may participate in Provision 2 or 3, which allows them to serve meals to all participating students at no charge without collecting applications for a period of four years, with a claiming percentage determined in the base year.

were 33 and 24 percent, respectively, for students approved for free and reduced-price meal benefits, and 8 percent for students not approved for meal benefits.

- For both the NSLP and SBP, overall participation rates were highest in elementary schools (65 percent and 35 percent, respectively) and lowest in high schools (50 percent and 23 percent, respectively). The difference in NSLP participation between elementary and middle schools was 5 percentage points overall, but only 1 percentage point among students who were enrolled at schools offering universal free meals or approved for free meals.

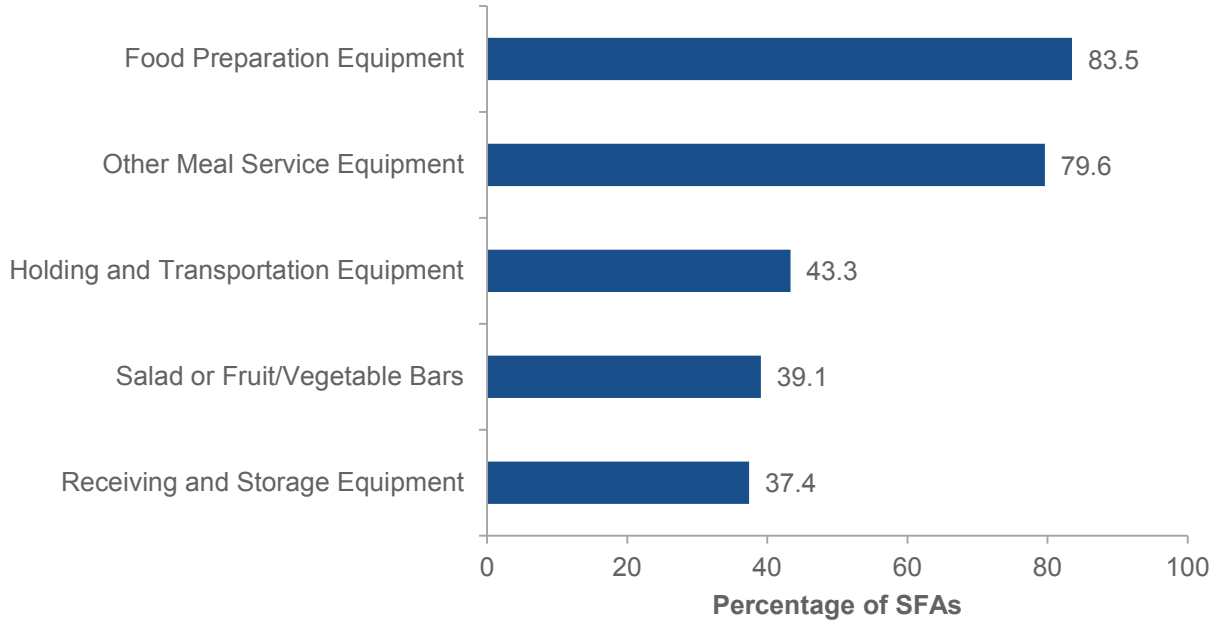
4. Meal Prices

- Excluding schools that provided universal free meals, the maximum allowable prices for reduced-price lunches ($0.40) and breakfasts ($0.30) were the most common prices charged (the mode) for these meals in SY 2014–2015. These prices have largely remained unchanged over the years, as the Federally set maximum for reduced-price meals have not changed.
- Excluding schools that provided universal free lunch, the most commonly charged price for a paid lunch in SY 2014–2015 was $2.50, and the mean was $2.42. The average price of a paid lunch increased by 25 percent between SY 2009–2010 and SY 2014–2015. This increase is consistent with the Paid Lunch Equity rule, which went into effect in SY 2011–2012. This rule affects the minimum price SFAs may charge for paid lunches.
- Excluding schools that provided universal free breakfast, the most commonly charged price for a paid breakfast in SY 2014–2015 was $1.25, and the mean was $1.43.
- In SY 2014–2015, a 10 cent increase in the price of a paid lunch was associated with a decline of 0.7 percentage points in the rate of paid meal participation in the NSLP. For the SBP, the association between paid meal price and participation was not statistically significant.

5. Menu Planning and Meal Production

- Almost nine out of ten SFAs (88 percent) planned all menus at the SFA level. More than three-quarters (77 percent) of SFAs used cycle menus in which the daily menus repeat on a regular basis, such as monthly. Use of cycle menus can help streamline menu planning, food purchasing, nutrient analysis, and other aspects of school foodservice.
- About one-third of SFAs (32 percent) reported purchasing equipment to support implementation of the new nutrition standards. Among these SFAs, the most common purchases were food preparation equipment (84 percent) and other meal service equipment, such as mobile milk coolers, steam table pans, or serving portion utensils (80 percent of SFAs; Figure ES.1).
- Twenty percent of SFAs used foodservice management companies (FSMCs), which operate foodservice programs under contracts with SFAs governed by FNS and State procurement rules. FSMCs were more common among large SFAs (defined by student enrollment), SFAs in districts with lower child poverty rates, and those in urban or suburban areas.

Figure ES.1. Equipment Purchases Among SFAs That Reported Purchasing Equipment to Implement the New Nutrition Standards



Source School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Estimates are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Multiple responses were allowed. Estimates are based on SFAs (32 percent) that reported purchasing equipment since SY 2012-2013 to support implementation of the new nutrition standards. Examples of other meal service equipment include mobile milk coolers, steam table pans, and serving portion utensils.

SFA = school food authority; SY = school year.

6. Meal Service Practices

- Based on SNM reports, lunch periods were 30 minutes long, on average, and students waited in line an average of 5 minutes. For breakfast, the average meal period was 37 minutes long, and students waited in line an average of 3 minutes.
- Virtually all elementary schools (98 percent) and 37 percent of middle schools had a scheduled recess. Among elementary schools with a scheduled recess, 38 percent had recess immediately after lunch, 15 percent had recess immediately before lunch, and 38 percent had some students with recess after and some before lunch (depending on their schedules). In middle schools with a scheduled recess, 49 percent had recess after lunch, 2 percent had recess before lunch, and 34 percent had some students with recess after and some before lunch.
- Eighty-five percent of all schools used at least one of seven Smarter Lunchroom techniques to promote healthy eating, and more than half (55 percent) used two or more of the techniques.[7] Use of techniques intended to promote vegetable consumption was most common. Additional Smarter Lunchroom techniques, such as strategies to encourage the

[7] The 2012 HealthierUS School Challenge criteria in place at the time of instrument development included seven Smarter Lunchroom techniques.

consumption of healthy entrees, consumption of white/plain milk, and consumption of a reimbursable meal were not assessed in this study.

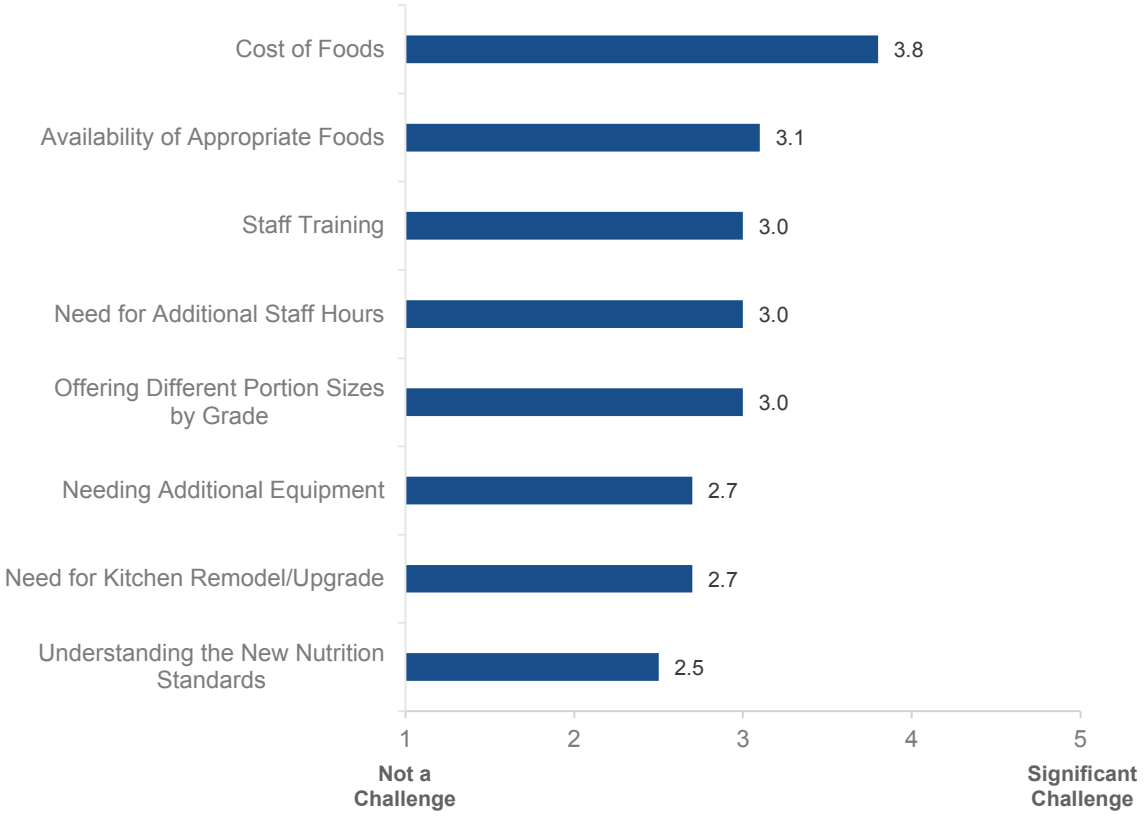
- About half (51 percent) of all schools offered only one serving line or station with reimbursable meals or components for lunch. Sixty percent of middle and high schools had multiple serving lines or stations,[8] compared to 32 percent of elementary schools. Among schools that offered the SBP, similar patterns were observed for breakfast serving lines and stations.
- The cafeteria or other foodservice area was the most common place where students ate breakfast (82 percent of schools). More than one-fourth of elementary schools offered breakfast in the classroom (27 percent), compared with 15 and 14 percent of middle and high schools, respectively. Prepackaged "grab-and-go" breakfasts were served in 21 percent of high schools and 15 percent of middle schools, but only 7 percent of elementary schools.
- The HHFKA requires schools to make potable water (that is, water that is safe to drink) available at no charge to students at both breakfast and lunch. Nearly all schools (95 percent) met this requirement for lunch. Nearly half of all schools (49 percent) offered drinking fountains within the cafeteria and 36 percent offered drinking fountains within 20 feet of the cafeteria. About one-quarter (24 percent) of schools offered water dispensers or coolers within the cafeteria. Patterns of water availability were similar for breakfast when served in the cafeteria.

7. Experiences Implementing the New Nutrition Standards

- The HHFKA provided for an additional 6 cents reimbursement per lunch for SFAs that demonstrate compliance with the new nutrition standards for both lunch and breakfast (if offered). Nearly all SFA directors (95 percent) reported that their SFAs were certified to receive the additional reimbursement in SY 2014–2015.
- The majority of SFA directors rated the new nutrition standards as somewhat or very helpful in meeting underlying nutrition goals for children, especially for decreasing sodium intake (78 percent); meeting, but not exceeding, children's calorie requirements (70 percent); and increasing consumption of dark green and red/orange vegetables (70 percent).
- SFA directors rated the cost of foods as the most challenging issue they face in implementing or maintaining compliance with the new nutrition standards (mean score of 3.8 on a scale of 1 [not a challenge] to 5 [significant challenge]; Figure ES.2).
- Since SY 2012–2013, when the new nutrition standards went into effect, 76 percent of SFA directors received some kind of training or TA related to the standards. Menu planning was the most common topic (95 percent of SFA directors who received any training or TA), followed by food safety (87 percent), nutrition education (84 percent), food production (80 percent), and food serving (80 percent).

[8] Food stations include kiosks or carts, service windows, standalone salad bars or other self-serve bars, fresh fruit bowls/displays, and milk coolers

Figure ES.2. Challenges Faced in Fully Implementing or Maintaining Compliance with the New Nutrition Standards (Mean Rating)



Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Estimates are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: The survey did not assign meanings to the other points on the scale.

SFA = school food authority.

C. Characteristics of School Nutrition Environments

School nutrition environments, which are shaped by characteristics such as the quality of school meals, nutrition education practices, and access to competitive foods, can influence children's dietary intakes. USDA has historically had limited control over school policies and practices not directly associated with school meals. Since SY 2006–2007, SFAs participating in the NSLP have been required to implement a local wellness policy to establish a school environment that promotes students' health, well-being, and ability to learn. The HHFKA strengthened and expanded the scope of wellness policies and required nutrition standards for competitive foods.

1. Local Wellness Policies

- Virtually all SFA directors (99 percent) reported that their school district had a wellness policy and nearly one-fourth of school principals (22 percent) reported that their school had its own wellness policy in addition to the district policy.

- Most SFA directors reported that the following policy components required under the HHFKA were fully or partially implemented in their district: physical education (87 percent), nutrition education (83 percent), nutrition promotion (82 percent), access to competitive foods during school hours (77 percent), and daily physical activity outside of physical education class (77 percent).
- Among SFA directors who reported having a district wellness policy, 36 percent reported that their district had evaluated schools' compliance with the policy. For policy components that were evaluated, SFA directors rated compliance on a scale of 1 [not in compliance] to 5 [in compliance]. Compliance with the policy was highest for physical education (mean rating of 4.6), nutrition promotion (4.5), and access to competitive foods during school hours (4.5). Compliance was lower for plans related to measuring policy implementation (4.2), describing progress (4.1), and informing the public about wellness policy content and implementation (4.1).
- SFA directors were asked whether their local wellness policy included nutrition standards for foods sold and served in schools that exceeded Federal requirements. Forty percent of SFAs reported fully or partially implemented nutrition standards for school meals that exceeded the Federal requirements. Another 9 percent were planning standards that would exceed the requirements.

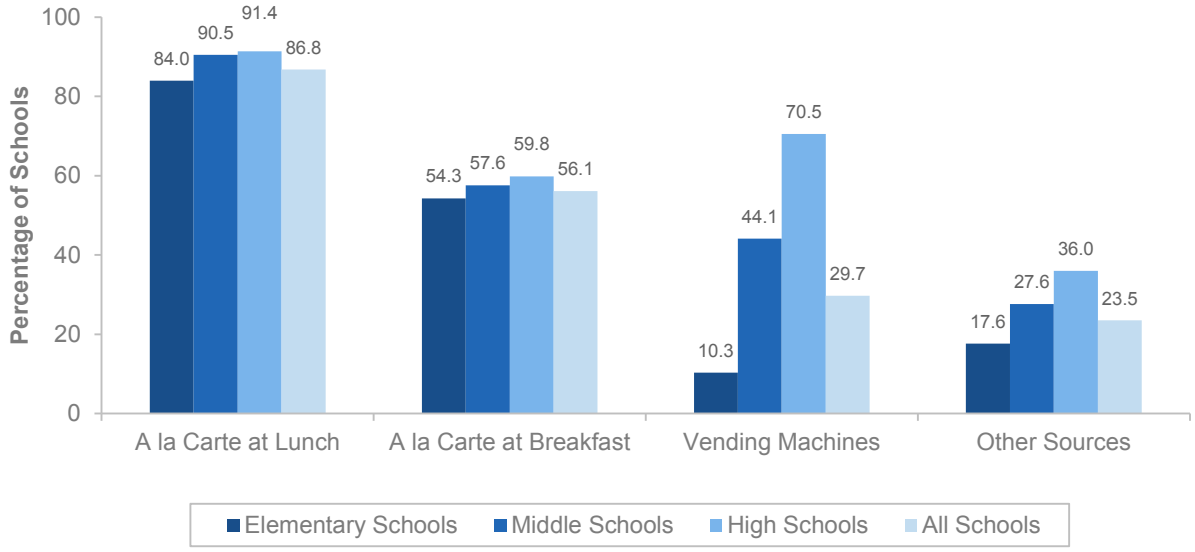
2. Nutrition Outreach and Promotion Practices

- The HHFKA stipulates that local wellness policies include goals for nutrition promotion and education and other school-based activities that promote student wellness. The most common activities implemented by SFA staff included foodservice staff reaching out to school nurses or classroom teachers about student food allergies (83 percent), conducting a taste-test activity with students (70 percent), and inviting family members to consume a school meal (68 percent).
- At the school level, SNMs also reported that foodservice staff outreach to school nurses or classroom teachers about student food allergies was the top activity (82 percent of schools). Schools also commonly provided information about the school meal program to families (73 percent), and invited family members to eat a school meal (64 percent). Many nutrition outreach and promotion activities were prevalent before the new standards went into effect in SY 2012–2013. The most common activities to be adopted after the new nutrition standards went into effect included providing information about the school meal program to families (28 percent), discussing student food allergies with the school nurse or classroom teachers (27 percent), and conducting student taste-test activities (25 percent).
- Schools' participation in nutrition and wellness initiatives varied. Over two-thirds (69 percent) of principals did not know if their school participated in Team Nutrition, and nearly half (44 percent) did not know if their school was participating in other types of nutrition/wellness initiatives. Fourteen percent of principals reported that their school participated in USDA's Team Nutrition initiative, and 23 percent reported that their school participated in other nutrition or wellness initiatives such as the Healthy Schools Program, Fuel Up to Play 60, and 5-A-Day.

3. Competitive Foods

- The majority of schools had at least one source of competitive foods available to students (Figure ES.3). The availability of foods for a la carte purchase during meal times was the most common source (in 87 percent of schools for lunch and 56 percent for breakfast). Vending machines were available in 30 percent of all schools; they were much more common in high schools (71 percent), relative to middle schools (44 percent) and, in particular, elementary schools (10 percent). Nearly one-fourth (24 percent) of schools had competitive foods available through alternative sources such as school stores, snack bars, food carts, kiosks, bake sales, or fundraisers.

Figure ES.3. Competitive Food Sources Available in Schools



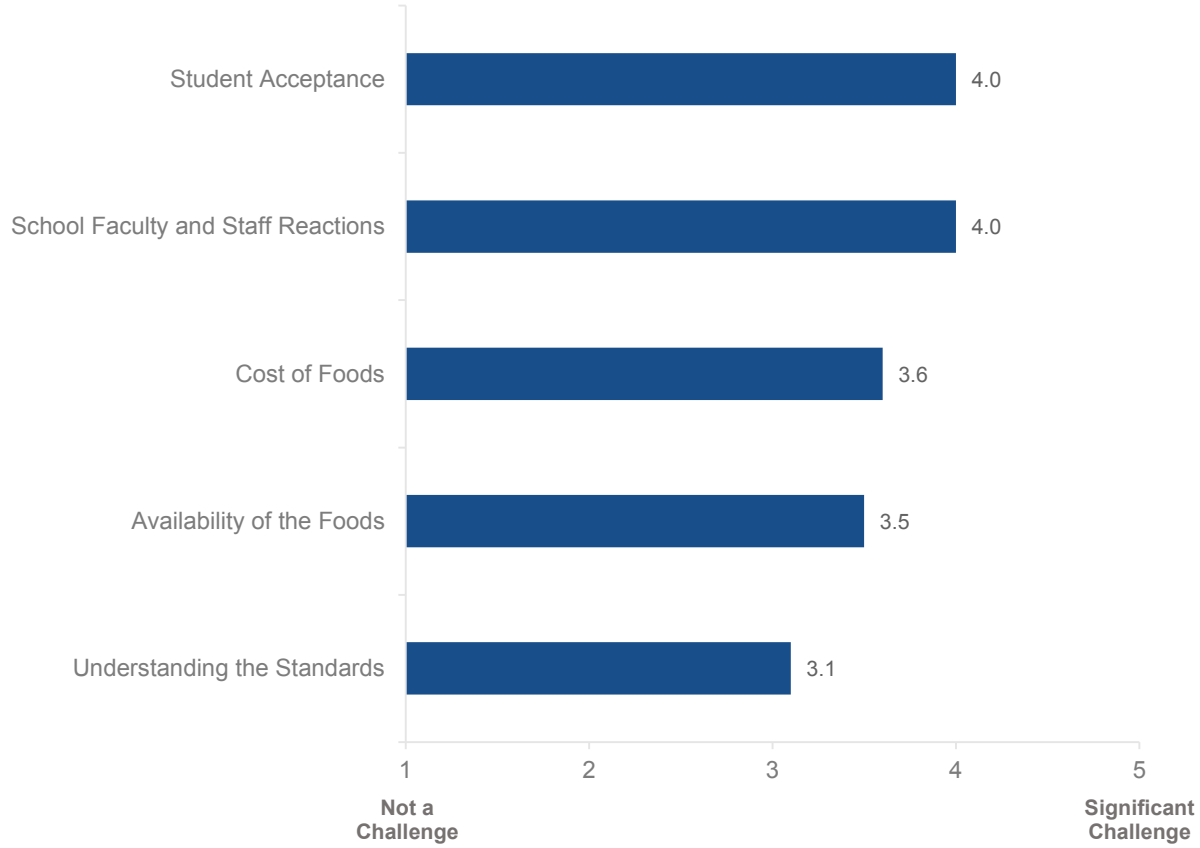
Source: School Nutrition and Meal Cost Study, A la Carte Checklist, Other Sources of Foods and Beverages Checklist, Principal Survey, and Vending Machine Checklist, school year 2014-2015. Estimates are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

- The items most commonly offered on an a la carte basis at lunch included milk (73 percent of all schools); water and 100 percent juices (48 percent); fresh, canned, or dried fruit (42 percent); and baked goods or desserts (30 percent). Low-fat baked goods were more prevalent than their regular-fat counterparts. Commonly offered items at breakfast included milk, water and juice, fruit, and bread or grain products.
- Beverage machines outside the school foodservice area were most often available after the last regular class (88 percent of all schools) or before school (74 percent). Forty-seven percent of high schools with beverage machines had them available during breakfast. Beverage vending machines were available at lunch in half of high schools. Availability of snack machines was similar to that of beverage machines in high schools.
- On average, 56 percent of a school's beverage machines contained only milk, 100 percent juice, or water. Other beverages, including energy and sports drinks, regular or diet carbonated soft drinks, and juice drinks, were more common in high schools than in middle or elementary schools (50 percent versus 10 and 5 percent, respectively). The most common

snack machine item was reduced-fat baked chips (available in 11 percent of all schools and 32 percent of high schools).

- Implementation of the nutrition standards for competitive foods, called Smart Snacks in Schools, was required in SY 2014–2015. In spring 2015, when the SNMCS data were collected, about one in five SFA directors with schools that offered competitive foods (19 percent) reported that the Smart Snacks standards were not yet fully implemented. Among these SFA directors, student acceptance and faculty and staff reactions were rated as the biggest challenges to implementation (Figure ES.4). SNMs had similar ratings for challenges faced in implementing Smart Snacks in Schools requirements.

Figure ES.4. Challenges Faced by SFAs That Have Not Yet Fully Implemented the Smart Snacks in Schools Standards for Competitive Foods (Mean Rating)



Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Estimates are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: The survey did not assign meanings to the other points on the scale. Estimates are among SFAs that have not fully implemented the Smart Snacks in Schools nutrition standards.

SFA = school food authority.

1. INTRODUCTION

The National School Lunch Program (NSLP) and School Breakfast Program (SBP) form the cornerstone of the nation's nutrition safety net for low-income children. These programs, which are administered by the U.S. Department of Agriculture (USDA), Food and Nutrition Service (FNS), provide 30 million Federally subsidized lunches and 15 million Federally subsidized breakfasts to children each school day (USDA FNS 2017a and 2017b). Children whose families are living below 130 percent of the Federal poverty level (FPL) are eligible for free meals, although schools in high-poverty areas may provide free meals on a universal basis regardless of households' income. For children whose families earn between 130 and 185 percent of the FPL, meals can be purchased at a reduced price. Children who do not apply or qualify for free or reduced-price meals pay full price for the meals.

At the State level, the NSLP and SBP are administered by State child nutrition (CN) agencies and at the local level by school food authorities (SFAs). State CN agencies are responsible for ensuring that SFAs comply with Federal regulations, but SFAs and schools have operational discretion in how they administer the programs within Federal and State guidelines. For example, SFAs and schools have options in how they set meal prices, plan their menus, select methods of food production, and use nutrition promotion techniques.

In school year (SY) 2012–2013, the school meal programs began to undergo widespread changes, mainly stemming from the Healthy, Hunger-Free Kids Act of 2010 (HHFKA, Public Law 111-296). Key reforms included more fruits, vegetables, and whole grains in the school menu; updated nutrition standards to improve the nutritional quality of school meals and students' diets in order to reduce children's risk of developing chronic diseases; a new requirement that students select at least 1/2 cup of fruit or vegetables in order for their meal to be eligible for Federal reimbursement; equitable price-setting for full-price (also called "paid") meals; and the introduction of nutrition standards for all foods and beverages sold in competition with reimbursable meals in schools during the school day (competitive foods).

All of these reforms have important implications for the school meal programs. The new nutrition standards are intended to improve the nutritional quality of school meals. However, complying with the updated standards may affect the costs schools face in producing school meals. In addition, meals that comply with the updated standards and new menu options developed by schools may not be as acceptable to students as some of the former options that were served. This could lead to changes in student participation if student acceptability is not taken into account. Students' decisions to eat school meals may also be affected by the requirement to take at least a 1/2 cup of fruit or vegetables or the prices charged for paid meals. The updated nutrition standards for competitive foods may affect students' consumption of these foods as well as the likelihood of purchasing reimbursable meals. Ultimately, changes in school meal participation and consumption of competitive foods may affect the quality of students' diets.

There is a critical need for information about how SFAs and schools are doing in implementing the changes made in response to the HHFKA and about whether and how these changes are affecting school foodservice operations; the nutritional quality, cost, and acceptability of meals; student participation and satisfaction; plate waste; and the quality of students' diets. To ensure this information would be available to policymakers and other

stakeholders, FNS sponsored the School Nutrition and Meal Cost Study (SNMCS). The SNMCS continues FNS's long-standing commitment to periodic assessment of the school meal programs and is the first nationally representative, comprehensive assessment of these programs since major reforms began in SY 2012–2013.

Relative to prior studies of the school meal programs, the SNMCS is unique in three important ways. No previous national study of the school meal programs has (1) simultaneously examined the cost of producing school meals and the nutritional quality of those meals; (2) examined students' acceptance of school meals in a quantitative way, using data on the amount of food students waste (plate waste); or (3) examined associations between major outcomes of interest, for example, the association between the nutritional quality of school meals and student participation and the association between the cost and nutritional quality of school meals.

The goal of the SNMCS was to describe the following after implementation of the new nutrition standards:

- ***School meal program operations and school nutrition environments***
- ***Food and nutrient content of school meals and afterschool snacks and overall nutritional quality of school meals***
- ***School meal costs and school foodservice revenues***
- ***Student participation, student and parent satisfaction, plate waste, and students' dietary intakes.***

A. Overview of the School Nutrition and Meal Cost Study

The SNMCS addressed a broad array of research questions of interest to stakeholders at the national, State, and local levels. The research questions are grouped under four broad domains:

- School meal program operations and school nutrition environments
- Food and nutrient content of school meals and afterschool snacks and overall nutritional quality of meals
- School meal costs and school foodservice revenues
- Student participation, student and parent satisfaction, plate waste, and students' dietary intakes.

To address these research questions, the SNMCS collected data from nationally representative samples of public SFAs and public, non-charter schools participating in the NSLP, students enrolled in these schools, and their parents.[9] The sections that follow describe the SNMCS data collection instruments and activities, followed by the response rates and sample sizes for the components that assessed SFA and school characteristics, foodservice policies and

[9] Charter schools were excluded from the school sample. SFAs, local educational agencies (LEAs), and districts are distinct governing bodies. SFAs are the governing bodies responsible for school foodservice operations, but some of the responsibilities are fulfilled by LEAs or districts, most notably determining eligibility for free or reduced-price meals, local wellness policies, and competitive food sales. Schools can also be responsible for the latter. In this report, the tables and text distinguish between SFAs and districts because of the topics covered. The report does not refer to LEAs, but readers should note that recent NSLP statutes and regulations refer to LEAs for some functions addressed in the report.

practices, and school nutrition environments. Readers who are interested in technical details about the study design, sampling, and data collection procedures should refer to the SNMCS methodology report (Zeidman et al. 2019).

1. Data Collection Instruments and Activities

The SNMCS data collection instruments are summarized in Table 1.1 and the data collection activities are described below, organized by the four domains. With the exception of follow-up cost interviews, data collection activities were completed in the spring of SY 2014–2015.

Table 1.1. Data Collection Instruments

Instrument	Respondent	Mode
School Meal Program Operations and School Nutrition Environments		
SFA Director Survey	SFA directors	Web
School Nutrition Manager Survey	School nutrition managers	Web
A la Carte Checklist	School nutrition managers	Web
Principal Survey	Principals	Web
Competitive Foods Checklists Vending Machine Checklist	School liaisons	Hard copy
Other Sources of Foods and Beverages Checklist	School liaisons	Hard copy
Cafeteria Observation Guide	Field staff, with school nutrition manager input	On-site observation
Nutritional Quality of School Meals		
Menu Survey	School nutrition managers	Web
School Meal Costs and School Foodservice Revenues		
State Education Agency Finance Officer Indirect Cost Survey	State Child Nutrition directors and State education agency finance officers	Telephone
Expanded Menu Survey	School nutrition managers	Web
SFA Director and Business Manager Cost Interview	SFA directors and business managers	In-person (plus telephone for follow-up interviews)
Principal Cost Interview	Principals	In-person
School Nutrition Manager Cost Interview	School nutrition managers	In-person
Student Participation, Student and Parent Satisfaction, Plate Waste, and Students' Dietary Intakes		
24-hour Dietary Recall	Students	In-person (plus telephone for second recalls in a subsample)
Child/Youth Interview	Students	In-person
Height and Weight Measurements	Students	In-person
Parent Interview	Parents	In-person or telephone
Reimbursable Meal Sales Administrative Data	Field staff	Hard copy
Plate Waste Observations	Field staff, with school nutrition manager input	On-site observation

Source: School Nutrition and Meal Cost Study, school year 2014-2015.

SFA = school food authority.

To describe **SFA and school characteristics, foodservice operations, and school nutrition environments**:

- SFA directors (staff who are responsible for the oversight of school meal operations across one or more schools within an SFA) completed the web-based SFA Director Survey, which asked about SFA-level foodservice operations and policies, implementation of the new nutrition standards, nutrition promotion and outreach, and SFA directors' backgrounds. Although some SFAs were selected to complete only the SFA Director Survey, the majority of SFAs selected to participate in the SNMCS had schools that were also selected to participate in school-level data collection.
- School nutrition managers (SNMs; staff who are responsible for school-level foodservice operations, including the provision of meals to students) completed the web-based SNM Survey.[10] Topics included school-level foodservice operations, implementation of the new nutrition standards, meal pricing, provision of afterschool snacks and suppers, and nutrition promotion and outreach. SNMs also completed the A la Carte Checklist to describe items available for a la carte purchase at breakfast or lunch.
- Principals completed the web-based Principal Survey, which asked about school characteristics, school meal policies, competitive foods sources and policies, and nutrition education and promotion.
- School liaisons (non-foodservice staff who were identified during school recruitment) completed two forms known collectively as the Competitive Foods Checklists. These forms captured information about the nonreimbursable items available for sale to students in locations such as vending machines or school stores.
- Trained field interviewers completed observations of the cafeteria environment (for example, serving line configurations and the availability of potable water) during breakfast and lunch. SNMs provided input to answer some of the questions on the form, called the Cafeteria Observation Guide.

To describe **the food and nutrient content of school meals and afterschool snacks and the overall nutritional quality of meals**, SNMs completed the web-based Menu Survey.[11] The Menu Survey collected detailed information about the foods offered and served in reimbursable meals and afterschool snacks during one school week, referred to as the "target week." Most SNMs completed an expanded version of the Menu Survey that collected additional information needed for cost analyses, including information on nonreimbursable foods and the total quantity of food used at each meal.

To describe **the costs of producing school meals and school foodservice revenues**, trained field interviewers completed cost interviews with SFA directors and business managers, SNMs, and school principals to capture labor costs associated with producing school meals. SFA directors and business managers also answered questions related to SFA staffing and operations and indirect costs as part of their interview. During follow-up interviews, researchers reviewed

[10] The term *school nutrition manager* is updated from prior SNDA studies, which used *foodservice manager* to refer to these staff.

[11] In some schools, other respondents, such as SFA directors or other SFA staff, completed the Menu Survey.

each SFA's SY 2014–2015 annual financial statement with SFA and school district officials to verify reported costs, identify unreported costs, obtain information to impute the value of unreported costs, and determine the SFA's annual revenues. These cost interview data were combined with the data collected in the Menu Survey, as noted above, to determine the composition of school foodservice costs and revenues.

Finally, to describe **student participation, parent and student satisfaction, plate waste, and students' dietary intakes**, respondents participated in a variety of activities:

- Sampled students in participating schools completed a 24-hour dietary recall and the Child/Youth Interview, and had their height and weight measured by trained field interviewers.
- The parents/guardians of students participating in the study completed the Parent Interview in person (for parents of elementary school students) or by telephone (for parents of middle and high school students).
- School foodservice staff provided administrative data, typically generated by point-of-sale systems, on whether the school recorded sampled students as having received a reimbursable breakfast or lunch on the day referenced in the 24-hour dietary recall.
- Trained field interviewers conducted plate waste observations on a sample of breakfasts and lunches in participating schools. These observations documented the foods and beverages taken by students and the amounts of these foods that students wasted (did not consume).

Findings from the extensive analyses of data collected in the SNMCS are presented in four report volumes, plus a summary report (Fox and Gearan 2019) that highlights key findings across the volumes. Report Volume 1 (this volume) provides updated information about school meal program operations and school nutrition environments. Volume 2 (Gearan et al. 2019) focuses on the food and nutrient content of reimbursable meals and afterschool snacks and the overall nutritional quality of meals. Volume 3 (Logan et al. 2019) describes school meal costs and school foodservice revenues. Volume 4 (Fox et al. 2019) addresses students' participation in school meals, parents' and students' satisfaction with the meals, amounts of plate waste, and the influence of school meals on students' dietary intakes. A separate methodology report (Zeidman et al. 2019) provides technical details about study design, sampling, and data collection procedures.

2. Response Rates and Sample Sizes

Table 1.2 shows initial and completed sample sizes and response rates for recruitment of SFAs and schools into the study and for each of the data collection instruments used for this report volume. All response rates are weighted using raw sampling weights, which correct for unequal probability of selection.[12]

[12] The methodology report (Zeidman et al. 2019) provides response rates for all data collection instruments.

The recruitment effort[13] included gaining approval for the SFA and its sampled schools (one to six schools per SFA) to participate. A total of 633 SFAs were invited to participate in the SNMCS and a total of 548 agreed (87 percent weighted response rate). At the school level, 1,282 of the 1,284 sampled schools were successfully recruited (100 percent weighted response rate).

Table 1.2. Completed Sample Sizes and Response Rates

Instrument	Initial Sample	Completed Sample	Weighted Response Rate (%)
Recruitment			
SFAs	633	548	86.6
Schools	1,284	1,282	99.8
Data Collection			
SFA Director Survey	548	518	95.7
School Nutrition Manager Survey	1,282	1,210	96.9
A la Carte Checklist	1,282	1,210	96.9
Principal Survey	1,282	1,090	87.2
Competitive Foods Checklists			
Vending Machine Checklist	1,104	858	83.0
Other Sources of Foods and Beverages Checklist	1,104	858	83.0
Cafeteria Observation Guide	1,282	1,257	94.6

Source: School Nutrition and Meal Cost Study, school year 2014-2015.

Notes: The response rates are weighted using raw sampling weights—that is, weights that correct for unequal probability of selection before any nonresponse adjustments. The response rates for individual instruments reflect the percentage of eligible SFAs/schools that completed each instrument, given that the SFA/school had been recruited and agreed to participate in the study.

SFA = school food authority.

Weighted response rates were 95 percent or higher for the following data collection instruments: SFA Director Survey (96 percent), School Nutrition Manager Survey (97 percent), A la Carte Checklist (97 percent), and Cafeteria Observation Guide (95 percent). The response rates were slightly lower for instruments completed by principals and school liaisons—87 percent for the Principal Survey and 83 percent for the two Competitive Foods Checklists.

3. Subgroup Analyses and Statistical Reporting Standards

All data are presented for all schools combined and separately for three subgroups of schools: elementary, middle, and high schools. Tables that present data for subgroups of SFAs based on SFA size, urbanicity, and district child poverty rate are presented in appendices and generally not discussed in the report.

To help readers assess the reliability of estimates, reporting standards based on those of the joint USDA/National Center for Health Statistics Working Group (Federation of American Societies for Experimental Biology 1995) were applied. Specifically, based on a broadly

[13] SFAs in the sample that completed only the SFA Director Survey were not formally recruited; rather, they were invited by mail and email to complete the survey. SFAs in the SFA-plus-school sample were formally recruited to participate in the study. Of the 518 completed SFA Director Surveys, 144 were from the SFA-only portion of the sample. The methodology report provides additional details about the sample structure.

estimated average design effect of 1.9, data are not reported for any subgroup with fewer than 57 schools or SFAs (30 * average design effect of 1.9).

B. Overview of the Volume 1 Report

The rest of this report is organized into two chapters. Chapter 2 describes many aspects of school meal program operations, including characteristics of districts and schools participating in the NSLP; availability of the SBP, afterschool snacks and suppers; average daily participation rates; meal prices; menu planning, meal production, and meal service practices; and SFA director experiences implementing the new nutrition standards. Chapter 3 describes the characteristics of school nutrition environments, including local wellness policies, nutrition outreach and promotion practices; availability of competitive foods; and SFA director and SNM experiences implementing the new nutrition standards for competitive foods, known as the Smart Snacks in Schools standards.

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2. SCHOOL MEAL PROGRAM OPERATIONS

This chapter presents information on school meal program operations in public SFAs and public, non-charter schools that participated in the NSLP in SY 2014-2015. The data presented were collected through the SFA Director Survey, the SNM Survey, and the Principal Survey, as well as from observations of cafeteria operations by SNMCS field staff.

The chapter begins with descriptive information on the demographic, geographic, and institutional characteristics of public school districts and schools that participate in the NSLP (Section A). Next, it presents findings on the availability of the SBP and afterschool snacks and suppers (Section B), and on the provision of universal free lunches and breakfasts (Section C). Section D presents results on meal prices for the SBP and NSLP, including a comparison to key findings from the fourth School Nutrition Dietary Assessment study (SNDA-IV). The last three sections of the chapter provide a broad array of information on menu planning and meal production practices (Section E), meal service practices (Section F), and SFA directors' experiences implementing the new nutrition standards (Section G). Tables and figures in the chapter present key results; supplemental tables appear in Appendices A and B, as noted throughout the chapter.

A. Characteristics of Districts and Schools

Table 2.1 shows the distributions of key demographic, geographic, and institutional characteristics of public school districts that participated in the NSLP. Characteristics presented include district size (enrollment), SFA type (single or multidistrict), urbanicity, child poverty rate, FNS administrative region, share of minority students, and the presence of charter schools.[14] Nationally, most SFAs (87 percent) had 5,000 or fewer students; half had 1,000 or fewer students. Districts were predominantly located in suburban and rural settings (37 and 50 percent, respectively), and the majority (59 percent) had child poverty rates lower than 20 percent.

Table 2.2 shows the distributions of key characteristics of schools that participated in the NSLP. Characteristics presented include school size (enrollment), urbanicity, child poverty rate, FNS administrative region, and share of students approved for free and reduced-price meals. Just under half of schools that offered the NSLP (48 percent) were small (fewer than 500 students), and medium-sized schools (500-999 students) were more prevalent than large schools (1,000 or more students; 39 and 12 percent, respectively). Schools were mainly located in suburban and rural settings (44 and 35 percent, respectively). Over two-thirds of schools (67 percent) had 40 percent or more of students approved to receive free or reduced-price meals. Appendix Tables A.1 and A.2 provide comparable information for schools that provided afterschool snacks through the NSLP and for elementary schools that participated in the Fresh Fruit and Vegetable Program.

[14] Charter schools may be part of the district or separate entities in the district catchment area.

Table 2.1. Characteristics of Public School Districts That Participated in the NSLP

	Number of Sample SFAs (Unweighted)	Number of SFAs (Weighted)	Percentage of SFAs (Weighted)
SFA Size[a]			
Fewer than 1,000 students	136	7,600	49.9
1,000 to 5,000 students	192	5,600	37.0
More than 5,000 students	190	2,000	13.2
SFA Type			
Single district	440	12,800	83.8
Multidistrict	73	2,300	15.0
Missing	5	200	1.2
Urbanicity			
Urban	93	2,000	13.0
Suburban	247	5,700	37.3
Rural	178	7,600	49.7
District Child Poverty Rate[b]			
Lower (less than 20 percent)	295	9,000	58.7
Higher (20 percent or more)	223	6,300	41.3
FNS Region			
Midwest	113	4,000	26.0
Mountain Plains	63	2,700	17.4
Southwest	77	2,300	15.2
Western	86	2,000	13.2
Northeast	54	1,800	11.6
Southeast	68	1,300	8.5
Mid-Atlantic	57	1,200	8.1
Share of Minority Students[c]			
Less than 20 percent	206	8,100	53.4
20 to 39 percent	106	2,600	16.8
40 to 59 percent	74	1,500	9.9
60 to 79 percent	64	1,100	7.0
80 percent or more	58	1,700	11.3
Missing	10	300	1.7
Charter Schools			
SFA contains charter schools	31	1,700	10.9
SFA does not contain charter schools	487	13,600	89.1
Number of SFAs	**518**	**15,300**	

Source: School Nutrition and Meal Cost Study, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Data on SFA size, urbanicity, and minority students were from the U.S. Department of Education's Common Core of Data (CCD) 2011-2012. Data on child poverty rates were from the 2011 U.S. Census Bureau's Small Area Income and Poverty Estimates school district file. Data on FNS region were taken from the Food and Nutrition Service's SFA Verification Summary Report 2012-2013. Data on SFA type and charter schools were reported in the SFA Director Survey. Weighted estimates of the numbers of SFAs have been rounded to the nearest hundred.

[a]CCD 2011-2012 district enrollment data and SFA Verification Summary Report 2012-2013 data were used to impute enrollments for multidistrict SFAs and districts with missing data.

[b]District child poverty rate was imputed for 38 SFAs.

[c]Minority race/ethnicity categories in the CCD data include Black non-Hispanic, Hispanic, Asian, American Indian/Alaska Native, Hawaiian Native/Pacific Islander, and students belonging to two or more races.

CCD = Common Core of Data; FNS = Food and Nutrition Service; SFA = school food authority.

Table 2.2. Characteristics of Public, Non-charter Schools That Participated in the NSLP

	Number of Sample Schools (Unweighted)	Number of Schools (Weighted)	Percentage of Schools (Weighted)
School Size			
Small (fewer than 500 students)	427	45,400	48.4
Medium (500 to 999 students)	495	36,900	39.4
Large (1,000 or more students)	279	11,400	12.2
Urbanicity			
Urban	236	20,100	21.4
Suburban	604	40,900	43.7
Rural	361	32,800	34.9
District Child Poverty Rate[a]			
Lower (less than 20 percent)	676	51,000	54.4
Higher (20 percent or more)	525	42,800	45.6
FNS Region			
Midwest	248	17,700	18.9
Southeast	187	15,600	16.6
Western	213	15,600	16.6
Southwest	172	13,400	14.3
Mountain Plains	129	12,300	13.1
Mid-Atlantic	137	12,300	13.1
Northeast	115	6,900	7.4
Share of Students Approved for F/RP Meals[b]			
Less than 20 percent	152	10,600	11.4
20 to 39 percent	272	17,600	18.7
40 to 59 percent	305	23,400	25.0
60 to 79 percent	212	17,100	18.2
80 percent or more	225	22,500	24.0
Missing	35	2,600	2.8
Number of Schools[c]	**1,201**	**93,800**	

Source: School Nutrition and Meal Cost Study, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Notes: Data on school size (student enrollment) were reported in the SFA Director Survey or taken from the U.S. Department of Education's Common Core of Data (CCD) 2011-2012. Data on free and reduced-price meals were reported in the SFA Director Survey. Data on urbanicity were taken from the CCD 2011-2012. Data on child poverty rates were from the 2011 U.S. Census Bureau's Small Area Income and Poverty Estimates school district file. Data on FNS region were from the Food and Nutrition Service's SFA Verification Summary Report 2012-2013. Weighted estimates of numbers of schools have been rounded to the nearest hundred. Appendix A provides comparable information for schools that provided afterschool snacks through the NSLP (Table A.1) and for elementary schools that participated in the Fresh Fruit and Vegetable Program (Table A.2).

[a]District child poverty rate was imputed for 38 SFAs.

[b]Forty-two respondents reported that the total number of students receiving free or reduced-price meals exceeded total enrollment. These responses were set to 100 percent.

[c]Three hundred and eighty-three SFA directors provided responses for 1,201 sampled schools.

CCD = Common Core of Data; FNS = Food and Nutrition Service; F/RP = free or reduced-price; SFA = school food authority.

Table A.3 presents data on the specific grade-level configurations within each type of school. Most elementary schools (64 percent) included pre-kindergarten or kindergarten through grades 5 or 6, most middle schools (64 percent) included grades 6 to 8, and most high schools (75 percent) included grades 9 to 12.

B. Availability of the School Breakfast Program, Afterschool Snacks, and Suppers

1. The School Breakfast Program

School participation in the SBP increased from 89 percent in SY 2009–2010 to 94 percent in SY 2014–2015.

The vast majority of schools (94 percent) that participated in the NSLP in SY 2014–2015 also participated in the SBP (Table A.4).[15] This was true for elementary, middle, and high schools alike.

School-level participation in the SBP has expanded substantially since the early 1990s, when the first SNDA study (SNDA-I) was conducted. A number of issues fueled program expansion, including concerns about the proportions of low-income children eligible to receive free or reduced-price breakfasts who were not receiving them (Food Research and Action Center [FRAC] 2003; Rossi 1998), and concerns that children who came to school hungry were at risk for poor academic performance as well as increased tardiness and absenteeism (FRAC 2009 and 2003; Kennedy and Davis 1998).

When SNDA-I was conducted in SY 1991–1992, 44 percent of all NSLP schools participated in the SBP (Burghardt et al. 1993).[16] Participation in the SBP increased to 76 percent of all public NSLP schools by SY 1998–1999 (SNDA-II; Fox et al. 2001), to 85 percent of all public NSLP schools by SY 2004–2005 (SNDA-III; Gordon et al. 2007), and to 89 percent by SY 2009–2010 (SNDA-IV; Fox et al. 2012). The SNMCS findings reflect an additional increase in the participation of NSLP schools in the SBP since SY 2009–2010.

One possible factor contributing to schools' increased participation in the SBP is that some States mandate universal free breakfast for all students in high-poverty schools. The prevalence of this policy increased from one State in SY 2009-2010 to six in SY 2014-2015 (FRAC 2011, 2015a). Another possible factor is the nationwide rollout of the Community Eligibility Provision (CEP) in SY 2014–2015 that allows high-poverty schools to provide free meals to all students without an application process and requires participating schools to participate in the SBP (FRAC and National Association of Secondary School Principals 2015). Use of alternate methods of serving breakfast, such as in-classroom or "grab-and-go" breakfast may facilitate the SBP in schools where more traditional methods are not feasible. In addition, State legislation and funding support the SBP through varying combinations of incentives and mandates (such as laws requiring high-poverty schools to offer breakfast "after the bell," that is, after the start of the first class period) (FRAC 2016).

[15] This percentage is greater than the 91 percent reported by the Food Research and Action Center (FRAC) for SY 2014–2015. The FRAC estimate is not limited to public schools. It includes private schools, residential child care institutions, and other institutions that operate school meal programs (FRAC 2016).

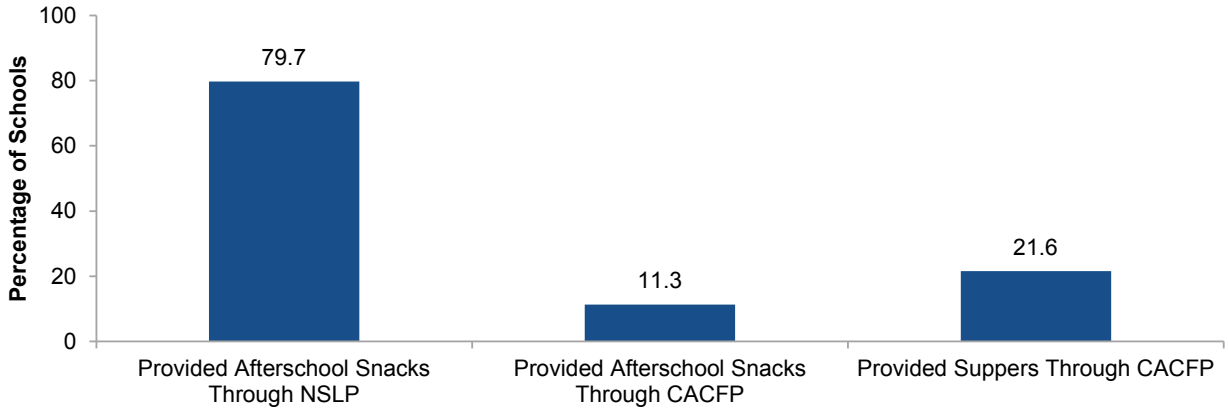
[16] The SNDA-I estimate is not directly comparable to later SNDA studies because it includes private schools. In addition, the estimate was about 10 percentage points lower than USDA administrative data, a difference that is larger than can be expected from sampling error and was not explained (Burghardt et al. 1993).

2. Afterschool Snacks and Suppers

Over one-fifth of schools offered afterschool snacks, with most reimbursed through the NSLP.

Since 1998, schools participating in the NSLP have had the option of providing snacks to children in eligible afterschool programs. SFAs receive cash subsidies for each snack they serve. To be eligible for these subsidies, snacks must meet specific food-based requirements, and afterschool programs must provide children with regularly scheduled educational or enrichment activities in a supervised environment. Operating under similar requirements, the Afterschool Meal Program through the Child and Adult Care Food Program (CACFP) provides funding for a meal, generally supper, in addition to or instead of a snack.[17] Any program that is located in a low-income area can receive CACFP funding to serve a meal. Overall, 25 percent of all schools offered afterschool snacks, suppers, or both (Table A.4). Among schools that provided reimbursable afterschool snacks or suppers, 80 percent provided snacks through the NSLP, 11 percent provided snacks through the CACFP, and 22 percent provided suppers through the CACFP (Figure 2.1). One-third of all schools (33 percent) reported running their own afterschool program (Table A.4). School-run afterschool programs were more common in elementary schools (42 percent) than in middle and high schools (26 and 15 percent respectively).

Figure 2.1. NSLP and CACFP Provision of Afterschool Snacks and Suppers Among Schools That Provided Afterschool Snacks or Suppers



Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Estimates are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

CACFP = Child and Adult Care Food Program; NSLP = National School Lunch Program.

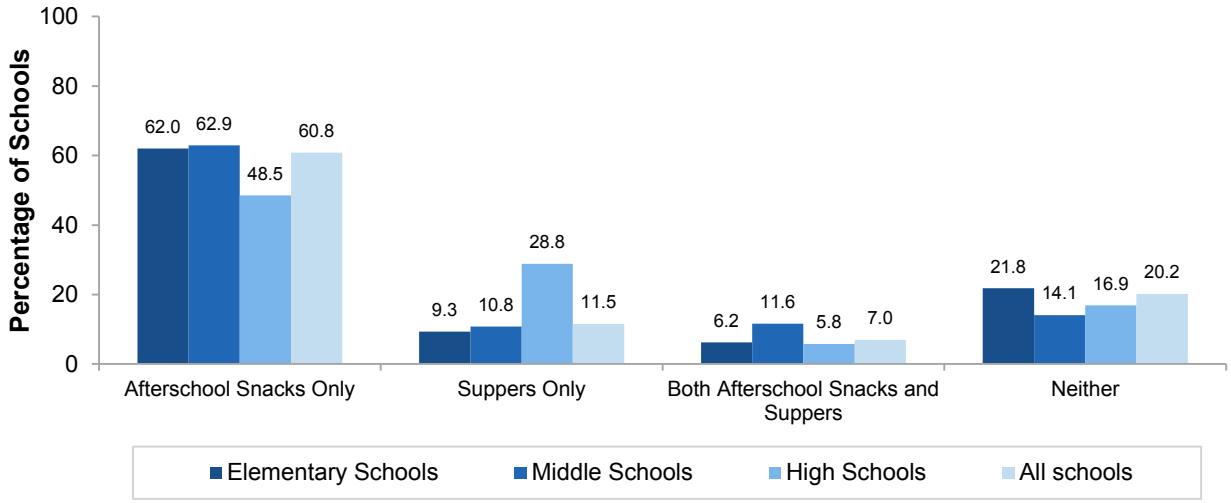
Among schools that operated their own afterschool program (with or without USDA support), 61 percent provided only afterschool snacks (Figure 2.2).[18] Twelve percent of these schools provided only suppers, 7 percent provided both afterschool snacks and suppers, and 20 percent provided neither. Among elementary and middle schools with afterschool programs, a majority provided only snacks (62 and 63 percent, respectively). In contrast, about half (49

[17] Afterschool programs operating on weekends and school holidays can provide supper or an appropriate meal.

[18] Figure 2.2 includes all schools that reported operating an afterschool program. Some of these schools did not report using NSLP or CACFP funding for their afterschool snacks or suppers.

percent) of high schools that operated afterschool programs limited meal service to afterschool snacks. More than one-third (35 percent) of these high schools provided either suppers only (29 percent) or both afterschool snacks and suppers (6 percent).

Figure 2.2. Provision of Afterschool Snacks and Suppers Among Schools with Afterschool Programs



Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Estimates are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

More than one-quarter (27 percent) of SFAs reported having schools that offered afterschool snacks (Table A.5). Among these SFAs, most (81 percent) reported that the SFA or individual schools operated the afterschool program. Appendix Tables A.5 through A.8 present findings about other organizations operating afterschool programs that offered snacks, overall, and by SFA size, district child poverty rate, and urbanicity.

C. Universal Free Meals and Student Participation in the NSLP and SBP

Participation in the NSLP and SBP is open to all students in participating schools. Students from low-income households are eligible to receive meals free of charge or at a reduced price. SFAs may use household applications from families to determine if their school-age children are eligible to receive free or reduced-price meals. Children from families with incomes at or below 130 percent of the FPL are eligible for free meals. Those with incomes between 130 and 185 percent of the FPL are eligible for reduced-price meals. Students in foster care or Head Start, or who are homeless, migrants, runaways, or living in households receiving certain means-tested benefits, are considered to be categorically eligible for free meals and may be directly certified.[19] Direct certification is based on documentation obtained from appropriate State or local agencies and does not require a household application.

[19] Students in households receiving benefits from the Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance for Needy Families, or the Food Distribution Program on Indian Reservations are categorically eligible for free meals and may be directly certified.

Schools with higher percentages of low-income students may participate in Provision 2 or 3, which allows them to serve meals to all participating students at no charge. Such schools establish claiming percentages for the NSLP and SBP, which are determined by collecting household applications in the first (base) year of a four-year cycle, and then use these claiming percentages without collecting applications for the next three years. The CEP, which became available nationwide in SY 2014–2015, allows schools and LEAs with 40 percent or more students directly certified for free meals to provide free breakfast and lunch to all students. The CEP does not require household applications to determine claiming percentages.

SFA directors reported that direct certification and household applications were the most common methods used to approve students for free or reduced-price meals. SFAs used direct certification and household applications at nearly the same rate (89 and 88 percent, respectively; Table A.9). Only 8 percent of SFAs reported using other methods of determining eligibility (such as identification through use of lists of homeless or migrant children, or those in foster care), and only 3 percent reported that they provided free meals to all students without a process of determining eligibility.[20]

1. Schools with Universal Free Meals for Lunch or Breakfast

Schools that offered universal free meals were more likely to offer free breakfast than free lunch. Nearly one-third of all SBP schools (29 percent) offered free breakfast to all students.

Among schools that offered free meals to all students, free breakfast was more commonly offered than free lunch. About one in five schools (19 percent) offered free lunch to all students (Table 2.3). In contrast, among schools that offered the SBP, nearly one-third (29 percent) offered free breakfast to all students. For both lunch and breakfast, the proportion of elementary schools that offered free meals to all students was somewhat higher than the proportion of middle and high schools (20 percent versus 18 percent for lunch and 32 percent versus 25 percent for breakfast). Schools that offered free lunch to all students used the CEP much more frequently than Provision 2 or 3 (80 percent versus 19 percent).[21] Of the schools that offered free breakfast to all students, 56 percent did so through the CEP, and 14 percent offered free breakfast through means other than one of the national Provisions.[22]

[20]The small percentage of SFAs that reported providing free meals to all students without a process of determining eligibility is not necessarily inconsistent with the larger percentages of schools that reported providing free lunch and breakfast to all students. Although SFAs using Provisions 2 or 3 or the CEP are not required to collect household applications annually, they are required to match student records with SNAP annually (unless the State conducts the match), and some may use this process to update students' eligibility status. SFAs using Provision 2 or 3 must collect applications for free and reduced-price meals every five years unless they receive an exemption. SFAs using the CEP may choose to conduct direct certification annually or more often in order to update the percentage of meals they can claim at the free rate.

[21]SFAs choose among the provisions based on their assessment of the financial impacts and other factors. In some cases the claiming rates under the CEP may provide SFAs more reimbursement than Provision 2 or 3 for the same number of meals. In addition, the CEP does not require eligible SFAs to revert to collecting applications for free and reduced-price meals, whereas Provisions 2 and 3 requires this every five years.

[22]Schools may offer free breakfast to all students outside of the national Provisions under at least two known scenarios: a State mandate for high-poverty schools to offer universal free breakfast for all students (Share Our Strength 2014), and a "non-pricing" policy selected by the SFA, in which the price of a breakfast for paid and reduced-price students is $0.00 and other revenue covers the lost student payments (FRAC 2016).

Table 2.3. Schools That Offered Free Meals to All Students

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
School Offered Free Lunch to All Students[a]	20.1	17.6	17.5	19.1
Among Schools That Offered Free Lunch to All Students (n=192):				
Provision Used				
Provision 2	17.4	12.5	20.3	17.2
Provision 3	2.1	0.0	0.0	1.3
Community Eligibility Provision	78.7	87.5	79.7	80.4
None of the above[b]	0.0	0.0	0.0	0.0
Missing	1.8	0.0	0.0	1.2
Number of Schools	**445**	**380**	**376**	**1,201**
School Offered Free Breakfast to All Students[c,d]	31.5	25.1	25.0	28.9
Among Schools That Offered Free Breakfast to All Students (n=285):				
Provision Used				
Provision 2	16.8	16.2	15.3	16.4
Provision 3	3.1	1.7	6.2	3.5
Community Eligibility Provision	53.2	65.4	57.4	55.9
None of the above[b]	17.9	12.8	3.3	14.3
Missing	9.0	3.9	17.7	9.9
Number of Schools	**416**	**354**	**357**	**1,127**

Source: School Nutrition and Meal Cost Study, A la Carte Checklist, Cafeteria Observation Guide, Daily Meal Counts Form, Principal Survey, School Nutrition Manager Survey, and School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

[a]The percentages of schools that offered free lunch to all students are calculated using a cross-instrument variable constructed from the Daily Meal Counts Form, School Nutrition Manager Survey, and School Food Authority Director Survey.

[b]In addition to Provisions 2 and 3, and the Community Eligibility Provision, schools may offer free meals to all students under at least two known scenarios: a State mandate for high-poverty schools and a "non-pricing" policy selected by the SFA.

[c]The percentages of schools that offered free breakfast to all students only include schools participating in the School Breakfast Program.

[d]The percentages of schools that offered free breakfast to all students are calculated using a cross-instrument variable constructed using the A la Carte Checklist, Cafeteria Observation Guide, Daily Meal Counts Form, Principal Survey, School Nutrition Manager Survey, and School Food Authority Director Survey.

2. Average Daily Participation

Overall student participation rates in the NSLP and SBP were 61 and 30 percent, respectively. Among students with access to free meals, participation rates were 74 and 41 percent, respectively.

Overall, an average of 61 percent of students participated in the NSLP on a typical school day in SY 2014–2015 (Table 2.4).[23] NSLP participation varied by type of school and was highest in elementary schools and lowest in high schools (65 versus 50 percent). Among students with access to free lunches because they attended schools that offered universal free lunch or were approved to receive free meal benefits, the average participation rate was 75 percent. As with the NSLP participation rate overall, participation among these students was highest in elementary schools and lowest in high schools (78 versus 64 percent). The difference in NSLP participation between elementary and middle school was 5 percentage points overall, but only 1 percentage point among students who were approved for free meal benefits or enrolled at a school offering universal free meals.

Among schools that did not offer free lunch to all students, NSLP participation varied by student eligibility status. Students approved to receive free meal benefits participated most often (74 percent; Table 2.4). Students approved for reduced-price meal benefits also participated in the NSLP more often than students who were not approved to receive free or reduced-price meal benefits (70 versus 42 percent). Across all eligibility categories, participation was highest among elementary schools and lowest among high schools.

Overall, the rate of student participation in the SBP (30 percent) was about half that of the NSLP (61 percent; Table 2.4). Similar to the NSLP, student participation in the SBP varied by type of school and was highest in elementary schools and lowest in high schools (35 versus 23 percent). Among students who attended schools that offered universal free breakfast or were approved to receive free meal benefits, the SBP participation rate was 41 percent overall, and this rate was highest in elementary schools (45 percent) and lowest in high schools (34 percent). As with the NSLP, the difference in SBP participation between elementary and middle school students who attended schools with universal free breakfast or were approved to receive free meal benefits was smaller than the overall difference in SBP participation between elementary and middle school students.

Among schools that did not offer free breakfast to all students, SBP participation varied less by school type than for the NSLP, but more markedly by student eligibility status. In such schools, one-third of all students approved to receive free meal benefits and about one-quarter (24 percent) of students approved to receive reduced-price meal benefits participated in the SBP. In contrast, only 8 percent of students not approved for free or reduced-price meal benefits participated in the SBP.

[23] Consistent with the SNDA series, the NSLP participation rate is defined as the average daily number of NSLP meals divided by enrollment. Participation will necessarily be lower for schools with lower attendance rates.

Table 2.4. Average Daily Participation Rates

	Average Percentage of Students Participating per Day			
	Elementary Schools	Middle Schools	High Schools	All Schools
National School Lunch Program				
All students	64.9	59.8	49.7	60.6
Students enrolled at a universal free lunch school or approved for free meals	78.1	76.5	63.7	74.6
Among Schools That Are Not Universal Free Lunch Schools (n=964):				
Students approved for free meals	76.5	76.1	63.3	73.5
Students approved for reduced-price meals	73.1	70.9	59.5	69.7
Students not approved for free or reduced-price meals	44.6	41.0	33.7	41.5
Number of Schools	**432**	**371**	**362**	**1,165**
School Breakfast Program				
All students	34.7	24.3	22.5	30.2
Students enrolled at a universal free breakfast school or approved for free meals	44.6	35.6	34.1	40.7
Among SBP Schools That Are Not Universal Free Breakfast Schools (n=826):				
Students approved for free meals	35.7	30.2	30.1	33.3
Students approved for reduced-price meals	26.7	21.2	20.7	24.3
Students not approved for free or reduced-price meals	9.8	5.8	7.1	8.4
Number of Schools	**403**	**346**	**340**	**1,089**

Source: School Nutrition and Meal Cost Study, Daily Meal Counts Form, School Food Authority Director Survey, and School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Notes: Average daily participation is defined as the average daily number of meals served divided by enrollment. Universal Free Lunch and Free Breakfast schools refer to schools that operate under Provisions 2 and 3 or the Community Eligibility Provision. They also include schools where the state mandates SBP for all students in high-poverty schools and SFAs that choose a "non-pricing program" in which the price of a breakfast for paid and reduced-price meals is $0, and other revenue covers the loss of student payments.

Schools were excluded from the participation analyses because of missing data on the number of meals served, the number of students enrolled, or the number of students approved for free or reduced-price meals. In addition schools were excluded from free, reduced-price, or paid analyses if they had no students in a given group (for example, no students approved for free meal benefits). For the NSLP participation analyses, 36 schools were excluded from the all-students analysis, 152 schools were excluded from the paid analysis, 179 schools were excluded from the reduced-price analysis, and 46 schools were excluded from the free analysis. For the SBP participation analyses, 38 schools were excluded from the all-students analysis, 153 schools were excluded from the paid analysis, 179 schools were excluded from the reduced-price analysis, and 47 schools were excluded from the free analysis.

Responses were set to 100 percent if respondents reported more meals served than the number of enrolled students, more paid meals served than the number of students not approved for free or reduced-price meals, or more free or reduced-price meals served than the number of students approved. A total of 166 responses for NSLP and 51 responses for SBP were set to 100 percent.

Results are presented by school size, urbanicity and district child poverty rate in Appendix A (Table A.12).

NSLP = National School Lunch Program; SBP = School Breakfast Program; SFA = school food authority.

Appendix Tables A.9 through A.11 provide information about the methods schools used to approve students for free and reduced-price meals; the methods used in identifying reimbursable meals at the point of sale, including methods used by cashiers to identify students who are eligible for free or reduced-price meals; and use of the offer-versus-serve (OVS) option, which is mandatory for senior high schools and used by more than 80 percent of elementary and middle schools for both breakfast and lunch meals.[24]

D. Meal Prices

Student payments for reduced-price and paid meals are an important source of revenue for school foodservice programs. At the same time, SNDA-IV and prior studies indicate that student participation decreases as meal prices increase (Fox et al. 2012).

1. Prices Charged for Reduced-Price and Paid Lunches

By law, SFAs may charge no more than $0.40 for a reduced-price lunch. During the data collection period for SNMCS, Federal regulations included no restrictions on the maximum price SFAs may charge for a paid lunch. However, the Paid Lunch Equity (PLE) rule (7 CFR 210.14(e)), which went into effect in SY 2011–2012, affected the minimum price SFAs may charge for paid lunches. The purpose of the PLE rule is to ensure that the SFA's foodservice account receives sufficient funds for paid lunches from student payments or other non-Federal sources so that paid lunches are not subsidized by the reimbursement for free and reduced-price meals. The standard of equity is that the price of a paid lunch equals or exceeds the difference in USDA reimbursements between paid and free lunches. Food and labor costs greatly influence prices charged for paid lunches, but SFAs are sensitive to not setting prices so high that they would discourage participation (Gordon et al. 2007).

Among schools that charge for reduced-price lunches, the modal price—that is, the most common price in SY 2014–2015—was the maximum allowable price of 40 cents (Table 2.5).[25] The average price charged for a reduced-price lunch was 39 cents, a price that has remained essentially constant since the SNDA-I study (SY 1991–1992). This is largely because the Federally set maximum has not changed over the years. The mean and modal prices for reduced-price lunches were $0.39 to $0.40 for all subgroups of schools by type, size, urbanicity, and poverty level.

The maximum allowable prices for reduced-price breakfasts and lunches were the most common prices charged in SY 2014-2015. This finding has largely remained unchanged since SY 1991-1992.

[24] OVS allows students to decline some components of a reimbursable meal, as a way of providing choice and reducing waste. Schools must offer five meal components for NSLP lunches; to select a reimbursable lunch, a student must take at least three components including a fruit or vegetable component. Schools must offer four items from three components for SBP breakfasts; to select a reimbursable breakfast, a student must take at least three items including a fruit or vegetable component.

[25] Among schools that did not offer free lunches to all students, 192 schools did not report the price of a reduced-price lunch, and 239 did not report the price of a paid lunch. For breakfast, 85 SBP schools did not report the price of a reduced-price breakfast, and 119 did not report the price of a paid breakfast (not including schools that offered free breakfast to all students). To account for this item-level nonresponse, special weights were developed for the analysis of lunch and breakfast prices.

Table 2.5. Prices Charged for Reduced-Price and Paid Lunches

	Prices for Reduced-Price Lunches				Prices for Paid Lunches			
	Mode	Mean	Minimum	Maximum	Mode	Mean	Minimum	Maximum
All Schools	$0.40	$0.39	$0.24	$0.40	$2.50	$2.42	$1.00	$5.15
School Type								
Elementary	0.40	0.39	0.25	0.40	2.50	2.34	1.00	5.15
Middle	0.40	0.39	0.24	0.40	2.50	2.54	1.20	5.15
High	0.40	0.39	0.25	0.40	2.50	2.52	1.20	4.00
School Size								
Small (fewer than 500 students)	0.40	0.39	0.25	0.40	2.25	2.37	1.00	5.15
Medium (500 to 999 students)	0.40	0.39	0.24	0.40	2.50	2.42	1.20	5.15
Large (1,000 or more students)	0.40	0.39	0.25	0.40	2.50	2.59	1.20	4.00
Urbanicity								
Urban	0.40	0.40	0.36	0.40	2.50	2.43	1.20	5.15
Suburban	0.40	0.39	0.25	0.40	2.50	2.46	1.20	5.15
Rural	0.40	0.39	0.24	0.40	2.50	2.36	1.00	4.00
Child Poverty Level in District								
Lower (less than 20 percent)	0.40	0.39	0.24	0.40	2.50	2.49	1.20	5.15
Higher (20 percent or more)	0.40	0.39	0.25	0.40	2.50	2.27	1.00	3.25
Number of Schools	**679**				**717**			

Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Notes: A total of 254 schools were excluded from the analysis of lunch prices. Most (194) of these schools offered free lunches to all students; 60 schools were excluded because their universal free lunch status could not be determined. In the analysis of reduced-price lunches, an additional 276 schools were excluded. Most schools (192) were missing data on the price charged for a reduced-price lunch, 29 reported a reduced-price lunch above $0.40 (the maximum allowable), and 55 reported charging $0.00 for a reduced-price lunch. An implausible value of $0.04 for a reduced-price lunch was also excluded from the analysis. In the analysis of paid lunches, an additional 239 schools were excluded because they were missing data on the price charged for a paid lunch. To account for this item-level nonresponse, special weights were developed for the analysis of lunch prices.

Among schools that do not offer free lunch to all students, 55 schools reported charging $0.00 for a reduced-price lunch.

Tabulations are based on standard prices; schools may have additional discounted prices.

Among schools that charged for paid lunches, the modal price was $2.50, and the average price was $2.42 (Table 2.5). Across subgroups of schools, the average price for a paid lunch ranged from $2.27 to $2.59. On average, large schools charged higher prices for paid lunches than small and medium-size schools ($2.59 versus $2.37 and $2.42, respectively), and suburban schools charged somewhat higher prices ($2.46) than urban or rural schools ($2.43 and $2.36, respectively). Schools located in districts with lower rates of child poverty charged more for paid lunches, on average, than schools in higher poverty districts ($2.49 versus $2.27). Across all schools, the minimum price charged for a paid lunch was $1.00 and the maximum was $5.15.

The average price of a paid lunch increased from $1.93 in SY 2009–2010 (when SNDA-IV was conducted) to $2.42 in SY 2014–2015, an increase of $0.49 or 25 percent. Over the same period, the reimbursement for a free lunch increased $0.30, or 11 percent.[26] Thus, the average paid lunch price increased faster than the rate of inflation used to adjust USDA reimbursements. The modal paid lunch price increased similarly (by $0.50, from $2.00 to $2.50). The patterns of variation observed in paid lunch prices by school type, size, urbanicity, and poverty level were similar to the patterns observed in SNDA-IV.

The average price of a paid lunch increased from $1.93 in SY 2009–2010 to $2.40 in SY 2014–2015, a rise of $0.47 or 24 percent. The most common paid lunch price increased by $0.50, from $2.00 to $2.50.

2. Prices Charged for Reduced-Price and Paid Breakfasts

Among schools that charged for reduced-price breakfasts, the modal price in SY 2014–2015 was the maximum allowable price of $0.30 (Table 2.6). This was true for all types of schools as well as subgroups of schools based on size, urbanicity, and poverty level. Overall, the average price for a reduced-price breakfast was $0.29, and the minimum price was $0.20.

For paid breakfasts, schools most commonly charged $1.25. This was true for all subgroups of schools except those in lower and higher poverty districts, where the modal prices for a paid breakfast were $1.50 and $1.00 respectively. Overall, the average price for a paid breakfast was $1.43; however, the average price varied across subgroups in patterns that were similar to the results for paid lunch prices. Large schools charged more for a paid breakfast, on average, than small or medium-size schools ($1.49 versus $1.42 and $1.41, respectively). Suburban schools charged more for a paid breakfast than urban or rural schools ($1.46 versus $1.42 and $1.40, respectively), and schools in lower poverty districts charged more than schools in higher poverty districts ($1.49 versus $1.28).

Among schools that charged for paid breakfasts, the most common price was $1.25, and the average price was $1.43.

The average price of a paid breakfast increased from $1.13 in SY 2009–2010 (when SNDA-IV was conducted) to $1.43 in SY 2014–2015, an increase of $0.30 or 27 percent. Over the same period, the reimbursement for a free breakfast increased $0.16, or 11 percent.[27] Thus, the average paid breakfast price increased faster than both the average paid lunch price and the rate of inflation used to adjust USDA reimbursements. The modal price increased similarly (by $0.25, from $1.00 to $1.25). The patterns of variation observed in paid breakfast prices by school type, size, urbanicity, and poverty level were roughly similar to the patterns observed in SNDA-IV.

[26] The reimbursement rate for free lunches increased from $2.68 to $2.98 for schools with fewer than 60 percent of lunches served free or at a reduced price. Revenue for paid lunches includes the USDA reimbursement, which was $0.28 per lunch for schools with fewer than 60 percent of lunches served free or at a reduced price. These figures do not include the additional $0.06 per meal paid to schools certified as meeting the new nutrition standards.

[27] The reimbursement rate for free breakfasts increased from $1.46 to $1.62 for non-severe need schools (schools that have less than 40 percent of students approved for free or reduced-price meals). Revenue for paid breakfasts includes the USDA reimbursement, which was $0.28 per breakfast.

Table 2.6. Prices Charged for Reduced-Price and Paid Breakfasts

	Prices for Reduced-Price Breakfasts				Prices for Paid Breakfasts			
	Mode	Mean	Minimum	Maximum	Mode	Mean	Minimum	Maximum
All Schools	$0.30	$0.29	$0.20	$0.30	$1.25	$1.43	$0.45	$3.25
School Type								
Elementary	0.30	0.29	0.20	0.30	1.25	1.39	0.70	2.60
Middle	0.30	0.29	0.20	0.30	1.25	1.49	0.75	3.25
High	0.30	0.29	0.20	0.30	1.25	1.49	0.45	3.25
School Size								
Small (fewer than 500 students)	0.30	0.29	0.20	0.30	1.25	1.42	0.70	2.55
Medium (500 to 999 students)	0.30	0.29	0.20	0.30	1.25	1.41	0.75	2.60
Large (1,000 or more students)	0.30	0.29	0.20	0.30	1.25	1.49	0.45	3.25
Urbanicity								
Urban	0.30	0.30	0.25	0.30	1.25	1.42	0.80	3.25
Suburban	0.30	0.29	0.20	0.30	1.25	1.46	0.45	2.90
Rural	0.30	0.30	0.25	0.30	1.25	1.40	0.70	3.25
Child Poverty Level in District								
Lower (less than 20 percent)	0.30	0.29	0.20	0.30	1.50	1.49	0.75	3.00
Higher (20 percent or more)	0.30	0.29	0.20	0.30	1.00	1.28	0.45	3.25
Number of Schools	**543**				**593**			

Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Notes: In the analysis of breakfast prices, 316 schools that offer the SBP were excluded. Most (300) offered free breakfasts to all students; 16 schools were excluded because their universal free breakfast status could not be determined. In the analysis of reduced-price breakfasts, an additional 269 schools were excluded. Most (119) reported charging $0.00 for a reduced-price breakfast, 85 were missing data on the price charged for a reduced-price breakfast, and 65 reported a reduced-price breakfast above $0.30 (the maximum allowable). In the analysis of paid breakfasts, an additional 219 schools were excluded because they were missing data on the price charged for a paid breakfast. To account for this item-level nonresponse, special weights were developed for the analysis of breakfast prices.

Among SBP schools that do not offer free breakfast to all students, 119 schools reported charging $0.00 for a reduced-price breakfast.

Tabulations are based on standard prices; schools may have additional discounted prices.

SBP = School Breakfast Program.

Since SY 2012–2013, most SFAs (66 percent) reported having changed the prices charged for reduced-price or paid meals (Table 2.7). Among SFAs that reported changing meal prices, the prevalence of increased prices was comparable across all three school types. Relatively few SFAs (9 to 11 percent) reported increasing the price charged for a reduced-price meals. In contrast, the vast majority of SFAs that changed meal prices (89 percent or more) reported increasing the price of paid lunches for each type of school. This is consistent with requirements of the PLE rule as well as the previously reported finding that the average price of a paid lunch increased by 25 percent since the SNDA-IV study. Most SFAs that reported changing meal prices (62 to 64 percent) also reported increasing the price for a paid breakfast. Appendix Tables A.13 through A.15 present the frequency of changes in meal prices by SFA size, district child poverty rate, and urbanicity. Prices for reduced-price meals varied little, so the overall price changes identified in these tables are predominantly due to changes in paid meal prices.

Table 2.7. Changes in Prices of Reduced-Price and Paid Meals Since SY 2012–2013

	Percentage of SFAs
SFA Changed Prices for Reduced-Price or Paid Lunches or Breakfasts	
Yes	66.4
No	27.0
Don't know	6.3
Missing	0.3
Number of SFAs	**518**

	Percentage of SFAs, by Type of School		
	Elementary Schools	Middle Schools	High Schools
Among SFAs with Changes in Prices for Reduced-Price or Paid Lunches or Breakfasts (n=336):			
Reduced-Price Lunch			
Increased	10.2	10.6	9.4
Decreased	5.3	3.9	4.4
Not changed	84.5	85.5	85.9
Paid Lunch			
Increased	92.8	90.6	89.3
Decreased	4.3	4.5	4.5
Not changed	2.9	4.9	6.0
Reduced-Price Breakfast			
Increased	9.8	11.2	10.5
Decreased	9.7	7.9	7.8
Not changed	72.7	74.9	75.5
No breakfast offered	7.9	6.1	6.0
Paid Breakfast			
Increased	61.5	62.2	64.3
Decreased	6.7	6.7	5.6
Not changed	27.4	25.7	24.6
No breakfast offered	4.4	5.4	5.3
Number of SFAs	**330**	**317**	**301**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Results are presented by SFA size, district child poverty rate, and urbanicity in Appendix A (Tables A.13−A.15).

SFA = school food authority, SY = school year.

3. Price Elasticity

Research has shown that paid meal participation rates tend to decrease as meal prices increase (FRAC 2015b; Ralston and Newman 2015; Fox et al. 2012; Dragoset and Gordon 2010; Moore, Hulsey, and Ponza 2009; Fox et al. 2001; Gleason 1995). For example, in SNDA-IV, a 10 percent increase in the price of a paid lunch was associated with a 1.5 percent decrease in paid meal participation (Fox et al. 2012). For this reason, concerns have been raised about the potential impact of price increases resulting from the PLE provision on participation rates.

A 10 cent increase in the price of a paid lunch was associated with a decline of 0.7 percentage points in the paid meal participation rate. For paid breakfasts, no statistically significant association between price and participation was found.

To provide some insight on this issue, the SNMCS study team built upon the approach used in SNDA-IV to estimate the price elasticity of paid meal participation. Price elasticity is a measure of the responsiveness of the demand for a good or service to a change in price. For SNMCS, the price elasticity analysis estimated the change in a school's paid meal participation rate that would be expected to occur with a 10 cent increase in the price of a paid meal. This form of price elasticity was chosen because the PLE guidance for SY 2014–2015 did not require SFAs to increase paid lunch prices by more than 10 cents per year. [28] A 10 cent annual increase also aligns with the 49 cent increase in the average price of a paid lunch observed between SY 2009–2010 and SY 2014–2015. Table 2.5 shows that the average price for a paid lunch in SY 2014–2015 was $2.42. This is $0.49 greater than the average price of $1.93 for a paid lunch five years earlier, in SY 2009–2010, as reported in SNDA-IV (Fox et al. 2012; Table 2.4).

Separate analyses were conducted for lunch and breakfast participation, as well as for elementary, middle, and high schools. The multivariate model considered key factors that could affect a student's decision to purchase a paid meal, including the following:

- **The availability of competitive foods**
  - Whether the school offered competitive foods during mealtime
  - Whether the school had foods available for purchase on an a la carte basis in the cafeteria
  - Whether the school had vending machines
  - Whether the school had other alternative food sources, such as a school store, that sold foods and beverages and/or a snack bar

[28] The price elasticity analysis conducted in the SNDA-IV study examined changes in paid participation rates corresponding to a 10 percent increase in the price of a paid meal. To facilitate comparisons between price elasticities among the SNMCS sample and the earlier SNDA-IV sample, the study team also replicated the SNDA-IV analysis. Findings from this supplemental analysis are summarized in Appendix B.

- **Indicators of the healthfulness of school meals that have previously been associated with students' participation decisions (Dragoset and Gordon 2010)[29]:**
  - Whether French fries or other fried potato items were served
  - Whether cold cereal was offered every day (SBP analysis)
- **School food environment and policies that may influence participation**
  - Average number of minutes students spent in line for the relevant school meal (lunch or breakfast)
  - Whether the school used OVS
  - Whether the school had an open campus policy (NSLP analysis)[30]
  - Whether the school used cycle menus
  - Whether the SFA offered foods from brand name national restaurants in elementary, middle, or high schools
  - Whether the school participated in the Fresh Fruit and Vegetable Program
  - Whether the school had recess available before the end of the lunch period (NSLP analysis)[31]
  - Whether the school offered a "grab-and-go" option at breakfast (SBP analysis)
- **Key school-level characteristics:**
  - Whether meals were prepared off site
  - Whether the school had a high proportion of students in poverty
  - School size
  - School urbanicity
  - FNS region
  - Percentage of students certified for free or reduced-price meals

Among the above set of factors that could affect a student's decision to purchase a paid meal, a variable was excluded from any school-level and meal-type model if it had insufficient variation within the estimation sample, defined as an unweighted mean of less than 0.05 or more than 0.95 for binary and categorical variables. Additionally, if any two variables had a pairwise correlation of 0.7 or higher, the variable exhibiting the lowest correlation with paid meal participation was excluded. Finally, some variables were omitted from school-level models

[29] An indicator of whether the school offered only low-fat and skim/nonfat milks was considered, but was ultimately excluded from the model because of insufficient variation; over 95 percent of each school type met this condition.

[30] Due to low variation at the elementary and middle school levels, this indicator was included only in high school models.

[31] Because the majority of high schools did not offer recess, this indicator was included in elementary and middle school models only.

because the indicator did not apply—the indicator for OVS was not included in models run for high schools because OVS is mandatory for high schools, and the indicator for the Fresh Fruit and Vegetable Program was not included in models run for middle or high schools because the program is available only in elementary schools.

Price Elasticity of Paid Meal Participation. Findings indicate that the price elasticity of paid meal participation varies for the NSLP and the SBP. For the NSLP, a 10 cent increase in the price of a paid lunch was associated with a decline of 0.7 percentage points in the rate of paid meal participation (Table 2.8).[32] The relationship between meal price and paid meal participation in the NSLP was negative for all three school types, and was statistically significant for elementary and middle schools (but not high schools). The decline in paid meal participation associated with a 10 cent increase in price ranged from 0.6 percentage points for elementary schools to 1.3 percentage points for middle schools. Given the average paid lunch participation rate of 41.3 percent across all school types, an overall decline of 0.7 percentage points in paid lunch participation corresponds to roughly 2 percent of all noncertified NSLP participants.

Table 2.8. Price Elasticity of Paid Lunch Participation

	Estimated Change in Percentage of Paid Lunch Participation Associated with a 10 Cent Increase in the Price of a Paid Lunch			
	Elementary Schools	Middle Schools	High Schools	All Schools
Change in percentage of non-certified studentsparticipating in the NSLP, per 10 cent increase in paid meal price	-0.6* (0.2)	-1.3*** (0.3)	-0.6 (0.4)	-0.7*** (0.2)
Mean percentage of non-certified students participating in the NSLP	45.0 (1.5)	41.1 (1.7)	31.1 (1.8)	41.3 (1.3)
Mean price of paid NSLP meals	2.33 (0.04)	2.56 (0.04)	2.54 (0.04)	2.42 (0.03)
Number of Schools	**242**	**213**	**199**	**654**

Source: School Nutrition and Meal Cost Study, A la Carte Checklist, Cafeteria Observation Guide, Daily Meal Counts Form, School Food Authority Director Survey, and School Nutrition Manager Survey, school year 2014-2015. Estimates are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Notes: Paid meal participation is measured as the ratio of the average daily number of paid meals served to the number of students not approved for free or reduced–price meal benefits, multiplied by 100 to convert to percentages. Units of price elasticity estimates are percentage points of paid meal participation per 10 cent increase in the price of a paid meal.

Standard errors for means are in parentheses.

Means for paid meal prices differ slightly from Table 2.5 because the price elasticity analysis uses a more restricted sample than Table 2.5. The price elasticity analysis excluded schools without valid paid lunch participation data (63 schools).

Means for paid lunch participation rates also differ from those in Table 2.4 due to differences between the subset of schools included in the price elasticity analysis and the larger sample analyzed for lunch participation rates.

NSLP = National School Lunch Program.

Estimate is significantly different from zero at the *** 0.01 level, ** 0.05 level or * 0.10 level.

[32] Full results for the regression model are shown in Appendix Tables B.1 and B.2.

For the SBP, the association between paid meal price and participation was not statistically significant for any school type (Table 2.9). In the elementary and middle school models, a 10 cent increase in the price of a paid breakfast was associated with a reduction of roughly 0.2 percentage points in the paid SBP participation rate. Results for the high school model were in the opposite direction. A 10 cent increase in the price of a paid SBP breakfast was associated with a 0.2 percentage point increase in the paid SBP participation rate. These estimates are not only relatively small, but quite noisy, with standard errors nearly as large as the estimates themselves. This suggests that paid SBP participation rates are not strongly associated with price changes in the neighborhood of 10 cents. One possible explanation for the absence of a meaningful relationship between the price of a paid SBP meal and paid SBP participation is the recent expansion of options providing free breakfast to all students, such as Breakfast in the Classroom. These options may have significantly changed the universe of schools—and therefore the population of students—in which students still choose whether to buy a SBP breakfast. If expanded universally free breakfast options have disproportionately served more price-sensitive students, this change may at least partially account for the reduction in the observed price elasticity for paid SBP meals.

Table 2.9. Price Elasticity of Paid Breakfast Participation

	Estimated Change in Percentage of Paid Breakfast Participation Associated with a 10 Cent Increase in the Price of a Paid Breakfast			
	Elementary Schools	Middle Schools	High Schools	All Schools
Change in percentage of non-certified students participating in the SBP, per 10 cent increase in paid meal price	-0.2 (0.2)	-0.2 (0.1)	0.2 (0.1)	-0.2 (0.1)
Mean percentage of non-certified students participating in the SBP	10.0 (0.8)	5.3 (0.6)	6.3 (1.1)	8.2 (0.6)
Mean price of paid SBP meals	1.38 (0.03)	1.47 (0.03)	1.48 (0.03)	1.42 (0.03)
Number of Schools	**201**	**169**	**180**	**550**

Source: School Nutrition and Meal Cost Study, A la Carte Checklist, Cafeteria Observation Guide, Daily Meal Counts Form, School Food Authority Director Survey, and School Nutrition Manager Survey, school year 2014-2015. Estimates are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Notes: Paid meal participation is measured as the ratio of the average daily number of paid meals served to the number of students not approved for free or reduced–price meal benefits, multiplied by 100 to convert to percentages. Units of price elasticity estimates are percentage points of paid meal participation per 10 cent increase in the price of a paid meal.

Standard errors for means are in parentheses.

Means for paid meal prices differ slightly from Table 2.6 because the price elasticity analysis uses a more restricted sample than Table 2.6. The price elasticity analysis excluded schools without valid paid breakfast participation data (43 schools).

Means for paid breakfast participation rates also differ from those in Table 2.4 due to differences between the subset of schools included in the price elasticity analysis and the larger sample analyzed for breakfast participation rates.

None of the associations between paid meal price and participation are statistically significant.

SBP = School Breakfast Program.

Even after controlling for other factors, paid meal participation in the NSLP was more responsive to price differences than paid meal participation in the SBP. This finding suggests that relative to SBP participation, NSLP participation among students who were not certified for free or reduced-price meals was more influenced by economic factors, such as the price of meals and the availability of alternative meal sources, such as competitive food offerings and off-campus options available under a high school's open campus policy. Indeed, full results of the model estimations suggest that there is far less substitution of SBP meals with alternative meal sources (Appendix Tables B.1 and B.2). Although the presence of branded and competitive foods was strongly and negatively associated with paid NSLP participation rates, these associations were not observed for paid SBP participation. This is likely because these options are primarily available at lunch. Furthermore, SBP participation may be less related to these economic factors because the decision to participate in the SBP is more constrained by factors outside of students' control, such as school bus schedules that limit students' time at school during mealtimes.

E. Menu Planning and Meal Production

1. Menu Planning

Menu planning is a critical element in shaping the variety and quality of foods offered in reimbursable meals. In almost nine out of ten SFAs (88 percent), all menus are planned at the SFA level (Table 2.10).

Table 2.10. Key Menu-Planning Practices and Procedures

	Percentage of SFAs
All Menus Are Planned at the SFA Level	87.5
SFAs Use Cycle Menus	77.4
SFAs Conduct Nutrient Analysis of Menus	75.1
Number of SFAs	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Appendix Tables A.16−A.19 present detailed findings related to menu planning practices and procedures for all SFAs, and by SFA size, district child poverty rate, and urbanicity.

SFA = school food authority.

More than three-quarters of SFAs (77 percent) used cycle menus. With cycle menus, the SFA plans daily menus for a specified time frame, such as a month, and then the cycle of menus repeats. Use of cycle menus can help streamline menu planning, food purchasing, nutrient analysis, and other aspects of school foodservice (USDA 2014a). Among SFAs that used cycle menus, this approach was used most often in elementary schools (91 percent) and least often in high schools (78 percent; Table A.16).

Three-quarters of SFAs analyzed the nutrient content of their menus. Such analyses are not required but can help SFAs ensure that they are in compliance with nutrition standards for saturated fat, sodium, and calories.

Three-quarters of SFAs analyzed the nutrient content of their menus (Table 2.10). Current nutrition standards for school meals do not require SFAs to conduct nutrient analyses. However, such analyses can help SFAs ensure that they are in compliance with nutrition standards for saturated fat, sodium, and calories.

SFAs used a wide variety of USDA resources and guidance materials in planning menus, developing or modifying recipes, or developing food purchasing specifications (Table A.16). The following four resources were used by more than half of all SFAs: Offer-Versus-Serve Guidance for the NSLP and SBP (75 percent of SFAs); USDA Recipes for Schools (63 percent), the Food Buying Guide for Child Nutrition Programs (63 percent); and Fact Sheets for Healthier School Meals (58 percent).

2. Food Purchasing Practices

Food purchasing practices may also influence the types and varieties of foods offered in school meals. In most SFAs (73 percent), the SFA director had the primary responsibility for commercial food purchases (Table A.20). Centralization of food purchasing is consistent with centralized menu planning. In 17 percent of SFAs, this role was assumed by a kitchen or cafeteria manager or head cook.

Offering familiar brand-name foods may promote participation in school meals, but may raise concerns about the nutritional quality of the meals (Terry-McElrath et al. 2014). Relatively few SFAs (10 percent) offered foods from national or regional brand-name or chain restaurants (Table 2.11). Close to half (47 percent) of these SFAs offered brand-name foods both in reimbursable meals and a la carte, and a similar proportion (45 percent) offered these foods only in reimbursable meals. Brand-name foods were more often available in middle and high schools than elementary schools (79 and 75 percent of SFAs, respectively, versus 54 percent). Pizza brands dominated the list of brand-name foods offered.

SFAs used a variety of approaches to purchasing healthier foods in economical ways. About half (51 percent) of SFAs participated in food purchasing cooperatives, in which SFAs jointly solicit bids in an effort to obtain better prices for foods they are purchasing (Table 2.12). Larger SFAs, lower-poverty SFAs, and suburban and rural SFAs participated in purchasing cooperatives at higher rates than other types of SFAs (Appendix Tables A.21 through A.23). Forty-one percent of SFAs used the USDA Department of Defense (DoD) Fresh program, which enables SFAs to use their USDA Foods entitlement to purchase fresh fruits and vegetables. Similar proportions of SFAs used the Alliance for a Healthier Generation or similar tools for selecting and purchasing healthier foods (38 percent) or purchased locally grown or produced foods (37 percent). Among SFAs that purchased locally grown or produced foods, just over one in five (22 percent) did so through the Farm to School program.

Fifty-one percent of SFAs participated in food purchasing cooperatives, and 41 percent used the USDA DoD Fresh program to purchase fresh fruits and vegetables.

Table 2.11. Purchasing Practices Related to Branded Entrees and Prepared Foods

	Percentage of SFAs
One or More Schools in SFA Offers Foods from National or Regional Brand-Name or Chain Restaurants	9.9
Among SFAs with Schools That Offer Foods from National or Regional Brand-Name or Chain Restaurants (n=78):	
Brand-Name or Chain Restaurant Foods Offered in:	
Reimbursable meals only	45.3
A la carte only	5.8
Both	47.1
Missing	1.7
Type of School Where Brand-Name or Chain Restaurant Foods are Offered[a]	
Middle schools	78.9
High schools	75.3
Elementary schools	54.4
Only some grades	4.7
Brand-Name or Chain Restaurants Providing Food[a]	
Domino's Pizza	33.4
Pizza Hut	24.2
Little Caesar's Pizza	15.1
Papa John's Pizza	7.6
Subway	6.1
Chick-fil-A	2.3
Arby's	0.1
Burger King	0.0
McDonald's	0.0
Taco Bell	0.0
Other	19.8
Number of SFAs	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

[a]Multiple responses were allowed.

SFA = school food authority.

Table 2.12. Practices Related to Acquiring Healthier Foods

	Percentage of SFAs
SFA Participates in a Food Purchasing Cooperative	50.6
SFA Purchases Fruits and Vegetables Through USDA DoD Fresh Program	41.0
SFA Uses Alliance for a Healthier Generation or Other Similar Tools for Selecting and Purchasing Healthier Foods	37.7
SFA Purchases Locally Grown or Produced Foods	36.9
Has One or More Schools Operating a School Garden	17.0
Among SFAs that Purchase Locally Grown or Produced Foods (n=235):	
SFA Purchases Locally Grown or Produced Foods Through Another Arrangement	77.8
SFA Purchases Locally Grown or Produced Foods Through the Farm to School Program	22.2
Number of SFAs	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Results are presented by SFA size, district child poverty rate, and urbanicity in Appendix A (Tables A.21−A.23).

DoD = Department of Defense; SFA = school food authority.

An important concern for food purchasing is the elimination of *trans* fat, as required by USDA regulation (7 CFR 210.10). A great majority of SFAs (89 percent) reported that all commercially prepared products they acquired had nutrition labels or manufacturers' specifications indicating zero grams of *trans* fat per serving (Table 2.13). Most SFAs (82 percent) used food purchasing specifications that included requirements for *trans* fat. Among these SFAs, 88 percent required that all commercially prepared products contain zero grams of *trans* fat per serving.[33] At the school level, 84 percent of SNMs reported that no commercially prepared foods or ingredients containing *trans* fat were used in the reimbursable meals served in their schools (Table A.27).

[33] When an SFA specifies that commercially prepared foods or ingredients should contain no *trans* fats, it is expected that the foods will be free of industrially produced *trans* fats, but they may contain naturally occurring *trans* fats.

Table 2.13. Food Purchasing Specifications with Specific Requirements for *Trans* Fat

	Percentage of SFAs
Nutrition Labels or Manufacturer's Specifications on All Commercially Prepared Products Acquired by SFA Indicate Zero Grams of *Trans* Fat per Serving	89.4
SFA Uses Food-Purchasing Specifications with Specific Requirements for *Trans* Fat	81.8
Among SFAs Using Food-Purchasing Specifications With Specific Requirements for *Trans* Fat (n=421):	
SFA's food-purchasing specifications require that all commercially prepared products contain zero grams of *trans* fat per serving	88.2
Number of SFAs	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Results are presented by SFA size, district child poverty rate, and urbanicity in Appendix A (Tables A.24−A.26).

SFA = school food authority.

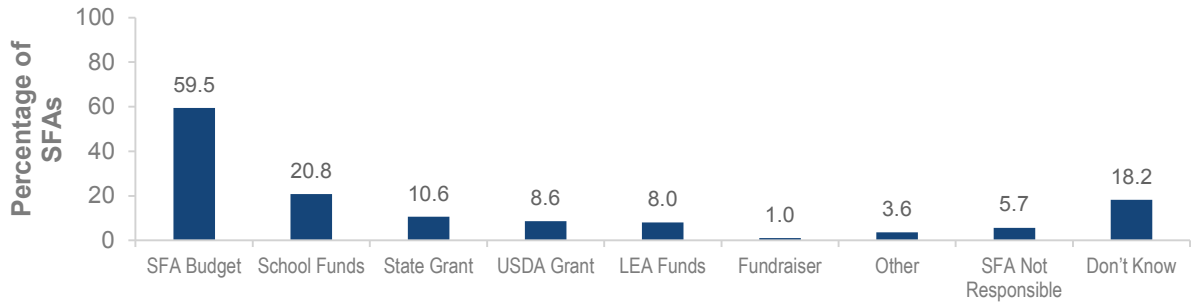
3. Meal Preparation Systems and Kitchen Equipment

Schools used a variety of meal preparation and production systems. The most common system, used in 70 percent of all schools, was on-site preparation, where the school prepared meals on-site for serving only at that school (Table A.28). Schools that did not use on-site preparation received partially or fully prepared meals from a separate production kitchen (that is, a kitchen in a school that also served meals on-site) or a central kitchen facility. About one in six high schools (17 percent), 8 percent of middle schools, and 7 percent of elementary schools operated production kitchens that prepared meals to be served on-site and shipped to other schools.

SFA directors reported using a variety of funding sources for purchase and repair of capital (that is, major) equipment. Sixty percent of SFAs used the SFA budget for this purpose (Figure 2.3). Fewer SFA directors reported using school funds (21 percent) or LEA funds (8 percent). Other reported funding sources included State grants (11 percent) and USDA grants (9 percent). Six percent of SFA directors reported that they were not responsible for equipment purchase and repair. Eighteen percent of SFA directors did not know the source of funding for capital equipment purchases or repair.

The SFA budget was the most common source of funding for SFAs' capital equipment purchases (reported by 60 percent of SFA directors). Almost one-third (32 percent) of SFAs reported purchasing equipment to support implementation of the new nutrition standards.

Figure 2.3. Sources of Funding for Capital Equipment Purchases and Repairs



Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Estimates are weighted to be representative of all public SFAs offering the National School Lunch Program.

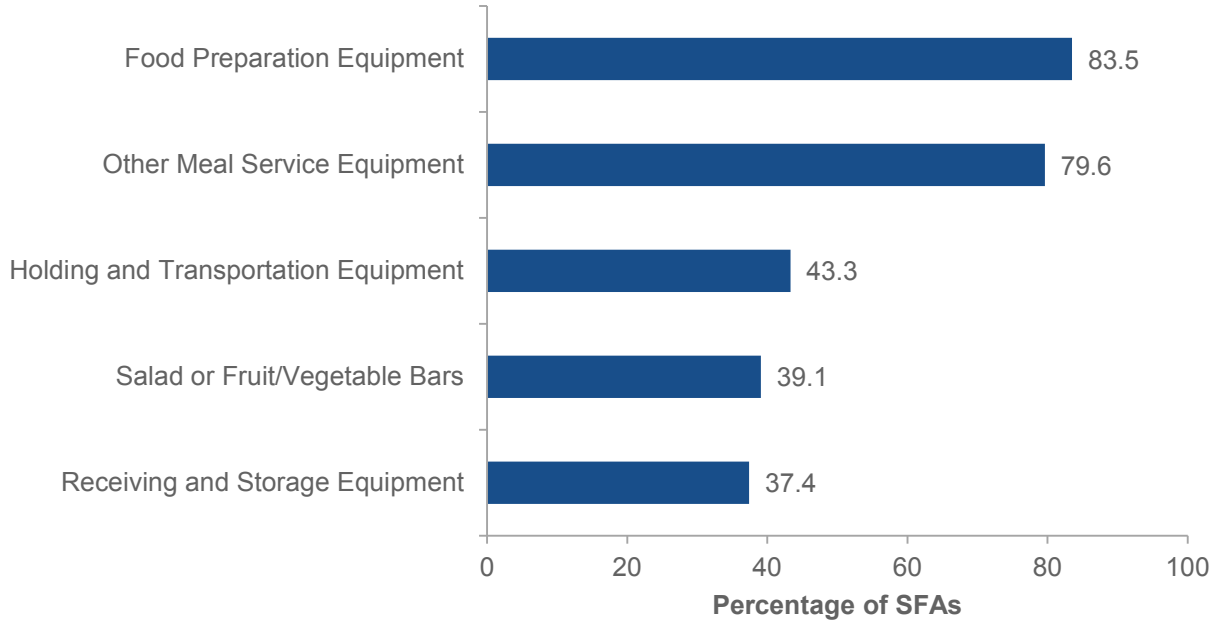
Notes: Multiple responses were allowed. Capital equipment purchases were defined for respondents as usually costing at least $5,000 and purchases that can depreciate over time. Results are presented by SFA size, district child poverty rate, and urbanicity in Appendix A (Tables A.29−A.31).

LEA = local educational agency; SFA = school food authority; USDA = United States Department of Agriculture.

About one-third of SFAs (32 percent) reported purchasing equipment since the start of SY 2012–2013 to support implementation of the new nutrition standards (data not shown). Among these SFAs, the most common purchases were food preparation equipment (84 percent) and other meal service equipment (that is, other than equipment used for holding and transportation or receiving and storage) (80 percent; Figure 2.4)[34]. More than one-third (39 percent) of SFAs with equipment purchases bought equipment for salad or fruit/vegetable bars.

[34] The items in this category that were mentioned in the survey included mobile milk coolers, steam table pans, and portion-serving utensils.

Figure 2.4. Equipment Purchases Among SFAs That Reported Purchasing Equipment to Implement the New Nutrition Standards



Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Estimates are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Multiple responses were allowed. Estimates are based on 189 SFAs that reported equipment purchases since school year 2012-2013. Results are presented by SFA size, district child poverty rate, and urbanicity in Appendix A (Tables A.32−A.34).

Examples of other meal service equipment include mobile milk coolers, steam table pans or serving portion utensils. This was not an "other, specify" question, so respondents could not provide more detail about the type of equipment purchased.

SFA = school food authority.

4. Education and Experience of SFA Directors

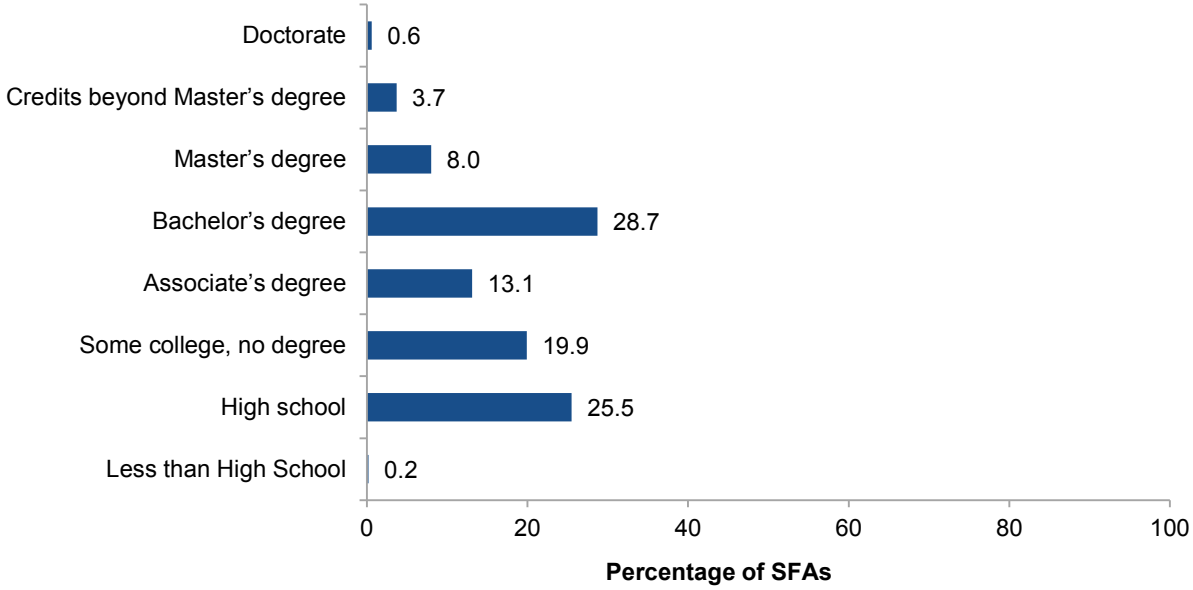
The education and experience of SFA directors may be an important factor in the performance of the school meal programs. As mandated by the HHFKA, a new rule effective July 1, 2015, sets professional standards for school nutrition professionals, including standards for hiring and training (80 FR 11077, March 2, 2015). This rule will "create minimum hiring standards for new school food authority (SFA) directors based on a school district's size; establish minimum hiring standards for new State directors of school nutrition programs and State directors of distributing agencies; and require minimum annual training for all new and current school nutrition professionals" (USDA 2015).[35] The SNMCS data were collected prior to these requirements and thus represent a baseline for assessing future progress in this area.

SFA directors reported a range of education, experience, and training. The vast majority of SFA directors had at least some college education, with 29 percent having a bachelor's degree, 20 percent having some college but no degree, 13 percent having an associate's degree, and 12

[35] Regulations and resources for the professional standards are available on the FNS website (http://www.fns.usda.gov/school-meals/professional-standards).

percent having further education including a master's degree or beyond (Figure 2.5). SFA directors' education differed substantially by SFA size and urbanicity. For example, a college degree was more common among directors of large SFAs (5,000 or more students), lower-poverty SFAs, and urban SFAs than among directors of other types of SFAs (Appendix Tables A.35 through A.37). On average, SFA directors had 10.4 years of service in their current position, although the mode was 2.0 years and the maximum was 48.0 years, indicating a very wide range of experience (Table A.35).[36] Over half (58 percent) of SFA directors had food safety certification (Table A.38). Although many other credentials were available to SFA directors and included on the survey, none were held by more than 20 percent of SFA directors. Almost one-quarter (23 percent) of SFA directors reported no credentials. Appendix Tables A.39 through A.41 present the credentials of SFA directors by SFA size, district child poverty rate, and urbanicity.

Figure 2.5. Highest Level of Education Completed by SFA Directors



Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Estimates are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Results are presented by SFA size, district child poverty rate, and urbanicity in Appendix A (Tables A.35−A.37).

SNMs were also asked about their education and experience. However, almost half of SNMs did not respond to these questions, so the results were not tabulated.

SFA = school food authority; SNM = school nutrition manager.

[36] The data on years of service should be interpreted with caution, as the survey did not determine whether SFA directors had additional experience as directors of other SFAs or as senior staff within their current SFA.

5. Use of Foodservice Management Companies

Foodservice management companies (FSMCs) operate school foodservice programs under contracts with SFAs that are governed by FNS and State procurement rules. In SY 2014–2015, 20 percent of SFAs used FSMCs (Table 2.14). Use of FSMCs varied among SFAs along several dimensions:

- Large SFAs used FSMCs more often than medium or small SFAs (25 percent versus 19 percent).
- Urban and suburban SFAs used FSMCs at similar rates (39 and 32 percent), but rural SFAs seldom used FSMCs (6 percent).
- SFAs in districts with lower rates of child poverty used FSMCs more often than SFAs in higher-poverty districts (25 percent versus 12 percent).
- Use of FSMCs was highest in the Mid-Atlantic Region (48 percent), whereas the Southeast Region had almost no SFAs using FSMCs (less than 1 percent).

Table 2.14. Use of Foodservice Management Companies

	Percentage of SFAs
All Public SFAs	19.7
SFA Size	
Small (fewer than 1,000 students)	18.9
Medium (1,000 to 5,000 students)	18.6
Large (more than 5,000 students)	25.3
Urbanicity	
Urban	38.9
Suburban	31.6
Rural	5.6
District Child Poverty Level	
Lower (less than 20 percent)	24.9
Higher (20 percent or more)	12.2
FNS Region	
Mid-Atlantic	48.3
Midwest	26.5
Northeast	–
Mountain Plains	15.3
Western	15.3
Southwest	13.1
Southeast	0.5
Number of SFAs	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

FNS = Food and Nutrition Service; SFA = school food authority.

– Sample size is too small to produce reliable estimate.

Appendix Tables A.42 through A.44 and A.47 through A.49 present additional information on use of FSMCs and other topics pertaining to menu planning and meal production. These topics include the division of responsibility between SFAs and their FSMCs, SFA officials responsible for monitoring the performance of FSMCs, and health benefits for SFA directors and employees.

F. Meal Service Practices

Students' participation in the NSLP and SBP, and their patterns of food consumption during the school day, may be influenced by a variety of meal service practices. This section provides information on time for eating lunch and breakfast, timing of recess, use of Smarter Lunchroom techniques, configuration of serving lines, student mobility during lunch, locations where students eat breakfast, and availability of potable water during meals.

1. Time for Eating Lunch

The average lunch period was 30 minutes long, and the average breakfast period was 37 minutes.

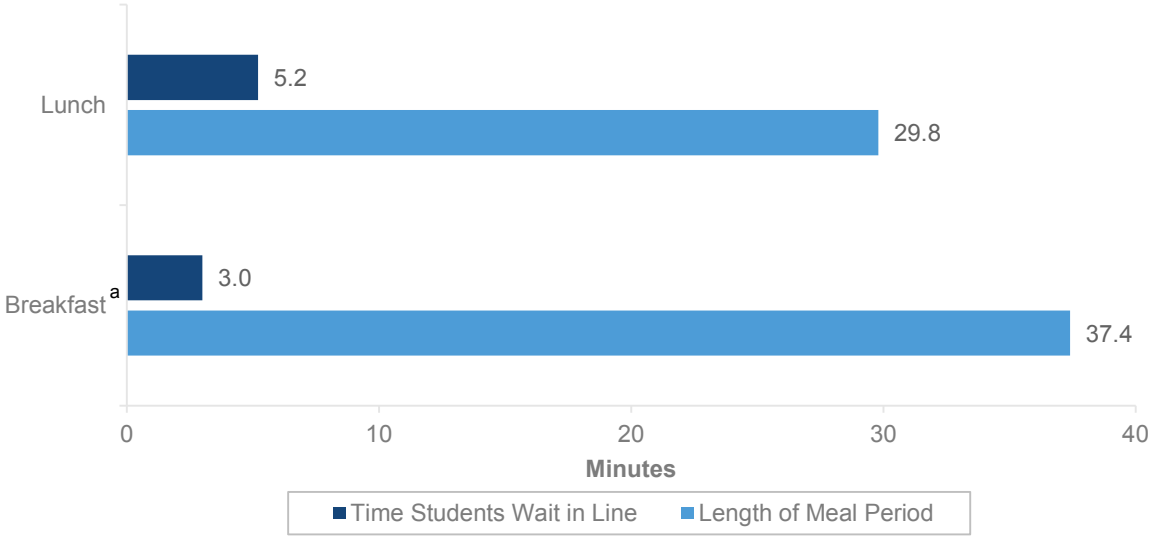
Research has shown that adequate time to eat meals is important to students' consumption of meal components and to minimizing food waste (Cohen et al. 2015). The time when meals are served also may affect meal participation, food consumption, and waste. Detailed data about lunch schedules are provided in Table A.45; key findings are summarized here. As reported by principals, the great majority of schools (85 percent) had scheduled lunch periods every day. Among schools that had scheduled lunch periods, the average lunch period was 30 minutes long and students waited an average of 5 minutes in line (Figure 2.6).[37] Lunch periods starting between 11:00 AM and 1:30 PM were most common—reported by about half (49 percent) of all schools—but more than one-third (36 percent) of schools had lunch periods that started before 11:00 AM. Among schools with multiple lunch periods, the mean start time of the first period was 11:03 AM, and the mean start time of the last period was 12:19 PM. None of these characteristics varied notably by school type or school size.

2. Time for Eating Breakfast

Among schools serving breakfast, the average breakfast period was 37 minutes and students waited in line an average of 3 minutes (Figure 2.6). Additional details about breakfast schedules are provided in Table A.46; key findings are summarized here. The average start time for breakfast was 7:42 AM, with a wide range from 5:40 AM to 10:37 AM. Start times varied little by school size or type. The average amount of time between doors opening and breakfast starting was 19 minutes. This lag time was notably longer in high schools than in elementary or middle schools (28 minutes versus 17 and 15 minutes, respectively). In schools serving breakfast before or during the first class, breakfast started on average 35 minutes before the first class.

[37] The length of the lunch and breakfast periods includes time waiting in line and time to eat.

Figure 2.6. Average Waiting Time and Average Length of Period for Lunch and Breakfast



Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Estimates are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Notes: Eleven of 1,210 schools with conflicting start and end times at breakfast (n=4) or lunch (n=7) were excluded.

Estimates of calculated lunch period length exclude 117 schools with implausibly short periods of 20 minutes or less and 269 schools with implausibly long periods of 45 minutes or longer.

Estimates of breakfast waiting time include about 1 percent of SBP schools reporting 15 minutes or more of wait time and 7 schools reporting 30 minutes or more.

Estimates of calculated breakfast period length exclude 272 schools that provide breakfast in the classroom and about 5 percent of SBP schools with implausibly short periods of less than 10 minutes. Estimates include 7 percent with periods of 60 minutes or longer and 2 percent with periods of 100 minutes or longer.

[a]Among schools that offer the SBP.

SBP = School Breakfast Program.

3. Timing of Recess

Virtually all elementary schools (98 percent) and 37 percent of middle schools had a scheduled recess (Table 2.15). Among elementary schools with a scheduled recess, 38 percent had recess immediately after lunch, 15 percent had recess immediately before lunch, and 38 percent had some students with recess before and some after lunch (depending on their schedules). In middle schools with a scheduled recess, 49 percent had recess after lunch, 2 percent had recess before lunch, and 34 percent had some students with recess before and some after lunch. There was a marked difference between elementary schools and middle schools in whether students were allowed to go out to recess before the end of their lunch period. Only 16 percent of elementary schools allowed students early access to recess, compared with 39 percent of middle schools. Across all schools with a scheduled recess, the average recess period was 25 minutes long.

Table 2.15. Policies Related to Recess

	Percentage of Schools		
	Elementary Schools	Middle Schools	All Elementary and Middle Schools
Had a Scheduled Recess	97.6	36.5	83.4
Among Schools with Recess (n=522):			
Students Had Recess Immediately After Lunch	38.3	48.8	39.4
Students Had Recess Immediately Before Lunch	15.4	2.1	14.1
Some Students Had Recess Before and Some After Lunch	38.0	34.1	37.7
Missing	8.2	15.0	8.9
Among Schools with Recess Immediately After Lunch (n=415):			
Students Were Allowed to Go Out to Recess Before the Official End of Their Lunch Period			
Yes, without rules	1.2	3.6	1.5
Yes, with rules	14.4	35.0	16.8
No	84.8	61.4	82.2
Among Schools with Rules About When Students May Go Out to Recess (n=178):			
Types of Rules[a]			
Adult supervision must be available	62.9	–	64.6
Students are dismissed in a group	59.4	–	58.2
Students may leave after a specified time interval	32.3	–	36.8
Rules vary by grade	31.7	–	29.5
Students must eat lunch first	24.1	–	27.2
Teachers/lunchroom staff have discretion	22.4	–	25.2
Other	7.7	–	7.5
	Average Minutes per Day of Recess		
	Elementary Schools	Middle Schools	All Elementary and Middle Schools
Among Schools with Recess (n=522):			
Mean	25.9	19.8	25.3
Mode	20.0	15.0	20.0
Minimum	8.0	8.0	8.0
Maximum	60.0	55.0	60.0
Number of Schools	**413**	**339**	**752**

Source: School Nutrition and Meal Cost Study, Principal Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

[a]Multiple responses were allowed.

– Sample size is too small to produce reliable estimate.

4. Use of Smarter Lunchroom Techniques

The HealthierUS School Challenge (HUSSC) criteria identify seven Smarter Lunchroom techniques to promote healthy eating (based on criteria as of 2012). The vast majority of schools (85 percent) reported using at least one of these techniques, and more than half (55 percent) of all schools used two or more (Table 2.16). Among the seven specific techniques, the three that were most commonly used were intended to promote consumption of vegetables:

The vast majority of schools reported using at least one of seven Smarter Lunchroom techniques, and over half used two or more.

- More than half of all schools (57 percent) displayed dark green, red, and orange vegetables and dry beans and peas prominently among vegetable side dishes.
- About half (49 percent) of all schools sought student input into vegetable offerings.
- Nearly as many schools (45 percent) displayed dry bean or pea entrees prominently among lunch entrees.

The other four HUSSC Smarter Lunchroom techniques were used by 27 percent of schools or less.[38] Only 8 percent of schools used creative or descriptive vegetable names.

5. Configuration of Serving Lines for Reimbursable Meals

Serving line and food station configurations may influence students' satisfaction with and consumption of reimbursable meals. Having multiple lines or stations may allow more choices, faster movement through the lines, or both. However, food choices may be limited by the line or station that a student initially chooses. About half (51 percent) of all schools had only one serving line or station with reimbursable meals or components for lunch (Table 2.17). This configuration was about twice as common among elementary schools compared to middle and high schools (63 percent versus 31 and 35 percent, respectively). The converse was true for multiple serving lines. Six in ten middle and high schools had multiple serving lines or stations, compared to 32 percent of elementary schools.

Six in ten middle and high schools had multiple serving lines or stations, compared to 32 percent of elementary schools.

[38] Not all Smarter Lunchroom techniques were part of the 2012 HUSSC criteria studied in SNMCS. Examples of other strategies include those that encourage the consumption of healthy entrees, consumption of white/plain milk, and consumption of a reimbursable meal.

Table 2.16. Use of HealthierUS School Challenge Smarter Lunchroom Techniques

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Number of Smarter Lunchroom Techniques Used				
Zero	15.5	18.6	11.8	15.2
One	31.8	24.7	30.2	30.1
Two to three	41.0	39.5	43.4	41.2
Four to seven	11.6	17.2	14.6	13.3
Sought Student Input into Creative or Descriptive Names for School Meal Dry Bean and Pea Entrees[a,b]	18.2	20.7	18.2	18.7
Missing	8.7	9.2	8.0	8.6
Displayed Dry Bean or Pea Entrees Prominently Among Lunch Entrees[a,c]	49.3	39.1	40.9	44.7
Missing	9.2	10.1	9.5	9.5
Sought Student Input into Vegetable Offerings[a,b,d]	48.3	47.5	52.8	49.2
Missing	6.7	9.1	7.5	7.3
Creative or Descriptive Vegetable Names Displayed on the Lunch Line and Outside the Cafeteria[c]	8.2	6.3	8.1	7.8
Dark Green, Red, and Orange Vegetables and Dry Beans and Peas Displayed Prominently Among Vegetable Side Dishes[c]	58.6	55.4	53.5	56.8
Displayed Fruit in Two Locations, Including Near the Register, on All Lunch Lines[c]	16.9	39.2	42.5	26.7
Missing	2.9	4.2	5.6	3.7
Used Techniques to Draw Attention to Fruit and Encourage Its Selection[a,b]	31.3	24.6	17.9	27.1
Missing	8.4	12.9	12.3	10.1
Number of Schools	**454**	**384**	**372**	**1,210**

Source: School Nutrition and Meal Cost Study, Cafeteria Observation Guide and School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Note: The 2012 HUSSC criteria in place at the time of instrument development (available at http://www.fns.usda.gov/sites/default/files/2012criteria_chart.pdf) included seven Smarter Lunchroom techniques.

[a]Data were missing for 7 to 10 percent of schools.

[b]SNM-reported responses. Percentages shown include techniques that were adopted before or since SY 2012-2013.

[c]Based on observation of lunch service on one day, percentages shown are for schools offering the relevant food items.

[d]The criterion also required that students have the opportunity to identify creative or descriptive names for vegetable offerings. The study did not ask SNMs if students had such input.

HUSSC = HealthierUS School Challenge; SNM = school nutrition manager; SY = school year.

Table 2.17. Number of Serving Lines or Stations for Lunch and Breakfast

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Number of Serving Lines or Stations That Offer Reimbursable Lunches or Components of Reimbursable Lunches				
Only One Serving Line or Station	62.7	31.0	34.5	50.7
More than One Serving Line or Station	31.9	59.8	59.9	43.1
Missing	5.4	9.2	5.6	6.2
Number of Schools	**454**	**384**	**372**	**1,210**
Number of Serving Lines or Stations That Offer Reimbursable Breakfasts or Components of Reimbursable Breakfasts[a]				
All Breakfasts Served in the Classroom	10.2	4.5	5.3	8.1
Only One Serving Line or Station	64.2	57.6	58.9	61.8
More than One Serving Line or Station	19.8	28.5	31.4	23.9
Missing	5.9	9.5	4.4	6.2
Number of Schools	**420**	**356**	**352**	**1,128**

Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Note: Detailed findings related to the availability of reimbursable meal components for lunch and breakfast are provided in Appendix A (Tables A.47−A.49).

[a]These results include only School Breakfast Program–participating schools.

For breakfast, a majority of SBP schools (62 percent) had a single serving line with reimbursable meals or meal components (Table 2.17). About one-quarter of schools (24 percent) had multiple serving lines at breakfast and, as with lunch, this configuration was less common among elementary schools than middle or high schools (20 percent versus 29 and 31 percent, respectively). Ten percent of elementary schools and 5 percent (each) of middle schools and high schools served breakfast exclusively in the classroom.

In schools with multiple serving lines or stations, a large majority of SNMs (80 percent for lunch and 91 percent for breakfast) reported that students could obtain all required meal components at every serving line or station (Table A.47). SNM-reported findings were verified in cafeteria observations conducted by trained SNMCS field staff on one school day during one meal period (Appendix Tables A.48 and A.49).

6. Student Mobility During Lunch

Giving students some freedom of movement within and outside the cafeteria during lunch periods may promote socialization and improve their satisfaction with the NSLP, but students who have access to other environments may choose competing activities and therefore not participate in the NSLP. Appendix Tables A.50 and A.51 present detailed data on policies related to student mobility, including the use of open-campus policies during lunch. In general, elementary schools had more restrictive mobility policies than middle schools and high schools, and high schools gave students the most options for mobility.

Key findings are summarized below:

- Ninety-three percent of elementary schools and 92 percent of middle schools required students to go to the cafeteria or foodservice area during lunch time, but only 64 percent of high schools did so.
- In 82 percent of elementary schools, students were not allowed to visit other tables during meal times, and in 86 percent of elementary schools, students were not allowed to leave the lunch area during their lunch period.
- In contrast, 91 percent of high schools allowed some or all students to visit other tables during lunch time, and 54 percent allowed some or all students to leave the lunch area during their lunch period.
- In schools where students were not required to go to the cafeteria or foodservice area during lunch time, the most common options permitted were classrooms (61 percent), outside on campus (50 percent), and other designated areas on campus such as hallways and student commons (37 percent).
- Among high schools, 18 percent followed an open-campus policy. For students in these high schools, the most commonly available food sources outside the campus were local stores (90 percent of schools), homes (82 percent), fast food restaurants (72 percent), and other eating establishments (60 percent).

7. Locations Where Students Eat Breakfast

Schools may offer breakfast in the classroom or other locations outside the cafeteria in order to facilitate participation in the SBP, especially when bus schedules or other factors may limit the time that students have to go to the cafeteria for breakfast. The cafeteria or other foodservice area was the most common place where students ate breakfast (82 percent of schools; Table 2.18). The availability of alternative locations for breakfast varied by school type. More than one quarter of elementary schools (27 percent) gave students the option of eating breakfast in the classroom, compared with 15 and 14 percent of middle and high schools, respectively. In contrast, "grab-and-go" breakfasts were served in 21 percent of high schools and 15 percent of middle schools, but only 7 percent of elementary schools. (These are breakfasts with meal components pre-packaged for students to take away and eat in the classroom or elsewhere.) Ten percent of high schools allowed students to eat breakfast outdoors (not including schools where the foodservice area was outdoors). This practice was less common among elementary schools and middle schools (2 percent).

The cafeteria or other foodservice area was the most common place where students ate breakfast (82 percent of schools). More than one-fourth of elementary schools offered breakfast in the classroom, compared with 15 and 14 percent of middle and high schools, respectively.

Table 2.18. Locations Where Students Eat Breakfast

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Cafeteria or Other Indoor/Outdoor Foodservice Area	80.4	83.8	83.5	81.7
Classroom	27.3	14.7	14.4	22.2
Grab-and-Go	7.0	14.5	21.1	11.4
Outdoors (Other than a Foodservice Area)	2.3	2.3	9.5	3.9
School Bus	0.5	0.0	1.4	0.6
Other	0.8	0.7	1.5	0.9
Missing	6.8	9.4	8.7	7.7
Number of Schools	**420**	**356**	**352**	**1,128**

Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Notes: Table includes only schools that participated in the School Breakfast Program. Multiple responses were allowed.

8. Availability of Potable Water

The HHFKA requires schools to make potable water (that is, water that is safe to drink) available at no charge to students at both breakfast and lunch in the locations where meals are served. Based on cafeteria observations, very few schools (5 percent) failed to meet this requirement for lunch (Table 2.19). As summarized below, schools used a variety of methods to provide access to potable water at lunch:

- Nearly half of all schools (49 percent) offered drinking fountains within the cafeteria, and 36 percent offered drinking fountains within 20 feet of the cafeteria.
- About one-quarter (24 percent) of schools offered water dispensers or coolers within the cafeteria, and 2 percent offered water dispensers or coolers within 20 feet of the cafeteria (2 percent).
- Five percent of schools offered pitchers of water within the cafeteria or within 20 feet of it, and 7 percent offered other sources of water within the cafeteria or within 20 feet of it.
- Very few schools offered bottled water at no charge (2 percent) or bottle refilling stations (3 percent).
- Comparable patterns related to availability of potable water were observed for breakfast served in the cafeteria (Table A.52).[39]

[39] The study did not collect data on the availability of potable water for breakfasts served in the classroom.

Table 2.19. Availability of Potable Water in or Near the Cafeteria at Lunch

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
No Potable Water Available	5.5	3.4	6.2	5.3
Drinking Fountain				
Within the cafeteria	47.2	56.6	47.2	48.9
Within 20 feet of the cafeteria	36.2	35.4	34.2	35.6
Water Dispenser/Cooler				
Within the cafeteria	23.3	24.1	24.3	23.7
Within 20 feet of the cafeteria	1.7	2.3	3.1	2.1
Pitchers of Water				
Within the cafeteria	5.9	1.6	2.6	4.4
Within 20 feet of the cafeteria	0.5	0.0	0.0	0.3
Bottle Refilling Station				
Within the cafeteria	1.7	3.5	5.5	2.9
Within 20 feet of the cafeteria	0.0	0.2	0.3	0.1
Bottled Water, at No Charge				
Within the cafeteria	1.9	3.6	1.3	2.1
Within 20 feet of the cafeteria	0.0	0.0	0.1	0.0
Other Source of Water				
Within the cafeteria	5.4	6.5	6.0	5.7
Within 20 feet of the cafeteria	0.9	0.9	2.1	1.1
Number of Schools	**466**	**397**	**394**	**1,257**

Source: School Nutrition and Meal Cost Study, Cafeteria Observation Guide, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Appendix Tables A.53 through A.56 provide additional information about meal service practices. The following topics are presented (in table order): scheduling of school activities during meal times, meal-scheduling policies related to breakfast, practices to accommodate food allergies and special dietary needs, and payment methods for reimbursable meals and a la carte items.

G. Experiences Implementing the New Nutrition Standards

In SY 2014–2015, almost all SFAs were certified for 6 cents reimbursement.

Under the HHFKA, all schools were required to begin implementing new nutrition standards beginning in SY 2012–2013 (USDA 2012). The new nutrition standards are based on 2010 recommendations from the Institute of Medicine, now the National Academy of Medicine (Institute of Medicine 2010), and were designed to bring school meals into alignment with the 2010 *Dietary Guidelines for Americans* (USDA and DHHS 2010). The new standards specify daily and weekly requirements for the types and quantities of foods to be offered to children in three age/grade groups (kindergarten to grade 5, grades 6 to 8, and grades 9 to 12). Relative to previous requirements, the new standards require schools to offer more fruits, vegetables, and whole grains; specify requirements for five different vegetable subgroups (dark green, red and orange, legumes, starchy, and other); limit fruit juice to no more than half of all fruit offerings; and limit

milk to fat-free or low-fat varieties. The new standards also call for elimination of *trans* fat and set standards for saturated fat, sodium, and calories.

The HHFKA provided for performance-based reimbursement for SFAs that demonstrate compliance with the new nutrition standards for both lunch and breakfast (if offered). The additional reimbursement of 6 cents per lunch became available to SFAs starting on October 1, 2012.[40] Based on reports from SFA directors, nearly all SFAs (95 percent) were certified to receive the additional 6 cents reimbursement in SY 2014–2015 (data not shown). This reflects an increase since 2013, when 80 percent of SFAs were found to be in compliance and 90 percent of all lunches served qualified for the extra 6 cents reimbursement (USDA 2014b). Just under three percent of SFAs had not yet submitted documentation to demonstrate compliance with the new nutrition standards, and another one percent had pending applications at the time data were collected. No SFA directors reported that they had applied for certification but had been denied. The rest of this section describes SFA directors' perceptions about the new nutrition standards and their experiences with implementing them.

1. Perceived Helpfulness of the New Nutrition Standards in Achieving Underlying Nutrition Goals for Children

SFA directors were asked to assess how helpful various aspects of the new nutrition standards were in meeting the underlying nutrition goals. For example, they were asked how helpful the new standards were in increasing children's consumption of whole grains, specific types of vegetables, and skim or low-fat milk.

The majority of SFAs rated the new nutrition standards as helpful in meeting the underlying nutrition goals for children. However, SFAs face challenges related to food costs and other issues.

A majority of SFA directors reported that the new nutrition standards were very or somewhat helpful in achieving underlying nutrition goals. In particular, SFA directors reported that the new nutrition standards were very or somewhat helpful in decreasing children's sodium intakes (78 percent); meeting, but not exceeding, children's calorie requirements (70 percent); and increasing children's consumption of dark green and red/orange vegetables (70 percent; Table 2.20). A smaller percentage of SFA directors (62 percent) reported that the new nutrition standards were very or somewhat helpful in increasing children's consumption of beans and peas, and 27 percent of SFA directors reported that the new nutrition standards were not at all helpful in achieving this goal. For every nutrition goal, a subset of SFA directors reported that their SFA was already achieving the goal. This was most frequently the case for increasing children's consumption of fruit (not counting fruit juice) and skim or low-fat milk (27 and 33 percent of SFA directors, respectively).

[40] To be certified to receive the additional 6 cents reimbursement, SFAs submit certification materials to their State CN Agency or request on-site review. State CN staff review, for each type of meal offered (for example, breakfast for students in kindergarten through grade 5), a menu for one week, a menu worksheet, and either a nutrient analysis or a simplified nutrient assessment of calorie and saturated fat content. Some of the new nutrition standards were phased in over several years. SFAs were required to demonstrate compliance with the standards that were in effect at the time of certification.

Table 2.20. Perceived Helpfulness of the New Nutrition Standards in Achieving the Underlying Nutrition Goals

	Percentage of SFAs
Decreasing Children's Sodium Intake	
Very helpful	29.8
Somewhat helpful	48.1
Not at all helpful	12.6
SFA was already achieving this goal	9.0
Missing	0.5
Meeting (but Not Exceeding) Children's Calorie Requirements	
Very helpful	23.3
Somewhat helpful	47.1
Not at all helpful	12.7
SFA was already achieving this goal	16.4
Missing	0.5
Increasing Children's Consumption of Dark Green and Red/Orange Vegetables	
Very helpful	24.9
Somewhat helpful	45.2
Not at all helpful	15.9
SFA was already achieving this goal	13.5
Missing	0.5
Increasing Children's Consumption of Beans/Peas	
Very helpful	20.5
Somewhat helpful	41.7
Not at all helpful	27.4
SFA was already achieving this goal	9.8
Missing	0.5
Improving the Nutritional Quality of the Meals Offered	
Very helpful	25.5
Somewhat helpful	41.7
Not at all helpful	9.6
SFA was already achieving this goal	22.8
Missing	0.5
Increasing Children's Consumption of Skim or Low-Fat Milk	
Very helpful	17.4
Somewhat helpful	37.3
Not at all helpful	11.9
SFA was already achieving this goal	32.9
Missing	0.5
Increasing Children's Consumption of Whole Grains	
Very helpful	27.3
Somewhat helpful	36.8
Not at all helpful	18.0
SFA was already achieving this goal	17.4
Missing	0.5
Increasing Children's Consumption of Fruit (Not Counting Fruit Juice)	
Very helpful	29.7
Somewhat helpful	34.3
Not at all helpful	8.8
SFA was already achieving this goal	26.8
Missing	0.5
Number of SFAs	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

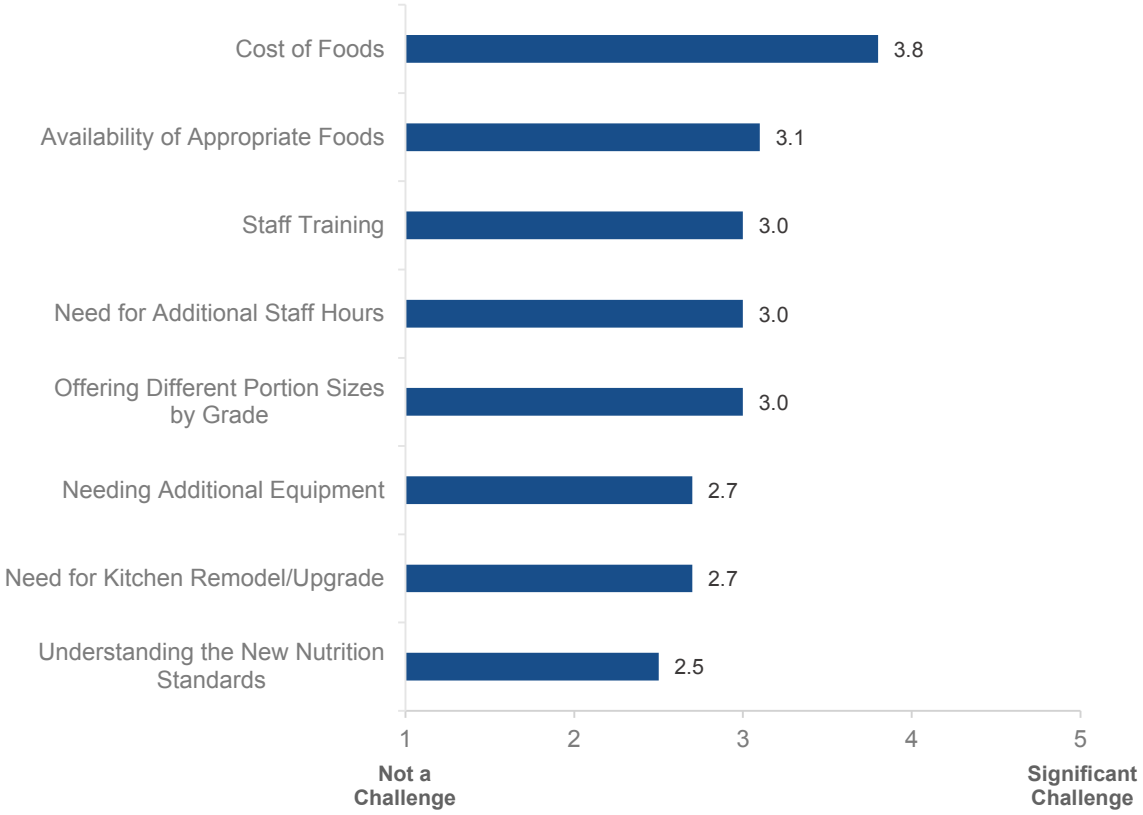
Note: Results are presented by SFA size, district child poverty rate, and urbanicity in Appendix A (Tables A.57−A.59).

SFA = school food authority.

2. Perceived Challenges in Implementing the New Nutrition Standards

SFA directors were asked to provide feedback on the challenges they faced in fully implementing or maintaining compliance with the new nutrition standards by rating eight potential challenges on a scale from 1 (not a challenge) to 5 (a significant challenge). Figure 2.7 presents the mean scores across all SFAs for each potential challenge.

Figure 2.7. Challenges Faced in Fully Implementing or Maintaining Compliance with the New Nutrition Standards (Mean Rating)



Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Estimates are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: The survey did not assign meanings to the other points on the scale. Results are presented by SFA size, district child poverty rate, and urbanicity in Appendix A (Tables A.60−A.62).

The greatest challenge SFAs face in implementing or maintaining compliance with the new nutrition standards is the cost of foods that need to be incorporated into menus in order to meet the standards (mean rating of 3.8). With mean ratings of 3.0 to 3.1, SFA directors rated food availability, the need for additional labor, staff training, and the need to offer different portion

sizes to different grade groups as more moderate challenges (mid-way between "not a challenge" and "a significant challenge"). Two of the remaining challenges—need for additional equipment and need for kitchen remodels or upgrades—had lower mean scores of 2.7, which suggest that, relative to the other challenges, more SFA directors found these issues to be less of a challenge and assigned them a rating of 1 or 2. Of the potential challenges included in the survey, SFA directors found understanding of the new nutrition standard to be the least challenging (mean rating of 2.5). Thirty-seven SFA directors reported other challenges (data not shown). Of these, 15 identified acceptability of meals to students as a challenge. None of these challenges was reported by more than three SFA directors.

3. SFA Training and Technical Assistance

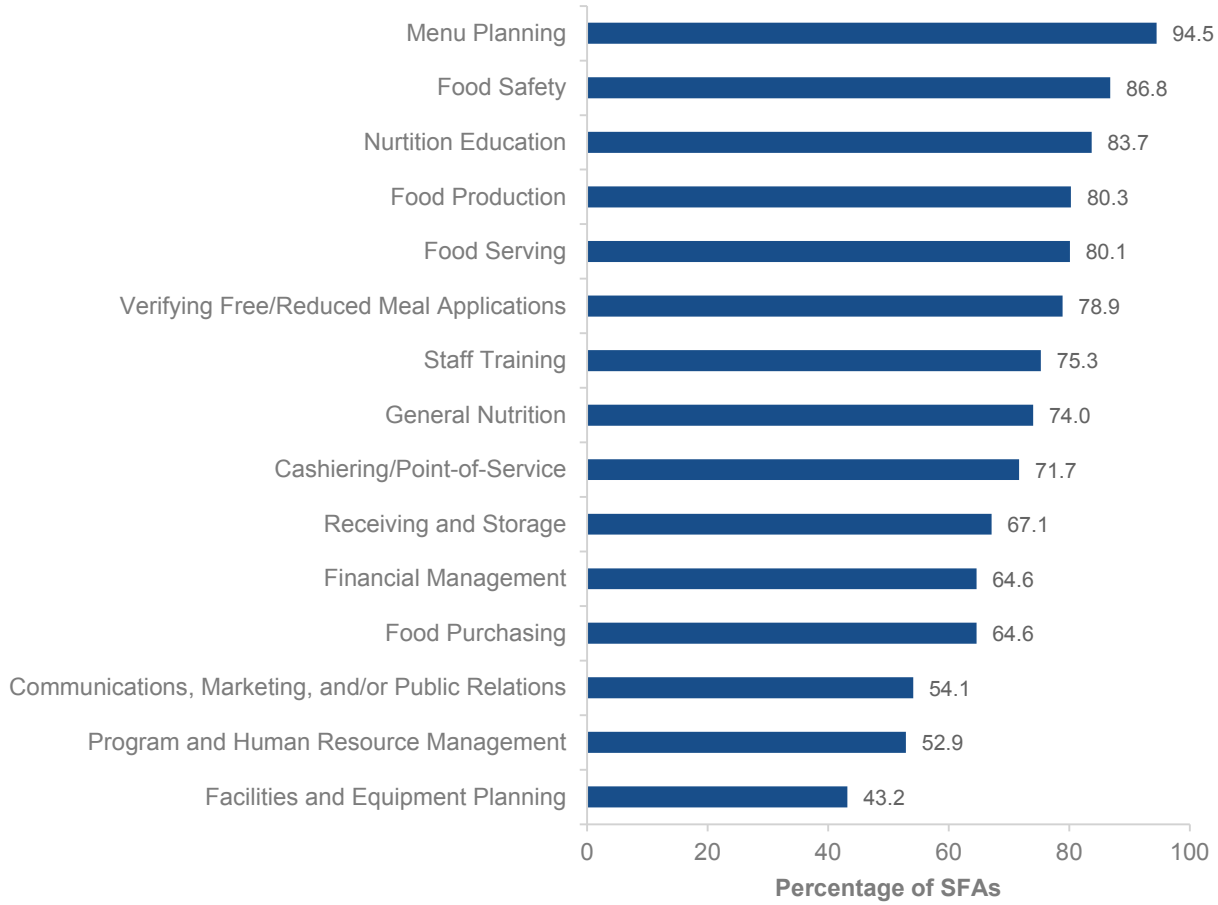
State CN agencies, FNS regional offices, the Institute of Child Nutrition,[41] private contractors, and others support SFAs in their efforts to implement and maintain compliance with the new nutrition standards by providing training and technical assistance (TA). More than three-quarters of SFA directors (76 percent) reported that they received some kind of training or TA related to the new standards since SY 2012–2013 (Table A.63). SFA directors who reported receiving training or TA were asked about the topics covered, the training provider(s), and their perceptions about the adequacy of the training.

Menu planning was the most frequently reported topic. Among SFA directors who reported receiving training or TA, 95 percent received training/TA on this topic (Figure 2.8). Other topics reported by at least three-quarters of SFA directors who reported receiving training/TA included food safety (87 percent), nutrition education (84 percent), food production (80 percent), food serving (80 percent), verifying free/reduced-price meal applications (79 percent), and staff training (75 percent). The least frequently reported topics included communications, marketing, and/or public relations (54 percent), program and human resource management (53 percent), and facilities and equipment planning (43 percent).

SFA directors who received training/TA rated the adequacy of the services received favorably. On a scale from 1 (not at all adequate) to 5 (more than adequate), both the mean and median ratings were 4.0 (data not shown). Table A.63 provides details about the agencies and organizations that provided training or TA to SFAs. In addition, Table A.64 summarizes SNM reports about the training and TA that school foodservice staff received from SFA staff and other training providers.

[41] The Institute of Child Nutrition was the National Food Service Management Institute at the time of data collection.

Figure 2.8. Topics Covered in Training and Technical Assistance Received by SFAs



Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Estimates are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Estimates are based on 378 SFAs (76 percent) that received any training or TA.

SFA = school food authority; TA = technical assistance.

3. CHARACTERISTICS OF SCHOOL NUTRITION ENVIRONMENTS

This chapter presents information on school nutrition environments in public, non-charter schools in SY 2014–2015. Data are from the Principal Survey, the SFA Director Survey, and the SNM Survey; the SNM-completed A la Carte Checklist; and the school liaison-completed Competitive Foods Checklists. The chapter begins with a discussion of local wellness policies in districts and schools (Section A). Topics include the prevalence of wellness policies and wellness coordinators; content, implementation, and evaluation of policies; and nutrition standards for foods sold in schools. Section B describes the types of nutrition outreach and promotion activities that SFA and school staff used to promote student wellness, including school participation in Team Nutrition and other wellness initiatives. The last section of the chapter (Section C) describes the availability, accessibility, and pricing of competitive foods. Section C also describes SNM and SFA director experiences implementing the Smart Snacks in School standards. Key results are presented in tables and figures in the chapter; supplemental tables appear in Appendix C, as noted throughout the chapter.

A. Local Wellness Policies

The Child Nutrition and Special Supplemental Nutrition Program for Women, Infants and Children Reauthorization Act of 2004 (Public Law 108-265) mandated that all school districts participating in the NSLP have a local school wellness policy in place by SY 2006–2007. These policies were to set goals for nutrition education and physical activity to promote student wellness and establish nutrition guidelines for all foods available on school campuses, including competitive foods. Wellness policies are developed locally so they may respond to the individual needs of each school in the district.

The HHFKA strengthened and expanded the scope of school wellness policies. The Act required that local wellness policies also include goals for nutrition promotion and required that at least one district or school official ensure that schools comply with the required components of the policy. It states that districts must permit participation of physical education teachers and school health professionals in the development and review of the policy. Districts must make their wellness policy available to the public, measure the extent of school compliance with the policy, and annually publicize progress reports and updates.

The HHFKA also required that USDA, together with the United States Department of Education and the Centers for Disease Control and Prevention within DHHS, provide information and TA to LEAs, SFAs, and State agencies to support local school wellness policies, promote healthy school environments, and meet the specific needs of LEAs. In response, FNS developed a Local Wellness Policy Resources website that includes information about the wellness policy process, policy elements, sample model policies, success stories and best practices, grants and funding opportunities, and trainings that can assist LEAs in developing, implementing, and monitoring local school wellness policies (USDA n.d.[a]).

FNS regulations created a framework and guidelines for local wellness policies to ensure that that policies meet the expanded requirements established in the HHFKA (USDA 2014c). The framework guides districts to establish, evaluate, and maintain healthy school environments.

FNS issued the proposed rule in February 2014, which districts were encouraged to follow, and issued the final rule in July 2016.

In SY 2014–2015, virtually all SFA directors (99 percent) reported that their school district had a wellness policy (Table C.1). Also, nearly one-fourth (22 percent) of school principals reported that their school had its own wellness policy (in addition to the district policy; Table C.2). SFA directors who reported having a district wellness policy were asked about selected aspects of the policy. Findings are summarized in the sections that follow. In reviewing the findings, readers should bear in mind that, as reported above, virtually all SFA directors reported that their district had a wellness policy.

1. District and School Wellness Coordinators

Among SFA directors who reported having a wellness policy, the vast majority (83 percent) reported that their district had a wellness coordinator (Table C.1). Almost three-quarters (72 percent) of schools with their own wellness policy had a designated school-level wellness coordinator (Table C.3). Nearly all wellness coordinators at the district level (98 percent) and school level (97 percent) had another job in the district/school. Related findings about district and school wellness coordinator positions and stakeholders consulted in policy development are summarized in Appendix Tables C.1, C.3, and C.4−C.7.

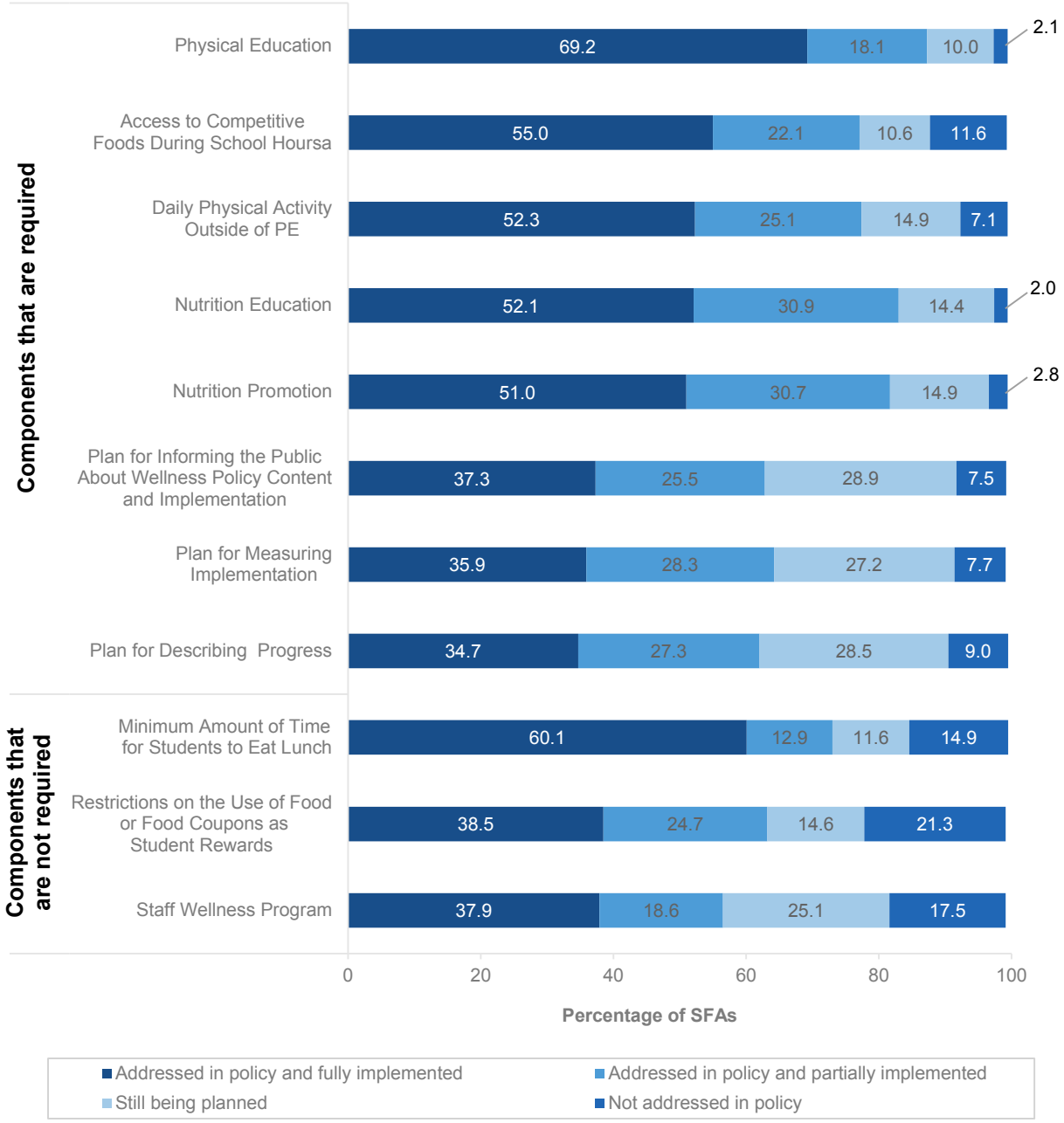
2. Content and Implementation of Local Wellness Policies

SFA directors who reported having a district wellness policy were asked about the content of the policy and the degree to which different components of the policy had been implemented. Some of the components SFA directors were asked about were not explicitly included in the legislation that mandated and expanded local wellness policies, but are of interest to policymakers and the school nutrition community. These components include, for example, policies about the minimum amount of time students have to eat lunch and the availability of staff wellness programs.

Figure 3.1 displays the policy components assessed in the survey and the degree to which each component was implemented in SY 2014–2015. For five of the eight components required under the HHFKA, more than three-quarters of SFA directors reported that the component was fully or partially implemented in their district.[42] These included policy components that address physical education (reported by 87 percent of SFA directors), nutrition education (83 percent), nutrition promotion (82 percent), access to competitive foods during school hours (77 percent) and daily physical activity outside of physical education class (77 percent). Between 10 and 15 percent of SFA directors reported that these policy components were still being planned, with nutrition promotion (15 percent) and daily physical activity outside of physical education class (15 percent) most commonly reported as still being planned. Between 2 and 12 percent of SFA directors reported that these policy components were not addressed in the district wellness policy and were not being planned.

[42] Comparable information about school-level wellness policies is reported in Table C.2.

Figure 3.1. Presence and Implementation of Local Wellness Policy Components



Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Estimates are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Results include only SFAs that reported the district has a local wellness policy (99 percent of all SFAs).

[a]Estimates exclude 188 SFAs that reported no schools in their SFA offered competitive foods.

PE = physical education; SFA = school food authority.

For the three other policy components required under the HHFKA, just over 60 percent of SFA directors reported full or partial implementation. These included policies related to plans for measuring policy implementation (64 percent), describing progress (62 percent), and informing the public about wellness policy content and implementation (63 percent). More than one-fourth of SFA directors reported that each of these policy components was still being planned in their district, with 27 percent still planning policy content related to measuring implementation and 29 percent still planning policy content related to describing progress and informing the public. Between 8 and 9 percent of SFA directors reported that these policy components were not addressed in the district wellness policy.

Of the three policy components not explicitly required under the HHFKA, nearly three-quarters (73 percent) of SFA directors reported that their district had fully or partially implemented a policy that specified a minimum amount of time for students to eat lunch. Full or partial implementation was less common for policies related to restricting the use of food or food coupons as student rewards (63 percent) and staff wellness programs (57 percent). SFA directors more frequently reported that staff wellness program policies were still being planned (25 percent) or were not addressed (18 percent), compared to policies that restrict the use of food or food coupons (15 percent being planned and 21 percent not addressed) and a minimum time for students to eat lunch (12 percent being planned and 15 percent not addressed).

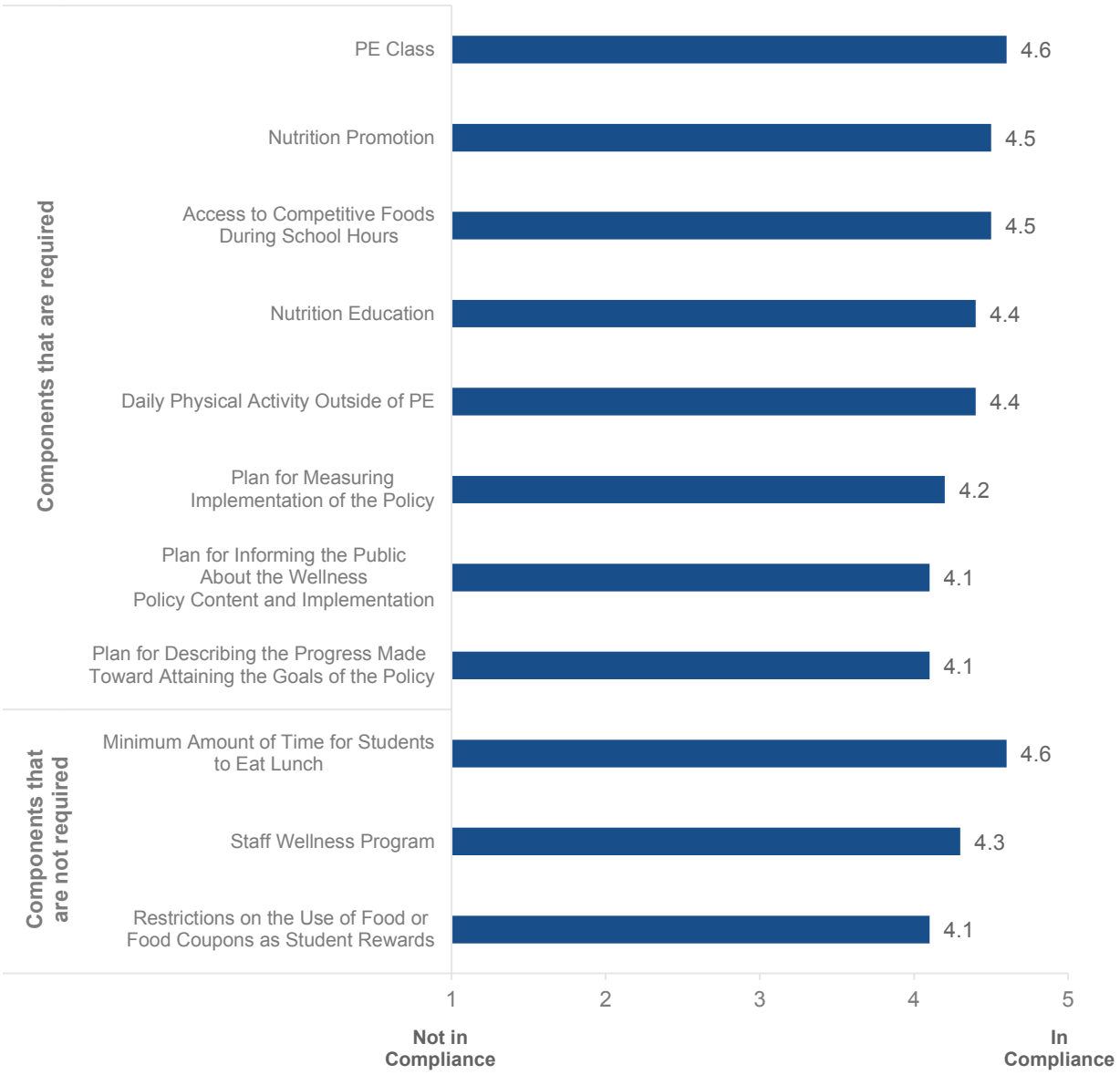
3. Evaluation of Local Wellness Policies

Among SFA directors who reported having a district wellness policy, more than one-third (36 percent) reported that their district had evaluated schools' compliance with the policy (Table C.8). These SFA directors were asked to report the overall level of compliance in their district for 11 wellness policy components by rating them on a scale from 1 (not in compliance) to 5 (in compliance). The survey did not assign meanings to the other points on the scale, and so SFA directors individually interpreted the other points, recognizing that school compliance varies within the SFA. Findings are summarized in Figure 3.2, which shows mean scores for each policy component. (Appendix Tables C.9 through C.11 present district wellness policy evaluation practices and findings by SFA size, district child poverty rate, and urbanicity.)

SFA directors reported high levels of compliance for wellness policy components required under the HHFKA, with mean compliance ratings ranging from 4.1 to 4.6. The highest mean compliance ratings were reported for policy components related to physical education (4.6), nutrition promotion (4.5), access to competitive foods during school hours (4.5), nutrition education (4.4), and daily physical activity outside of physical education class (4.4). SFA directors reported slightly lower compliance ratings, on average, for plans for measuring policy implementation (4.2), describing progress (4.1), and informing the public about wellness policy content and implementation (4.1).

Findings were similar for the three policy components not explicitly required under the HHFKA. On average, SFA directors' rated school compliance highest for policy requirements related to the minimum amount of time for students to eat lunch (4.6) and slightly lower for staff wellness programs (4.3) and restricting the use of food or food coupons as student rewards (4.1).

Figure 3.2. Findings About School Compliance with Wellness Policies Among SFAs That Evaluated Compliance (Mean Rating)



Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Estimates are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: The survey did not assign meanings to the other points on the scale. Estimates are based on SFAs with a local wellness policy where the SFA director reported that the policy had been evaluated (36 percent of SFAs with a wellness policy). For each policy component, the extent of compliance is calculated among SFAs that reported having the component and evaluating it.

PE = physical education; SFA = school food authority.

4. Nutrition Standards for Foods Sold and Served in Schools

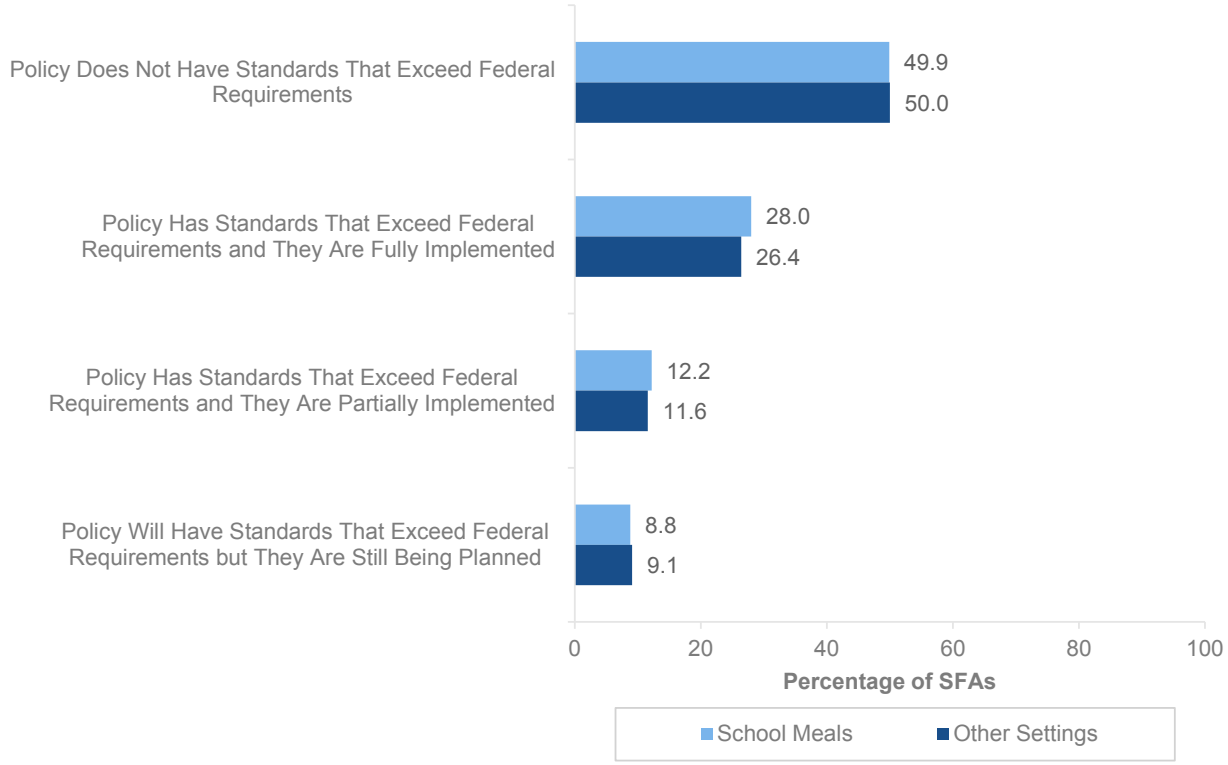
In SY 2014–2015, about 4 in 10 SFAs reported having nutrition standards for reimbursable meals and foods served in other settings that exceeded Federal requirements.

SFA directors were asked whether their local wellness policy included nutrition standards for foods sold and served in schools that exceeded Federal requirements. SFA directors who reported having standards that exceeded Federal requirements were asked about the degree to which these standards were implemented. Separate questions were asked about foods available in reimbursable school meals and foods available in other settings, such as afterschool snacks, fundraising activities, a la carte, vending machines, school stores, or other non-foodservice venues.

Half of SFA directors reported that their wellness policy did not include nutrition standards for school meals that exceed Federal requirements (Figure 3.3). Forty percent of SFA directors reported that their policies included nutrition standards for school meals that did exceed Federal requirements and that these standards were fully (28 percent of SFAs) or partially (12 percent) implemented. The remaining 9 percent of SFA directors reported that they were still planning nutrition standards for school meals that would exceed Federal requirements. Findings were comparable for nutrition standards governing foods available in other settings (Figure 3.3).

SFA directors were also asked specifically about the presence and implementation of nutrition standards for foods and beverages served at classroom and school celebrations and at staff and parent meetings. More than six in ten (61 percent) of SFA directors reported that their policies included nutrition standards for foods and beverages served at classroom and school celebrations, and that these policies were fully or partially implemented (Figure 3.4). An additional 17 percent of SFA directors reported that nutrition standards for foods and beverages served at classroom or school celebrations were still being planned, and the same percentage reported that nutrition standards for classroom and school celebrations were not included in their wellness policies. Nutrition standards for foods and beverages served at staff or parent meetings were notably less common. More than four in ten SFA directors (43 percent) reported that their wellness policy did not include nutrition standards for these foods. Just over one-third (34 percent) of SFA directors reported that their wellness policy included nutrition standards for staff or parent meetings and that these standards were fully (16 percent) or partially (18 percent) implemented. An additional 19 percent of SFA directors reported that nutrition standards for these foods were still being planned. Appendix Tables C.15 through C.18 provide related findings on nutrition standards for competitive foods, broken out by school type and by SFA size, district child poverty rate, and urbanicity.

Figure 3.3. Nutrition Standards in Local Wellness Policies: School Meals and Foods Available in Other Settings



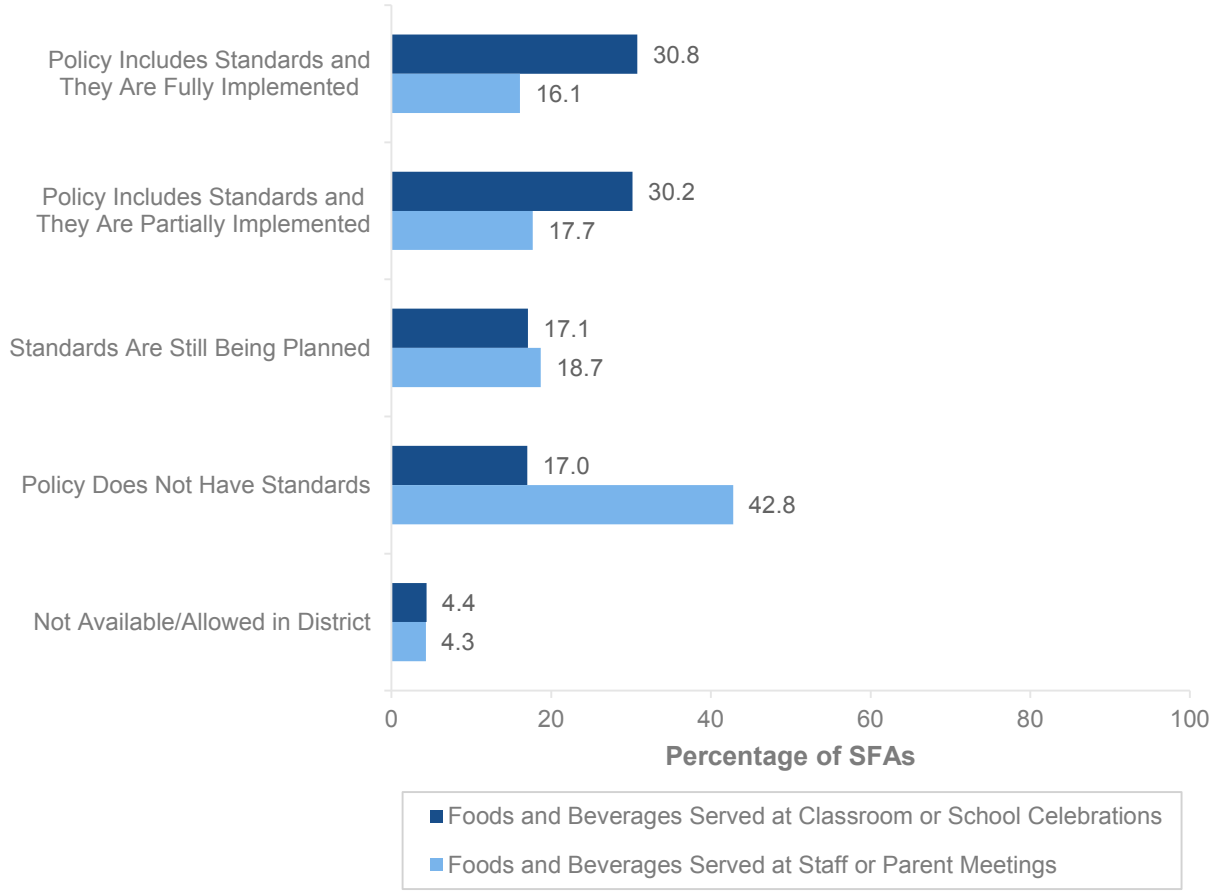
Source: School Nutrition and Meal Cost Study, A la Carte Checklist, Other Sources of Foods and Beverages Checklist, Principal Survey, and Vending Machine Checklist, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Notes: Estimates are based on 99 percent of SFAs (n=515) that reported the district has a local wellness policy. Results are presented by SFA size, district child poverty rate, and urbanicity in Appendix C (Tables C.12−C.14).

Other settings include afterschool snacks, fundraising activities, a la carte, vending machines, school stores, or other non-foodservice venues.

SFA = school food authority.

Figure 3.4. Nutrition Standards in Local Wellness Policies: Celebrations and Meetings



Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Estimates are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Estimates are based on 99 percent of SFAs (n=515) that reported the district has a local wellness policy. Results are presented by SFA size, district child poverty rate, and urbanicity in Appendix C (Tables C.19−C.21).

SFA = school food authority.

B. Nutrition Outreach and Promotion Practices

The HHFKA stipulates that local wellness policies include "goals for nutrition promotion and education, physical activity, and other school-based activities that promote student wellness" (Public Law 111-296). This section describes approaches to nutrition outreach and promotion, as reported separately by SFA staff and school foodservice staff, followed by details on school participation in Team Nutrition and other nutrition and wellness initiatives.

1. Activities Implemented by SFA Staff

To promote student wellness, more than two-thirds of SFAs held student taste tests or invited families to eat a school meal. Half of SFAs asked for student input on menu planning.

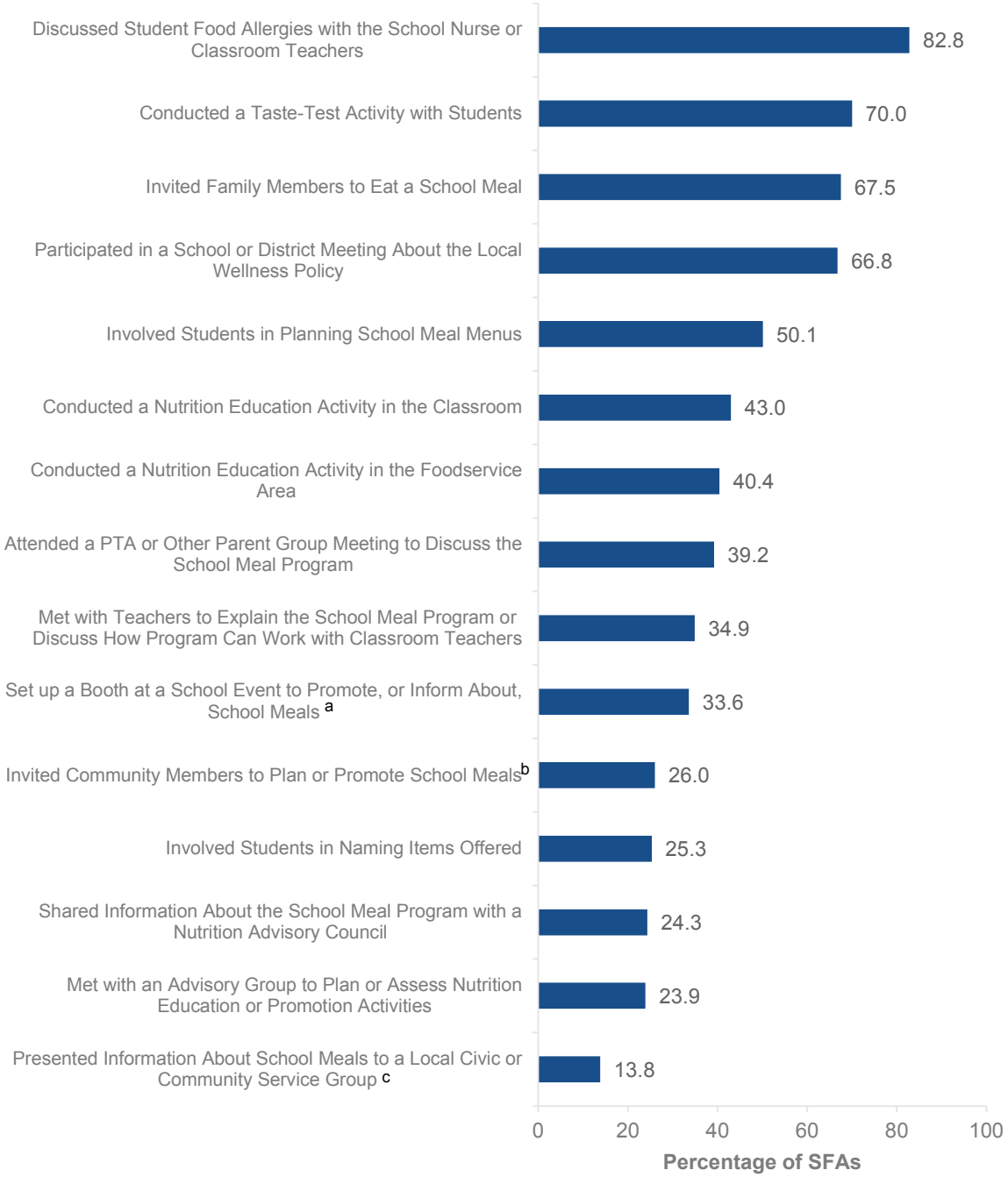
SFA directors were asked whether SFA staff engaged in 15 potential nutrition outreach and promotion activities. Findings are summarized in Figure 3.5. Outreach to school nurses or classroom teachers about student food allergies was the most frequently reported activity (83 percent of SFAs). SFAs also commonly engaged students and family members by conducting taste-testing activities with students (70 percent) and inviting family members to eat a school meal (68 percent). Just over two-thirds of SFAs (67 percent) participated in school or district meetings about local wellness policies. Half of all SFAs reported involving students in planning menus for school meals. About 4 in 10 SFAs conducted nutrition education activities in the classroom (43 percent) or foodservice area (40 percent), and more than one-third discussed school meals with parent groups (39 percent) or teachers (35 percent). Fewer SFAs (24 to 26 percent) involved community members in planning or promoting school meals, involved students in naming items offered in school meals, shared information with a nutrition advisory council, or met with an advisory group to plan or assess nutrition education or promotion activities. Only 14 percent of SFAs presented information about school meals to a local civic or community service group.

2. Activities Implemented by School Staff

SNMs were asked whether school-level foodservice staff engaged in 16 potential nutrition outreach and promotion activities.[43] SNMs also indicated for each activity whether the school engaged in the activity before the new nutrition standards went into effect in SY 2012–2013, or had adopted it since that time. Findings are summarized in Figure 3.6. (Differences in the findings reported in Figures 3.5 and 3.6 may reflect different perspectives of SFA directors [Figure 3.5] and SNMs [Figure 3.6].)

[43] See Chapter 2 for a discussion of the use of HUSSC Smarter Lunchroom nutrition promotion techniques.

Figure 3.5. Nutrition Outreach and Promotion Activities Used by SFA Staff



Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Estimates are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Multiple responses were allowed. Results are presented by SFA size, district child poverty rate, and urbanicity in Appendix C (Tables C.22−C.24).

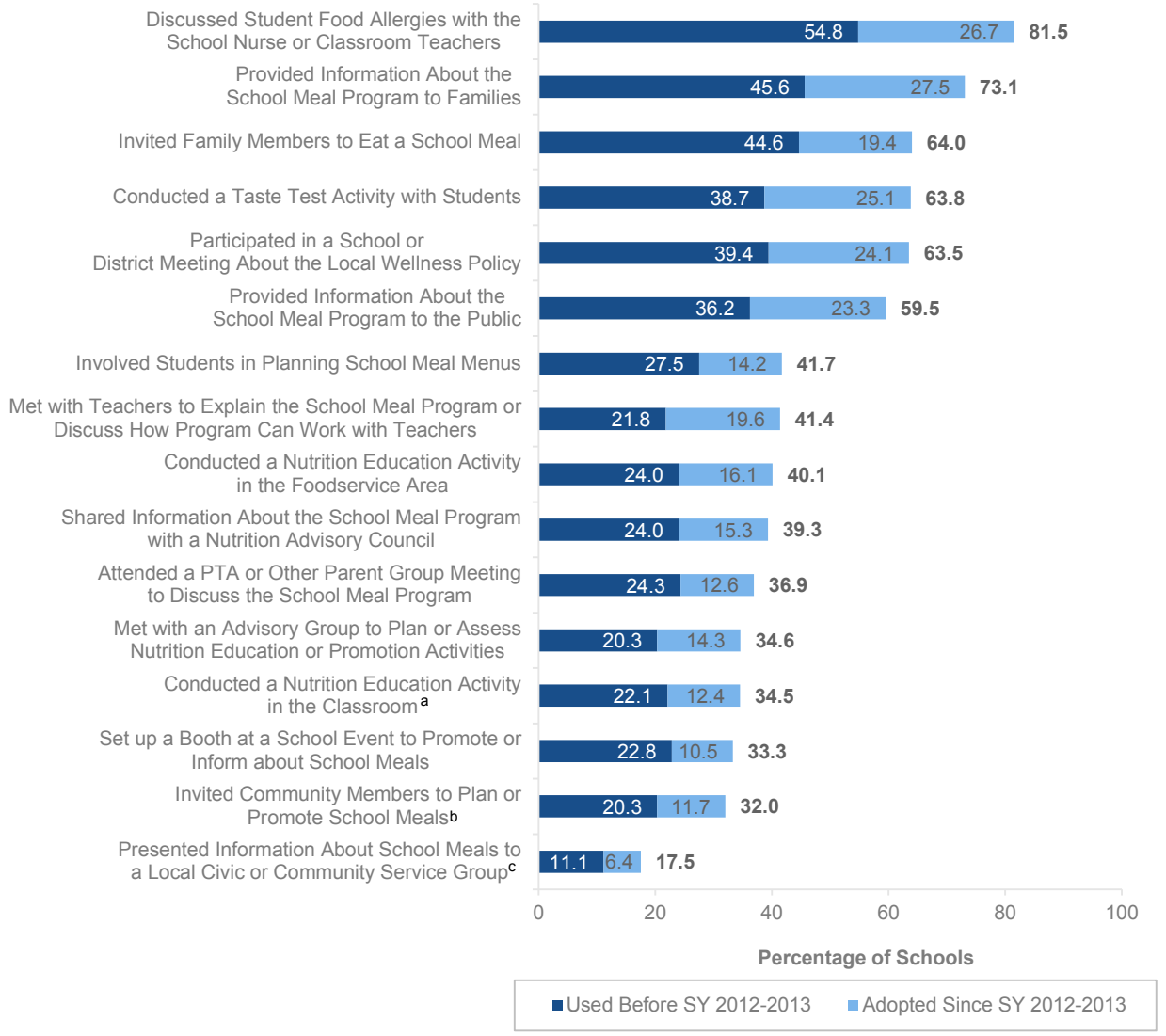
[a]Examples of school events include a family night or parent-teacher conference night.

[b]Examples of community members include local chefs, farmers, dietitians/nutritionists, and local sports figures.

[c]Examples of civic or community service groups include chambers of commerce, Lions Clubs, Rotary International, or similar organizations.

PTA = parent-teacher association; SFA = school food authority.

Figure 3.6. Nutrition Outreach and Promotion Activities Used by School Foodservice Staff



Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

[a]Examples of school events include a family night or parent-teacher conference night.

[b]Examples of community members include local chefs, farmers, dietitians/nutritionists, and local sports figures.

[c]Examples of civic or community service groups include chambers of commerce, Lions Clubs, Rotary International, or similar organizations.

PTA = parent-teacher association; SY = school year.

Overall, the most common outreach activity used by school foodservice staff was discussing student food allergies with school nurses or classroom teachers (82 percent). Schools also commonly provided information about the school meal program to families (73 percent) or the public (60 percent), and invited family members to eat a school meal (64 percent). Student taste-test activities were also prevalent, along with participation in school or district meetings about local wellness policies (64 percent each). About four in ten schools promoted school meals by involving students in menu-planning (42 percent), conducting nutrition education in the foodservice area (40 percent), or sharing information with teachers (41 percent), nutrition advisory councils (39 percent), or parents (37 percent). More than one-third of schools met with an advisory group to plan or assess nutrition education and promotion activities or conducted a nutrition education activity in the classroom (35 percent each). Less common school-level outreach and promotion activities were hosting a booth at a school event (33 percent), inviting community members to plan or promote school meals (32 percent), and presenting school meal information to a local civic or community services group (18 percent).

Many schools were using nutrition outreach and promotion activities before the new nutrition standards went into effect in SY 2012–2013. Prior to implementing the new standards, schools most frequently engaged in discussion of student food allergies with school nurses or classroom teachers (55 percent), provided information about the school meal program to families (46 percent), invited family members to eat a school meal (45 percent), conducted student taste-test activities (39 percent), participated in school or district meetings about local wellness policies (39 percent), and provided information about the school meal program to the public (36 percent).

After the new nutrition standards went into effect, more than one-quarter of schools newly adopted activities related to discussing student food allergies with the school nurse or classroom teachers, providing information about the school meal program to families, and conducting student taste-tests.

Some schools reported adopting nutrition promotion and outreach activities after the new nutrition standards went into effect. Activities that were newly adopted by more than one in five schools included providing information about the school meal program to families (28 percent), discussing student food allergies with the school nurse or classroom teachers (27 percent), conducting taste-test activities with students (25 percent), participating in school or district meetings about local wellness policies (24 percent), and providing information about the school meal program to the public (23 percent).

3. School Participation in Team Nutrition and Other Nutrition and Wellness Initiatives

School nutrition and wellness initiatives may include a classroom component or other components, such as promotion of physical activity, as well as school- or community-wide programs and events. USDA's Team Nutrition initiative provides resources to schools to support them in their efforts.[44]

[44] Resources include training and technical assistance to foodservice staff, nutrition education resources for children and caregivers, and support for school and community healthy eating and physical activity.

Principals were asked whether their school participated in Team Nutrition and 11 other nutrition and/or wellness initiatives. Over two-thirds (69 percent) of principals did not know if their schools participated in Team Nutrition,[45] and close to half of principals (44 percent) did not know if their schools were participating in other types of nutrition/wellness initiatives. Less than one in five principals (14 percent) reported that their school participated in Team Nutrition. Nearly one-fourth (23 percent) reported that their school participated in other nutrition or wellness initiatives. None of the initiatives queried in the survey, including the Healthy Schools Program, Fuel Up to Play 60, and 5-A-Day[46] was reported by more than 10 percent of principals. These and other related findings are presented in Appendix Tables C.25 through C.28.

To support schools operating school gardens—an example of an initiative that provides hands-on nutrition education and introduces children to fruits and vegetables—Team Nutrition makes available evidence-based curricula and other resources about gardens. SNMs reported that the use of school gardens was uncommon in SY 2014–2015 (Table 3.1). Operating a school garden was more common among elementary and middle schools (9 and 6 percent, respectively) than high schools (4 percent).[47]

Table 3.1. Schools Operating School Gardens

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
School Operates a School Garden				
Yes	9.1	5.8	4.1	7.4
No	81.6	84.9	88.9	83.8
Don't know	2.4	1.6	1.7	2.1
Missing	6.9	7.7	5.3	6.7
Number of Schools	**454**	**384**	**372**	**1,210**

Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

[45] FNS has previously reported that nearly half of schools participate in Team Nutrition nationally. See "Join the Team: Become a Team Nutrition School" available at http://www.fns.usda.gov/tn/join-team-become-team-nutrition-school. Accessed February 29, 2016.

[46] The Alliance for a Healthier Generation's Healthy School Program is an evidence-based initiative that helps to create and sustain healthy environments where students can learn more and flourish and make a positive impact on student health. The Fuel Up to Play 60 program is an in-school nutrition and physical activity program that was launched by the National Dairy Council and the National Football League, in collaboration with USDA. The 5-A-Day for Better Health Program is national nutrition education campaign to increase fruits and vegetable intake to an average of 5 to 9 servings a day; the campaign was launched by the National Cancer Institute, the Produce for Better Health Foundation, USDA, the Centers for Disease Control and Prevention, and the American Cancer Society and other national health organizations.

[47] See Chapter 2 for a discussion of the presence of schools operating a school garden within SFAs.

C. Competitive Foods

The HHFKA required the development of new nutrition standards consistent with the most recent *Dietary Guidelines for Americans* for all foods and beverages sold during the school day in schools participating in the NSLP. FNS published an interim final rule in 2013 (USDA 2013a) and required implementation of the nutrition standards for competitive foods, called Smart Snacks in Schools, to begin in SY 2014–2015.[48] The Smart Snacks in Schools standards require competitive foods to satisfy limits for calorie, sodium, fat, and total sugar content. In addition, foods must meet one of the following requirements: (1) be whole grain-rich; (2) have a fruit, vegetable, dairy product, or protein food as the first ingredient; (3) be a combination food that provides at least one-quarter cup fruit or vegetable; or (4) contain 10 percent of the daily value of potassium, calcium, vitamin D, or dietary fiber (USDA n.d.[b]).[49] Schools may sell plain water, unflavored 1 percent or skim milk or milk alternatives, and 100 percent fruit or vegetable juice (USDA 2013b). Except for plain water, beverage sizes are limited.

Competitive foods may be offered through a la carte sales in school cafeterias during breakfast or lunch periods, or through other venues such as vending machines, school stores, snack bars, food carts/kiosks, and fundraisers. Multiple SNMCS instruments collected information about competitive foods: the SFA Director, Principal, and School Nutrition Manager Surveys; the SNM-completed A la Carte Checklist; and the school liaison-completed Competitive Foods Checklists (one form for vending machines and one form for other venues such as school stores and snack bars).

This section reports findings on the availability of competitive foods in public, non-charter NSLP schools in SY 2014–2015; common foods and beverages available through various competitive food sources; accessibility and pricing of competitive foods; and SFA directors' and SNMs' experiences implementing the Smart Snacks in School standards. Appendix C includes supplemental tables (Tables C.29 through C.38) on these topics.

1. Types and Combinations of Competitive Food Sources

The majority of schools had at least one source of competitive foods available to students. The availability of foods for a la carte purchase during meal times was the most common.

The majority of all schools had at least one source of competitive foods available to students. Availability of foods for a la carte purchase in the school cafeteria during meal times was the most common source (in 87 percent of schools for lunch and 56 percent for breakfast; Table 3.2). Overall, vending machines were available in 30 percent of all schools. Vending machines were much more common in high schools (71 percent) than in middle schools (44 percent) and, especially, elementary schools (10 percent). Alternative food sources—school stores, snack bars, food carts, kiosks, bake sales, fundraisers, or other sources—were the least common sources of competitive foods (available in 24 percent of all schools). Additional information about the venues through which competitive foods are

[48] The Smart Snacks in Schools Standards final rule went into effect in July 2016.

[49] The nutrients were identified as nutrients of concern in the 2010 *Dietary Guidelines for Americans*. Foods do not qualify under the daily value criterion as of July 1, 2016.

available and about rules governing student access is provided in Appendix Tables C.29 through C.31.

Table 3.2. Types and Combinations of Competitive Food Sources Available in Schools

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Types of Competitive Foods Sources Available				
A la carte at lunch	84.0	90.5	91.4	86.8
A la carte at breakfast	54.3	57.6	59.8	56.1
Any vending machines	10.3	44.1	70.5	29.7
Missing	8.6	11.0	8.8	9.1
Any other alternative food sources[a]	17.6	27.6	36.0	23.5
Missing	7.6	9.9	8.5	8.2
Among Schools with Complete Information About Competitive Foods Sources (n=1,108):				
Combinations of Competitive Foods Sources Available[a]				
A la carte only	62.2	34.1	17.0	47.2
A la carte and vending machines	5.8	32.1	37.6	17.5
A la carte, vending machines, and other alternative food sources	2.5	14.8	34.1	11.7
A la carte and other alternative food sources	13.8	10.2	3.3	10.9
Vending machines only	1.8	1.0	3.8	2.1
Other alternative food sources only	1.6	3.7	0.0	1.6
Vending machines and other alternative food sources	1.1	1.6	1.8	1.3
No competitive foods sources	11.1	2.5	2.4	7.7
Number of Schools	**454**	**384**	**372**	**1,210**

Source: School Nutrition and Meal Cost Study, A la Carte Checklist, Other Sources of Foods and Beverages Checklist, Principal Survey, and Vending Machine Checklist, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

[a]Alternative food sources include school stores, snack bars, food carts, kiosks, bake sales, or fundraisers reported by principals, as well as school stores, snack bars, food carts, kiosks, fundraisers, or other sources of competitive foods reported by school liaisons.

The combinations of competitive foods venues available to students varied (Table 3.2). Among schools with complete information about sources of competitive foods, the largest share offered only a la carte purchases (47 percent), followed by a la carte and vending machines (18 percent), and a la carte, vending machines, and other alternative sources (12 percent). Limiting competitive foods to those offered only on an a la carte basis during meal periods was most common among elementary schools (62 percent versus 34 and 17 percent for middle and high schools, respectively). Middle and high schools, on the other hand, more commonly offered multiple sources of competitive foods, such as a la carte and vending machines (32 and 38 percent of middle and high schools) or a la carte, vending machines, and other alternative sources (15 percent of middle schools and 34 percent of high schools). Only 8 percent of all schools had no sources of competitive foods; this was more common among elementary schools (11 percent) than middle or high schools (3 and 2 percent, respectively).

2. A la Carte Foods and Beverages

Principals were asked whether schools had rules or written policies about when students could purchase a la carte foods. Among schools with a la carte foods, nearly half (47 percent) had rules for all or some students (Table 3.3). Most commonly, students could purchase a la carte foods when bringing a lunch from home or taking a reimbursable meal (respectively 42 and 40 percent of all schools with rules about a la carte purchases). Less common rules included allowing a la carte purchases after all students have had the opportunity to take a reimbursable meal (28 percent) and various other rules (23 percent). None of the other rules specified by respondents were reported for more than 4 percent of schools. The most common other rules allowed a la carte purchases with parental permission or when students had a positive account balance.

Table 3.3. Policies Related to A la Carte Purchases

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Among Schools with A la Carte (n=934):				
School Has Rules About When Students May Buy A la Carte Items				
Yes, for all students	42.5	42.4	41.8	42.3
Yes, for some students	4.2	6.5	5.3	4.8
No	47.4	48.9	52.0	48.7
Missing	6.0	2.2	0.9	4.1
Among Schools with Rules About A la Carte Purchases (n=437):				
When A la Carte Foods May Be Purchased[a]				
Student brings lunch from home	48.8	33.7	33.8	42.4
Student takes a reimbursable meal	41.1	38.6	37.7	39.8
All students have had the opportunity to take a reimbursable meal	29.4	25.9	27.7	28.3
Other restrictions	24.6	19.1	23.6	23.3
Parent permission	6.2	2.6	1.7	4.4
Positive account balance	3.6	7.0	3.8	4.3
Number of Schools	**413**	**339**	**338**	**1,090**

Source: School Nutrition and Meal Cost Study, A la Carte Checklist and Principal Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

[a]Multiple responses were allowed.

Foods and Beverages Offered. Appendix Tables C.32 and C.33 present detailed information on the foods and beverages available for a la carte purchase at lunch and breakfast, respectively. High-level findings for lunch, the meal at which a la carte is most common, are summarized below:

- Milk was the most commonly offered a la carte item at lunch (73 percent of all schools), followed by water and 100 percent juice (48 percent), and fresh, canned, or dried fruit (42 percent).
- Three out of ten schools (30 percent) offered baked goods or desserts. These items were more prevalent in middle schools (42 percent) and high schools (46 percent) than elementary schools (21 percent). Low-fat cookies and low-fat cakes, cupcakes, or brownies were more common than their regular-fat counterparts; 21 percent of all schools offered low-fat cookies compared to 6 percent for regular-fat cookies, and 7 percent offered low-fat cakes, cupcakes, or brownies compared to 1 percent for regular-fat varieties.
- Forty-one percent of schools offered snacks. Common a la carte snack items included low-fat baked chips (35 percent of all schools), crispy rice bars or treats (23 percent), crackers including animal crackers (18 percent), and popcorn (17 percent) (data not shown).

Pricing Strategies. SFA directors reported that the majority of middle and schools (50 and 59 percent, respectively) in their SFAs sold components of reimbursable meals other than milk on an a la carte basis (Table 3.4). This practice was less common among elementary schools (37 percent). Among SFAs with schools that allowed a la carte purchase of components of reimbursable meals, a great majority (74 to 80 percent of elementary, middle, and high schools) reported that combinations of reimbursable meal components sold a la carte were priced higher than reimbursable meals. Other pricing practices for reimbursable meal components sold a la carte were less common. These included offering less healthful items at "premium" prices (27 to 35 percent of elementary, middle, and high schools), pricing second servings lower for students who take a reimbursable meal (28 to 36 percent), and discounting the price of more healthful items (38 to 42 percent). Additional information about a la carte pricing practices is reported in Table C.37.

3. Vending Machine Foods and Beverages

One-fourth (25 percent) of principals reported that students had access to vending machines in school or on school grounds (Table 3.5).[50] Vending machines were much more common in middle and, especially, high schools than in elementary schools (34 percent of middle schools, 65 percent of high schools, and 8 percent of elementary schools). Vending machine revenue or profit most often went to the school or a student organization (49 and 25 percent, respectively). Two-thirds (67 percent) of

Vending machines were much more common in middle and high schools than in elementary schools, and beverage machines were more common than snack machines.

[50] The estimated prevalence of vending machines is higher in Table 3.2 than in Table 3.5 because Table 3.2 is based on the Competitive Foods Checklists in addition to the Principal Survey, whereas Table 3.5 is based only on the Principal Survey.

schools with at least one vending machine had one or more located indoors in an area other than the foodservice area and 41 percent had one or more located within the foodservice area.

Table 3.4. Availability of and Pricing Practices for Reimbursable Meal Components Sold A la Carte

	Percentage of SFAs with Various Pricing Practices in…		
	Elementary Schools	Middle Schools	High Schools
Components of Reimbursable Meals, Other Than Milk, Sold A la Carte	37.1	50.4	59.3
Among SFAs with Schools that Sold Components of Reimbursable Meals A la Carte (n=384):			
Practices Used in Setting Prices for Reimbursable Meal Components Sold A la Carte[a]			
A combination of reimbursable meal components sold a la carte are priced higher than a reimbursable meal	74.2	79.2	79.9
Less healthful items are offered at "premium" prices	27.1	31.1	35.1
Items sold as second servings are priced lower for students who select a reimbursable meal	28.4	34.7	35.6
More healthful items are discounted	38.3	40.4	42.3
Number of SFAs	**250**	**310**	**359**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Results are presented by SFA size, district child poverty rate, and urbanicity in Appendix C (Tables C.34−C.36).

[a]Multiple responses were allowed.

SFA = school food authority.

Table 3.5. Vending Machine Availability and Policies

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Vending Machines Available in School or on School Grounds	7.7	34.1	64.6	25.0
Among Schools with Vending Machines (n=388):				
Who Receives Revenue or Profit from Vending Machines[a]				
School	–	57.6	47.4	49.2
Student organization	–	14.6	28.5	24.5
District	–	7.4	18.8	13.9
School foodservice only	–	17.7	10.9	12.1
Athletic department	–	1.0	11.2	7.7
School foodservice and other school/district departments	–	9.8	10.0	8.2
Other	–	4.1	2.5	2.5
Student marketing/business class/club	–	0.0	4.1	2.3
Parent organization	–	1.3	0.4	0.9
Don't know	–	2.0	6.8	9.1
Location of Machines[a]				
Indoor area other than foodservice area	–	59.8	67.5	66.8
Foodservice area	–	54.5	40.2	41.1
Other outside area on school grounds	–	5.4	13.2	11.2
Among Schools with Beverage Machines (n=372):				
Total Number of Beverage Machines Available				
One to five	–	96.6	84.5	90.2
Six or more	–	3.4	15.1	9.5
Missing	–	0.0	0.4	0.2
Total Number of Beverage Machines Selling Only Milk, 100 Percent Juice, or Water				
Zero	–	16.0	29.9	26.0
One to five	–	83.8	64.2	70.5
Six or more	–	0.0	4.7	2.7
Missing	–	0.2	1.3	0.8
Among Schools with Beverage Machines Inside the Foodservice Area (n=123)[b]:				
Times Students Can Use the Beverage Machines Inside the Foodservice Area[a]				
Before school	–	–	68.3	63.9
During breakfast	–	–	62.1	55.5
During school hours, before lunch	–	–	51.0	45.0
During lunch	–	–	59.6	59.6
After lunch, before end of last regular class	–	–	61.2	50.7
After last regular class	–	–	77.0	72.2
Other	–	–	2.9	2.2
Among Schools with Beverage Machines Outside the Foodservice Area (n=206)[b]:				
Times Students Can Use Beverage Machines Outside the Foodservice Area[a]				
Before school	–	–	79.7	74.4
During breakfast	–	–	47.2	41.3
During school hours, before lunch	–	–	64.1	59.2
During lunch	–	–	48.8	43.0
After lunch, before end of last regular class	–	–	68.1	66.0
After last regular class	–	–	87.7	87.6
Other	–	–	8.8	13.2

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Among Schools with Snack Machines (n=228):				
Total Number of Snack Machines Available				
One to five	–	100.0	92.4	95.2
Six or more	–	0.0	6.9	4.3
Missing	–	0.0	0.7	0.4
Among Schools with Snack Machines Inside the Foodservice Area (n=112):				
Times Students Can Use Snack Machines[a]				
Before school	–	–	77.3	64.8
During breakfast	–	–	67.0	56.8
During school hours, before lunch	–	–	52.4	40.5
During lunch	–	–	66.3	66.0
After lunch, before end of last regular class	–	–	66.6	49.4
After last regular class	–	–	76.5	73.3
Other	–	–	5.1	5.0
Among Schools with Snack Machines Outside the Foodservice Area (n=146):				
Times Students Can Use Snack Machines[a]				
Before school	–	–	73.8	74.3
During breakfast	–	–	53.9	47.0
During school hours, before lunch	–	–	57.0	58.3
During lunch	–	–	46.1	43.2
After lunch, before end of last regular class	–	–	68.2	68.9
After last regular class	–	–	86.0	87.5
Other	–	–	15.4	12.7
Number of Schools	**413**	**339**	**338**	**1,090**

Source: School Nutrition and Meal Cost Study, Principal Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

[a]Multiple responses were allowed.

[b]Excludes beverage machines that sell only milk, 100 percent juice, or water.

– Sample size is too small to produce reliable estimate.

Beverage Machines. Nearly all schools (90 percent) with at least one beverage machine had no more than 5 machines that dispensed beverages. High schools were an exception—15 percent of high schools had 6 to 25 beverage machines. Of schools with beverage machines, nearly three-fourths (71 percent) had between one and five machines that contained only milk, 100 percent juice, or water. On average, 56 percent of a school's beverage machines contained only milk, 100 percent juice, or water; this included 64 percent of machines in elementary schools, 68 percent in middle schools, and 49 percent in high schools (data not shown). For all school types, beverage machines outside the school foodservice area were most often available after the last regular class (88 percent of all schools) or before school (74 percent). Forty-seven percent of high schools with beverage machines had them available during breakfast.

Snack Machines. Snack machines were less prevalent than beverage machines, but findings for the number and availability of machines were similar. Specifically, nearly all schools (95 percent) with at least one snack machine had no more than 5 such machines. Only 7 percent of high schools (and 4 percent of schools overall) had six or more snack machines. Snack machines

outside the foodservice area were also most often available after the last regular class or before school (88 and 74 percent, respectively).

Water was the most commonly available beverage in vending machines (27 percent of all schools; Table C.38). Beverages other than water, 100% juice, and milk, including energy and sports drinks, regular and diet carbonated soft drinks, and juice drinks, were much more common in high schools than in middle or elementary schools (50 percent versus 10 and 5 percent, respectively). The most common snack item was low-fat/reduced-fat baked chips (available in 11 percent of all schools and 32 percent of high schools).

4. Experiences Implementing the Smart Snacks in Schools Standards

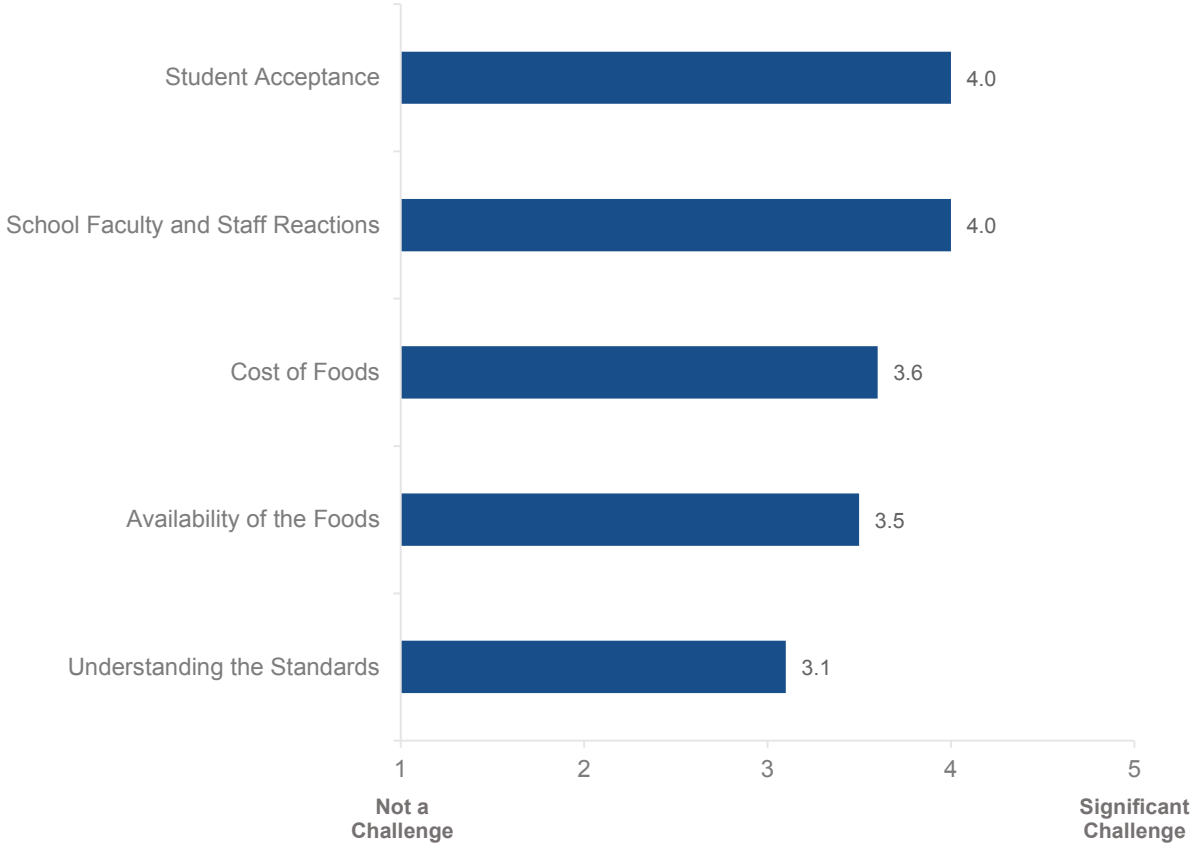
SFA directors rated student acceptance and faculty and staff reactions as the biggest challenges to Smart Snacks in Schools implementation.

SFA directors and SNMs were asked about their experiences in implementing the Smart Snacks in Schools standards for competitive foods, including the extent to which the standards were implemented in the first school year they were required. In the spring of SY 2014–2015, when the SNMCS data were collected, about one in five SFA directors with schools that offered competitive foods (19 percent) reported that the Smart Snacks nutrition standards were not yet fully implemented (data not shown). These SFA directors were asked to provide feedback on the challenges they faced in implementing the Smart Snacks standards by rating five potential challenges on a scale from 1 (not a challenge) to 5 (a significant challenge). SFA directors rated student acceptance of competitive foods that meet the standards and faculty and staff reactions to the foods as the most challenging to implementation (mean rating of 4.0 for each; Figure 3.7). SFA directors rated understanding of the Smart Snacks nutrition standards as the least challenging (mean 3.1).

SNMs in all schools, not just ones where Smart Snacks in Schools standards were not yet fully implemented, answered the same series of questions. SNMs' perceptions about implementation challenges were similar to those of SFA directors, although the absolute ratings differed (Figure 3.8).[51] SNMs also rated student acceptance (mean 3.6) and faculty and staff reactions (mean 3.3) as the most challenging, and understanding the standards as the least challenging (mean 2.7). In general, SNMs in middle and high schools rated the factors as being slightly more challenging than did SNMs in elementary schools.

[51] One reason for the slightly lower (more positive) scores among SNMs may be that the sample was not limited to schools that had not yet fully implemented the Smart Snacks standards.

Figure 3.7. Challenges Faced by SFAs That Have Not Yet Fully Implemented the Smart Snacks in Schools Standards for Competitive Foods (Mean Rating)

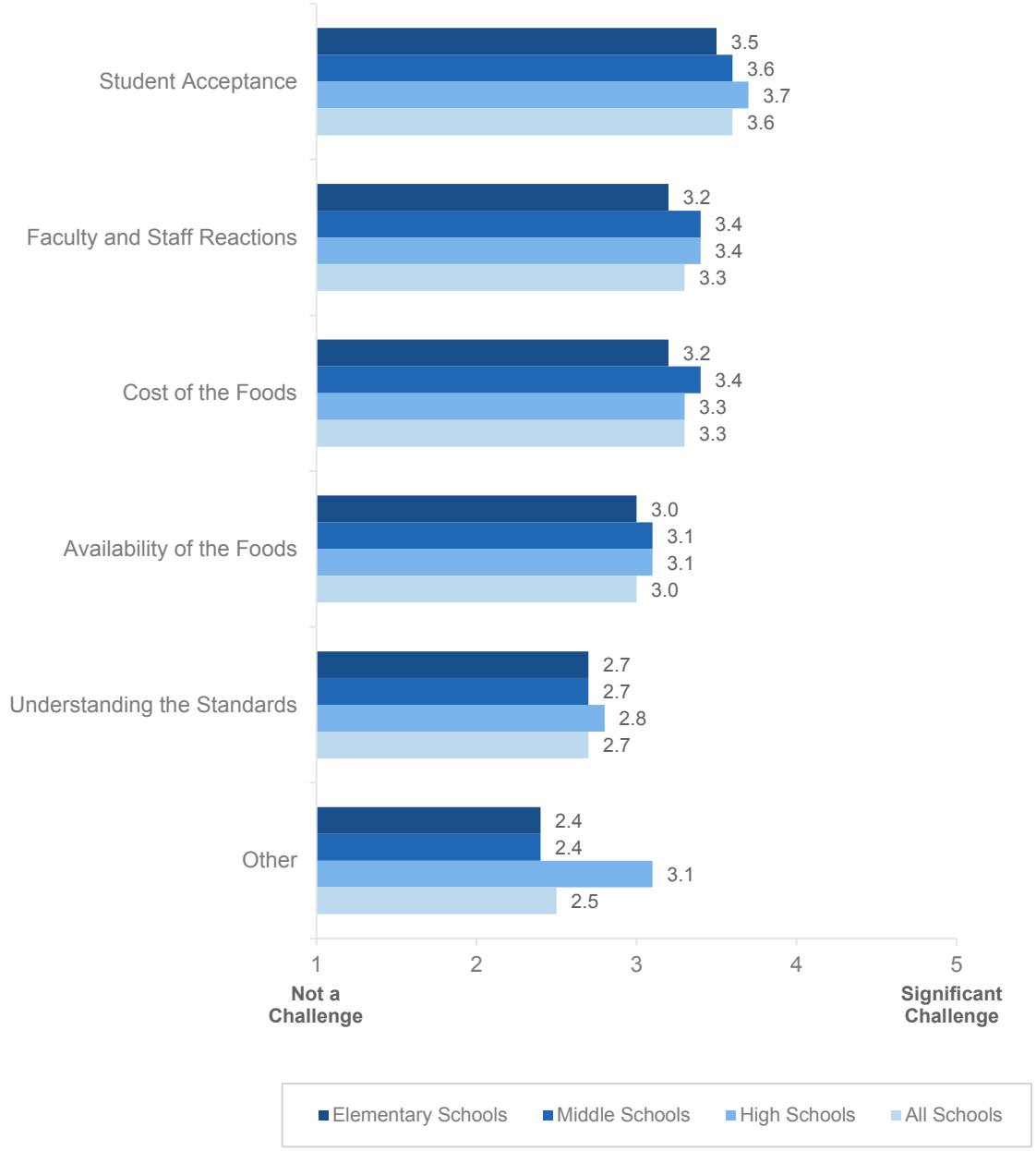


Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Estimates are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: The survey did not assign meanings to the other points on the scale. Estimates are among SFAs that have not fully implemented the Smart Snacks in Schools nutrition standards.

SFA = school food authority.

Figure 3.8. Extent of School Challenges in Implementing the Smart Snacks in Schools Standards for Competitive Foods (Mean Rating)



Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Estimates are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Note: The survey did not assign meanings to the other points on the scale.

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APPENDIX A

CHAPTER 2 SUPPLEMENTAL TABLES

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TABLES

1 Characteristics of Districts and Schools A.7

A.1 Characteristics of Public, Non-charter Schools that Provided Afterschool Snacks Through the NSLP A.9

A.2 Characteristics of Public, Non-charter Elementary Schools that Participated in the Fresh Fruit and Vegetable Program A.10

A.3 Grade Spans in NSLP Schools A.11

2 Availability of the School Breakfast Program, Afterschool Snacks, and Suppers A.13

A.4 Proportions of NSLP Schools That Participated in the School Breakfast Program and Provided Afterschool Snacks or Suppers A.15

A.5 Organizations Operating Afterschool Programs Where SFAs Offered Snacks A.16

A.6 Organizations Operating Afterschool Programs Where SFAs Offered Snacks, by SFA Size A.17

A.7 Organizations Operating Afterschool Programs Where SFAs Offered Snacks, by District Child Poverty Rate A.18

A.8 Organizations Operating Afterschool Programs Where SFAs Offered Snacks, by Urbanicity A.19

3 Universal Free Meals and Student Participation in the NSLP and SBP A.21

A.9 Methods Used by SFAs to Approve Students to Receive Free or Reduced-Price Meals A.23

A.10 Methods Used by Cashiers to Identify Students Eligible for Free and Reduced-Price Meals A.24

A.11 Use of the Offer-Versus-Serve Option for Reimbursable Meals A.25

A.12 Student Participation Rates by School Type, Size, Urbanicity and District Child Poverty Rate A.26

4 Meal Prices A.27

A.13 Changes in Prices of Reduced-Price and Paid Meals Since SY 2012–2013, by SFA Size A.29

A.14 Changes in Prices of Reduced-Price and Paid Meals Since SY 2012–2013, by District Child Poverty Rate A.29

A.15 Changes in Prices of Reduced-Price and Paid Meals Since SY 2012–2013, by Urbanicity A.30

5 Menu Planning and Meal Production A.31

A.16 Menu-Planning Practices and Procedures A.33

A.17 Menu-Planning Practices and Procedures, by SFA Size A.34

A.18 Menu-Planning Practices and Procedures, by District Child Poverty Rate A.35
A.19 Menu-Planning Practices and Procedures, by Urbanicity A.36
A.20 Individual with Primary Responsibility for Commercial Food Purchases A.37
A.21 Practices Related to Acquiring Healthier Foods, by SFA Size A.38
A.22 Practices Related to Acquiring Healthier Foods, by District Child Poverty Rate A.39
A.23 Practices Related to Acquiring Healthier Foods, by Urbanicity A.40
A.24 Food Purchasing Specifications with Specific Requirements for *Trans* Fat, by SFA Size A.41
A.25 Food Purchasing Specifications with Specific Requirements for *Trans* Fat, by District Child Poverty Rate A.42
A.26 Food Purchasing Specifications with Specific Requirements for *Trans* Fat, by Urbanicity A.43
A.27 Elimination of *Trans* Fats A.44
A.28 Meal Preparation and Production Systems A.45
A.29 Sources of Funding for Capital Equipment Purchases and Repairs, by SFA Size A.46
A.30 Sources of Funding for Capital Equipment Purchases and Repairs, by District Child Poverty Rate A.47
A.31 Sources of Funding for Capital Equipment Purchases and Repairs, by Urbanicity A.48
A.32 SFA Equipment Purchases to Implement New Nutrition Standards, by SFA Size A.49
A.33 SFA Equipment Purchases to Implement New Nutrition Standards, by District Child Poverty Rate A.50
A.34 SFA Equipment Purchases to Implement New Nutrition Standards, by Urbanicity A.51
A.35 Education and Experience of SFA Directors, by SFA Size A.52
A.36 Education and Experience of SFA Directors, by District Child Poverty Rate A.53
A.37 Education and Experience of SFA Directors, by Urbanicity A.54
A.38 Credentials of SFA Directors A.55
A.39 Credentials of SFA Directors, by SFA Size A.56
A.40 Credentials of SFA Directors, by District Child Poverty Rate A.57
A.41 Credentials of SFA Directors, by Urbanicity A.58
A.42 Responsibility for Key Foodservice Functions in SFAs that Use Foodservice Management Companies A.59
A.43 Foodservice Management Company Fees and Monitoring A.60
A.44 Health Benefits for SFA Directors and Employees A.61

6 Meal Service Practices A.63

A.45 Lunch Schedules A.65

A.46 Schedules for School Door Opening, Breakfast Service, and First Class A.67

A.47 Availability of Reimbursable Meal Components for Lunch and Breakfast A.68

A.48 Student Access to Reimbursable Meal Components on Serving Lines and Food Stations A.69

A.49 Number and Configuration of Serving Lines and Food Stations Offering Reimbursable Meals A.71

A.50 Policies Related to Student Mobility During Lunch A.73

A.51 Open-Campus Policies During Lunch A.74

A.52 Availability of Potable Water in or Near the Cafeteria at Breakfast A.75

A.53 Scheduling of School Activities During Meal Times A.76

A.54 Meal-Scheduling Policies Related to Breakfast A.77

A.55 Practices to Accommodate Food Allergies and Special Dietary Needs A.78

A.56 Payment Methods for Reimbursable Meals and A la Carte Items A.79

7 Experiences Implementing the New Nutrition Standards A.81

A.57 Perceived Helpfulness of the New Nutrition Standards in Achieving the Underlying Nutrition Goals, by SFA Size A.83

A.58 Perceived Helpfulness of the New Nutrition Standards in Achieving the Underlying Nutrition Goals, by District Child Poverty Rate A.85

A.59 Perceived Helpfulness of the New Nutrition Standards in Achieving the Underlying Nutrition Goals, by Urbanicity A.87

A.60 Challenges Faced in Fully Implementing or Maintaining Compliance with the New Meal Requirements, by SFA Size A.89

A.61 Challenges Faced in Fully Implementing or Maintaining Compliance with the New Meal Requirements, by District Child Poverty Rate A.90

A.62 Challenges Faced in Fully Implementing or Maintaining Compliance with the New Meal Requirements, by Urbanicity A.91

A.63 Types and Providers of Training and Technical Assistance Reported by SFA Directors A.93

A.64 Types and Providers of Training and Technical Assistance Reported by School Nutrition Managers A.96

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1. Characteristics of Districts and Schools

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Table A.1. Characteristics of Public, Non-charter Schools that Provided Afterschool Snacks Through the NSLP

	Percentage of Schools		
	Provided Afterschool Snacks Through NSLP	Did Not Provide Afterschool Snacks Through NSLP	All Schools
School Size			
Small (fewer than 500 students)	47.0	49.2	48.4
Medium (500 to 999 students)	44.6	37.7	39.4
Large (1,000 or more students)	8.4	13.1	12.2
Urbanicity			
Urban	37.7	17.5	21.4
Suburban	38.3	44.4	43.7
Rural	24.0	38.1	34.9
District Child Poverty Rate			
Lower (less than 20 percent)	34.8	59.2	54.4
Higher (20 percent or more)	65.3	40.8	45.6
FNS Region			
Midwest	18.3	18.8	18.9
Southeast	22.0	15.8	16.6
Western	22.2	15.0	16.6
Southwest	12.9	14.8	14.3
Mountain Plains	8.5	14.2	13.1
Mid-Atlantic	10.6	13.8	13.1
Northeast	5.5	7.6	7.4
Share of Students Approved for F/RP Meals[a]			
Less than 20 percent	1.4	14.0	11.4
20 to 39 percent	4.8	22.1	18.7
40 to 59 percent	18.9	26.6	25.0
60 to 79 percent	32.0	14.7	18.2
80 percent or more	39.3	20.1	24.0
Missing	3.7	2.6	2.8
Number of Schools	**213**	**933**	**1,201**

Source: School Nutrition and Meal Cost Study, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Notes: Data on school size (student enrollment) were reported in the SFA Director Survey or taken from the U.S. Department of Education's Common Core of Data (CCD) 2011-2012. Data on free and reduced-price meals were reported in the SFA Director Survey. Data on urbanicity were taken from the CCD 2011-2012. Data on child poverty rates were from the 2011 U.S. Census Bureau's Small Area Income and Poverty Estimates school district file. Data on FNS region were from the Food and Nutrition Service's SFA Verification Summary Report 2012-2013. Fifty-five schools were missing data on providing afterschool snacks through NSLP. Estimates for schools with missing data are not presented because the sample size is too small to produce reliable estimates.

[a]Forty-two respondents reported that the total number of students receiving free or reduced-price meals exceeded total enrollment. These responses were set to 100 percent.

FNS = Food and Nutrition Service; F/RP = free or reduced-price; NSLP = National School Lunch Program.

Table A.2. Characteristics of Public, Non-charter Elementary Schools that Participated in the Fresh Fruit and Vegetable Program

	Percentage of Elementary Schools		
	Participated in the FFVP	Did Not Participate in the FFVP	All Elementary Schools
School Size			
Small (fewer than 500 students)	58.7	52.4	54.5
Medium (500 to 999 students)	39.5	44.3	42.7
Large (1,000 or more students)	1.8	3.3	2.8
Urbanicity			
Urban	25.3	23.6	23.0
Suburban	37.5	49.1	45.0
Rural	37.2	27.3	32.1
District Child Poverty Rate			
Lower (less than 20 percent)	48.3	56.8	53.5
Higher (20 percent or more)	51.7	43.2	46.5
FNS Region			
Midwest	16.9	18.9	18.3
Southeast	12.6	15.8	15.6
Western	12.6	22.1	18.1
Southwest	16.6	12.8	14.6
Mountain Plains	20.9	6.6	12.0
Mid-Atlantic	13.2	16.1	13.7
Northeast	7.2	7.8	7.8
Share of Students Approved for F/RP Meals[a]			
Less than 20 percent	6.1	14.1	11.3
20 to 39 percent	12.4	15.1	14.2
40 to 59 percent	23.6	25.3	24.4
60 to 79 percent	21.8	21.2	20.5
80 percent or more	35.5	21.1	27.2
Missing	0.7	3.3	2.5
Number of Schools	**124**	**266**	**445**

Source: School Nutrition and Meal Cost Study, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Notes: The Fresh Fruit and Vegetable Program is available to elementary schools only. Data on school size (student enrollment) were reported in the SFA Director Survey or taken from the U.S. Department of Education's Common Core of Data (CCD) 2011-2012. Data on free and reduced-price meals were reported in the SFA Director Survey. Data on urbanicity were taken from the CCD 2011-2012. Data on child poverty rates were from the 2011 U.S. Census Bureau's Small Area Income and Poverty Estimates school district file. Data on FNS region were from the Food and Nutrition Service's SFA Verification Summary Report 2012-2013. Fifty-five schools were missing data on FFVP participation because of nonresponse (40 schools) or a response of "don't know" (15 schools). Estimates for schools with missing data are not presented because the sample size is too small to produce reliable estimates.

[a]Twenty respondents reported that the total number of students receiving free or reduced-price meals exceeded total enrollment. These responses were set to 100 percent.

FFVP = Fresh Fruit and Vegetable Program; FNS = Food and Nutrition Service; F/RP = free or reduced-price.

Table A.3. Grade Spans in NSLP Schools

	Number of Sample Schools (Unweighted)	Number of Schools (Weighted)	Percentage of Schools (Weighted)
Elementary Schools			
Pre-K - 1	4	250	0.5
Pre-K - 2	16	1,572	2.8
Pre-K - 3	10	854	1.5
Pre-K - 4	25	2,657	4.7
Pre-K - 5	98	14,725	26.2
Pre-K - 6	35	4,378	7.8
Pre-K - 7	2	170	0.3
Pre-K - 8	19	2,726	4.9
Pre-K - 12	5	597	1.1
K - 1	1	43	0.1
K - 2	7	592	1.1
K - 3	7	781	1.4
K - 4	21	1,965	3.5
K - 5	89	11,027	19.6
K - 6	44	5,883	10.5
K - 8	20	2,790	5.0
K - 12	2	642	1.1
1 - 2	2	71	0.1
1 - 4	2	218	0.4
1 - 5	1	169	0.3
1 - 6	3	287	0.5
1 - 8	3	180	0.3
2 - 3	1	40	0.1
2 - 4	1	122	0.2
2 - 5	4	518	0.9
2 - 6	1	33	0.1
2 - 7	1	50	0.1
3 - 4	1	82	0.2
3 - 5	13	802	1.4
3 - 6	6	500	0.9
3 - 8	3	172	0.3
4 - 5	3	128	0.2
4 - 6	5	289	0.5
4 - 7	1	43	0.1
5 only	1	46	0.1
5 - 6	8	709	1.3
5 - 7	1	74	0.1
Middle Schools			
4 – 8	3	99	0.6
4 - 9	1	44	0.3
5 - 8	34	2,361	13.9
5 - 9	2	156	0.9
6 only	1	80	0.5
6 - 7	6	125	0.7
6 - 8	251	10,790	63.5
6 - 9	7	313	1.8
7 - 8	76	2,401	14.1
7 - 9	11	391	2.3
8 only	1	30	0.2
8 - 9	3	150	0.9
9 only	1	48	0.3

	Number of Sample Schools (Unweighted)	Number of Schools (Weighted)	Percentage of Schools (Weighted)
High Schools			
6 - 12	11	1,009	4.9
7 - 10	1	27	0.1
7 - 12	35	2,785	13.5
8 - 10	1	07	0.0
8 - 12	15	756	3.7
9 - 10	2	123	0.6
9 - 12	311	15,393	74.7
10 - 12	17	477	2.3
11 - 12	1	30	0.2
Number of Schools	**1,257**	**93,780**	

Source: School Nutrition and Meal Cost Study, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Note: Data on grade spans were taken from the U.S. Department of Education's Common Core of Data (CCD) 2011-2012 unless updated during the data collection planning process based on reports from school food authorities and schools.

2. Availability of the School Breakfast Program, Afterschool Snacks, and Suppers

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Table A.4. Proportions of NSLP Schools That Participated in the School Breakfast Program and Provided Afterschool Snacks or Suppers

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Participated in the School Breakfast Program	94.2	93.3	93.0	93.8
Provided Reimbursable Afterschool Snacks or Suppers[a]	31.1	20.6	12.0	25.0
Reimbursable snacks	26.9	18.3	10.5	21.7
Reimbursable suppers	6.8	4.3	2.3	5.4
School Runs Its Own Afterschool Program	41.7	26.0	14.7	32.9
Among Schools That Provided Reimbursable Snacks or Suppers (n=274):				
Provided Afterschool Snacks through NSLP	79.8	82.0	–	79.7
Provided Afterschool Suppers through CACFP	22.0	21.0	–	21.6
Provided Afterschool Snacks through CACFP	11.4	10.0	–	11.3
Among Schools with an Afterschool Program (n=343):				
Provision of Snacks and Suppers				
Afterschool snacks only	62.0	62.9	48.5	60.8
Afterschool suppers only	9.3	10.8	28.8	11.5
Both afterschool snacks and suppers	6.2	11.6	5.8	7.0
Neither	21.8	14.1	16.9	20.2
Missing	0.7	0.6	0.0	0.6
Number of Schools	**454**	**384**	**372**	**1,210**

Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

[a]Multiple responses were allowed.

– Sample size is too small to produce reliable estimate.

CACFP = Child and Adult Care Food Program; NSLP = National School Lunch Program.

Table A.5. Organizations Operating Afterschool Programs Where SFAs Offered Snacks

	Percentage of SFAs
SFAs with Schools Offering Afterschool Snacks	27.4
Among SFAs with Schools Offering Afterschool Snacks (n=198):	
Organizations Operating Afterschool Programs That Offer Snacks[a]	
SFAs/individual schools	80.6
YMCA/YWCA	10.2
Community action agency	6.4
Child care agency	3.1
Community park/recreation department	2.7
Parent-Teacher Association/Organization	1.2
Church-affiliated organization	0.7
Don't know	1.0
Other	10.5
Boys & Girls Club	3.5
21st Century Program	2.1
Number of SFAs	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

[a]Multiple responses were allowed.

SFA = school food authority.

Table A.6. Organizations Operating Afterschool Programs Where SFAs Offered Snacks, by SFA Size

	SFA Size			
	Fewer Than 1,000 Students	1,000 to 5,000 Students	More Than 5,000 Students	All SFAs
	Percentage of SFAs			
SFAs with Schools Offering Afterschool Snacks	21.5	25.5	54.9	27.4
Among SFAs with Schools Offering Afterschool Snacks (n=198):				
Organizations Operating Afterschool Programs That Offer Snacks[a]				
SFAs/individual schools	–	–	87.6	80.6
YMCA/YWCA	–	–	19.1	10.2
Community action agency	–	–	12.7	6.4
Child care agency	–	–	8.6	3.1
Community park/recreation department	–	–	7.1	2.7
Parent-Teacher Association/Organization	–	–	3.3	1.2
Church-affiliated organization	–	–	0.7	0.7
Don't know	–	–	0.0	1.0
Other	–	–	16.2	10.5
Boys & Girls Club	–	–	9.5	3.5
21st Century Program	–	–	0.1	2.1
Number of SFAs	**136**	**192**	**190**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

[a]Multiple responses were allowed.

– Sample size is too small to produce reliable estimate.

SFA = school food authority.

Table A.7. Organizations Operating Afterschool Programs Where SFAs Offered Snacks, by District Child Poverty Rate

	District Child Poverty Rate (Percentage of Children in Poverty)		
	Lower (Less Than 20 Percent)	Higher (20 Percent or More)	All SFAs
	Percentage of SFAs		
SFAs with Schools Offering Afterschool Snacks	20.2	37.7	27.4
Among SFAs with Schools Offering Afterschool Snacks (n=198):			
Organizations Operating Afterschool Programs That Offer Snacks[a]			
SFAs/individual schools	80.1	81.1	80.6
YMCA/YWCA	12.7	8.3	10.2
Community action agency	4.4	8.0	6.4
Child care agency	2.2	3.8	3.1
Community park/recreation department	2.0	3.3	2.7
Parent-Teacher Association/Organization	2.3	0.4	1.2
Church-affiliated organization	1.1	0.3	0.7
Don't know	0.0	1.8	1.0
Other	12.5	9.0	10.5
Boys & Girls Club	6.9	1.0	3.5
21st Century Program	2.3	1.9	2.1
Number of SFAs	**295**	**223**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

[a]Multiple responses were allowed.

SFA = school food authority.

Table A.8. Organizations Operating Afterschool Programs Where SFAs Offered Snacks, by Urbanicity

	Urban SFAs	Suburban SFAs	Rural SFAs	All SFAs
	Percentage of SFAs			
SFAs with Schools Offering Afterschool Snacks	40.2	31.0	21.3	27.4
Among SFAs with Schools Offering Afterschool Snacks (n=198):				
Organizations Operating Afterschool Programs That Offer Snacks[a]				
SFAs/individual schools	–	77.8	–	80.6
YMCA/YWCA	–	18.3	–	10.2
Community action agency	–	5.9	–	6.4
Child care agency	–	3.8	–	3.1
Community park/recreation department	–	4.9	–	2.7
Parent-Teacher Association/Organization	–	1.7	–	1.2
Church-affiliated organization	–	1.2	–	0.7
Don't know	–	0.0	–	1.0
Other	–	10.3	–	10.5
Boys & Girls Club	–	3.1	–	3.5
21st Century Program	–	2.5	–	2.1
Number of SFAs	**93**	**247**	**178**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

[a]Multiple responses were allowed.

– Sample size is too small to produce reliable estimate.

SFA = school food authority.

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3. Universal Free Meals and Student Participation in the NSLP and SBP

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Table A.9. Methods Used by SFAs to Approve Students to Receive Free or Reduced-Price Meals

	Percentage of SFAs
Direct Certification	88.9
Household Applications	88.0
All Students Offered Meals at No Charge Without a Process of Determining Eligibility	3.1
Other	7.6
Number of SFAs	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Multiple responses were allowed.

SFA = school food authority.

Table A.10. Methods Used by Cashiers to Identify Students Eligible for Free and Reduced-Price Meals

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Point-of-Sale System	70.4	69.2	65.6	69.1
Personal ID Numbers (PINs)	33.1	37.7	35.7	34.5
All Students Offered Free Lunches[a]	20.0	17.5	17.6	19.0
Coded Identification Cards	7.4	2.9	2.9	5.6
Cashier Lists	6.1	3.9	5.1	5.5
Bar Code/Magnetic Strip	6.4	4.5	3.7	5.5
Verbal Identification	3.4	3.5	2.2	3.1
Finger Scan	1.2	1.9	2.7	1.7
Coded Tickets or Tokens	1.7	0.4	0.0	1.1
Other	3.3	0.2	1.2	2.3
Missing	6.9	10.0	7.8	7.7
Number of Schools	**454**	**384**	**372**	**1,210**

Source: School Nutrition and Meal Cost Study, Daily Meal Counts Form, School Nutrition Manager Survey, and School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Notes: Multiple responses were allowed. Schools that offer free lunches to all students may still use a point-of-sale system or other method to identify students in order to ensure accurate counts of reimbursable meals.

[a]The percentages of schools where all students were offered free lunch is calculated using a cross-instrument variable constructed using the Daily Meal Counts Form, School Nutrition Manager Survey, and School Food Authority Director Survey.

Table A.11. Use of the Offer-Versus-Serve Option for Reimbursable Meals

	Percentage of Schools		
	Elementary Schools	Middle Schools	All Elementary and Middle Schools
Uses Offer-Versus-Serve Option for Lunch			
Yes, for all students	80.1	85.0	81.2
Yes, for some students	4.9	1.8	4.2
No	6.0	2.3	5.1
Missing	9.0	10.9	9.5
Number of Schools	**454**	**384**	**838**
Among Elementary and Middle Schools That Participate in SBP (n=776):			
Uses Offer-Versus-Serve Option for Breakfast			
Yes, for all students	80.1	84.8	81.2
Yes, for some students	3.6	2.1	3.3
No	9.6	3.7	8.2
Missing	6.7	9.4	7.3
Number of Schools	**420**	**356**	**776**

Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Note: School nutrition managers in high schools were not asked about use of the offer-versus-serve option because this option is mandatory for high schools at lunch.

SBP = School Breakfast Program.

Table A.12. Student Participation Rates by School Type, Size, Urbanicity and District Child Poverty Rate

	Percentage of Students Participating on an Average Day							
	National School Lunch Program				School Breakfast Program			
	Mean	Median	Minimum	Maximum	Mean	Median	Minimum	Maximum
All Schools	60.6	62.7	1.0	100.0	30.2	24.1	0.0	100.0
School Type								
Elementary	64.9	66.6	1.0	100.0	34.7	28.6	0.0	100.0
Middle	59.8	60.1	5.2	100.0	24.3	18.9	0.3	100.0
High	49.7	49.0	5.2	100.0	22.5	17.1	0.0	100.0
School Size								
Small (fewer than 500 students)	65.2	67.5	6.1	100.0	35.5	29.3	0.0	100.0
Medium (500 to 999 students)	61.3	62.5	1.0	100.0	28.5	21.9	0.0	100.0
Large (1,000 or more students)	40.1	38.9	5.2	87.9	14.4	9.9	0.0	83.7
Urbanicity								
Urban	64.0	66.4	7.6	100.0	36.2	28.9	0.0	91.5
Suburban	57.6	59.8	1.0	100.0	25.9	20.1	0.0	100.0
Rural	62.2	63.9	5.2	100.0	31.5	25.8	0.0	100.0
District Child Poverty Rate								
Lower (less than 20 percent)	53.6	54.1	1.0	100.0	20.0	16.7	0.0	100.0
Higher (20 percent or more)	68.9	69.8	5.2	100.0	41.3	35.7	0.0	100.0
Number of Schools	**1,165**				**1,089**			

Source: School Nutrition and Meal Cost Study, Daily Meal Counts Form, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Notes: The average daily participation rate is defined as the average daily number of meals served divided by enrollment. Responses were set to 100 percent if respondents reported more meals served than the number of enrolled students. A total of 26 responses for NSLP and 7 responses for SBP were set to 100 percent.

NSLP = National School Lunch Program; SBP = School Breakfast Program.

4. Meal Prices

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Table A.13. Changes in Prices of Reduced-Price and Paid Meals Since SY 2012–2013, by SFA Size

	SFA Size			
	Fewer Than 1,000 Students	1,000 to 5,000 Students	More Than 5,000 Students	All SFAs
	Percentage of SFAs			
SFA Changed Prices for Reduced-Price or Paid Lunches or Breakfasts				
Yes	59.8	74.3	69.2	66.4
No	29.4	23.0	29.4	27.0
Don't know	10.8	2.1	1.3	6.3
Missing	0.0	0.7	0.1	0.3
Number of SFAs	**136**	**192**	**190**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

SFA = school food authority; SY = school year.

Table A.14. Changes in Prices of Reduced-Price and Paid Meals Since SY 2012–2013, by District Child Poverty Rate

	District Child Poverty Rate (Percentage of Children in Poverty)		
	Lower (Less Than 20 Percent)	Higher (20 Percent or More)	All SFAs
	Percentage of SFAs		
SFA Changed Prices for Reduced-Price or Paid Lunches or Breakfasts			
Yes	69.4	62.1	66.4
No	24.0	31.3	27.0
Don't know	6.6	6.0	6.3
Missing	0.0	0.6	0.3
Number of SFAs	**295**	**223**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

SFA = school food authority; SY = school year.

Table A.15. Changes in Prices of Reduced-Price and Paid Meals Since SY 2012–2013, by Urbanicity

	Urban SFAs	Suburban SFAs	Rural SFAs	All SFAs
	Percentage of SFAs			
SFA Changed Prices for Reduced-Price or Paid Lunches or Breakfasts				
Yes	52.4	74.3	64.0	66.4
No	34.0	23.3	28.0	27.0
Don't know	13.5	1.7	7.9	6.3
Missing	0.1	0.7	0.0	0.3
Number of SFAs	**93**	**247**	**178**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

SFA = school food authority; SY = school year.

5. Menu Planning and Meal Production

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Table A.16. Menu-Planning Practices and Procedures

	Percentage of SFAs
All Menus Are Planned at the SFA Level	87.5
SFAs Use Cycle Menus	77.4
SFAs Conduct Nutrient Analysis of Menus	75.1
SFAs Use the Following Sources in Planning Menus, Developing or Modifying Recipes, or Developing Purchasing Specifications:[a]	
Offer Versus Serve Guidance for the NSLP and SBP	74.7
USDA Recipes for Schools	62.7
Food Buying Guide for Child Nutrition Programs Revised for School Meals	62.7
Fact Sheets for Healthier School Meals	57.9
New School Lunch and Breakfast Recipes/Tool Kit for Healthy School Meals	33.0
HealthierUS School Challenge Whole Grains Resource	29.1
Fruits and Vegetables Galore	28.5
Recipes for Healthy Kids Cookbook	27.0
Nutrient Analysis Protocols: How to Analyze Menus for USDA's School Meals Programs	26.9
National Food Service Management Institute's Procurement in the 21st Century	8.7
National Food Service Management Institute's Equipment Purchasing and Facility Design for School Nutrition Programs	9.5
Other	8.6
None of the above	3.9
Among SFAs That Use Cycle Menus (n=432):	
Schools That Use Cycle Menus	
Elementary schools	91.0
Middle schools	85.1
High schools	77.6
Number of SFAs	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: The National Food Service Management Institute is now the Institute of Child Nutrition.

[a]Multiple responses were allowed.

NSLP = National School Lunch Program; SBP = School Breakfast Program; SFA = school food authority; USDA = United States Department of Agriculture.

Table A.17. Menu-Planning Practices and Procedures, by SFA Size

	SFA Size			
	Fewer Than 1,000 Students	1,000 to 5,000 Students	More Than 5,000 Students	All SFAs
	Percentage of SFAs			
All Menus Are Planned at the SFA Level	85.0	88.7	93.1	87.5
SFAs Use Cycle Menus	69.3	83.9	88.2	77.4
SFAs Conduct Nutrient Analysis of Menus	65.0	83.8	88.7	75.1
SFAs Use the Following Sources in Planning Menus, Developing or Modifying Recipes, or Developing Purchasing Specifications:[a]				
Offer Versus Serve Guidance for the NSLP and SBP	68.4	79.3	85.6	74.7
USDA recipes for schools	59.0	69.8	56.6	62.7
Food Buying Guide for Child Nutrition Programs Revised for School Meals	50.7	75.8	71.0	62.7
Fact Sheets for Healthier School Meals	54.1	66.0	49.3	57.9
New School Lunch and Breakfast Recipes/Tool Kit for Healthy School Meals	27.1	43.0	26.7	33.0
HealthierUS School Challenge Whole Grains Resource	26.6	31.0	33.4	29.1
Fruits and Vegetables Galore	21.5	40.0	22.9	28.5
Recipes for Healthy Kids Cookbook	23.7	32.4	24.4	27.0
Nutrient Analysis Protocols: How to Analyze Menus for USDA's School Meals Programs	21.2	35.5	24.4	26.9
National Food Service Management Institute's Equipment Purchasing and Facility Design for School Nutrition Programs	4.9	16.0	8.3	9.5
National Food Service Management Institute's Procurement in the 21st Century	3.9	12.8	15.7	8.7
Other	9.2	6.5	12.1	8.6
None of the above	6.6	1.0	1.7	3.9
Among SFAs That Use Cycle Menus (n=432):				
Schools That Use Cycle Menus				
Elementary schools	87.0	93.4	97.3	91.0
Middle schools	76.2	92.4	92.9	85.1
High schools	66.1	87.6	87.2	77.6
Number of SFAs	**136**	**103**	**190**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: The National Food Service Management Institute is now the Institute of Child Nutrition.

[a]Multiple responses were allowed.

NSLP = National School Lunch Program; SBP = School Breakfast Program; SFA = school food authority; USDA = United States Department of Agriculture.

Table A.18. Menu-Planning Practices and Procedures, by District Child Poverty Rate

	District Child Poverty Rate (Percentage of Children in Poverty)		
	Lower (Less Than 20 Percent)	Higher (20 Percent or More)	All SFAs
	Percentage of SFAs		
All Menus Are Planned at the SFA Level	85.4	90.4	87.5
SFAs Use Cycle Menus	75.8	79.6	77.4
SFAs Conduct Nutrient Analysis of Menus	76.5	73.1	75.1
SFAs Use the Following Sources in Planning Menus, Developing or Modifying Recipes, or Developing Purchasing Specifications:[a]			
Offer Versus Serve Guidance for the NSLP and SBP	75.8	73.2	74.7
USDA recipes for schools	61.4	64.4	62.7
Food Buying Guide for Child Nutrition Programs Revised for School Meals	59.7	66.9	62.7
Fact Sheets for Healthier School Meals	57.1	58.9	57.9
New School Lunch and Breakfast Recipes/Tool Kit for Healthy School Meals	34.8	30.3	33.0
HealthierUS School Challenge Whole Grains Resource	27.4	31.6	29.1
Fruits and Vegetables Galore	27.2	30.4	28.5
Recipes for Healthy Kids Cookbook	30.0	22.8	27.0
Nutrient Analysis Protocols: How to Analyze Menus for USDA's School Meals Programs	28.4	24.7	26.9
National Food Service Management Institute's Equipment Purchasing and Facility Design for School Nutrition Programs	10.2	8.5	9.5
National Food Service Management Institute's Procurement in the 21st Century	9.1	8.2	8.7
Other	8.6	8.7	8.6
None of the above	3.5	4.3	3.9
Among SFAs That Use Cycle Menus (n=432):			
Schools That Use Cycle Menus			
Elementary schools	89.1	93.7	91.0
Middle schools	82.5	88.5	85.1
High schools	77.9	77.2	77.6
Number of SFAs	**295**	**223**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: The National Food Service Management Institute is now the Institute of Child Nutrition.

[a]Multiple responses were allowed.

NSLP = National School Lunch Program; SBP = School Breakfast Program; SFA = school food authority; USDA = United States Department of Agriculture.

Table A.19. Menu-Planning Practices and Procedures, by Urbanicity

	Urban SFAs	Suburban SFAs	Rural SFAs	All SFAs
	Percentage of SFAs			
All Menus Are Planned at the SFA Level	81.8	88.8	87.9	87.5
SFAs Use Cycle Menus	84.6	79.6	74.1	77.4
SFAs Conduct Nutrient Analysis of Menus	78.8	77.3	72.4	75.1
SFAs Use the Following Sources in Planning Menus, Developing or Modifying Recipes, or Developing Purchasing Specifications:[a]				
Offer Versus Serve Guidance for the NSLP and SBP	64.0	76.5	76.2	74.7
USDA recipes for schools	27.7	59.4	74.2	62.7
Food Buying Guide for Child Nutrition Programs Revised for School Meals	52.8	65.3	63.2	62.7
Fact Sheets for Healthier School Meals	40.5	58.9	61.6	57.9
New School Lunch and Breakfast Recipes/Tool Kit for Healthy School Meals	33.5	32.7	33.0	33.0
HealthierUS School Challenge Whole Grains Resource	25.0	34.6	26.1	29.1
Fruits and Vegetables Galore	26.0	25.7	31.3	28.5
Recipes for Healthy Kids Cookbook	21.2	26.4	29.0	27.0
Nutrient Analysis Protocols: How to Analyze Menus for USDA's School Meals Programs	27.4	23.5	29.3	26.9
National Food Service Management Institute's Equipment Purchasing and Facility Design for School Nutrition Programs	10.7	6.1	11.7	9.5
National Food Service Management Institute's Procurement in the 21st Century	10.0	7.1	9.7	8.7
Other	15.8	9.1	6.4	8.6
None of the above	4.7	4.9	2.9	3.9
Among SFAs That Use Cycle Menus (n=432):				
Schools That Use Cycle Menus				
Elementary schools	74.6	92.0	95.1	91.0
Middle schools	59.8	92.6	86.5	85.1
High schools	54.3	76.3	85.6	77.6
Number of SFAs	**93**	**247**	**178**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: The National Food Service Management Institute is now the Institute of Child Nutrition.

[a]Multiple responses were allowed.

NSLP = National School Lunch Program; SBP = School Breakfast Program; SFA = school food authority; USDA = United States Department of Agriculture.

Table A.20. Individual with Primary Responsibility for Commercial Food Purchases

	Percentage of SFAs
SFA Director	72.7
Kitchen/Cafeteria Manager or Lead/Head Cook	17.0
Procurement Specialist or Other Member of SFA Staff	1.0
Business Manager/Purchasing Agent or Other District Staff	0.8
Other[a]	8.2
Missing	0.3
Number of SFAs	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

[a]"Other" responsible individuals included representatives of food service management companies, meal vendors, and purchasing cooperatives.

SFA = school food authority.

Table A.21. Practices Related to Acquiring Healthier Foods, by SFA Size

	SFA Size			
	Fewer Than 1,000 Students	1,000 to 5,000 Students	More Than 5,000 Students	All SFAs
	Percentage of SFAs			
SFA Participates in a Food Purchasing Cooperative	33.8	68.2	64.8	50.6
SFA Purchases Fruits and Vegetables through DoD Fresh Program	30.5	49.0	58.3	41.0
SFA Uses Alliance for a Healthier Generation or Other Similar Tools for Selecting and Purchasing Healthier Foods	23.7	54.3	44.0	37.7
SFA Purchases Locally Grown or Produced Foods	30.8	37.3	59.4	36.9
Has One or More Schools Operating a School Garden	15.3	10.3	42.4	17.0
Among SFAs that Purchase Locally Grown or Produced Foods (n=235):				
SFA Purchases Locally Grown or Produced Foods Through Another Arrangement	–	77.1	80.6	77.8
SFA Purchases Locally Grown or Produced Foods Through the Farm to School Program	–	22.9	19.4	22.2
Number of SFAs	**136**	**192**	**190**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

– Sample size is too small to produce reliable estimate.

DoD = Department of Defense; SFA = school food authority.

Table A.22. Practices Related to Acquiring Healthier Foods, by District Child Poverty Rate

	District Child Poverty Rate (Percentage of Children in Poverty)		
	Lower (Less Than 20 Percent)	Higher (20 Percent or More)	All SFAs
	Percentage of SFAs		
SFA Participates in a Food Purchasing Cooperative	52.6	47.8	50.6
SFA Purchases Fruits and Vegetables through DoD Fresh Program	40.0	42.4	41.0
SFA Uses Alliance for a Healthier Generation or Other Similar Tools for Selecting and Purchasing Healthier Foods	43.6	29.3	37.7
SFA Purchases Locally Grown or Produced Foods	39.4	33.4	36.9
Has One or More Schools Operating a School Garden	15.9	18.6	17.0
Among SFAs that Purchase Locally Grown or Produced Foods (n=235):			
SFA Purchases Locally Grown or Produced Foods Through Another Arrangement	80.8	72.8	77.8
SFA Purchases Locally Grown or Produced Foods Through the Farm to School Program	19.2	27.2	22.2
Number of SFAs	**295**	**223**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

DoD = Department of Defense; SFA = school food authority.

Table A.23. Practices Related to Acquiring Healthier Foods, by Urbanicity

	Urban SFAs	Suburban SFAs	Rural SFAs	All SFAs
	Percentage of SFAs			
SFA Participates in a Food Purchasing Cooperative	28.0	48.0	58.5	50.6
SFA Purchases Fruits and Vegetables through DoD Fresh Program	29.9	42.6	42.7	41.0
SFA Uses Alliance for a Healthier Generation or Other Similar Tools for Selecting and Purchasing Healthier Foods	37.5	41.2	35.1	37.7
SFA Purchases Locally Grown or Produced Foods	36.1	45.9	30.5	36.9
Has One or More Schools Operating a School Garden	27.2	20.0	12.1	17.0
Among SFAs that Purchase Locally Grown or Produced Foods (n=235):				
SFA Purchases Locally Grown or Produced Foods Through Another Arrangement	–	77.4	78.9	77.8
SFA Purchases Locally Grown or Produced Foods Through the Farm to School Program	–	22.6	21.2	22.2
Number of SFAs	**93**	**247**	**178**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

– Sample size is too small to produce reliable estimate.

DoD = Department of Defense; SFA = school food authority.

Table A.24. Food Purchasing Specifications with Specific Requirements for *Trans* Fat, by SFA Size

	SFA Size			
	Fewer Than 1,000 Students	1,000 to 5,000 Students	More Than 5,000 Students	All SFAs
	Percentage of SFAs			
Nutrition Labels or Manufacturer's Specifications on All Commercially Prepared Products Acquired by SFA Indicate Zero Grams of *Trans* Fat per Serving	82.8	95.5	97.5	89.4
SFA Uses Food-Purchasing Specifications with Specific Requirements for *Trans* Fat	76.2	89.1	82.7	81.8
Among SFAs Using Food-Purchasing Specifications With Specific Requirements for *Trans* Fat (n=421):				
SFA's food-purchasing specifications require that all commercially prepared products contain zero grams of *trans* fat per serving	79.0	95.3	98.7	88.2
Number of SFAs	**136**	**192**	**190**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

SFA = school food authority.

Table A.25. Food Purchasing Specifications with Specific Requirements for *Trans* Fat, by District Child Poverty Rate

	District Child Poverty Rate (Percentage of Children in Poverty)		
	Lower (Less Than 20 Percent)	Higher (20 Percent or More)	All SFAs
	Percentage of SFAs		
Nutrition Labels or Manufacturer's Specifications on All Commercially Prepared Products Acquired by SFA Indicate Zero Grams of *Trans* Fat per Serving	89.6	89.2	89.4
SFA Uses Food-Purchasing Specifications with Specific Requirements for *Trans* Fat	78.9	85.8	81.8
Among SFAs Using Food-Purchasing Specifications With Specific Requirements for *Trans* Fat (n=421):			
SFA's food-purchasing specifications require that all commercially prepared products contain zero grams of *trans* fat per serving	89.2	86.9	88.2
Number of SFAs	**295**	**223**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

SFA = school food authority.

Table A.26. Food Purchasing Specifications with Specific Requirements for *Trans* Fat, by Urbanicity

	Urban SFAs	Suburban SFAs	Rural SFAs	All SFAs
	Percentage of SFAs			
Nutrition Labels or Manufacturer's Specifications on All Commercially Prepared Products Acquired by SFA Indicate Zero Grams of *Trans* Fat per Serving	78.0	90.8	91.4	89.4
SFA Uses Food-Purchasing Specifications with Specific Requirements for *Trans* Fat	73.4	85.9	80.9	81.8
Among SFAs Using Food-Purchasing Specifications With Specific Requirements for *Trans* Fat (n=421):				
SFA's food-purchasing specifications require that all commercially prepared products contain zero grams of *trans* fat per serving	80.5	89.7	88.8	88.2
Number of SFAs	**93**	**247**	**178**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

SFA = school food authority.

Table A.27. Elimination of *Trans* Fats

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
No Commercially Prepared Foods or Ingredients Used in Reimbursable Meals Contain *Trans* Fats				
Yes	84.3	82.1	85.8	84.2
No	7.9	7.1	8.1	7.8
Missing	7.8	10.8	6.2	8.0
Number of Schools	**454**	**384**	**372**	**1,210**

Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Table A.28. Meal Preparation and Production Systems

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Meals Prepared On Site for Serving Only at that School	68.2	75.2	69.9	69.8
Meal Prepared On Site for Serving at that School and Shipping to Other Schools	7.4	8.4	17.3	9.8
Receives Partially Prepared Meals from a Separate Production or Central Kitchen	9.9	7.5	4.8	8.3
Receives Fully Prepared Meals from a Separate Production or Central Kitchen	9.0	1.7	3.6	6.5
Missing	5.5	7.2	4.5	5.6
Number of Schools	**454**	**384**	**372**	**1,210**

Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Table A.29. Sources of Funding for Capital Equipment Purchases and Repairs, by SFA Size

	SFA Size			
	Fewer than 1,000 Students	1,000 to 5,000 Students	More than 5,000 Students	All SFAs
	Percentage of SFAs			
SFA Budget	39.3	74.5	94.2	59.5
School Funds	25.8	16.2	14.7	20.8
State Grant	11.5	7.6	15.9	10.6
USDA Grant	5.2	7.0	25.9	8.6
LEA Funds	9.3	7.2	5.8	8.0
SFA Not Responsible	8.6	3.5	0.8	5.7
Fundraiser	1.7	0.3	0.4	1.0
Other	5.3	1.0	4.2	3.6
Don't Know	25.6	14.3	1.2	18.2
Number of SFAs	**136**	**192**	**190**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Multiple responses were allowed. Capital equipment purchases were defined for respondents as usually costing at least $5,000 and purchases that can depreciate over time.

LEA = local educational agency; SFA = school food authority; USDA = United States Department of Agriculture.

Table A.30. Sources of Funding for Capital Equipment Purchases and Repairs, by District Child Poverty Rate

	District Child Poverty Rate (Percentage of Children in Poverty)		
	Lower (Less Than 20 Percent)	Higher (20 Percent or More)	All SFAs
	Percentage of SFAs		
SFA Budget	57.1	63.1	59.5
School Funds	22.6	18.1	20.8
State Grant	8.4	13.7	10.6
USDA Grant	4.7	14.1	8.6
LEA Funds	9.8	5.6	8.0
SFA Not Responsible	4.3	7.6	5.7
Fundraiser	1.2	0.7	1.0
Other	4.3	2.6	3.6
Don't Know	20.5	15.0	18.2
Number of SFAs	**295**	**223**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Multiple responses were allowed. Capital equipment purchases were defined for respondents as usually costing at least $5,000 and purchases that can depreciate over time.

LEA = local educational agency; SFA = school food authority; USDA = United States Department of Agriculture.

Table A.31. Sources of Funding for Capital Equipment Purchases and Repairs, by Urbanicity

	Urban SFAs	Suburban SFAs	Rural SFAs	All SFAs
	Percentage of SFAs			
SFA Budget	62.3	73.1	48.7	59.5
School Funds	17.5	17.0	24.5	20.8
State Grant	12.1	15.7	6.4	10.6
USDA Grant	10.3	9.8	7.3	8.6
LEA Funds	6.5	13.6	4.3	8.0
SFA Not Responsible	6.9	1.9	8.2	5.7
Fundraiser	0.0	1.1	1.2	1.0
Other	10.5	2.0	3.0	3.6
Don't Know	14.6	9.5	25.7	18.2
Number of SFAs	**93**	**247**	**178**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Multiple responses were allowed. Capital equipment purchases were defined for respondents as usually costing at least $5,000 and purchases that can depreciate over time.

LEA = local educational agency; SFA = school food authority; USDA = United States Department of Agriculture.

Table A.32. SFA Equipment Purchases to Implement New Nutrition Standards, by SFA Size

	SFA Size			
	Fewer than 1,000 Students	1,000 to 5,000 Students	More than 5,000 Students	All SFAs
	Percentage of SFAs			
Since SY 2012-2013, SFA Purchased Equipment to Implement New Nutrition Standards	26.0	34.9	43.1	31.5
Among SFAs That Purchased Equipment (n=189):				
Types of Equipment				
Food preparation equipment	–	82.9	93.3	83.5
Other meal service equipment[a]	–	81.2	94.3	79.6
Holding and transportation equipment	–	49.5	69.5	43.3
Salad or fruit/vegetable bars	–	39.3	59.5	39.1
Receiving and storage equipment	–	49.8	68.3	37.4
Number of SFAs	**136**	**192**	**190**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Multiple responses were allowed.

[a]Examples include mobile milk coolers, steam table pans or serving portion utensils. Respondents were not asked specify in in more detail the type of equipment purchased.

– Sample size is too small to produce reliable estimate.

SFA = school food authority; SY = school year.

Table A.33. SFA Equipment Purchases to Implement New Nutrition Standards, by District Child Poverty Rate

	District Child Poverty Rate (Percentage of Children in Poverty)		
	Lower (Less Than 20 Percent)	Higher (20 Percent or More)	All SFAs
	Percentage of SFAs		
Since SY 2012-2013, SFA Purchased Equipment to Implement New Nutrition Standards	29.5	34.5	31.5
Among SFAs That Purchased Equipment (n=189):			
Type of Equipment Purchased			
Food preparation equipment	76.2	92.4	83.5
Other meal service equipment[a]	79.4	79.7	79.6
Holding and transportation equipment	36.6	51.4	43.3
Salad or fruit/vegetable bars	41.8	35.7	39.1
Receiving and storage equipment	31.5	44.5	37.4
Number of SFAs	**295**	**223**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Multiple responses were allowed.

[a]Examples include mobile milk coolers, steam table pans or serving portion utensils. Respondents were not asked specify in in more detail the type of equipment purchased.

SFA = school food authority; SY = school year.

Table A.34. SFA Equipment Purchases to Implement New Nutrition Standards, by Urbanicity

	Urban SFAs	Suburban SFAs	Rural SFAs	All SFAs
	Percentage of SFAs			
Since SY 2012-2013, SFA Purchased Equipment to Implement New Nutrition Standards	33.4	36.3	27.5	31.5
Among SFAs That Purchased Equipment (n=189):				
Type of Equipment Purchased				
Food preparation equipment	–	86.7	80.2	83.5
Other meal service equipment[a]	–	85.0	72.7	79.6
Holding and transportation equipment	–	40.4	37.9	43.3
Salad or fruit/vegetable bars	–	45.8	26.8	39.1
Receiving and storage equipment	–	44.4	24.7	37.4
Number of SFAs	**93**	**247**	**178**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Multiple responses were allowed.

[a]Examples include mobile milk coolers, steam table pans or serving portion utensils. Respondents were not asked specify in in more detail the type of equipment purchased.

– Sample size is too small to produce reliable estimate.

SFA = school food authority; SY = school year.

Table A.35. Education and Experience of SFA Directors, by SFA Size

	SFA Size			
	Fewer Than 1,000 Students	1,000 to 5,000 Students	More Than 5,000 Students	All SFAs
	Percentage of SFA Directors			
Highest Level of Education Completed				
Less than high school	0.0	0.4	0.0	0.2
High school	37.8	16.1	5.5	25.5
Some college, no degree	22.0	22.6	4.6	19.9
Associate's degree	7.7	20.7	12.0	13.1
Bachelor's degree	22.8	29.3	49.2	28.7
Master's degree	4.4	8.0	22.0	8.0
Graduate credits beyond a Master's degree	4.8	1.5	5.9	3.7
Doctorate	0.5	0.8	0.8	0.6

	SFA Size			
	Fewer Than 1,000 Students	1,000 to 5,000 Students	More Than 5,000 Students	All SFAs
	Years in SFA Director Position			
Mean	10.1	10.4	11.4	10.4
Mode	2.0	2.0	3.0	2.0
Minimum	0.0	0.4	0.0	0.0
Maximum	35.0	42.0	48.0	48.0
Number of SFAs	**136**	**192**	**190**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: SNMs were also asked about their education and experience. However, almost half of SNMs did not respond to these questions, so the results were not tabulated.

SFA = school food authority; SNM = school nutrition manager.

Table A.36. Education and Experience of SFA Directors, by District Child Poverty Rate

	District Child Poverty Rate (Percentage of Children in Poverty)		
	Lower (Less Than 20 Percent)	Higher (20 Percent or More)	All SFA Directors
	Percentage of SFA Directors		
Highest Level of Education Completed			
Less than high school	0.0	0.4	0.2
High school	19.5	34.1	25.5
Some college, no degree	22.2	16.8	19.9
Associate's degree	16.2	8.6	13.1
Bachelor's degree	30.7	25.8	28.7
Master's degree	6.4	10.4	8.0
Graduate credits beyond a Master's degree	4.1	3.2	3.7
Doctorate	1.0	0.2	0.6

	District Child Poverty Rate (Percentage of Children in Poverty)		
	Lower (Less Than 20 Percent)	Higher (20 Percent or More)	All SFA Directors
	Years in SFA Director Position		
Mean	9.9	11.1	10.4
Mode	2.0	7.0	2.0
Minimum	0.0	0.0	0.0
Maximum	48.0	41.0	48.0
Number of SFAs	**295**	**223**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: SNMs were also asked about their education and experience. However, almost half of SNMs did not respond to these questions, so the results were not tabulated.

SFA = school food authority; SNM = school nutrition manager.

Table A.37. Education and Experience of SFA Directors, by Urbanicity

	Urban SFAs	Suburban SFAs	Rural SFAs	All SFAs
	Percentage of SFA Directors			
Highest Level of Education Completed				
Less than high school	0.0	0.4	0.0	0.2
High school	9.6	17.9	35.4	25.5
Some college, no degree	13.6	22.9	19.4	19.9
Associate's degree	5.3	8.2	18.7	13.1
Bachelor's degree	47.0	33.3	20.4	28.7
Master's degree	19.5	10.4	3.3	8.0
Graduate credits beyond a Master's degree	4.7	4.6	2.8	3.7
Doctorate	0.4	1.5	0.0	0.6
	Urban SFAs	Suburban SFAs	Rural SFAs	All SFAs
	Years in SFA Director Position			
Mean	7.1	11.4	10.4	10.4
Mode	4.0	2.0	2.0	2.0
Minimum	0.0	0.0	0.0	0.0
Maximum	41.0	48.0	42.0	48.0
Number of SFAs	**93**	**247**	**178**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: SNMs were also asked about their education and experience. However, almost half of SNMs did not respond to these questions, so the results were not tabulated.

SFA = school food authority; SNM = school nutrition manager.

Table A.38. Credentials of SFA Directors

	Percentage of SFA Directors
Credentials Held[a]	
Food safety certification, such as ServSafe, National Registry of Food Safety Professionals, Prometric Certified Professional Food Manager, or Learn2Serve	58.3
State foodservice certificate	18.7
Health department certification	12.1
School Nutrition Association Level 3 certification	10.3
School Nutrition Association Level 1 certification	9.3
School Nutrition Association, School Nutrition Specialist (SNS)	5.6
Registered dietitian	5.2
School Nutrition Association Level 2 certification	3.7
Licensed nutritionist or dietitian	3.4
Certified dietary manager	2.2
Dietetic Technical Registered (DTR)	0.4
Other	4.7
None of the above	22.8
Number of SFAs	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: SNMs were also asked about their credentials. However, almost half of SNMs did not respond to these questions, so the results were not tabulated.

[a]Multiple responses were allowed.

SFA = school food authority; SNM = school nutrition manager.

Table A.39. Credentials of SFA Directors, by SFA Size

	SFA Size			
	Fewer Than 1,000 Students	1,000 to 5,000 Students	More Than 5,000 Students	All SFAs
	Percentage of SFAs			
Credentials Held[a]				
Food safety certification, such as ServSafe, National Registry of Food Safety Professionals, Prometric Certified Professional Food Manager, or Learn2Serve	51.4	64.2	67.9	58.3
State foodservice certificate	15.6	22.8	18.5	18.7
Health department certification	10.2	12.8	17.4	12.1
School Nutrition Association Level 3 certification	8.4	12.0	13.1	10.3
School Nutrition Association Level 1 certification	9.4	9.7	7.5	9.3
School Nutrition Association, School Nutrition Specialist (SNS)	2.3	7.1	14.0	5.6
Registered dietitian	1.5	6.6	15.0	5.2
School Nutrition Association Level 2 certification	4.2	3.7	2.1	3.7
Licensed nutritionist or dietitian	1.5	4.3	8.2	3.4
Certified dietary manager	1.1	2.9	3.9	2.2
Dietetic Technical Registered (DTR)	0.0	0.8	1.0	0.4
Other	3.2	4.9	10.0	4.7
None of the above	32.9	14.8	7.2	22.8
Number of SFAs	**136**	**192**	**190**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: SNMs were also asked about their credentials. However, almost half of SNMs did not respond to these questions, so the results were not tabulated.

[a]Multiple responses were allowed.

SFA = school food authority; SNM = school nutrition manager.

Table A.40. Credentials of SFA Directors, by District Child Poverty Rate

	District Child Poverty Rate (Percentage of Children in Poverty)		
	Lower (Less Than 20 Percent)	Higher (20 Percent or More)	All SFAs
	Percentage of SFAs		
Credentials Held[a]			
Food safety certification, such as ServSafe, National Registry of Food Safety Professionals, Prometric Certified Professional Food Manager, or Learn2Serve	59.4	56.8	58.3
State foodservice certificate	21.5	14.7	18.7
Health department certification	12.2	12.0	12.1
School Nutrition Association Level 3 certification	10.4	10.2	10.3
School Nutrition Association Level 1 certification	8.8	10.0	9.3
School Nutrition Association, School Nutrition Specialist (SNS)	4.9	6.6	5.6
Registered dietitian	5.1	5.2	5.2
School Nutrition Association Level 2 certification	4.1	3.2	3.7
Licensed nutritionist or dietitian	2.9	4.2	3.4
Certified dietary manager	2.3	1.9	2.2
Dietetic Technical Registered (DTR)	0.7	0.0	0.4
Other	4.6	4.8	4.7
None of the above	21.5	24.8	22.8
Number of SFAs	**295**	**223**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: SNMs were also asked about their credentials. However, almost half of SNMs did not respond to these questions, so the results were not tabulated.

[a]Multiple responses were allowed.

SFA = school food authority; SNM = school nutrition manager.

Table A.41. Credentials of SFA Directors, by Urbanicity

	Urban SFAs	Suburban SFAs	Rural SFAs	All SFAs
	Percentage of SFAs			
Credentials Held[a]				
Food safety certification, such as ServSafe, National Registry of Food Safety Professionals, Prometric Certified Professional Food Manager, or Learn2Serve	46.3	61.8	58.9	58.3
State foodservice certificate	12.7	15.3	22.8	18.7
Health department certification	10.9	13.1	11.7	12.1
School Nutrition Association Level 3 certification	9.0	11.1	10.1	10.3
School Nutrition Association Level 1 certification	3.4	9.3	10.8	9.3
School Nutrition Association, School Nutrition Specialist (SNS)	12.2	5.6	3.9	5.6
Registered dietitian	7.5	7.7	2.7	5.2
School Nutrition Association Level 2 certification	3.8	2.5	4.7	3.7
Licensed nutritionist or dietitian	4.6	5.0	1.9	3.4
Certified dietary manager	1.1	2.8	1.9	2.2
Dietetic Technical Registered (DTR)	0.1	0.5	0.4	0.4
Other	2.1	7.6	3.2	4.7
None of the above	42.7	19.1	20.4	22.8
Number of SFAs	**93**	**247**	**178**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: SNMs were also asked about their credentials. However, almost half of SNMs did not respond to these questions, so the results were not tabulated.

[a]Multiple responses were allowed.

SFA = school food authority; SNM = school nutrition manager.

Table A.42. Responsibility for Key Foodservice Functions in SFAs that Use Foodservice Management Companies

	Percentage of SFAs		
	SFA Is Responsible	FSMC Is Responsible	SFA and FSMC Share Responsibility
Activities Supporting Foodservice Such as Food Purchasing, Inventory and Storage, or Nutrition Education	0.8	51.3	47.9
Providing Equipment or Facilities for Food Preparation	47.3	11.8	40.9
Vendor Payment	23.7	50.5	25.8
Preparing Reimbursable Meals	3.3	73.1	23.6
Serving Reimbursable Meals	20.6	57.0	22.5
Menu Planning	1.8	79.1	19.1
FSMC Personnel Management	3.5	79.7	16.7
Certification and Verification of Eligibility for Free or Reduced-Price Meals	83.7	1.7	14.6
Number of SFAs		**100**	

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Estimates are among SFAs that use FSMCs.

FSMC = foodservice management company; SFA = school food authority.

Table A.43. Foodservice Management Company Fees and Monitoring

	Percentage of SFAs
Basis for FSMC Fee Determination	
Per-meal fee	37.3
Flat administrative fee	25.3
Combination of administrative fee and per-meal fee	18.8
Some other arrangement	4.3
Percentage of total cafeteria sales	0.0
Don't know	14.3
Personnel/Entity Monitoring the Performance of the FSMC[a]	
School district business manager	68.9
Superintendent	44.8
SFA	32.7
School board	29.5
School principal	27.5
Some other arrangement	6.9
Don't know	0.0
Number of SFAs	**100**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Estimates are among SFAs that use FSMCs.

[a]Multiple responses were allowed.

FSMC = foodservice management company; SFA = school food authority.

Table A.44. Health Benefits for SFA Directors and Employees

	Percentage of SFAs
SFA Provides Health Benefits for SFA Director Position	73.9
Approximate Proportion of SFA Employees Receiving Health Benefits	
All	29.1
Most	14.5
Some	29.0
None	14.6
Don't know	12.6
Missing	0.2
Number of SFAs	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: The question about receipt of health benefits was also asked of school nutrition managers, but almost half did not respond to this question, so the data were not tabulated.

SFA = school food authority.

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6. Meal Service Practices

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Table A.45. Lunch Schedules

	School Size[a]			School Type			
	Small	Medium	Large	Elementary Schools	Middle Schools	High Schools	All Schools
All Students Have a Scheduled Lunch Period Every Day (Percentage of Schools)	85.1	82.6	88.5	82.3	89.2	86.7	84.5
Number of Schools[b]	**399**	**440**	**251**	**413**	**339**	**338**	**1,090**
Time Lunch Service Starts (Percentage of Schools)							
Before 11:00 a.m.	29.7	44.0	38.5	39.1	37.1	28.4	36.4
Between 11:00 a.m. and 1:30 p.m.	53.0	44.5	43.5	48.8	42.8	52.6	48.5
Missing (percentage of schools)	17.3	11.5	18.0	12.1	20.1	19.0	15.1
Length of Lunch Period (Minutes)[c,d]							
Mean	29.0	30.6	30.5	29.7	30.2	29.7	29.8
Mode	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Minimum	21.0	21.0	22.0	22.0	21.0	21.0	21.0
Maximum	43.0	44.0	44.0	44.0	44.0	43.0	44.0
Missing (percentage of schools)	27.6	22.6	25.1	25.2	27.0	24.7	25.5
Time Students Wait in Line to Get Lunch (Minutes)							
Mean	4.9	5.3	6.2	4.7	5.7	6.1	5.2
Mode	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Maximum	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Missing (percentage of schools)	9.9	7.0	8.5	8.1	10.4	8.5	8.6
Among Schools with Multiple Lunch Periods (n=770):[e]							
Start Time of First Lunch							
Mean	11:06 am	11:00 am	11:02 am	11:02 am	11:00 am	11:07 am	11:03 am
Mode	11:00 am	11:00 am	11:00 am	11:00 am	11:00 am	11:00 am	11:00 am
Minimum	9:45 am	9:44 am	9:19 am	9:53 am	9:44 am	9:19 am	9:19 am
Maximum	12:15 pm	12:40 pm	12:35 pm	12:15 pm	12:33 pm	12:40 pm	12:40 pm
Start Time of Last Lunch							
Mean	12:12 pm	12:24 pm	12:26 pm	12:19 pm	12:19 pm	12:18 pm	12:19 pm
Mode	12:00 pm	12:30 pm	12:35 pm	12:30 pm	12:10 pm	12:15 pm	12:30 pm
Minimum	11:00 am	10:35 am	10:25 pm	11:15 am	10:35 am	10:25 am	10:25 am
Maximum	1:34 pm	2:00 pm	2:15 pm	2:00 pm	2:15 pm	1:43 pm	2:15 pm
Number of Schools[f]	**436**	**497**	**277**	**454**	**384**	**372**	**1,210**

Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey and Principal Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

[a]Small = fewer than 500 students, medium = 500 to 999 students, large = 1,000 or more students.

[b]The sample includes schools with a completed Principal Survey.

[c]Seven observations with the following lunch period 1 start and end time combinations were excluded: 10:35 a.m. and 8:51 a.m., 10:08 a.m. and 8:50 a.m., 11:35 a.m. and 10:37 a.m., 7:13 a.m. and 8:12 a.m., 7:15 a.m. and a missing end time; 9:16 a.m. and 2:00 a.m., 7:15 a.m. and 13:30 p.m. The responses for lunch periods 1 through 10 were reviewed before exclusion.

[d]Schools were excluded from lunch length estimates if the difference between the period 1 start and end times was implausibly short (20 minutes or less, 117 observations) or implausibly long (45 minutes or longer, 269 observations).

[e]Schools with multiple lunch periods are defined as schools where the school nutrition managers responded for at least two lunch periods. Among schools with multiple lunch periods, the responses from school nutrition managers who reported the latest lunch start time as after 3:00 p.m. were excluded (39 observations).

[f]The sample includes schools with a completed School Nutrition Manager Survey.

Table A.46. Schedules for School Door Opening, Breakfast Service, and First Class

	School Size[a]			Type of School			
	Small	Medium	Large	Elementary Schools	Middle Schools	High Schools	All Schools
Time Breakfast Service Starts							
Mean	7:43	7:44	7:30	7:49	7:34	7:28	7:42
Mode	7:30	7:30	7:00	7:30	7:30	7:30	7:30
Minimum	6:30	6:30	5:40	7:00	6:30	5:40	5:40
Maximum	10:37	10:08	10:35	10:05	10:37	10:35	10:37
Missing (percentage of schools)	11.3	9.3	12.8	9.7	13.7	10.9	10.7
Length of Breakfast Period (Minutes)[b]							
Mean	35.1	40.2	37.1	36.9	34.8	40.5	37.4
Mode	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Minimum	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Maximum	205.0	190.0	210.0	190.0	153.0	210.0	210.0
Minutes Students Spend in Line to Get Breakfast							
Mean	2.5	3.4	3.6	3.0	2.8	3.0	3.0
Mode	2.0	1.0	2.0	2.0	2.0	2.0	2.0
Minimum	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Maximum	15.0	45.0	30.0	45.0	30.0	30.0	45.0
Missing (percentage of schools)	11.0	9.0	11.4	9.8	11.3	10.7	10.3
Among Schools Where Doors Open Before or at the Same Time as Breakfast Starts (n=902):							
Minutes Between Doors Opening and Breakfast Starting							
Mean	19.8	14.3	30.5	16.6	14.6	27.9	18.7
Mode	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	259.0	170.0	274.0	259.0	168.0	274.0	274.0
Among Schools Serving Breakfast Before or During First Class (n=912):							
Minutes Between When Breakfast Starts and First Class Starts							
Mean	34.2	35.0	35.8	34.9	33.8	35.0	34.7
Mode	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	110.0	110.0	100.0	85.0	110.0	110.0	110.0
Number of Schools	**398**	**463**	**263**	**419**	**354**	**351**	**1,124**

Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Notes: Table includes only schools that participate in the School Breakfast Program (SBP).

Four observations with the following start and end time combinations were excluded: 8:00 a.m. and 00:35 a.m., 6:00 a.m. and 03:08 a.m., 11:11 a.m. and 11:17 a.m., and 7:15 a.m. and 7:14 a.m.

In the analysis of the length of breakfast periods, 39 schools with calculated breakfast length periods less than 10 minutes and 272 schools serving breakfast in the classroom were excluded.

Of the SBP schools included in the analysis for breakfast length period, 83 schools reported breakfast periods 60 minutes or longer and 3 reported breakfast periods of 100 minutes or longer.

In the analysis of the time students spend in line to get breakfast, 20 schools reported wait times of 15 minutes or longer and 7 reported wait times of 30 minutes or longer.

Among SBP schools serving breakfast before or during first class, 83 schools reported minutes between when breakfast starts and first class starts as 60 minutes or longer.

[a]Small = fewer than 500 students, medium = 500 to 999 students, large = 1,000 or more students.

[b]Schools serving breakfast only in the classroom were excluded.

Table A.47. Availability of Reimbursable Meal Components for Lunch and Breakfast

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Among Schools with More than One Serving Line or Station for Lunch (n=681):				
Strategies Used to Ensure That All Students Can Select the Required Minimum Amounts of All Meal Pattern Components				
All components are provided on every line/station in the required minimum amounts	75.9	85.2	81.7	80.0
Students must visit multiple lines/stations that together offer all required components	8.9	6.8	7.6	8.0
Multiple strategies used[a]	14.9	6.5	7.8	10.6
Missing	0.3	0.2	0.8	0.4
Number of Schools	**454**	**384**	**372**	**1,210**
Among Schools with More than One Serving Line or Station for Breakfast (n=307):				
Strategies Used to Ensure That All Students Can Select the Required Minimum Amounts of All Meal Pattern Components[b]				
All components are provided on every line/station in the required minimum amounts	91.6	92.5	91.3	91.7
Students must visit multiple lines/stations that together offer all required components	2.2	2.7	1.9	2.2
Multiple strategies used[a]	6.2	4.3	4.5	5.3
Missing	0.0	0.0	0.0	0.0
Number of Schools	**420**	**356**	**352**	**1,128**

Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Note: Results presenting serving lines or stations for lunch and breakfast are provided in Chapter 2.

[a]Multiple strategies include respondents that reported more than one of these three options: all meal components are provided on every serving line or food station in the required minimum amounts; students must visit multiple serving lines or food stations that together offer all required meal components; and other.

[b]These results include only School Breakfast Program–participating schools. Schools serving breakfast only in the classroom were excluded.

Table A.48. Student Access to Reimbursable Meal Components on Serving Lines and Food Stations

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Lunches				
All Serving Lines and Food Stations Included All Required Components of a Reimbursable Meal	89.3	84.8	82.4	87.0
Some, But Not All, Serving Lines and Food Stations Included All Required Components of a Reimbursable Meal	6.3	10.6	13.8	8.8
No Serving Lines or Food Stations Included All Required Components of a Reimbursable Meal	4.3	4.6	3.8	4.3
Among Schools in SFAs That Were 6 Cents Reimbursement-Certified (n=1,146):[a]				
All Serving Lines and Food Stations Included All Required Components of a Reimbursable Meal	89.1	85.5	82.0	86.9
Some, But Not All, Serving Lines and Food Stations Included All Required Components of a Reimbursable Meal	6.3	10.1	14.1	8.7
No Serving Lines or Food Stations Included All Required Components of a Reimbursable Meal	4.6	4.3	3.9	4.4
Number of Schools	**466**	**397**	**394**	**1,257**
Breakfasts[b]				
All Serving Lines and Food Stations Included All Required Components of a Reimbursable Meal	91.1	93.8	80.2	89.2
Some, But Not All, Serving Lines and Food Stations Included All Required Components of a Reimbursable Meal	3.8	3.1	5.0	4.0
No Serving Lines or Food Stations Included All Required Components of a Reimbursable Meal	1.6	1.7	5.8	2.6
Missing	1.6	1.3	4.6	2.2
Among Schools in SFAs That Were 6 Cents Reimbursement-Certified (n=1,081):[a,b]				
All Serving Lines and Food Stations Included All Required Components of a Reimbursable Meal	91.0	93.9	80.3	89.2
Some, But Not All, Serving Lines and Food Stations Included All Required Components of a Reimbursable Meal	3.7	3.4	5.1	4.0
No Serving Lines or Food Stations Included All Required Components of a Reimbursable Meal	1.7	1.2	6.3	2.6
Missing	1.8	1.4	4.4	2.3
Number of Schools	**431**	**367**	**373**	**1,171**

Source: School Nutrition and Meal Cost Study, Cafeteria Observation Guide, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Notes: A serving line is defined as a traditional cafeteria line where food items are typically served to students by school nutrition staff. Food stations are defined as stand-alone serving locations where food items may be served by school nutrition staff or students may serve themselves.

[a]Six cents reimbursement status was reported in the School Food Authority Directory Survey.

[b]These results include only School Breakfast Program-participating schools. Schools serving breakfast only in the classroom were included. In such schools, either all serving lines or stations or no serving lines or stations could include all required components of a reimbursable meal.

NSLP = National School Lunch Program; SBP = School Breakfast Program; SFA = school food authority.

Table A.49. Number and Configuration of Serving Lines and Food Stations Offering Reimbursable Meals

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Lunches				
Only One Serving Line	41.1	16.9	21.3	32.4
Only One Food Station	0.7	0.3	0.2	0.5
More than One Serving Line or Station	53.0	77.7	76.1	62.6
Missing	5.3	5.1	2.4	4.6
Number of Serving Lines or Stations				
Mean	1.8	2.9	3.3	2.3
Mode	1.0	2.0	3.0	2.0
Minimum	1.0	1.0	1.0	1.0
Maximum	8.0	19.0	20.0	20.0
Among Schools with More than One Serving Line or Station (n=927):				
All Serving Lines and Food Stations Are Universally Available to All Students	76.7	64.1	69.1	71.8
Combination of Serving Lines or Food Stations Available Only to Students Who Initially Chose the Serving Line or Food Station and Universally Available Serving Lines or Food Stations	15.2	21.4	23.9	18.9
All Serving Lines Are Available Only to Students Who Initially Chose the Serving Line	6.7	12.3	4.8	7.5
All Food Stations Are Available Only to Students Who Initially Chose the Food Station	0.0	0.3	0.2	0.1
Missing	1.4	1.9	2.0	1.7
Number of Schools	**466**	**397**	**394**	**1,257**
Breakfasts[a]				
All Breakfasts Served in Classroom	13.8	5.7	10.1	11.5
Only One Serving Line[b]	45.0	43.1	38.1	43.1
Only One Food Station[b]	2.4	1.6	1.4	2.0
More than One Serving Line or Station[b]	32.3	38.1	37.1	34.4
Missing	4.9	10.3	8.7	6.7
Number of Serving Lines or Stations[c]				
Mean	1.3	1.5	1.3	1.3
Mode	1.0	1.0	1.0	1.0
Minimum	0.0	0.0	0.0	0.0
Maximum	4.0	7.0	6.0	7.0
Among Schools with More than One Serving Line or Station (n=431):				
All Serving Lines and Food Stations Are Universally Available to All Students	77.0	74.1	72.1	75.3
Combination of Serving Lines or Food Stations Available Only to Students Who Initially Chose the Serving Line or Food Station and Universally Available Serving Lines or Food Stations	12.1	13.4	16.0	13.3
All Serving Lines Are Available Only to Students Who Initially Chose the Serving Line	7.0	11.0	10.3	8.6

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
All Food Stations Are Available Only to Students Who Initially Chose the Food Station	0.0	0.0	0.7	0.2
Missing	3.9	1.6	0.9	2.7
Number of Schools	**431**	**367**	**373**	**1,171**

Source: School Nutrition and Meal Cost Study, Cafeteria Observation Guide, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Notes: Estimates are percentages unless otherwise noted. A serving line is defined as a traditional cafeteria line where food items are typically served to students by school nutrition staff. Food stations are defined as stand-alone serving locations where food items may be served by school nutrition staff or students may serve themselves.

[a]These results include only School Breakfast Program-participating schools.

[b]Eight schools served breakfast in at least one serving line or station in addition to breakfast in the classroom. Of these schools, four had one serving line, one had one food station, and three had more than one line or station in addition to breakfast in the classroom.

[c]Schools serving breakfast only in the classroom were excluded.

Table A.50. Policies Related to Student Mobility During Lunch

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Students Are Required to Go to Cafeteria or Foodservice Area During Their Lunch Period	93.0	92.3	64.1	86.5
Students Are Allowed to Visit Other Tables During Meal Times				
Yes, all students	10.1	40.6	86.7	32.4
Yes, some students	7.8	8.7	4.4	7.2
No	82.1	50.5	8.9	60.3
Missing	0.0	0.2	0.0	0.0
Students Are Allowed to Leave Lunch Area After a Certain Time				
Yes, all students	9.6	20.9	37.2	17.7
Yes, some students	4.3	10.2	17.1	8.2
No	85.7	68.9	45.5	73.8
Missing	0.4	0.0	0.3	0.3
Among Schools Where Some or All Students May Leave the Lunch Area After a Certain Time (n=370):				
Students Are Allowed to Leave Lunch Area at Any Time				
Yes, all students	29.3	42.4	68.0	49.9
Yes, some students	66.9	55.5	32.0	48.4
Missing	3.8	2.1	0.0	1.7
Among Schools Where Not All Students Are Required to Go to the Lunch Area (n=185):				
Where Students Can Go During Lunch[a]				
Foodservice area/cafeteria or other area meals are served	–	–	87.5	84.0
Classroom, but only with teacher permission	–	–	59.0	61.3
Outside, on campus	–	–	61.4	50.1
Off campus/home	–	–	50.9	36.8
Other designated area on campus, such as hallways, student commons	–	–	48.5	36.6
Library	–	–	45.5	34.6
Classrooms open to students during lunch period	–	–	25.6	20.4
Computer lab or media center	–	–	20.8	13.8
Gym	–	–	16.2	11.5
Anywhere on campus	–	–	11.5	7.7
Other	–	–	0.0	1.3
Number of Schools	**413**	**339**	**338**	**1,090**

Source: School Nutrition and Meal Cost Study, Principal Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

[a]Multiple responses were allowed.

– Sample size is too small to produce reliable estimate.

Table A.51. Open-Campus Policies During Lunch

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
School Follows an Open-Campus Policy	1.4	0.4	18.3	4.9
Among Schools with an Open-Campus Policy (n=72)				
Off-Campus Food Sources Close Enough to Walk or Drive During Lunch[a]				
Home or home of relative or friend	–	–	82.3	76.1
Supermarkets, convenience stores, or other stores	–	–	89.7	73.1
Fast food restaurants	–	–	71.9	58.6
Other restaurants, cafeterias, or diners	–	–	59.9	48.9
Off-campus lunch wagons or push carts not operated by the school meals program	–	–	10.3	8.3
Other	–	–	0.0	0.0
Missing	–	–	7.6	15.6
Number of Schools	**413**	**339**	**338**	**1,090**

Source: School Nutrition and Meal Cost Study, Principal Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

[a]Multiple responses were allowed.

– Sample size is too small to produce reliable estimate.

Table A.52. Availability of Potable Water in or Near the Cafeteria at Breakfast

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
No Potable Water Available	7.9	6.7	8.0	7.7
Drinking Fountain				
Within the cafeteria	46.3	56.3	46.2	48.2
Within 20 feet of the cafeteria	35.1	33.1	30.6	33.7
Water Dispenser/Cooler				
Within the cafeteria	20.6	13.2	20.6	19.2
Within 20 feet of the cafeteria	1.2	1.6	2.1	1.5
Pitchers of Water				
Within the cafeteria	5.8	1.2	1.6	4.0
Within 20 feet of the cafeteria	0.6	0.0	0.0	0.3
Bottle Refilling Station				
Within the cafeteria	1.9	2.1	4.7	2.6
Within 20 feet of the cafeteria	0.0	0.0	0.3	0.1
Bottled Water, at No Charge				
Within the cafeteria	0.6	2.2	1.0	1.0
Within 20 feet of the cafeteria	0.0	0.8	0.0	0.1
Other Source of Water				
Within the cafeteria	3.8	7.3	7.1	5.2
Within 20 feet of the cafeteria	0.7	1.3	2.5	1.2
Number of Schools	**381**	**344**	**349**	**1,074**

Source: School Nutrition and Meal Cost Study, Cafeteria Observation Guide, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Note: Table includes only schools that participated in the School Breakfast Program, served breakfast in a cafeteria, and for which food preparation or assembly could be observed.

Table A.53. Scheduling of School Activities During Meal Times

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Activities Are Sometimes Scheduled During Meal Times	20.5	37.0	45.3	28.9
Among Schools Where Activities Are Sometimes Scheduled During Lunch (n=391):				
Activities Are Scheduled During Lunch				
At least once per week	52.2	68.8	64.4	60.3
Less than once per week	29.2	14.3	16.1	21.3
Missing	18.6	16.8	19.4	18.5
Among Schools Where Activities Are Scheduled During Lunch at Least Once Per Week (n=272):				
Specific Activities[a]				
Tutoring sessions	–	82.3	81.6	72.5
Club meetings	–	31.2	50.3	43.5
Fundraisers that include sweet or salty snack foods	–	2.1	8.8	4.8
Fundraisers that include pizza or other types of foods	–	0.7	3.8	2.3
Bake sales	–	0.2	5.2	2.0
Pep rallies	–	2.2	0.6	0.8
Other activities	–	8.4	2.4	7.4
Among Schools That Participate in the School Breakfast Program and Where Activities Are Sometimes Scheduled During Meal Times (n=246):				
Activities Are Scheduled During Breakfast				
At least once per week	–	43.6	46.4	43.8
Less than once per week	–	12.3	23.2	18.2
Missing	–	44.1	30.4	38.0
Among Schools Where Activities Are Scheduled During Breakfast at Least Once per Week (n=116):				
Specific Activities[a]				
Tutoring sessions	–	–	–	85.4
Club meetings	–	–	–	37.1
Fundraisers that include sweet or salty snack foods	–	–	–	2.2
Bake sales	–	–	–	1.8
Fundraisers that include pizza or other types of foods	–	–	–	1.5
Pep rallies	–	–	–	0.0
Other activities	–	–	–	5.4
Number of Schools	**413**	**339**	**338**	**1,090**

Source: School Nutrition and Meal Cost Study, Principal Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

[a]Multiple responses were allowed.

– Sample size is too small to produce reliable estimate.

Table A.54. Meal-Scheduling Policies Related to Breakfast

	School Size[a]			Percentage of Schools			
	Small	Medium	Large	Elementary Schools	Middle Schools	High Schools	All Schools
Doors Open Before or at the Same Time as Breakfast Starts							
Yes	75.6	85.3	79.7	81.0	76.2	80.2	80.0
No	8.0	4.1	4.2	7.8	4.3	2.5	6.0
Missing	16.4	10.5	16.2	11.2	19.5	17.3	14.0
Breakfast Starts Before or at the Same Time as First Class							
Yes	77.9	85.8	78.4	83.4	78.2	77.1	81.1
No	3.0	2.1	2.2	2.1	1.9	4.2	2.5
Missing	19.2	12.1	19.5	14.5	20.0	18.8	16.4
Among Schools with Morning Buses (n=929):							
First Bus Arrives Before or at the Same Time as Breakfast Starts							
Yes	67.1	70.6	62.5	67.1	70.1	68.6	68.0
No	26.0	22.2	26.2	25.2	21.7	24.5	24.4
Missing	6.9	7.3	11.2	7.7	8.2	6.9	7.6
Last Bus Arrives Before or at Same Time as Breakfast Starts							
Yes	18.3	16.6	14.0	17.1	18.2	15.9	17.1
No	73.0	75.3	72.5	73.7	72.4	75.7	73.9
Missing	8.7	8.1	13.6	9.2	9.5	8.4	9.0
Number of Schools[b]	**398**	**463**	**263**	**419**	**354**	**351**	**1,124**

Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Notes: Table includes only schools that participate in the School Breakfast Program.

The constructs presented in this table use questions on the time school doors opened, the times school buses arrived in the morning, and the time of the first class. If responses for any of these questions were missing, the value of the construct was set to missing, which is why we see high percentages of missing responses for each of the sections presented here.

[a]Small = fewer than 500 students, Medium = 500 to 999 students, Large = 1,000 or more students.

[b]Four observations with the following start and end time combinations were excluded: 8:00 a.m. and 00:35 a.m., 6:00 a.m. and 03:08 a.m., 11:11 a.m. and 11:17 a.m., and 7:15 a.m. and 7:14 a.m.

Table A.55. Practices to Accommodate Food Allergies and Special Dietary Needs

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
School Has Policies and Procedures to Accommodate Students with Food Allergies				
Yes	89.7	87.3	86.2	88.5
No	3.4	3.8	6.0	4.0
Missing	6.8	8.9	7.8	7.4
Among Schools with Policies and Procedures to Accommodate Students with Food Allergies (n=1,084):				
Procedures Used to Protect Students[a]				
Procedures to identify students in the serving line	71.3	64.4	63.2	68.3
Special training for school nutrition staff	60.3	60.2	58.6	59.9
Special sanitation procedures in the kitchen and/or dining area	39.5	39.8	38.7	39.4
Separate tables	39.4	32.8	20.1	34.1
Other	11.6	14.1	14.9	12.8
School Has Policies and Procedures to Accommodate Students with Special Dietary Needs				
Yes	85.1	85.8	80.9	84.3
No	6.7	3.9	9.4	6.8
Missing	8.1	10.2	9.7	8.9
Among Schools with Policies and Procedures to Accommodate Students with Special Dietary Needs (n=1,030):				
Procedures Used to Accommodate Students[a]				
Signed prescription from child's physician	84.6	86.8	85.5	85.2
Cashier has child names to inspect trays	51.0	43.6	38.9	47.1
Consultation with registered dietitian to adapt menus	35.9	32.6	39.7	36.1
Other	15.7	14.6	15.2	15.4
Number of Schools	**454**	**384**	**372**	**1,210**

Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

[a]Multiple responses were allowed.

Table A.56. Payment Methods for Reimbursable Meals and A la Carte Items

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Payment Methods for Reimbursable Meals				
Amount debited from balance on student account	71.9	71.9	71.3	71.8
Cash	55.9	63.1	61.4	58.4
Tickets or tokens	1.4	0.0	0.5	0.9
Other	3.2	3.2	3.0	3.1
Missing	6.6	9.5	8.2	7.5
Among Schools with A la Carte (n=1,076):				
Payment Methods for A la Carte Items				
Amount debited from balance on student account	72.5	74.5	80.2	74.6
Cash	69.6	80.9	79.1	73.7
Tickets or tokens	0.0	0.2	0.5	0.1
Other	2.8	2.0	3.3	2.8
Number of Schools	**454**	**384**	**372**	**1,210**

Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Note: Multiple responses were allowed.

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7. Experiences Implementing the New Nutrition Standards

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Table A.57. Perceived Helpfulness of the New Nutrition Standards in Achieving the Underlying Nutrition Goals, by SFA Size

	SFA Size			
	Fewer than 1,000 Students	1,000 to 5,000 Students	More than 5,000 Students	All SFAs
	Percentage of SFAs			
Decreasing Children's Sodium Intake				
Somewhat helpful	48.8	44.3	56.4	48.1
Very helpful	30.6	32.9	17.8	29.8
Not at all helpful	10.8	13.0	18.7	12.6
SFA was already achieving this goal	9.2	9.9	5.4	9.0
Missing	0.6	0.0	1.6	0.5
Meeting (but Not Exceeding) Children's Calorie Requirements				
Somewhat helpful	49.4	42.1	52.3	47.1
Very helpful	24.8	24.5	14.4	23.3
Not at all helpful	12.8	11.2	16.3	12.7
SFA was already achieving this goal	12.3	22.1	15.4	16.4
Missing	0.6	0.0	1.6	0.5
Increasing Children's Consumption of Dark Green and Red/Orange Vegetables				
Somewhat helpful	49.0	40.3	44.2	45.2
Very helpful	21.4	31.5	19.5	24.9
Not at all helpful	16.3	13.0	22.8	15.9
SFA was already achieving this goal	12.7	15.2	11.9	13.5
Missing	0.6	0.0	1.6	1.6
Increasing Children's Consumption of Beans/Peas				
Somewhat helpful	45.5	37.9	38.2	41.7
Very helpful	17.6	26.2	15.5	20.5
Not at all helpful	28.4	24.1	32.9	27.4
SFA was already achieving this goal	7.9	11.8	11.8	9.8
Missing	0.6	0.0	1.6	0.5
Improving the Nutritional Quality of the Meals Offered				
Somewhat helpful	41.5	41.2	43.7	41.7
Very helpful	23.5	29.1	22.7	25.5
Not at all helpful	9.8	9.3	9.2	9.6
SFA was already achieving this goal	24.6	20.3	22.8	22.8
Missing	0.6	0.0	1.6	0.5
Increasing Children's Consumption of Whole Grains				
Somewhat helpful	39.0	32.0	41.9	36.8
Very helpful	23.1	33.4	25.9	27.3
Not at all helpful	19.4	16.3	17.7	18.0
SFA was already achieving this goal	17.9	18.3	12.9	17.4
Missing	0.6	0.0	1.6	0.5
Increasing Children's Consumption of Skim or Low-Fat Milk				
Somewhat helpful	37.9	36.5	37.4	37.3
Very helpful	18.1	16.7	17.0	17.4
Not at all helpful	12.1	8.8	19.5	11.9
SFA was already achieving this goal	31.3	38.0	24.5	32.9

	SFA Size			
	Fewer than 1,000 Students	1,000 to 5,000 Students	More than 5,000 Students	All SFAs
	Percentage of SFAs			
Missing	1.6	0.0	1.6	0.5
Increasing Children's Consumption of Fruit (Not Counting Fruit Juice)				
Somewhat helpful	34.9	34.6	31.2	34.3
Very helpful	28.3	30.6	32.5	29.7
Not at all helpful	8.7	6.8	14.6	8.8
SFA was already achieving this goal	27.6	28.0	20.1	26.8
Missing	0.6	0.0	1.6	0.5
Number of SFAs	**136**	**192**	**190**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

SFA = school food authority.

Table A.58. Perceived Helpfulness of the New Nutrition Standards in Achieving the Underlying Nutrition Goals, by District Child Poverty Rate

	District Child Poverty Rate (Percentage of Children in Poverty)		
	Lower (Less Than 20 Percent)	Higher (20 Percent or More)	All SFAs
	Percentage of SFAs		
Decreasing Children's Sodium Intake			
Somewhat helpful	48.1	48.2	48.1
Very helpful	30.8	28.3	29.8
Not at all helpful	10.6	15.5	12.6
SFA was already achieving this goal	10.0	7.5	9.0
Missing	0.5	0.5	0.5
Meeting (but Not Exceeding) Children's Calorie Requirements			
Somewhat helpful	47.1	47.1	47.1
Very helpful	25.5	20.3	23.3
Not at all helpful	11.9	13.8	12.7
SFA was already achieving this goal	15.0	18.3	16.4
Missing	0.5	0.5	0.5
Increasing Children's Consumption of Dark Green and Red/Orange Vegetables			
Somewhat helpful	45.9	44.1	45.2
Very helpful	24.2	25.9	24.9
Not at all helpful	14.9	17.4	15.9
SFA was already achieving this goal	14.5	12.0	13.5
Missing	0.5	0.5	0.5
Increasing Children's Consumption of Beans/Peas			
Somewhat helpful	37.5	47.8	41.7
Very helpful	20.7	20.2	20.5
Not at all helpful	29.5	24.3	27.4
SFA was already achieving this goal	11.7	7.2	9.8
Missing	0.5	0.5	0.5
Improving the Nutritional Quality of the Meals Offered			
Somewhat helpful	42.3	40.8	41.7
Very helpful	26.6	23.9	25.5
Not at all helpful	9.2	10.0	9.6
SFA was already achieving this goal	21.3	24.8	22.8
Missing	0.5	0.5	0.5
Increasing Children's Consumption of Whole Grains			
Somewhat helpful	36.6	37.0	36.8
Very helpful	28.8	25.2	27.3
Not at all helpful	18.0	18.0	18.0
SFA was already achieving this goal	16.0	19.3	17.4
Missing	0.5	0.5	0.5
Increasing Children's Consumption of Skim or Low-Fat Milk			
Somewhat helpful	41.4	31.5	37.3
Very helpful	19.3	14.7	17.4
Not at all helpful	9.8	14.7	11.9
SFA was already achieving this goal	28.9	38.5	32.9
Missing	0.5	0.5	0.5
Increasing Children's Consumption of Fruit (Not Counting Fruit Juice)			
Somewhat helpful	36.0	32.0	34.3
Very helpful	28.3	31.6	29.7
Not at all helpful	8.8	8.6	8.8

	District Child Poverty Rate (Percentage of Children in Poverty)		
	Lower (Less Than 20 Percent)	Higher (20 Percent or More)	All SFAs
	Percentage of SFAs		
SFA was already achieving this goal	26.3	27.3	26.8
Missing	0.5	0.5	0.5
Number of SFAs	**295**	**223**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

SFA = school food authority.

Table A.59. Perceived Helpfulness of the New Nutrition Standards in Achieving the Underlying Nutrition Goals, by Urbanicity

	Urban SFAs	Suburban SFAs	Rural SFAs	All SFAs
	Percentage of SFAs			
Decreasing Children's Sodium Intake				
Somewhat helpful	42.5	56.5	43.3	48.1
Very helpful	37.9	22.6	33.0	29.8
Not at all helpful	6.6	15.2	12.3	12.6
SFA was already achieving this goal	13.1	5.1	10.8	9.0
Missing	0.0	0.6	0.6	0.5
Meeting (but Not Exceeding) Children's Calorie Requirements				
Somewhat helpful	46.5	51.8	43.7	47.1
Very helpful	30.7	19.0	24.7	23.3
Not at all helpful	6.0	15.0	12.7	12.7
SFA was already achieving this goal	16.8	13.6	18.3	16.4
Missing	0.0	0.6	0.6	0.5
Increasing Children's Consumption of Dark Green and Red/Orange Vegetables				
Somewhat helpful	35.5	50.3	43.8	45.2
Very helpful	35.6	18.9	26.6	24.9
Not at all helpful	13.6	16.9	15.8	15.9
SFA was already achieving this goal	15.4	13.3	13.2	13.5
Missing	0.0	0.6	0.6	0.5
Increasing Children's Consumption of Beans/Peas				
Somewhat helpful	41.5	43.0	40.8	41.7
Very helpful	22.8	17.6	22.1	20.5
Not at all helpful	21.9	31.9	25.5	27.4
SFA was already achieving this goal	13.8	7.0	10.9	9.8
Missing	0.0	0.6	0.6	0.5
Improving the Nutritional Quality of the Meals Offered				
Somewhat helpful	33.3	45.6	40.9	41.7
Very helpful	32.3	24.7	24.3	25.5
Not at all helpful	8.9	12.4	7.6	9.6
SFA was already achieving this goal	25.5	16.7	26.6	22.8
Missing	0.0	0.6	0.6	0.5
Increasing Children's Consumption of Whole Grains				
Somewhat helpful	39.9	37.2	35.6	36.8
Very helpful	32.8	26.4	26.5	27.3
Not at all helpful	9.8	20.1	18.6	18.0
SFA was already achieving this goal	17.5	15.7	18.7	17.4
Missing	0.0	0.6	0.6	0.5
Increasing Children's Consumption of Skim or Low-Fat Milk				
Somewhat helpful	35.7	34.9	39.5	37.3
Very helpful	26.0	18.7	14.3	17.4
Not at all helpful	9.7	16.9	8.6	11.9
SFA was already achieving this goal	28.6	28.9	37.0	32.9
Missing	0.0	0.6	0.6	0.5

	Urban SFAs	Suburban SFAs	Rural SFAs	All SFAs
	Percentage of SFAs			
Increasing Children's Consumption of Fruit (Not Counting Fruit Juice)				
Somewhat helpful	34.8	37.2	32.0	34.3
Very helpful	39.6	31.2	26.0	29.7
Not at all helpful	4.9	12.3	7.1	8.8
SFA was already achieving this goal	20.7	18.8	34.3	26.8
Missing	0.0	0.6	0.6	0.5
Number of SFAs	**93**	**247**	**178**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

SFA = school food authority.

Table A.60. Challenges Faced in Fully Implementing or Maintaining Compliance with the New Meal Requirements, by SFA Size

	SFA Size			
	Fewer than 1,000 Students	1,000 to 5,000 Students	More than 5,000 Students	All SFAs
Cost of Foods to Meet the New Meal Requirements				
Mean	3.6	4.0	4.2	3.8
Median	4	4	5	4
Availability of Foods to Meet the New Meal Requirements				
Mean	3.0	3.1	3.4	3.1
Median	3	3	4	3
Needing Additional Staff or Labor Hours				
Mean	3.0	3.0	3.3	3.0
Median	3	3	3	3
Training of Staff				
Mean	3.0	3.0	3.4	3.0
Median	3	3	3	3
Needing to Offer Different Portion Sizes to Different Grade Groups				
Mean	2.9	3.1	3.4	3.0
Median	3	3	3	3
Needing Additional Equipment				
Mean	2.6	2.8	2.8	2.7
Median	2	3	3	3
Needing to Remodel or Upgrade Kitchens				
Mean	2.6	2.8	2.7	2.7
Median	2	3	2	3
Understanding the New Meal Requirements				
Mean	2.4	2.5	2.7	2.5
Median	2	3	3	3
Other[a]				
Mean	–	–	–	–
Median	–	–	–	–
Number of SFAs	**136**	**192**	**190**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Respondents rated challenges on a scale from 1 (not a challenge) to 5 (significant challenge).

[a]Thirty-seven respondents provided other responses. Of these, 15 noted issues related to the acceptability of meals to students. For example, 11 described a lack of student acceptance of new requirements related to sodium, whole grains, and/or taking fruit and vegetables. Four described increased plate waste and decreased participation in school meal programs.

– Sample size is too small to produce reliable estimate.

SFA = school food authority.

Table A.61. Challenges Faced in Fully Implementing or Maintaining Compliance with the New Meal Requirements, by District Child Poverty Rate

	District Child Poverty Rate (Percentage of Children in Poverty)		
	Lower (Less Than 20 Percent)	Higher (20 Percent or More)	All SFAs
Cost of Foods to Meet the New Meal Requirements			
Mean	3.8	3.9	3.8
Median	4	4	4
Availability of Foods to Meet the New Meal Requirements			
Mean	3.0	3.3	3.1
Median	3	3	3
Needing Additional Staff or Labor Hours			
Mean	3.0	3.1	3.0
Median	3	3	3
Training of Staff			
Mean	2.9	3.2	3.0
Median	3	3	3
Needing to Offer Different Portion Sizes to Different Grade Groups			
Mean	3.0	3.1	3.0
Median	3	3	3
Needing Additional Equipment			
Mean	2.5	2.9	2.7
Median	2	3	3
Needing to Remodel or Upgrade Kitchens			
Mean	2.5	2.9	2.7
Median	2	3	3
Understanding the New Meal Requirements			
Mean	2.4	2.6	2.5
Median	2	3	3
Other[a]			
Mean	–	–	–
Median	–	–	–
Number of SFAs	**295**	**223**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Respondents rated challenges on a scale from 1 (not a challenge) to 5 (significant challenge).

[a]Thirty-seven respondents provided other responses. Of these, 15 noted issues related to the acceptability of meals to students. For example, 11 described a lack of student acceptance of new requirements related to sodium, whole grains, and/or taking fruit and vegetables. Four described increased plate waste and decreased participation in school meal programs.

– Sample size is too small to produce reliable estimate.

SFA = school food authority.

Table A.62. Challenges Faced in Fully Implementing or Maintaining Compliance with the New Meal Requirements, by Urbanicity

	Urban SFAs	Suburban SFAs	Rural SFAs	All SFAs
Cost of Foods to Meet the New Meal Requirements				
Mean	3.0	3.9	4.0	3.8
Median	3	4	4	4
Availability of Foods to Meet the New Meal Requirements				
Mean	2.6	3.2	3.2	3.1
Median	2	3	3	3
Needing Additional Staff or Labor Hours				
Mean	2.6	3.1	3.1	3.0
Median	3	3	3	3
Training of Staff				
Mean	2.5	3.2	3.0	3.0
Median	2	3	3	3
Needing to Offer Different Portion Sizes to Different Grade Groups				
Mean	2.5	3.1	3.1	3.0
Median	2	3	3	3
Needing Additional Equipment				
Mean	2.4	2.7	2.8	2.7
Median	2	3	3	3
Needing to Remodel or Upgrade Kitchens				
Mean	2.1	2.7	2.8	2.7
Median	1	3	3	3
Understanding the New Meal Requirements				
Mean	2.0	2.6	2.5	2.5
Median	2	3	3	3
Other[a]				
Mean	–	–	–	–
Median	–	–	–	–
Number of SFAs	**93**	**247**	**178**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Respondents rated challenges on a scale from 1 (not a challenge) to 5 (significant challenge).

[a]Thirty-seven respondents provided other responses. Of these, 15 noted issues related to the acceptability of meals to students. For example, 11 described a lack of student acceptance of new requirements related to sodium, whole grains, and/or taking fruit and vegetables. Four described increased plate waste and decreased participation in school meal programs.

– Sample size is too small to produce reliable estimate.

SFA = school food authority.

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Table A.63. Types and Providers of Training and Technical Assistance Reported by SFA Directors

	Percentage of SFAs
SFAs Received Any Foodservice Operations Training or TA to Implement the New Meal Requirements Since School Year 2012-2013	75.6
Provider of Training or TA Topics, Among SFAs That Received Any Training or TA (n=378):[a]	
Menu Planning	
Received training or TA on this topic	94.5
Received training or TA on this topic from:	
State CN agency	78.4
FNS regional office	13.9
Private contractor	12.7
National Food Service Management Institute	7.4
Other	8.1
Food Safety	
Received training or TA on this topic	86.8
Received training or TA on this topic from:	
State CN agency	52.8
FNS regional office	14.8
Private contractor	23.4
National Food Service Management Institute	6.5
Other	24.3
Nutrition Education	
Received training or TA on this topic	83.7
Received training or TA on this topic from:	
State CN agency	73.4
FNS regional office	14.0
Private contractor	12.3
National Food Service Management Institute	11.6
Other	10.9
Food Production	
Received training or TA on this topic	80.3
Received training or TA on this topic from:	
State CN agency	69.1
FNS regional office	13.6
Private contractor	15.6
National Food Service Management Institute	7.7
Other	14.3
Food Serving	
Received training or TA on this topic	80.1
Received training or TA on this topic from:	
State CN agency	66.5
FNS regional office	15.0
Private contractor	15.1
National Food Service Management Institute	4.7
Other	15.2
Verifying Free/Reduced Meal Applications	
Received training or TA on this topic	78.9
Received training or TA on this topic from:	
State CN agency	80.1
FNS regional office	14.7
Private contractor	5.6
National Food Service Management Institute	2.0
Other	5.8

	Percentage of SFAs
Staff Training	
Received training or TA on this topic	75.3
Received training or TA on this topic from:	
State CN agency	46.2
FNS regional office	19.7
Private contractor	19.0
National Food Service Management Institute	6.0
Other	31.2
General Nutrition	
Received training or TA on this topic	74.0
Received training or TA on this topic from:	
State CN agency	63.5
FNS regional office	16.8
Private contractor	14.0
National Food Service Management Institute	7.7
Other	18.3
Cashiering/Point-of-Service	
Received training or TA on this topic	71.7
Received training or TA on this topic from:	
State CN agency	49.2
FNS regional office	10.1
Private contractor	26.2
National Food Service Management Institute	6.7
Other	20.3
Receiving and Storage	
Received training or TA on this topic	67.1
Received training or TA on this topic from:	
State CN agency	54.8
FNS regional office	13.9
Private contractor	20.3
National Food Service Management Institute	4.3
Other	23.4
Financial Management	
Received training or TA on this topic	64.6
Received training or TA on this topic from:	
State CN agency	61.5
FNS regional office	11.6
Private contractor	15.4
National Food Service Management Institute	10.1
Other	21.2
Food Purchasing	
Received training or TA on this topic	64.6
Received training or TA on this topic from:	
State CN agency	59.9
FNS regional office	12.3
Private contractor	18.4
National Food Service Management Institute	5.1
Other	22.1
Communications, Marketing, and/or Public Relations	
Received training or TA on this topic	54.1
Received training or TA on this topic from:	
State CN agency	53.6
FNS regional office	15.7
Private contractor	20.3
National Food Service Management Institute	7.1
Other	22.6

	Percentage of SFAs
Program and Human Resource Management	
Received training or TA on this topic	52.9
Received training or TA on this topic from:	
State CN agency	54.3
FNS regional office	9.9
Private contractor	20.9
National Food Service Management Institute	4.3
Other	24.9
Facilities and Equipment Planning	
Received training or TA on this topic	43.2
Received training or TA on this topic from:	
State CN agency	52.5
FNS regional office	13.4
Private contractor	24.2
National Food Service Management Institute	4.2
Other	22.2
Number of SFAs	**518**

Source: School Nutrition and Meal Cost Study School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: The National Food Service Management Institute is now the Institute of Child Nutrition.

[a]Multiple responses were allowed.

CN = child nutrition; FNS = Food and Nutrition Service; SFA = school food authority; TA = technical assistance.

Table A.64. Types and Providers of Training and Technical Assistance Reported by School Nutrition Managers

	Percentage of Schools			
	SFA Director or Other SFA Staff Provided Training	Someone Else Provided Training	Did Not Receive Training	Missing
Food Production	64.1	21.5	8.2	6.3
Food Serving	63.4	21.2	8.5	7.0
Staff Training	60.8	19.3	13.0	6.9
Cashiering/Point-of-Service	58.4	23.0	11.9	6.7
Food Safety	57.6	32.4	3.7	6.3
General Nutrition	57.5	22.1	12.8	7.6
Nutrition Education	57.4	24.5	11.5	6.6
Receiving and Storage	56.1	23.8	12.3	7.8
Menu Planning	53.3	21.0	19.3	6.3
Food Purchasing	49.5	17.5	25.6	7.5
Verifying Free/Reduced-Price Meal Applications	38.9	14.6	39.5	7.0
Communications, Marketing, and/or Public Relations	37.4	16.3	38.4	7.9
Financial Management	33.3	15.1	43.3	8.3
Facilities and Equipment Planning	33.9	13.4	44.6	8.1
Program and Human Resource Management	32.9	17.7	40.9	8.6
Other	5.1	1.3	15.7	n.a.
Number of Schools			**1,210**	

Source: School Nutrition and Meal Cost Study, School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

n.a. = not applicable; SFA = school food authority.

APPENDIX B

SUPPLEMENTAL PRICE ELASTICITY ANALYSES

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TABLES

B.1 Regression Model of Decision to Purchase a Paid School Lunch (Average Student Participation Rate)....B.6

B.2 Regression Model of Decision to Purchase a Paid School Breakfast (Average Student Participation Rate)....B.9

B.3 Price Elasticity of Paid Meal Participation Estimated Using SNDA-IV Models....B.14

B.4 Regression Model of Decision to Purchase a Paid School Lunch Estimated Using SNDA-IV Models (Average Student Participation Rate)....B.15

B.5 Regression Model of Decision to Purchase a Paid School Breakfast Estimated Using SNDA-IV Models (Average Student Participation Rate)....B.17

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This appendix presents detailed results for two separate price elasticity analyses: (1) the analyses conducted for SNMCS—summarized in Chapter 2—which estimated impacts on paid meal participation associated with a 10 cent increase in the price of a paid meal, and (2) analyses that replicated the price elasticity analyses conducted for SNDA-IV, which estimated impacts on paid meal participation associated with a 10 percent increase in the price of a paid meal.

A. Participation and Price Elasticity: Full Regression Results

Tables B.1 and B.2 present regression coefficients and standard errors for the full models used to estimate the price elasticities of paid meal participation. These analyses, which are summarized in Chapter 2, estimated changes in paid meal participation associated with a 10 cent increase in the price of a paid meal. This relationship was estimated among students not certified for free or reduced-price meal benefits. Separate models were estimated for NSLP and SBP participation, and for elementary schools, middle schools, high schools, and all schools combined. Among the key factors discussed in Chapter 2 that could influence a student's decision to purchase a paid meal, variables were excluded from the model for a school-level and meal-type if they had insufficient variation within the estimation sample, defined as an unweighted mean of less than 0.05 or more than 0.95 for binary and categorical variables. Additionally, if any two variables had a pairwise correlation of 0.7 or higher, the variable exhibiting the lower correlation with paid meal participation was excluded. Values were imputed for variables missing data for some observations. For binary and categorical variables, a separate categorical indicator was included for observations with a missing value.[1] Because less than 2 percent of any sample was missing values for a continuous variable, these values were imputed as the weighted mean among schools without missing values in the corresponding estimation sample.

[1] For brevity, coefficients for missing indicators are not reported in tables of regression results.

Table B.1. Regression Model of Decision to Purchase a Paid School Lunch (Average Student Participation Rate)

	Regression Coefficients (Standard Errors)			
	Elementary Schools	Middle Schools	High Schools	All Schools
Cost of Paid Lunch (10 Cent Units)	-0.625* (0.245)	-1.258*** (0.269)	-0.590 (0.439)	-0.743*** (0.217)
School Offered Competitive Foods During Mealtime	-9.525 (4.903)	-9.162 (7.890)	-34.62*** (8.558)	-9.313 (5.197)
School Had an Open Campus Policy	n.a. n.a.	n.a. n.a.	-7.888* (3.769)	-2.156 (4.798)
Students Were Allowed to Go Out to Recess Before the Official End of Their Lunch Period	4.870 (4.033)	-2.073 (4.983)	n.a. n.a.	0.858 (2.963)
Average Number of Minutes Students Spent in Line for School Meals	0.021 (0.308)	0.012 (0.315)	-0.007 (0.394)	0.144 (0.215)
Competitive Food Sources				
A la carte	6.346* (3.075)	-0.033 (5.222)	-0.808 (5.033)	3.760 (2.590)
Vending machines	5.815 (4.488)	2.961 (3.170)	2.521 (3.596)	4.510 (2.385)
Other competitive food sources	0.479 (3.074)	6.376* (2.803)	6.055 (4.146)	3.736 (1.930)
Healthy Food Choices				
Fried potato items were not offered	-1.667 (2.520)	3.068 (2.867)	-0.414 (3.393)	-0.100 (2.104)
SFA Offered Branded Foods Within the School Type	-13.25*** (3.071)	-5.892* (2.454)	-2.511 (2.808)	-8.155*** (1.777)
School Participated in the Fresh Fruit and Vegetable Program	1.666 (2.383)	n.a. n.a.	n.a. n.a.	2.298 (2.564)
School Used Offer-Versus-Serve at Lunch	6.089 (4.089)	n.a. n.a.	n.a. n.a.	3.899 (3.545)
School Used Cycle Menus	0.235 (3.348)	4.248 (4.057)	2.543 (4.152)	1.340 (2.380)
School Size				
Small (fewer than 500 students) (reference group)				
Medium (500 to 999 students)	-1.435 (2.417)	-1.329 (3.821)	-4.008 (4.384)	-1.306 (2.096)
Large (1,000 or more students)	†	-10.47** (3.911)	-10.66* (4.360)	-10.71*** (2.759)
Other School Characteristics				
Higher district child poverty rate	-3.711 (2.907)	-3.233 (5.062)	-4.024 (4.258)	-3.813 (2.505)
Meals prepared off site	-0.187 (2.906)	1.614 (3.395)	‡	-2.802 (2.517)
School Type				
Elementary school (reference group)				
Middle school	n.a.	n.a.	n.a.	-0.893 (2.278)
High school	n.a.	n.a.	n.a.	-6.742 (4.350)

	Regression Coefficients (Standard Errors)			
	Elementary Schools	Middle Schools	High Schools	All Schools
FNS Region				
Mid-Atlantic (reference group)				
Midwest	10.42**	2.349	1.789	5.244
	(3.714)	(3.317)	(4.023)	(2.980)
Southeast	4.699	3.089	-5.113	1.279
	(4.973)	(6.173)	(4.669)	(4.366)
Western	-6.493	-6.571	-8.059	-8.752**
	(3.519)	(3.794)	(5.365)	(2.977)
Southwest	4.111	-2.158	1.131	0.389
	(3.903)	(4.626)	(4.933)	(3.284)
Mountain Plains	17.33***	10.08	4.051	10.88*
	(5.152)	(6.508)	(7.213)	(4.391)
Northeast	8.184*	0.685	1.656	3.112
	(3.788)	(4.609)	(4.197)	(3.191)
Urbanicity				
School was in an urban area (reference group)				
School was in a suburban area	-1.407	-2.466	3.409	-0.047
	(2.808)	(3.387)	(3.667)	(2.224)
School was in a rural area	3.699	0.820	8.743	5.742*
	(3.919)	(4.561)	(4.873)	(2.837)
Percentage of Students Certified for Free Meals	0.218**	0.045	0.101	0.207**
	(0.070)	(0.132)	(0.097)	(0.065)
Percentage of Students Certified for Reduced-Price Meals	0.706	1.578***	0.097	0.732*
	(0.427)	(0.456)	(0.571)	(0.361)
Intercept	39.66***	64.53***	73.73***	46.92***
	(10.86)	(11.56)	(14.00)	(9.903)
Average Paid Price for an NSLP Meal	2.33	2.56	2.54	2.42
Average Paid Participation Rate for NSLP	45.0	41.1	31.1	41.3
Number of Schools	**242**	**213**	**199**	**654**

Source: School Nutrition and Meal Cost Study, A la Carte Checklist, Cafeteria Observation Guide, Daily Meal Counts Form, School Food Authority Director Survey, and School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Note: Paid meal participation is measured as the ratio of the average daily number of paid meals served to the number of students not approved for free or reduced–price meal benefits, multiplied by 100 to convert to percentages. Units of coefficient estimates are percentage points of paid meal participation.

Standard errors for means are in parentheses.

Means for paid meal prices differ slightly from Table 2.5 because the price elasticity analysis uses a more restricted sample than Table 2.5. The price elasticity analysis excluded schools without valid paid lunch participation data (63 schools).

Means for paid lunch participation rates also differ from those in Table 2.4 due to differences between the subset of schools included in the price elasticity analysis and the larger sample analyzed for lunch participation rates.

FNS = Food and Nutrition Service; n.a. = not applicable; NSLP = National School Lunch Program; SFA = school food authority.

† Indicators for schools with between 500 and 999 students, and schools with 1,000 or more students were combined into one indicator for elementary schools due to the small number of elementary schools in the latter category.

‡ Whether the school's meals were prepared off site was excluded for high schools because fewer than five percent of high schools met this condition.

Estimate is significantly different from zero at the *** 0.01 level, ** 0.05 level or * 0.10 level.

Table B.2. Regression Model of Decision to Purchase a Paid School Breakfast (Average Student Participation Rate)

	Regression Coefficients (Standard Errors)			
	Elementary Schools	Middle Schools	High Schools	All Schools
Cost of Paid Breakfast (10 Cent Units)	-0.217 (0.193)	-0.155 (0.123)	0.151 (0.128)	-0.158 (0.128)
School Offered Competitive Foods During Mealtime	-1.962 (1.820)	1.716 (2.484)	-5.214 (5.302)	-0.162 (1.925)
Average Number of Minutes Students Spent in Line for School Meals	-0.342 (0.181)	0.026 (0.079)	-0.556** (0.168)	-0.231 (0.138)
Competitive Food Sources				
A la carte	3.252* (1.535)	1.593 (1.443)	1.634 (4.243)	3.104* (1.421)
Vending machines	-4.120 (2.173)	1.503 (1.192)	2.317 (1.263)	0.011 (1.061)
Other competitive food sources	-3.115 (2.148)	-0.612 (1.381)	3.529* (1.601)	-0.582 (1.299)
Healthy Food Choices				
Fried potato items were not offered	0.170 (1.339)	-1.359 (0.949)	1.038 (1.341)	0.047 (0.982)
Cold cereal was offered every day	2.137 (1.298)	-0.987 (1.563)	-0.343 (1.332)	0.765 (1.000)
School Used “Grab and Go” Option at Breakfast	-0.637 (1.772)	3.787 (2.718)	0.396 (1.505)	0.302 (1.223)
SFA Offered Branded Foods Within the School Type	-0.166 (2.597)	-1.363 (1.205)	1.704 (1.247)	-0.030 (1.233)
School Participated in the Fresh Fruit and Vegetable Program	-1.751 (1.193)	n.a. n.a.	n.a. n.a.	-1.184 (1.277)
School Used Offer-Versus-Serve at Breakfast	2.040 (1.916)	0.972 (1.511)	-2.764 (5.095)	0.749 (1.894)
School Used Cycle Menus	-1.549 (1.658)	0.177 (1.160)	-1.488 (1.530)	-1.842 (1.266)
School Size				
Small (fewer than 500 students) (reference group)				
Medium (500 to 999 students)	-2.599 (1.332)	-1.889 (1.729)	-3.589* (1.398)	-2.264* (0.998)
Large (1,000 or more students)	†	-0.698 (1.810)	-3.283* (1.555)	-2.385 (1.290)
Other School Characteristics				
Higher district child poverty rate	-3.373* (1.599)	0.173 (1.751)	-0.071 (1.869)	-2.319 (1.323)
Meals prepared off site	1.507 (2.454)	-1.487 (1.723)	‡	0.383 (2.170)
School Type				
Elementary school (reference group)				
Middle school	n.a.	n.a.	n.a.	-3.536*** (0.939)
High school	n.a.	n.a.	n.a.	-3.113* (1.254)

	Regression Coefficients (Standard Errors)			
	Elementary Schools	Middle Schools	High Schools	All Schools
FNS Region				
Mid-Atlantic (reference group)				
Midwest	-4.304 (3.689)	-0.832 (1.625)	-0.069 (1.645)	-3.480 (2.640)
Southeast	0.042 (2.719)	-0.483 (1.822)	1.641 (1.786)	-0.092 (2.261)
Western	-10.60* (4.989)	2.272 (2.116)	2.060 (2.017)	-5.182 (3.649)
Southwest	-0.765 (3.966)	4.555** (1.520)	4.598 (2.355)	0.604 (3.023)
Mountain Plains	-2.560 (3.880)	0.890 (2.011)	5.215 (2.910)	-0.330 (2.867)
Northeast	-4.915 (3.585)	-1.074 (1.131)	-0.408 (1.936)	-3.230 (2.820)
Urbanicity				
School was in an urban area (reference group)				
School was in a suburban area	-1.532 (2.117)	0.394 (1.048)	-0.399 (2.706)	-1.184 (1.728)
School was in a rural area	0.0407 (2.363)	1.370 (1.346)	1.758 (3.162)	0.470 (1.848)
Percentage of Students Certified for Free Meals	0.218*** (0.039)	0.076* (0.037)	-0.010 (0.069)	0.155*** (0.033)
Percentage of Students Certified for Reduced-Price Meals	0.856*** (0.250)	0.099 (0.197)	1.016* (0.439)	0.708** (0.224)
Intercept	3.961 (5.363)	-0.553 (4.080)	2.114 (6.671)	3.722 (4.174)
Average Paid Price for an SBP Meal	1.38	1.47	1.48	1.42
Average Paid Participation Rate for SBP	10.0	5.3	6.3	8.2
Number of Schools	**201**	**169**	**180**	**550**

Source: School Nutrition and Meal Cost Study, A la Carte Checklist, Cafeteria Observation Guide, Daily Meal Counts Form, School Food Authority Director Survey, and School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Note: Paid meal participation is measured as the ratio of the average daily number of paid meals served to the number of students not approved for free or reduced–price meal benefits, multiplied by 100 to convert to percentages. Units of coefficient estimates are percentage points of paid meal participation.

Standard errors for means are in parentheses.

Means for paid meal prices differ slightly from Table 2.6 because the price elasticity analysis uses a more restricted sample than Table 2.6. The price elasticity analysis excluded schools without valid paid breakfast participation data (43 schools).

Means for paid breakfast participation rates also differ from those in Table 2.4 due to differences between the subset of schools included in the price elasticity analysis and the larger sample analyzed for breakfast participation rates.

FNS = Food and Nutrition Service; n.a. = not applicable; SBP = School Breakfast Program; SFA = school food authority.

† Indicators for schools with between 500 and 999 students, and schools with 1,000 or more students were combined into one indicator for elementary schools due to the small number of elementary schools in the latter category.

‡ Whether the school's meals were prepared off site was excluded for high schools because fewer than five percent of high schools met this condition.

Estimate is significantly different from zero at the *** 0.01 level, ** 0.05 level or * 0.10 level.

B. Results from the SNDA-IV Models

To provide insight into how price elasticities of paid meals compare between the SNMCS and SNDA-IV samples, the study team replicated the approach used in SNDA-IV to estimate the price elasticity of paid meal participation among the schools sampled for the SNMCS. Specifically, this analysis estimated the change in a school's paid participation rate that would be expected to occur with a 10 percent increase in the price of a paid meal. Separate analyses were done for lunch and breakfast and for elementary, middle, and high schools. These multivariate models included the following set of factors, used in the SNDA-IV analysis, which could affect a student's decision to purchase a paid meal:

- **The availability of competitive food sources:**
  - Whether the school had foods available for purchase on an a la carte basis in the cafeteria
  - Whether the school had vending machines
  - Whether the school had other alternative food sources, such as a school store, that sold foods and beverages and/or a snack bar
- **Indicators of the healthfulness of school meals that have previously been associated with students' participation decisions (Dragoset and Gordon 2010)[2]:**
  - Whether French fries or other fried potato items were served
  - Whether cold cereal was offered every day
- **Key school-level characteristics:**
  - Whether meals were prepared off site
  - Whether the school had a high proportion of students in poverty
  - School size
  - FNS region

Price Elasticity of Paid Meal Participation. As with the findings in the main SNMCS price elasticity analysis, the results using the SNDA-IV model indicate that the price elasticity of paid meal participation varies for the NSLP and the SBP. For the NSLP, a 10 percent increase in the price of a paid lunch was associated with a decline of 2.1 percentage points in the rate of paid meal participation (Table B.3).[3] This estimate is similar but slightly larger than the 1.5 percentage point decrease found in SNDA-IV (Fox et al. 2012). The relationship between paid meal price and participation in the NSLP was consistent and statistically significant for all three school types. The decline in paid meal participation associated with a 10 percent increase in price

[2] The SNDA-IV analysis also included an indicator of whether the school offered only low-fat and skim/nonfat varieties of milk. This indicator was not used in the SNMCS analysis because there was insufficient variation; over 95 percent of each school type met this condition.

[3] Full results for these regression models are shown in Tables B.4 and B.5.

ranged from 1.5 percentage points for elementary schools to 4.2 percentage points for middle schools.

For the SBP, the association between paid meal price and participation was statistically significant overall, and for elementary schools. A 10 percent increase in the price of a paid breakfast was associated with a decline in paid meal participation of 0.9 percentage points in elementary schools, and a decline of 0.6 percentage points for schools overall (Table B.3). This result is nearly identical to that of SNDA-IV, which found a statistically significant decline of 0.5 percentage points in the rate of paid breakfast participation across all school types (Fox et al. 2012).

One noticeable difference between these results and the SNDA-IV results is that the SNDA-IV analysis found that price elasticities of paid NSLP lunches in middle and high schools were much greater than in elementary schools. In the SNMCS sample, the NSLP price elasticity for high schools is less than half the size of the estimate for middle schools, and closer to that of elementary schools. This pattern also holds true for the results from the more comprehensive SNMCS price elasticity model presented in Chapter 2. The two SNMCS results are suggestive evidence that the association between NSLP participation and paid lunch prices in high schools has decreased over time, possibly due to a decrease in the availability of NSLP meal substitutes from vending machines.[4] Of course, it is possible that other factors not accounted for in the model were associated with both paid meal prices and paid meal participation rates. Therefore, these results are best interpreted as associations, not causal relationships.

[4] The percentage of high schools in which students had access to vending machines decreased from 84.8 percent in SNDA-IV to 70.5 percent in the SNMCS. The availability of a la carte and other sources of competitive foods was similar in the two studies.

Table B.3. Price Elasticity of Paid Meal Participation Estimated Using SNDA-IV Models

	Estimated Change in Percentage of Paid Meal Participation Associated with a 10 Percent Increase in Meal Price			
	Elementary Schools	Middle Schools	High Schools	All Schools
National School Lunch Program				
Change in percentage of non-certified students participating in the NSLP, per 10 percent increase in paid meal price	-1.5* (0.6)	-4.2*** (0.6)	-1.6 (1.2)	-2.1*** (0.6)
Mean percentage of non-certified students participating in the NSLP	45.0 (1.5)	41.1 (1.7)	31.1 (1.8)	41.3 (1.3)
Mean price of paid NSLP meals	2.33 (0.04)	2.56 (0.04)	2.54 (0.04)	2.42 (0.03)
Number of Schools	**242**	**213**	**199**	**654**
School Breakfast Program				
Change in percentage of non-certified students participating in the SBP, per 10 percent increase in paid meal price	-0.9** (0.4)	-0.3 (0.2)	0.1 (0.2)	-0.6* (0.3)
Mean percentage of non-certified students participating in the SBP	10.0 (0.8)	5.3 (0.6)	6.3 (1.1)	8.2 (0.6)
Mean price of paid SBP meals	1.38 (0.03)	1.47 (0.03)	1.48 (0.03)	1.42 (0.03)
Number of Schools	**201**	**169**	**180**	**550**

Source: School Nutrition and Meal Cost Study, A la Carte Checklist, Cafeteria Observation Guide, Daily Meal Counts Form, School Food Authority Director Survey, and School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Note: Paid meal participation is measured as the ratio of the average daily number of paid meals served to the number of students not approved for free or reduced–price meal benefits, multiplied by 100 to convert to percentages. Units of price elasticity estimates are percentage points of paid meal participation per 10 percent increase in the price of a paid meal.

Standard errors for means are in parentheses.

Means for paid meal prices differ slightly from Tables 2.5 and 2.6 because the price elasticity analysis additionally restricts the samples from those meal price tables to exclude schools without valid paid meal participation data (63 for NSLP; 43 for SBP). Means for paid meal participation rates also differ from those in Table 2.4 due to differences between the subset of schools included in the price elasticity sample and the larger sample analyzed for meal participation rates.

NSLP = National School Lunch Program; SBP = School Breakfast Program; SNDA = School Nutrition Dietary Assessment Study.

Estimate is significantly different from zero at the *** 0.01 level, ** 0.05 level or * 0.10 level.

Table B.4. Regression Model of Decision to Purchase a Paid School Lunch Estimated Using SNDA-IV Models (Average Student Participation Rate)

	Regression Coefficients (Standard Errors)			
	Elementary Schools	Middle Schools	High Schools	All Schools
Natural Log of the Cost of a Paid Lunch	-14.84*	-41.60***	-16.24	-20.66***
	(6.336)	(6.311)	(11.79)	(5.719)
Competitive Food Sources				
A la carte	3.499	-3.162	-10.44	1.801
	(2.927)	(3.901)	(5.758)	(2.567)
Vending machines	9.347	1.803	2.356	4.890
	(5.407)	(3.271)	(4.312)	(2.744)
Other competitive food sources	1.086	6.181*	6.445	4.374
	(3.327)	(2.743)	(3.925)	(2.370)
Healthy Food Choices				
Fried potato items were not offered	-2.299	2.799	1.580	0.185
	(2.716)	(3.278)	(3.562)	(2.249)
Cold cereal was offered every day	-0.795	-3.902	4.498	-0.570
	(2.532)	(2.303)	(4.325)	(1.987)
School Size				
Small (fewer than 500 students) (reference group)				
Medium (500 to 999 students)	-2.818	-6.031	-6.653	-3.452
	(2.773)	(4.134)	(4.862)	(2.263)
Large (1,000 or more students)	†	-14.51**	-20.13***	-15.64***
		(4.441)	(4.595)	(3.144)
Other School Characteristics				
Higher district child poverty rate	3.465	-2.304	-2.431	0.727
	(3.083)	(3.451)	(3.655)	(2.531)
Meals prepared off site	-2.349	0.980	‡	-3.621
	(3.709)	(2.854)		(3.006)
School Type				
Elementary school (reference group)				
Middle school	n.a.	n.a.	n.a.	-2.607
	n.a.	n.a.	n.a.	(2.266)
High school	n.a.	n.a.	n.a.	-12.40***
	n.a.	n.a.	n.a.	(3.335)
FNS Region				
Mid-Atlantic (reference group)				
Midwest	9.318*	1.690	-0.824	4.919
	(4.204)	(3.477)	(3.490)	(3.294)
Southeast	6.203	3.193	-0.840	3.528
	(5.145)	(6.217)	(4.674)	(4.618)
Western	-0.980	-5.551	-11.83*	-5.685
	(3.681)	(3.224)	(4.860)	(3.110)
Southwest	9.168*	2.930	-1.051	4.388
	(4.417)	(5.135)	(4.537)	(3.550)
Mountain Plains	22.87***	13.20	-2.017	14.09**
	(5.312)	(6.793)	(7.190)	(4.757)
Northeast	7.659	0.781	-1.392	3.107
	(6.135)	(5.077)	(4.071)	(4.752)

	Regression Coefficients (Standard Errors)			
	Elementary Schools	Middle Schools	High Schools	All Schools
Intercept	47.80*** (7.564)	86.47*** (9.838)	62.28*** (12.36)	58.96*** (6.663)
Number of Schools	**242**	**213**	**199**	**654**

Source: School Nutrition and Meal Cost Study, A la Carte Checklist, Cafeteria Observation Guide, Daily Meal Counts Form, School Food Authority Director Survey, and School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Note: Paid meal participation is measured as the ratio of the average daily number of paid meals served to the number of students not approved for free or reduced–price meal benefits, multiplied by 100 to convert to percentages. Units of coefficient estimates are percentage points of paid meal.

Standard errors for means are in parentheses.

The NSLP price elasticity analysis includes the paid lunch price sample of 717 schools, less 63 schools that did not have valid paid lunch participation data.

FNS = Food and Nutrition Service; n.a. = not applicable; SNDA= School Nutrition Dietary Assessment Study.

† Indicators for schools with between 500 and 999 students, and schools with 1,000 or more students were combined into one indicator for elementary schools due to the small number of elementary schools in the latter category.

‡ Whether the schools meals were prepared off site was excluded for high schools because fewer than five percent of high schools met this condition.

Estimate is significantly different from zero at the *** 0.01 level, ** 0.05 level or * 0.10 level.

Table B.5. Regression Model of Decision to Purchase a Paid School Breakfast Estimated Using SNDA-IV Models (Average Student Participation Rate)

	Regression Coefficients (Standard Errors)			
	Elementary Schools	Middle Schools	High Schools	All Schools
Natural Log of the Cost of a Paid Breakfast	-9.352**	-2.716	0.662	-5.539*
	(3.592)	(2.052)	(2.450)	(2.609)
Competitive Food Sources				
A la carte	2.067	1.870	1.126	2.483
	(1.585)	(1.762)	(4.265)	(1.394)
Vending machines	0.170	1.576	3.095*	1.208
	(2.052)	(1.384)	(1.499)	(1.074)
Other competitive food sources	0.366	0.227	5.660	1.756
	(2.141)	(1.096)	(3.220)	(1.753)
Healthy Food Choices				
Fried potato items were not offered	1.345	-1.828	2.522	0.757
	(1.786)	(0.968)	(1.408)	(1.168)
Cold cereal was offered every day	1.047	-1.089	0.085	0.232
	(1.560)	(1.708)	(1.882)	(1.200)
School Size				
Small (fewer than 500 students) (reference group)				
Medium (500 to 999 students)	-4.867**	-2.814	-5.468**	-4.312**
	(1.802)	(1.710)	(1.757)	(1.299)
Large (1,000 or more students)	†	-2.052	-7.302**	-6.449***
		(1.667)	(2.056)	(1.609)
Other School Characteristics				
Higher district child poverty rate	0.671	1.719	-0.258	0.428
	(1.704)	(1.654)	(1.388)	(1.207)
Meals prepared off site	3.136	-0.912	‡	0.792
	(3.223)	(1.356)		(2.648)
School Type				
Elementary school (reference group)				
Middle school	n.a.	n.a.	n.a.	-3.649***
	n.a.	n.a.	n.a.	(1.010)
High school	n.a.	n.a.	n.a.	-2.867*
	n.a.	n.a.	n.a.	(1.312)
FNS Region				
Mid-Atlantic (reference group)				
Midwest	-4.707	-0.635	0.457	-3.190
	(4.365)	(1.592)	(1.472)	(2.834)
Southeast	0.105	-0.169	1.960	0.113
	(3.515)	(1.984)	(1.685)	(2.616)
Western	-6.750	2.304	4.172*	-1.940
	(5.259)	(1.742)	(1.991)	(3.540)
Southwest	0.375	5.318**	6.794**	2.299
	(4.531)	(1.904)	(2.284)	(3.272)
Mountain Plains	-0.422	0.720	6.881	1.219
	(4.731)	(2.105)	(4.637)	(3.414)
Northeast	-1.993	-1.198	0.499	-1.429
	(4.769)	(1.110)	(1.692)	(3.238)

	Regression Coefficients (Standard Errors)			
	Elementary Schools	Middle Schools	High Schools	All Schools
Intercept	13.63** (4.618)	5.089* (2.282)	1.302 (5.276)	11.11** (3.361)
Number of Schools	**201**	**169**	**180**	**550**

Source: School Nutrition and Meal Cost Study, A la Carte Checklist, Cafeteria Observation Guide, Daily Meal Counts Form, School Food Authority Director Survey, and School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Note: Paid meal participation is measured as the ratio of the average daily number of paid meals served to the number of students not approved for free or reduced–price meal benefits, multiplied by 100 to convert to percentages. Units of coefficient estimates are percentage points of paid meal participation.

Standard errors for means are in parentheses.

The SBP price elasticity analysis includes the paid breakfast price sample of 593 schools, less 43 schools that did not have valid paid breakfast participation data.

FNS = Food and Nutrition Service; n.a. = not applicable; SNDA = School Nutrition Dietary Assessment Study.

† Indicators for schools with between 500 and 999 students, and schools with 1,000 or more students were combined into one indicator for elementary schools due to the small number of elementary schools in the latter category.

‡ Whether the schools meals were prepared off site was excluded for high schools because fewer than five percent of high schools met this condition.

Estimate is significantly different from zero at the *** 0.01 level, ** 0.05 level or * 0.10 level.

APPENDIX C

CHAPTER 3 SUPPLEMENTAL TABLES

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TABLES PAGE

1 Local Wellness Policies....C.5

C.1 Presence of District Wellness Policies and Designated Wellness Coordinators....C.7

C.2 School Wellness Policies Implemented in Addition to District Wellness Policy....C.8

C.3 Presence and Characteristics of Designated Wellness Coordinator Positions Among Schools with a Wellness Policy....C.11

C.4 Stakeholders Consulted During Development of Local Wellness Policies....C.12

C.5 Stakeholders Consulted During Development of Local Wellness Policies, by SFA Size....C.13

C.6 Stakeholders Consulted During Development of Local Wellness Policies, by District Child Poverty Rate....C.14

C.7 Stakeholders Consulted During Development of Local Wellness Policies, by Urbanicity....C.15

C.8 District Wellness Policy Evaluation Practices and Findings....C.16

C.9 District Wellness Policy Evaluation Practices and Findings, by SFA Size....C.17

C.10 District Wellness Policy Evaluation Practices and Findings, by District Child Poverty Rate....C.18

C.11 District Wellness Policy Evaluation Practices and Findings, by Urbanicity....C.19

C.12 Nutrition Standards in Local Wellness Policies: School Meals and Foods Available in Other Settings, by SFA Size....C.21

C.13 Nutrition Standards in Local Wellness Policies: School Meals and Foods Available in Other Settings, by District Child Poverty Rate....C.23

C.14 Nutrition Standards in Local Wellness Policies: School Meals and Foods Available in Other Settings, by Urbanicity....C.25

C.15 Nutrition Standards for Competitive Foods that Exceeded New Federal Requirements that Went into Effect in SY 2014-2015....C.27

C.16 Nutrition Standards for Competitive Foods that Exceeded New Federal Requirements that Went into Effect in SY 2014-2015, by SFA Size....C.28

C.17 Nutrition Standards for Competitive Foods that Exceeded New Federal Requirements that Went into Effect in SY 2014-2015, by District Child Poverty Rate....C.29

C.18 Nutrition Standards for Competitive Foods that Exceeded New Federal Requirements that Went into Effect in SY 2014-2015, by Urbanicity....C.30

C.19 Nutrition Standards in Local Wellness Policies: Celebrations and Meetings, by SFA Size....C.31

C.20 Nutrition Standards in Local Wellness Policies: Celebrations and Meetings, by District Child Poverty Rate C.33

C.21 Nutrition Standards in Local Wellness Policies: Celebrations and Meetings, by Urbanicity C.34

2 Nutrition Outreach and Promotion Practices C.37

C.22 Nutrition Outreach and Promotion Activities Used by SFA Staff, by SFA Size C.39

C.23 Nutrition Outreach and Promotion Activities Used by SFA Staff, by District Child Poverty Rate C.40

C.24 Nutrition Outreach and Promotion Activities Used by SFA Staff, by Urbanicity C.41

C.25 Farm to School Program Participation and Classroom-Based Nutrition Education C.42

C.26 Team Nutrition Participation and Activities C.43

C.27 Communication Channels Used to Promote Reimbursable Meals C.44

C.28 School Participation in Nutrition/Wellness Initiatives C.45

3 Competitive Foods C.47

C.29 School Store Availability and Policies C.49

C.30 Snack Bar, Food Cart, and Kiosk Availability and Policies C.50

C.31 District Pouring Rights Contracts C.51

C.32 Foods and Beverages Offered by Schools for A la Carte Purchase at Lunch C.53

C.33 Foods and Beverages Offered by Schools for A la Carte Purchase at Breakfast C.55

C.34 Availability of and Pricing Practices for Reimbursable Meal Components Sold A la Carte, by SFA Size C.57

C.35 Availability of and Pricing Practices for Reimbursable Meal Components Sold A la Carte, by District Child Poverty Rate C.59

C.36 Availability of and Pricing Practices for Reimbursable Meal Components Sold A la Carte, by Urbanicity C.61

C.37 Pricing Practices for A la Carte Foods C.63

C.38 Foods and Beverages Offered in Vending Machines C.65

1. Local Wellness Policies

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Table C.1. Presence of District Wellness Policies and Designated Wellness Coordinators

	Percentage of SFAs
District Has a Wellness Policy	99.4
Among SFAs with District Wellness Policy (n=515):	
District Has a Wellness Coordinator	82.8
District Does Not Have a Designated Wellness Coordinator	13.3
Missing	3.8
Among SFAs with District Wellness Coordinator (n=415):	
Other Positions Held by Designated Wellness Coordinator[a]	
District administrator	38.9
School administrator	19.3
School nurse	21.3
Foodservice staff	15.6
Health, physical education, or nutrition teacher	10.5
Coach or athletic director	2.7
Other teacher	3.4
Other nutrition professional	2.3
Other	6.0
Designated wellness coordinator does not have another job in the district	2.3
Number of SFAs	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

[a]Multiple responses were allowed.

SFA = school food authority.

Table C.2. School Wellness Policies Implemented in Addition to District Wellness Policy

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
School Has Wellness Policy in Addition to District Wellness Policy				
Yes	21.7	21.5	24.1	22.2
No	64.8	55.2	60.6	62.2
Don't know	13.1	22.9	14.9	15.2
Missing	0.5	0.5	0.3	0.5
Among Schools with Wellness Policies in Addition to District Wellness Policy (n=222):				
Physical Education				
Addressed in policy and fully implemented	89.4	92.1	87.1	89.3
Addressed in policy and partially implemented	4.1	2.2	5.3	4.1
Still being planned	2.3	0.0	0.9	1.5
Not addressed in policy	0.9	0.1	0.8	0.8
Don't know	3.3	5.6	5.4	4.2
Missing	0.0	0.0	0.6	0.1
Minimum Amount of Time for Students to Eat Lunch[a]				
Addressed in policy and fully implemented	77.4	73.7	77.9	76.9
Addressed in policy and partially implemented	7.9	6.0	4.9	6.9
Still being planned	1.8	1.6	1.6	1.7
Not addressed in policy	6.8	10.7	3.9	6.8
Don't know	6.1	8.0	11.2	7.6
Missing	0.0	0.0	0.6	0.1
Access to Competitive Foods During School Hours[a]				
Addressed in policy and fully implemented	57.2	57.2	55.4	56.8
Addressed in policy and partially implemented	3.6	20.1	10.9	8.2
Still being planned	10.4	2.3	13.5	9.7
Not addressed in policy	18.1	14.5	8.8	15.2
Don't know	9.8	5.9	10.9	9.4
Missing	1.0	0.0	0.6	0.7
Nutrition Guidelines for Foods Sold Outside of School Meals				
Addressed in policy and fully implemented	53.5	55.2	45.3	51.8
Addressed in policy and partially implemented	18.5	23.9	24.0	20.8
Still being planned	7.3	2.2	3.8	5.6
Not addressed in policy	12.4	10.5	10.8	11.7
Don't know	8.3	8.3	15.5	10.0
Missing	0.0	0.0	0.6	0.1
Nutrition Education				
Addressed in policy and fully implemented	44.9	55.9	60.9	50.6
Addressed in policy and partially implemented	38.7	26.2	26.2	33.5
Still being planned	7.6	7.3	3.7	6.6
Not addressed in policy	1.9	2.5	3.3	2.3
Don't know	7.0	8.2	5.4	6.8
Missing	0.0	0.0	0.6	0.1

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Daily Physical Activity Outside of PE[a]				
Addressed in policy and fully implemented	65.4	25.8	32.0	50.5
Addressed in policy and partially implemented	14.4	43.0	23.5	21.6
Still being planned	3.1	2.7	3.9	3.3
Not addressed in policy	13.4	15.2	23.0	16.0
Don't know	3.7	13.4	17.0	8.6
Missing	0.0	0.0	0.6	0.1
Nutrition Promotion				
Addressed in policy and fully implemented	44.6	45.3	50.5	46.1
Addressed in policy and partially implemented	34.2	37.4	32.4	34.4
Still being planned	8.7	4.4	6.0	7.3
Not addressed in policy	3.2	2.4	4.0	3.3
Don't know	9.2	10.5	6.5	8.8
Missing	0.0	0.0	0.6	0.1
Restrictions on the Use of Food or Food Coupons as Student Rewards[a]				
Addressed in policy and fully implemented	41.3	40.8	41.4	41.2
Addressed in policy and partially implemented	14.2	22.7	12.3	15.2
Still being planned	8.7	2.4	3.8	6.4
Not addressed in policy	22.1	17.0	20.4	20.8
Don't know	13.7	17.1	21.6	16.2
Missing	0.0	0.0	0.6	0.1
Staff Wellness Program[a]				
Addressed in policy and fully implemented	38.2	33.8	37.8	37.4
Addressed in policy and partially implemented	19.8	17.5	23.0	20.2
Still being planned	21.9	15.9	10.2	18.0
Not addressed in policy	11.0	24.9	15.5	14.5
Don't know	9.0	7.9	13.0	9.8
Missing	0.0	0.0	0.6	0.1
Parent Involvement				
Addressed in policy and fully implemented	29.8	42.5	20.9	29.9
Addressed in policy and partially implemented	33.2	25.0	32.7	31.6
Still being planned	20.6	10.3	17.0	17.9
Not addressed in policy	8.5	13.4	8.0	9.2
Don't know	8.0	8.6	20.8	11.2
Missing	0.0	0.0	0.6	0.1
Plan for Measuring Implementation				
Addressed in policy and fully implemented	27.6	37.8	21.0	27.8
Addressed in policy and partially implemented	23.0	23.9	35.2	26.0
Still being planned	28.9	11.6	14.6	22.5
Not addressed in policy	8.3	10.1	3.3	7.4
Don't know	12.3	16.7	25.3	16.1
Missing	0.0	0.0	0.6	0.1
Plan for Describing Progress				
Addressed in policy and fully implemented	25.0	43.8	23.4	27.9
Addressed in policy and partially implemented	17.2	16.7	35.8	21.6
Still being planned	33.4	9.2	12.4	24.2

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Not addressed in policy	11.2	12.3	3.3	9.5
Don't know	13.2	18.1	24.5	16.8
Missing	0.0	0.0	0.6	0.1
Community Involvement				
Addressed in policy and fully implemented	27.2	30.6	19.8	26.0
Addressed in policy and partially implemented	33.8	39.7	30.0	33.9
Still being planned	15.9	8.8	13.9	14.2
Not addressed in policy	12.8	12.0	15.0	13.1
Don't know	10.4	8.9	20.8	12.6
Missing	0.0	0.0	0.6	0.1
Plan for Informing the Public About Wellness Policy Content and Implementation				
Addressed in policy and fully implemented	26.0	24.4	22.7	24.9
Addressed in policy and partially implemented	14.7	25.7	28.1	19.9
Still being planned	31.9	22.7	12.2	25.6
Not addressed in policy	11.8	12.7	11.0	11.7
Don't know	15.6	14.5	25.5	17.8
Missing	0.0	0.0	0.6	0.1
Number of Schools	**413**	**339**	**338**	**1,090**

Source: School Nutrition and Meal Cost Study, Principal Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Note: Districts are required to have a local school wellness policy.

[a]Not explicitly required under the Healthy, Hunger-Free Kids Act of 2010.

Table C.3. Presence and Characteristics of Designated Wellness Coordinator Positions Among Schools with a Wellness Policy

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
School Has a Designated Wellness Coordinator	65.6	80.5	80.0	71.6
School Staff Participate in District Wellness Committee	59.3	73.0	73.8	65.1
Among Schools with a Designated Wellness Coordinator (n=159):				
Coordinator Has Another Job in the School	–	–	94.5	97.2
Coordinator Is a Paid Position	–	–	45.3	32.3
Among Schools Where Wellness Coordinator Has Another Job in the School (n=151):				
Other Positions Held[a]				
School nurse	–	–	–	23.8
Health, physical education, or nutrition teacher	–	–	–	23.2
School administrator	–	–	–	19.2
Other teacher	–	–	–	16.9
Foodservice staff	–	–	–	8.2
Coach or athletic director	–	–	–	1.0
Other nutrition professional	–	–	–	0.9
Other	–	–	–	6.9
Number of Schools	**83**	**69**	**70**	**222**

Source: School Nutrition and Meal Cost Study, Principal Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Note: Estimates are based on schools with a wellness policy in addition to the district wellness policy.

[a]Multiple responses were allowed.

– Sample size is too small to produce reliable estimate.

Table C.4. Stakeholders Consulted During Development of Local Wellness Policies

	Percentage of SFAs
Stakeholders Consulted When Developing the Local Wellness Policy	
SFA director	76.7
Superintendent or other district staff	74.1
School principals or other administrative staff	72.6
School nurse or other school health professionals	66.8
Physical education or health teachers	59.5
Parents	54.5
School board members	50.8
School foodservice staff	44.0
Students	41.3
Other teachers	40.6
Other community members	23.5
Student nutrition advisory council	18.6
Dietitian or nutritionist	16.6
Community nutrition advisory council	15.4
Other	0.7
No stakeholders consulted	0.0
Number of SFAs	**515**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Results include only SFAs that reported the district has a local wellness policy. Multiple responses were allowed.

SFA = school food authority.

Table C.5. Stakeholders Consulted During Development of Local Wellness Policies, by SFA Size

	SFA Size			
	Fewer than 1,000 Students	1,000 to 5,000 Students	More than 5,000 Students	All SFAs
	Percentage of SFAs			
Stakeholders Consulted When Developing the Local Wellness Policy				
SFA director	68.0	83.2	90.9	76.7
Superintendent or other district staff	70.1	80.1	72.2	74.1
School principals or other administrative staff	69.7	75.1	76.7	72.6
School nurse or other school health professionals	56.8	76.3	77.4	66.8
Physical education or health teachers	59.1	57.9	65.8	59.5
Parents	46.7	60.0	68.2	54.5
School board members	47.5	54.3	53.8	50.8
School foodservice staff	41.7	44.9	50.3	44.0
Students	33.5	51.7	41.3	41.3
Other teachers	43.1	37.1	41.4	40.6
Other community members	19.9	24.1	35.1	23.5
Student nutrition advisory council	14.1	20.7	29.8	18.6
Dietitian or nutritionist	6.8	18.5	47.9	16.6
Community nutrition advisory council	13.2	12.5	31.9	15.4
Other	0.0	1.4	1.5	0.7
No stakeholders consulted	0.0	0.0	0.0	0.0
Number of SFAs	**134**	**192**	**189**	**515**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Results include only SFAs that reported the district has a local wellness policy. Multiple responses were allowed.

SFA = school food authority.

Table C.6. Stakeholders Consulted During Development of Local Wellness Policies, by District Child Poverty Rate

	District Child Poverty Rate (Percentage of Children in Poverty)		
	Lower (Less Than 20 Percent)	Higher (20 Percent or More)	All SFAs
	Percentage of SFAs		
Stakeholders Consulted When Developing the Local Wellness Policy			
SFA director	74.9	79.1	76.7
Superintendent or other district staff	72.0	77.1	74.1
School principals or other administrative staff	73.8	71.0	72.6
School nurse or other school health professionals	68.1	64.8	66.8
Physical education or health teachers	59.5	59.6	59.5
Parents	54.7	54.3	54.5
School board members	49.3	53.0	50.8
School foodservice staff	43.3	45.0	44.0
Students	35.5	49.6	41.3
Other teachers	35.6	47.8	40.6
Other community members	24.5	22.1	23.5
Student nutrition advisory council	16.4	21.7	18.6
Dietitian or nutritionist	16.4	16.9	16.6
Community nutrition advisory council	13.8	17.6	15.4
Other	1.0	0.3	0.7
No stakeholders consulted	0.0	0.0	0.0
Number of SFAs	**293**	**222**	**515**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Results include only SFAs that reported the district has a local wellness policy. Multiple responses were allowed.

SFA = school food authority.

Table C.7. Stakeholders Consulted During Development of Local Wellness Policies, by Urbanicity

	Urban SFAs	Suburban SFAs	Rural SFAs	All SFAs
	Percentage of SFAs			
Stakeholders Consulted When Developing the Local Wellness Policy				
SFA director	79.1	77.0	75.7	76.7
Superintendent or other district staff	68.2	74.0	75.8	74.1
School principals or other administrative staff	82.8	74.0	69.0	72.6
School nurse or other school health professionals	61.1	61.3	72.3	66.8
Physical education or health teachers	54.7	60.0	60.4	59.5
Parents	56.1	63.9	47.1	54.5
School board members	52.1	54.5	47.7	50.8
School foodservice staff	54.7	45.0	40.5	44.0
Students	34.4	46.7	39.1	41.3
Other teachers	33.4	37.7	44.7	40.6
Other community members	32.3	22.9	21.6	23.5
Student nutrition advisory council	21.4	22.6	14.8	18.6
Dietitian or nutritionist	32.3	22.0	8.4	16.6
Community nutrition advisory council	21.7	20.6	9.8	15.4
Other	0.3	0.5	1.0	0.7
No stakeholders consulted	0.0	0.0	0.0	0.0
Number of SFAs	**92**	**246**	**177**	**515**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Results include only SFAs that reported the district has a local wellness policy. Multiple responses were allowed.

SFA = school food authority.

Table C.8. District Wellness Policy Evaluation Practices and Findings

	Percentage of SFAs
District Has a Wellness Policy and It Has Been Evaluated	35.5
Among Districts with a Wellness Policy That Has Been Evaluated (n=155):	
Data Sources Used to Evaluate the Wellness Policy[a]	
School faculty or staff surveys or interviews	57.1
School, cafeteria, classroom, or gym observations	45.9
Student surveys or interviews	44.8
Student height, weight, or body composition measures	38.3
Parent surveys or interviews	33.3
School foodservice staff surveys or interviews	32.7
School food sales data	18.8
Staff height, weight, or body composition measures	11.3
Other	3.4
Missing	6.2
Communication Channels Used to Report Findings[a]	
District or school website	41.3
School menu or newsletter	29.5
Publicly available report or report summary	16.2
PTA/PTO meeting	17.5
Report to State Education or Child Nutrition agency	14.6
Local news media	3.1
Other	8.6
Missing	10.8
Number of SFAs	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

[a]Multiple responses were allowed.

PTA = parent-teacher association; PTO = parent-teacher organization; SFA = school food authority.

Table C.9. District Wellness Policy Evaluation Practices and Findings, by SFA Size

	SFA Size			
	Fewer than 1,000 Students	1,000 to 5,000 Students	More than 5,000 Students	All SFAs
	Percentage of SFAs			
District Has a Wellness Policy and It Has Been Evaluated	35.7	38.3	26.8	35.5
Among Districts with a Wellness Policy That Has Been Evaluated (n=155):				
Data Sources Used to Evaluate the Wellness Policy[a]				
School faculty or staff surveys or interviews	–	59.7	–	57.1
School, cafeteria, classroom, or gym observations	–	45.9	–	45.9
Student surveys or interviews	–	42.7	–	44.8
Student height, weight, or body composition measures	–	42.7	–	38.3
Parent surveys or interviews	–	39.0	–	33.3
School foodservice staff surveys or interviews	–	35.9	–	32.7
School food sales data	–	27.0	–	18.8
Staff height, weight, or body composition measures	–	11.4	–	11.3
Other	–	1.9	–	3.4
Missing	–	3.3	–	6.2
Communication Channels Used to Report Findings[a]				
District or school website	–	40.5	–	41.3
School menu or newsletter	–	17.9	–	29.5
Publicly available report or report summary	–	16.7	–	16.2
PTA/PTO meeting	–	18.5	–	17.5
Report to State Education or Child Nutrition agency	–	21.5	–	14.6
Local news media	–	3.4	–	3.1
Other	–	12.1	–	8.6
Missing	–	7.4	–	10.8
Number of SFAs	**136**	**192**	**190**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

[a]Multiple responses were allowed.

– Sample size is too small to produce reliable estimate.

PTA = parent-teacher association; PTO = parent-teacher organization; SFA = school food authority.

Table C.10. District Wellness Policy Evaluation Practices and Findings, by District Child Poverty Rate

	District Child Poverty Rate (Percentage of Children in Poverty)		
	Lower (Less Than 20 Percent)	Higher (20 Percent or More)	All SFAs
	Percentage of SFAs		
District Has a Wellness Policy and It Has Been Evaluated	31.2	41.5	35.5
Among Districts with a Wellness Policy That Has Been Evaluated (n=155):			
Data Sources Used to Evaluate the Wellness Policy[a]			
School faculty or staff surveys or interviews	58.5	55.5	57.1
School, cafeteria, classroom, or gym observations	41.7	50.4	45.9
Student surveys or interviews	47.4	41.9	44.8
Student height, weight, or body composition measures	46.4	29.6	38.3
Parent surveys or interviews	38.0	28.2	33.3
School foodservice staff surveys or interviews	40.2	24.7	32.7
School food sales data	19.3	18.4	18.8
Staff height, weight, or body composition measures	16.2	6.0	11.3
Other	3.5	3.2	3.4
Missing	7.4	5.0	6.2
Communication Channels Used to Report Findings[a]			
District or school website	36.8	46.1	41.3
School menu or newsletter	21.1	38.5	29.5
Publicly available report or report summary	24.8	6.9	16.2
PTA/PTO meeting	20.9	13.9	17.5
Report to State Education or Child Nutrition agency	18.8	10.1	14.6
Local news media	3.5	2.8	3.1
Other	8.3	8.8	8.6
Missing	12.5	9.1	10.8
Number of SFAs	**295**	**223**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

[a]Multiple responses were allowed.

PTA = parent-teacher association; PTO = parent-teacher organization; SFA = school food authority.

Table C.11. District Wellness Policy Evaluation Practices and Findings, by Urbanicity

	Urban SFAs	Suburban SFAs	Rural SFAs	All SFAs
	Percentage of SFAs			
District Has a Wellness Policy and It Has Been Evaluated	38.6	35.5	34.7	35.5
Among Districts with a Wellness Policy That Has Been Evaluated (n=155):				
Data Sources Used to Evaluate the Wellness Policy[a]				
School faculty or staff surveys or interviews	–	64.8	–	57.1
School, cafeteria, classroom, or gym observations	–	53.9	–	45.9
Student surveys or interviews	–	62.8	–	44.8
Student height, weight, or body composition measures	–	30.4	–	38.3
Parent surveys or interviews	–	46.5	–	33.3
School foodservice staff surveys or interviews	–	42.5	–	32.7
School food sales data	–	20.3	–	18.8
Staff height, weight, or body composition measures	–	14.4	–	11.3
Other	–	4.0	–	3.4
Missing	–	0.7	–	6.2
Communication Channels Used to Report Findings[a]				
District or school website	–	52.9	–	41.3
School menu or newsletter	–	31.1	–	29.5
Publicly available report or report summary	–	23.5	–	16.2
PTA/PTO meeting	–	25.1	–	17.5
Report to State Education or Child Nutrition agency	–	10.3	–	14.6
Local news media	–	1.2	–	3.1
Other	–	6.8	–	8.6
Missing	–	12.2	–	10.8
Number of SFAs	**93**	**247**	**178**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

[a]Multiple responses were allowed.

– Sample size is too small to produce reliable estimate.

PTA = parent-teacher association; PTO = parent-teacher organization; SFA = school food authority.

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Table C.12. Nutrition Standards in Local Wellness Policies: School Meals and Foods Available in Other Settings, by SFA Size

	Percentage of Small SFAs	
	School Meals	Other Settings
Policy Has Standards That Exceed Federal Requirements and They Are Fully Implemented	23.4	31.2
Policy Has Standards That Exceed Federal Requirements and They Are Partially Implemented	12.8	5.8
Policy Will Have Standards That Exceed Federal Requirements but They Are Still Being Planned	8.7	11.8
Policy Does Not Have Standards That Exceed Federal Requirements	53.5	49.0
Missing	1.6	2.3
	Percentage of Medium-Size SFAs	
	School Meals	Other Settings
Policy Has Standards That Exceed Federal Requirements and They Are Fully Implemented	32.6	22.5
Policy Has Standards That Exceed Federal Requirements and They Are Partially Implemented	11.9	14.9
Policy Will Have Standards That Exceed Federal Requirements but They Are Still Being Planned	9.5	7.0
Policy Does Not Have Standards That Exceed Federal Requirements	45.0	50.8
Missing	1.0	4.8
	Percentage of Large SFAs	
	School Meals	Other Settings
Policy Has Standards That Exceed Federal Requirements and They Are Fully Implemented	32.1	19.8
Policy Has Standards That Exceed Federal Requirements and They Are Partially Implemented	10.6	24.0
Policy Will Have Standards That Exceed Federal Requirements but They Are Still Being Planned	6.6	5.0
Policy Does Not Have Standards That Exceed Federal Requirements	50.6	51.0
Missing	0.0	0.2
	Percentage of All SFAs	
	School Meals	Other Settings
Policy Has Standards That Exceed Federal Requirements and They Are Fully Implemented	28.0	26.4
Policy Has Standards That Exceed Federal Requirements and They Are Partially Implemented	12.2	11.6
Policy Will Have Standards That Exceed Federal Requirements but They Are Still Being Planned	8.7	9.1
Policy Does Not Have Standards That Exceed Federal Requirements	49.9	50.0
Missing	1.2	3.0
Number of SFAs	**515**	**515**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Results include only SFAs that reported the district has a local wellness policy.

Small SFAs have fewer than 1,000 students. Medium-size SFAs have between 1,000 and 5,000 students. Large SFAs have more than 5,000 students.

Other settings include afterschool snacks, fundraising activities, a la carte, vending machines, school stores, or other non-foodservice venues.

SFA = school food authority.

Table C.13. Nutrition Standards in Local Wellness Policies: School Meals and Foods Available in Other Settings, by District Child Poverty Rate

	Percentage of Lower Poverty SFAs	
	School Meals	Other Settings
Policy Has Standards That Exceed Federal Requirements and They Are Fully Implemented	31.2	23.1
Policy Has Standards That Exceed Federal Requirements and They Are Partially Implemented	10.1	11.4
Policy Will Have Standards That Exceed Federal Requirements but They Are Still Being Planned	10.7	9.4
Policy Does Not Have Standards That Exceed Federal Requirements	46.7	52.9
Missing	1.3	3.3
	Percentage of Higher Poverty SFAs	
	School Meals	Other Settings
Policy Has Standards That Exceed Federal Requirements and They Are Fully Implemented	23.3	31.2
Policy Has Standards That Exceed Federal Requirements and They Are Partially Implemented	15.2	11.9
Policy Will Have Standards That Exceed Federal Requirements but They Are Still Being Planned	6.0	8.7
Policy Does Not Have Standards That Exceed Federal Requirements	54.6	45.7
Missing	0.9	2.5
	Percentage of All SFAs	
	School Meals	Other Settings
Policy Has Standards That Exceed Federal Requirements and They Are Fully Implemented	28.0	26.4
Policy Has Standards That Exceed Federal Requirements and They Are Partially Implemented	12.2	11.6
Policy Will Have Standards That Exceed Federal Requirements but They Are Still Being Planned	8.7	9.1
Policy Does Not Have Standards That Exceed Federal Requirements	49.9	50.0
Missing	1.2	3.0
Number of SFAs	**515**	**515**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Results include only SFAs that reported the district has a local wellness policy.

Lower poverty districts have less than 20 percent of students in poverty. Higher poverty districts have 20 percent or more of students in poverty.

Other settings include afterschool snacks, fundraising activities, a la carte, vending machines, school stores, or other non-foodservice venues.

SFA = school food authority.

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Table C.14. Nutrition Standards in Local Wellness Policies: School Meals and Foods Available in Other Settings, by Urbanicity

	Percentage of Urban SFAs	
	School Meals	Other Settings
Policy Has Standards That Exceed Federal Requirements and They Are Fully Implemented	22.3	26.6
Policy Has Standards That Exceed Federal Requirements and They Are Partially Implemented	15.1	11.3
Policy Will Have Standards That Exceed Federal Requirements but They Are Still Being Planned	14.1	10.9
Policy Does Not Have Standards That Exceed Federal Requirements	48.5	48.8
Missing	0.0	2.5
	Percentage of Suburban SFAs	
	School Meals	Other Settings
Policy Has Standards That Exceed Federal Requirements and They Are Fully Implemented	35.0	28.2
Policy Has Standards That Exceed Federal Requirements and They Are Partially Implemented	9.5	14.8
Policy Will Have Standards That Exceed Federal Requirements but They Are Still Being Planned	3.8	5.9
Policy Does Not Have Standards That Exceed Federal Requirements	49.9	46.4
Missing	1.7	4.7
	Percentage of Rural SFAs	
	School Meals	Other Settings
Policy Has Standards That Exceed Federal Requirements and They Are Fully Implemented	24.2	25.1
Policy Has Standards That Exceed Federal Requirements and They Are Partially Implemented	13.4	9.2
Policy Will Have Standards That Exceed Federal Requirements but They Are Still Being Planned	11.1	11.0
Policy Does Not Have Standards That Exceed Federal Requirements	50.4	52.9
Missing	1.0	1.8
	Percentage of All SFAs	
	School Meals	Other Settings
Policy Has Standards That Exceed Federal Requirements and They Are Fully Implemented	28.0	26.4
Policy Has Standards That Exceed Federal Requirements and They Are Partially Implemented	12.2	11.6
Policy Will Have Standards That Exceed Federal Requirements but They Are Still Being Planned	8.7	9.1
Policy Does Not Have Standards That Exceed Federal Requirements	49.9	50.0
Missing	1.2	3.0
Number of SFAs	**515**	**515**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Results include only SFAs that reported the district has a local wellness policy.

Other settings include afterschool snacks, fundraising activities, a la carte, vending machines, school stores, or other non-foodservice venues.

SFA = school food authority.

Table C.15. Nutrition Standards for Competitive Foods that Exceeded New Federal Requirements that Went into Effect in SY 2014-2015

	Percentage of SFAs
Elementary Schools	
Standards exceeded new Federal requirements	23.8
Did not have standards	27.0
Did not sell competitive foods	42.0
No elementary schools in SFA	6.8
Missing	0.3
Middle Schools	
Standards exceeded new Federal requirements	27.8
Did not have standards	33.3
Did not sell competitive foods	28.0
No middle schools in SFA	10.7
Missing	0.3
High Schools	
Standards exceeded new Federal requirements	29.7
Did not have standards	35.3
Did not sell competitive foods	22.7
No high schools in SFA	12.1
Missing	0.3
Implementation of Nutrition Guidelines for Competitive Foods	
Degree of Implementation	
Fully implemented	62.2
Partially implemented	16.0
Not at all implemented	0.5
No competitive foods available in SFA	18.1
Don't know	3.0
Missing	0.3
Number of SFAs	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Schools needed to meet nutrition standards in SY 2014-2015, and study data were collected in the winter and spring of 2015.

SFA = school food authority; SY = school year.

Table C.16. Nutrition Standards for Competitive Foods that Exceeded New Federal Requirements that Went into Effect in SY 2014-2015, by SFA Size

	SFA Size			
	Fewer than 1,000 Students	1,000 to 5,000 Students	More than 5,000 Students	All SFAs
	Percentage of SFAs			
Elementary Schools				
Standards exceeded new Federal requirements	22.5	24.9	25.7	23.8
Did not have standards	16.3	36.2	41.8	27.0
Did not sell competitive foods	50.2	35.1	30.7	42.0
No elementary schools in SFA	10.4	3.8	1.8	6.8
Missing	0.6	0.0	0.0	0.3
Middle Schools				
Standards exceeded new Federal requirements	24.3	31.4	30.6	27.8
Did not have standards	21.6	43.8	47.9	33.3
Did not sell competitive foods	35.0	21.7	19.0	28.0
No middle schools in SFA	18.5	3.0	2.5	10.7
Missing	0.6	0.0	0.0	0.3
High Schools				
Standards exceeded new Federal requirements	25.5	33.3	35.7	29.7
Did not have standards	24.3	46.0	46.7	35.3
Did not sell competitive foods	29.7	16.5	13.5	22.7
No high schools in SFA	19.9	4.3	4.1	12.1
Missing	0.6	0.0	0.0	0.3
Implementation of Nutrition Guidelines for Competitive Foods				
Degree of Implementation				
Fully implemented	55.0	69.3	69.6	62.2
Partially implemented	14.9	16.6	17.9	16.0
Not at all implemented	0.0	1.3	0.4	0.5
No competitive foods available in SFA	26.1	11.4	6.3	18.1
Don't know	3.3	1.4	5.9	3.0
Missing	0.6	0.0	0.0	0.3
Number of SFAs	**136**	**192**	**190**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Schools needed to meet nutrition standards in SY 2014-2015, and study data were collected in the winter and spring of 2015.

SFA = school food authority; SY = school year.

Table C.17. Nutrition Standards for Competitive Foods that Exceeded New Federal Requirements that Went into Effect in SY 2014-2015, by District Child Poverty Rate

	District Child Poverty Rate (Percentage of Children in Poverty)		
	Lower (Less Than 20 Percent)	Higher (20 Percent or More)	All SFAs
	Percentage of SFAs		
Elementary Schools			
Standards exceeded new Federal requirements	26.6	19.8	23.8
Did not have standards	25.7	28.9	27.0
Did not sell competitive foods	40.6	44.1	42.0
No elementary schools in SFA	6.5	7.2	6.8
Missing	0.5	0.0	0.3
Middle Schools			
Standards exceeded new Federal requirements	31.3	22.8	27.8
Did not have standards	32.7	34.1	33.3
Did not sell competitive foods	25.4	31.7	28.0
No middle schools in SFA	10.1	11.4	10.7
Missing	0.5	0.0	0.3
High Schools			
Standards exceeded new Federal requirements	33.0	25.0	29.7
Did not have standards	35.1	35.6	35.3
Did not sell competitive foods	20.6	25.6	22.7
No high schools in SFA	10.8	13.9	12.1
Missing	0.5	0.0	0.3
Implementation of Nutrition Guidelines for Competitive Foods			
Degree of Implementation			
Fully implemented	60.1	65.2	62.2
Partially implemented	16.3	15.5	16.0
Not at all implemented	0.5	0.5	0.5
No competitive foods available in SFA	19.1	16.6	18.1
Don't know	3.5	2.3	3.0
Missing	0.5	0.0	0.3
Number of SFAs	**295**	**223**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Schools needed to meet nutrition standards in SY 2014-2015, and study data were collected in the winter and spring of 2015.

SFA = school food authority; SY = school year.

Table C.18. Nutrition Standards for Competitive Foods that Exceeded New Federal Requirements that Went into Effect in SY 2014-2015, by Urbanicity

	Urban SFAs	Suburban SFAs	Rural SFAs	All SFAs
	Percentage of SFAs			
Elementary Schools				
Standards exceeded new Federal requirements	20.7	22.7	25.5	23.8
Did not have standards	25.1	31.9	23.9	27.0
Did not sell competitive foods	45.8	35.7	45.9	42.0
No elementary schools in SFA	8.5	9.7	4.2	6.8
Missing	0.0	0.0	0.6	0.3
Middle Schools				
Standards exceeded new Federal requirements	14.8	31.4	28.4	27.8
Did not have standards	27.2	39.4	30.3	33.3
Did not sell competitive foods	36.3	19.9	31.8	28.0
No middle schools in SFA	21.7	9.2	8.9	10.7
Missing	0.0	0.0	0.6	0.3
High Schools				
Standards exceeded new Federal requirements	16.9	31.4	31.8	29.7
Did not have standards	32.3	40.7	32.0	35.3
Did not sell competitive foods	31.4	14.9	26.1	22.7
No high schools in SFA	19.4	13.0	9.4	12.1
Missing	0.0	0.0	0.6	0.3
Implementation of Nutrition Guidelines for Competitive Foods				
Degree of Implementation				
Fully implemented	50.8	72.5	57.5	62.2
Partially implemented	21.1	15.2	15.2	16.0
Not at all implemented	0.0	0.5	0.6	0.5
No competitive foods available in SFA	28.0	9.1	22.2	18.1
Don't know	0.1	2.6	4.0	3.0
Missing	0.0	0.0	0.6	0.3
Number of SFAs	**93**	**247**	**178**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Schools needed to meet nutrition standards in SY 2014-2015, and study data were collected in the winter and spring of 2015.

SFA = school food authority; SY = school year.

Table C.19. Nutrition Standards in Local Wellness Policies: Celebrations and Meetings, by SFA Size

	Percentage of Small SFAs	
	Foods and Beverages Served at Classroom or School Celebrations	Foods and Beverages Served at Staff or Parent Meetings
Policy Includes Standards and They Are Fully Implemented	30.1	17.4
Policy Includes Standards and They Are Partially Implemented	28.0	20.1
Standards Are Still Being Planned	19.0	18.8
Policy Does Not Have Standards	17.6	39.0
Not Available/Allowed in District	5.3	4.8
Missing	0.0	0.0
	Percentage of Medium-Size SFAs	
	Foods and Beverages Served at Classroom or School Celebrations	Foods and Beverages Served at Staff or Parent Meetings
Policy Includes Standards and They Are Fully Implemented	31.0	16.9
Policy Includes Standards and They Are Partially Implemented	32.0	13.3
Standards Are Still Being Planned	15.8	20.2
Policy Does Not Have Standards	16.2	44.1
Not Available/Allowed in District	4.1	4.5
Missing	1.0	1.0
	Percentage of Large SFAs	
	Foods and Beverages Served at Classroom or School Celebrations	Foods and Beverages Served at Staff or Parent Meetings
Policy Includes Standards and They Are Fully Implemented	33.1	9.3
Policy Includes Standards and They Are Partially Implemented	33.7	21.0
Standards Are Still Being Planned	14.0	14.4
Policy Does Not Have Standards	17.1	53.4
Not Available/Allowed in District	2.0	2.0
Missing	0.0	0.0

	Percentage of All SFAs	
	Foods and Beverages Served at Classroom or School Celebrations	Foods and Beverages Served at Staff or Parent Meetings
Policy Includes Standards and They Are Fully Implemented	30.8	16.1
Policy Includes Standards and They Are Partially Implemented	30.2	17.7
Standards Are Still Being Planned	17.1	18.7
Policy Does Not Have Standards	17.0	42.8
Not Available/Allowed in District	4.4	4.3
Missing	0.4	0.4
Number of SFAs	**515**	**515**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Results include only SFAs that reported the district has a local wellness policy.

Small SFAs have fewer than 1,000 students. Medium-size SFAs have between 1,000 and 5,000 students. Large SFAs have more than 5,000 students.

SFA = school food authority.

Table C.20. Nutrition Standards in Local Wellness Policies: Celebrations and Meetings, by District Child Poverty Rate

	Percentage of Lower Poverty SFAs	
	Foods and Beverages Served at Classroom or School Celebrations	Foods and Beverages Served at Staff or Parent Meetings
Policy Includes Standards and They Are Fully Implemented	31.6	14.6
Policy Includes Standards and They Are Partially Implemented	28.8	14.5
Standards Are Still Being Planned	16.0	19.2
Policy Does Not Have Standards	17.8	47.3
Not Available/Allowed in District	5.9	4.4
Missing	0.0	0.0
	Percentage of Higher Poverty SFAs	
	Foods and Beverages Served at Classroom or School Celebrations	Foods and Beverages Served at Staff or Parent Meetings
Policy Includes Standards and They Are Fully Implemented	29.8	18.3
Policy Includes Standards and They Are Partially Implemented	32.3	22.2
Standards Are Still Being Planned	18.7	18.0
Policy Does Not Have Standards	16.0	36.3
Not Available/Allowed in District	2.3	4.2
Missing	0.9	0.9
	Percentage of All SFAs	
	Foods and Beverages Served at Classroom or School Celebrations	Foods and Beverages Served at Staff or Parent Meetings
Policy Includes Standards and They Are Fully Implemented	30.8	16.1
Policy Includes Standards and They Are Partially Implemented	30.2	17.7
Standards Are Still Being Planned	17.1	18.7
Policy Does Not Have Standards	17.0	42.8
Not Available/Allowed in District	4.4	4.3
Missing	0.4	0.4
Number of SFAs	**515**	**515**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Results include only SFAs that reported the district has a local wellness policy.

Lower poverty districts have less than 20 percent of students in poverty. Higher poverty districts have 20 percent or more of students in poverty.

SFA = school food authority.

Table C.21. Nutrition Standards in Local Wellness Policies: Celebrations and Meetings, by Urbanicity

	Percentage of Urban SFAs	
	Foods and Beverages Served at Classroom or School Celebrations	Foods and Beverages Served at Staff or Parent Meetings
Policy Includes Standards and They Are Fully Implemented	37.6	23.5
Policy Includes Standards and They Are Partially Implemented	24.3	15.5
Standards Are Still Being Planned	14.7	6.3
Policy Does Not Have Standards	16.3	54.3
Not Available/Allowed in District	7.1	0.5
Missing	0.0	0.0
	Percentage of Suburban SFAs	
	Foods and Beverages Served at Classroom or School Celebrations	Foods and Beverages Served at Staff or Parent Meetings
Policy Includes Standards and They Are Fully Implemented	30.5	17.0
Policy Includes Standards and They Are Partially Implemented	29.9	18.3
Standards Are Still Being Planned	15.2	16.4
Policy Does Not Have Standards	16.4	40.2
Not Available/Allowed in District	7.0	7.1
Missing	1.0	1.0
	Percentage of Rural SFAs	
	Foods and Beverages Served at Classroom or School Celebrations	Foods and Beverages Served at Staff or Parent Meetings
Policy Includes Standards and They Are Fully Implemented	29.3	13.6
Policy Includes Standards and They Are Partially Implemented	31.9	17.8
Standards Are Still Being Planned	19.3	23.7
Policy Does Not Have Standards	17.7	41.7
Not Available/Allowed in District	1.8	3.2
Missing	0.0	0.0

	Percentage of All SFAs	
	Foods and Beverages Served at Classroom or School Celebrations	Foods and Beverages Served at Staff or Parent Meetings
Policy Includes Standards and They Are Fully Implemented	30.8	16.1
Policy Includes Standards and They Are Partially Implemented	30.2	17.7
Standards Are Still Being Planned	17.1	18.7
Policy Does Not Have Standards	17.0	42.8
Not Available/Allowed in District	4.4	4.3
Missing	0.4	0.4
Number of SFAs	**515**	**515**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Results include only SFAs that reported the district has a local wellness policy.

SFA = school food authority.

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2. Nutrition Outreach and Promotion Practices

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Table C.22. Nutrition Outreach and Promotion Activities Used by SFA Staff, by SFA Size

	SFA Size			
	Fewer than 1,000 Students	1,000 to 5,000 Students	More than 5,000 Students	All SFAs
	Percentage of SFAs			
Discussed Student Food Allergies with the School Nurse or Classroom Teachers	78.3	85.9	91.5	82.8
Conducted a Taste-Test Activity with Students	61.7	73.9	90.4	70.0
Invited Family Members to Consume a School Meal	65.7	67.9	73.4	67.5
Participated in a School or District Meeting About the Local Wellness Policy	56.5	76.8	78.2	66.8
Involved Students in Planning School Meal Menus	45.9	49.9	66.3	50.1
Conducted a Nutrition Education Activity in the Classroom	40.1	41.1	59.8	43.0
Conducted a Nutrition Education Activity in the Foodservice Area	37.4	37.1	60.9	40.4
Attended a PTA or Other Parent Group Meeting to Discuss the School Meal Program	29.4	40.5	72.4	39.2
Met with Teachers to Explain the School Meal Program or Discuss How Program Can Work with Classroom Teachers	27.3	39.2	51.2	34.9
Set up a Booth at a School Event to Promote, or Inform About, School Meals[a]	23.6	36.6	63.1	33.6
Invited Community Members to Plan or Promote School Meals[b]	22.2	24.9	44.0	26.0
Involved Students in Naming Items Offered	29.9	17.9	28.7	25.3
Shared Information About the School Meal Program with a Nutrition Advisory Council	16.3	28.1	44.4	24.3
Met with an Advisory Group to Plan or Assess Nutrition Education or Promotion Activities	17.9	25.7	41.9	23.9
Presented Information About School Meals to a Local Civic or Community Service Group[c]	8.0	17.7	24.7	13.8
Number of SFAs	**136**	**192**	**190**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Multiple responses were allowed.

[a]Examples of school events include a family night or parent-teacher conference night.

[b]Examples of community members include local chefs, farmers, dietitians/nutritionists, or local sports figures.

[c]Examples of civic or community service groups include chambers of commerce, Lions Clubs, Rotary International, or similar organizations.

PTA = parent-teacher association; SFA = school food authority.

Table C.23. Nutrition Outreach and Promotion Activities Used by SFA Staff, by District Child Poverty Rate

	District Child Poverty Rate (Percentage of Children in Poverty)		
	Lower (Less Than 20 Percent)	Higher (20 Percent or More)	All SFAs
	Percentage of SFAs		
Discussed Student Food Allergies with the School Nurse or Classroom Teachers	84.8	80.0	82.8
Conducted a Taste-Test Activity with Students	70.9	68.7	70.0
Invited Family Members to Consume a School Meal	64.4	71.9	67.5
Participated in a School or District Meeting About the Local Wellness Policy	68.1	65.0	66.8
Involved Students in Planning School Meal Menus	56.0	41.6	50.1
Conducted a Nutrition Education Activity in the Classroom	38.3	49.8	43.0
Conducted a Nutrition Education Activity in the Foodservice Area	37.6	44.2	40.4
Attended a PTA or Other Parent Group Meeting to Discuss the School Meal Program	40.7	37.0	39.2
Met with Teachers to Explain the School Meal Program or Discuss How Program Can Work with Classroom Teachers	36.0	33.3	34.9
Set up a Booth at a School Event to Promote, or Inform About, School Meals[a]	36.3	29.9	33.6
Invited Community Members to Plan or Promote School Meals[b]	24.2	28.6	26.0
Involved Students in Naming Items Offered	26.1	24.0	25.3
Shared Information About the School Meal Program with a Nutrition Advisory Council	26.3	21.6	24.3
Met with an Advisory Group to Plan or Assess Nutrition Education or Promotion Activities	29.5	16.0	23.9
Presented Information About School Meals to a Local Civic or Community Service Group[c]	15.0	12.1	13.8
Number of SFAs	**295**	**223**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Multiple responses were allowed.

[a]Examples of school events include a family night or parent-teacher conference night.

[b]Examples of community members include local chefs, farmers, dietitians/nutritionists, or local sports figures.

[c]Examples of civic or community service groups include chambers of commerce, Lions Clubs, Rotary International, or similar organizations.

PTA = parent-teacher association; SFA = school food authority.

Table C.24. Nutrition Outreach and Promotion Activities Used by SFA Staff, by Urbanicity

	Urban SFAs	Suburban SFAs	Rural SFAs	All SFAs
	Percentage of SFAs			
Discussed Student Food Allergies with the School Nurse or Classroom Teachers	81.1	81.9	84.0	82.8
Conducted a Taste-Test Activity with Students	62.6	79.2	65.0	70.0
Invited Family Members to Consume a School Meal	56.1	63.2	73.8	67.5
Participated in a School or District Meeting About the Local Wellness Policy	64.4	68.9	65.9	66.8
Involved Students in Planning School Meal Menus	35.3	55.6	49.8	50.1
Conducted a Nutrition Education Activity in the Classroom	56.5	40.0	41.8	43.0
Conducted a Nutrition Education Activity in the Foodservice Area	48.2	46.9	33.4	40.4
Attended a PTA or Other Parent Group Meeting to Discuss the School Meal Program	59.7	51.5	24.6	39.2
Met with Teachers to Explain the School Meal Program or Discuss How Program Can Work with Classroom Teachers	55.8	37.6	27.4	34.9
Set up a Booth at a School Event to Promote, or Inform About, School Meals[a]	54.5	37.1	25.6	33.6
Invited Community Members to Plan or Promote School Meals[b]	32.4	33.9	18.5	26.0
Involved Students in Naming Items Offered	31.3	32.3	18.4	25.3
Shared Information About the School Meal Program with a Nutrition Advisory Council	30.0	33.2	16.2	24.3
Met with an Advisory Group to Plan or Assess Nutrition Education or Promotion Activities	38.4	29.5	16.0	23.9
Presented Information About School Meals to a Local Civic or Community Service Group[c]	23.5	17.0	8.9	13.8
Number of SFAs	**93**	**247**	**178**	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Multiple responses were allowed.

[a]Examples of school events include a family night or parent-teacher conference night.

[b]Examples of community members include local chefs, farmers, dietitians/nutritionists, or local sports figures.

[c]Examples of civic or community service groups include chambers of commerce, Lions Clubs, Rotary International, or similar organizations.

PTA = parent-teacher association; SFA = school food authority.

Table C.25. Farm to School Program Participation and Classroom-Based Nutrition Education

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
School Participates in Farm to School Program	16.5	16.5	19.8	17.2
Schools Incorporate Nutrition Education or Activities Into Curriculum	82.4	82.0	85.9	83.1
Among Schools that Incorporate Nutrition Education or Activities Into Curriculum (n=896):				
School Requires Students to Receive Nutrition Education in Class	43.7	56.9	61.2	50.0
Among Schools Requiring Nutrition Education in Class (n=485):				
All Students Are Required to Receive Nutrition Education	82.2	86.9	80.3	82.6
Number of Hours of Nutrition Education per Year				
Fewer than five	42.7	28.1	21.1	35.2
Five to 10	31.0	33.3	26.6	30.4
11 to 20	12.1	13.7	11.5	12.2
21 to 100	8.7	13.7	20.3	12.2
More than 100	1.4	4.8	15.3	5.2
Missing	4.1	6.4	5.2	4.8
Number of Schools	**413**	**339**	**338**	**1,090**

Source: School Nutrition and Meal Cost Study, Principal Survey and School Nutrition Manager Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Table C.26. Team Nutrition Participation and Activities

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Participated in USDA's Team Nutrition Initiative				
Yes	15.1	9.1	14.4	13.9
No	17.0	13.0	14.8	15.8
Don't know	66.4	77.2	70.8	69.3
Missing	1.5	0.8	0.0	1.1
Among Schools that Participated in TN (n=133):				
TN Activities in Which the School Participated in the Past Year[a]				
Reinforced nutrition education messages through initiatives in the foodservice area	–	–	–	66.3
Distributed TN materials to teachers, students, or parents	–	–	–	58.2
Designated a TN school leader	–	–	–	43.6
Received training or technical assistance on the *Dietary Guidelines for Americans* and/or *MyPlate*	–	–	–	42.3
Received training or technical assistance to enable foodservice personnel to prepare and serve nutritious, appealing meals	–	–	–	42.0
Conducted school-wide events to promote nutrition	–	–	–	41.1
Incorporated nutrition education messages across the curriculum	–	–	–	35.0
Shared successful strategies or programs with other schools	–	–	–	32.6
Scheduled community programs or events to promote nutrition and physical activity	–	–	–	29.4
Accessed TN curriculum or best practices resources	–	–	–	23.6
Assigned home activities to reinforce nutrition education messages	–	–	–	16.3
Received funds under a TN mini-grant through State CN agency	–	–	–	9.8
Sought media coverage for TN activities	–	–	–	9.5
School Activities That Were Required as Part of TN Involvement[a]				
Foodservice staff participated in TN training	–	–	–	59.5
TN activities were documented	–	–	–	46.3
TN activities were reported to State CN agency	–	–	–	25.0
TN fiscal reports were made available to State CN agency or USDA	–	–	–	24.4
Teachers participated in TN training	–	–	–	21.2
Missing	–	–	–	14.0
Number of Schools	**413**	**339**	**338**	**1,090**

Source: School Nutrition and Meal Cost Study, Principal Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

[a]Multiple responses were allowed.

– Sample size is too small to produce reliable estimate.

CN = child nutrition; TN = Team Nutrition; USDA = United States Department of Agriculture.

Table C.27. Communication Channels Used to Promote Reimbursable Meals

	Percentage of SFAs
Send Home Menus/Flyers/Newsletters	86.3
Post Information in Schools	86.2
Post Information Online	82.1
Post Information in Local Newspapers	32.0
Email Information to Parents	28.2
Broadcast Information on the Radio	4.9
Broadcast Information on Television	3.3
Other	1.9
Number of SFAs	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

SFA = school food authority.

Table C.28. School Participation in Nutrition/Wellness Initiatives

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
School Participates in National, State, or Local Nutrition/Wellness Initiatives[a]	26.0	17.8	18.2	22.8
Nutrition/Wellness Initiatives in Which School Is Involved:[b]				
None	34.7	31.0	28.4	32.6
Healthy Schools Program	6.9	6.3	5.5	6.5
Fuel Up to Play 60	7.4	2.4	3.2	5.5
Healthy Kids Challenge	2.2	2.4	3.0	2.4
5-A-Day	3.0	1.7	0.3	2.2
Game On! The Ultimate Wellness Challenge	1.6	0.0	0.2	1.0
Students Taking Charge	0.8	0.2	0.1	0.6
PE4Life	0.6	1.2	0.0	0.6
CATCH	0.6	1.1	0.0	0.5
Healthy Kids Healthy Communities	0.4	0.5	0.7	0.5
School Food FOCUS	0.0	0.4	0.0	0.1
Active Living by Design	0.0	0.0	0.0	0.0
Other initiatives	10.8	6.1	5.5	8.8
Local, school, or district program	3.3	1.3	1.9	2.6
Fresh Fruit and Vegetable Program	1.3	0.0	1.0	1.0
Nutrition or physical activity grants	0.9	0.3	1.7	1.0
Farm to School Program	0.1	1.1	0.2	0.3
Don't know	38.8	50.3	52.9	44.0
Number of Schools	**413**	**339**	**338**	**1,090**

Source: School Nutrition and Meal Cost Study, Principal Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

[a]Excluding district wellness policies or Team Nutrition activities.

[b]Multiple responses were allowed.

CATCH = Coordinated Approach to Child Health; FOCUS = Food Options for Children in Urban Schools.

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3. Competitive Foods

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Table C.29. School Store Availability and Policies

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
School Has a Store That Sells Foods or Beverages (Including Snack Foods)	4.5	12.6	19.0	9.1
Among Schools with School Stores (n=138)				
Number of Days per Week Store Is Usually Open				
One	–	–	1.9	10.3
Two to four	–	–	8.2	10.9
Daily	–	–	67.4	52.7
Various or no set schedule	–	–	22.5	26.1
Times School Store Is Open to Students[a]				
Before school	–	–	30.1	27.1
During breakfast	–	–	8.2	3.8
During school hours, before lunch	–	–	31.2	26.3
During lunch	–	–	39.8	28.6
After lunch, before end of last regular class	–	–	23.4	29.1
After last regular class	–	–	29.0	28.6
Who is Responsible for the School Store[a]				
Athletic department	–	–	20.8	38.7
Other school department	–	–	26.9	19.3
Principal	–	–	12.6	18.2
Business/Marketing Class/Club	–	–	29.8	15.9
Other	–	–	4.8	9.6
School foodservice	–	–	3.1	6.9
Don't know	–	–	4.1	2.6
Student or parent organization/club	–	–	1.4	1.8
Who Receives Revenue or Profit from the School Store[a]				
School	–	–	29.5	38.2
Student organization	–	–	21.5	31.7
Student marketing/business class/club	–	–	35.6	18.5
Parent organization	–	–	1.8	12.7
Athletic department	–	–	7.2	6.6
School foodservice only	–	–	1.4	1.8
District	–	–	0.8	0.4
School foodservice and other school/district departments	–	–	0.0	0.0
Other	–	–	14.7	7.4
Don't know	–	–	5.1	3.0
Number of Schools	**413**	**339**	**338**	**1,090**

Source: School Nutrition and Meal Cost Study, Principal Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

[a]Multiple responses were allowed.

– Sample size is too small to produce reliable estimate.

Table C.30. Snack Bar, Food Cart, and Kiosk Availability and Policies

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
School Has a Snack Bar, Food Cart, or Kiosk Outside Foodservice Area[a]	4.7	7.9	12.5	7.0
Among Schools with a Snack Bar, Food Cart, or Kiosk Outside Foodservice Area (n=98):				
Number of Days per Week Snack Bar, Food Cart, or Kiosk Is Usually Open				
One	–	–	–	12.5
Two to four	–	–	–	6.9
Daily	–	–	–	51.5
Various or no set schedule	–	–	–	29.1
Times Snack Bar, Food Cart, or Kiosk Is Open to Students[b]				
Before school	–	–	–	12.6
During breakfast	–	–	–	5.5
During school hours, before lunch	–	–	–	15.0
During lunch	–	–	–	46.2
After lunch, before end of last regular class	–	–	–	31.3
After last regular class	–	–	–	27.5
Who Receives Revenue or Profit from the Snack Bar, Food Cart, or Kiosk[b]				
School	–	–	–	26.6
Student organization	–	–	–	21.0
School foodservice only	–	–	–	15.1
Parent organization	–	–	–	13.5
District	–	–	–	7.8
Student marketing/business class/club	–	–	–	5.0
Athletic department	–	–	–	4.6
School foodservice and other school/district departments	–	–	–	3.0
Other	–	–	–	3.6
Don't know	–	–	–	12.5
Number of Schools	**413**	**339**	**338**	**1,090**

Source: School Nutrition and Meal Cost Study, Principal Survey, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

[a]A snack bar, food cart, or kiosk was defined as "a place that prepares or serves food but does not offer reimbursable meals."

[b]Multiple responses were allowed.

– Sample size is too small to produce reliable estimate.

Table C.31. District Pouring Rights Contracts

	Percentage of SFAs
SFA Does Not Have a Pouring Rights Contract	76.8
SFA Has a District-Wide Pouring Rights Contract	14.9
SFA Has a Pouring Rights Contract in Some Schools	8.3
Among SFAs with a Pouring Rights Contract (n=121):	
Contract Limits Types or Brands of Beverages Sold in Foodservice Areas	84.5
Number of SFAs	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

SFA = school food authority.

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Table C.32. Foods and Beverages Offered by Schools for A la Carte Purchase at Lunch

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Milk Only	22.2	8.5	4.9	15.9
Milk	71.7	74.5	76.4	73.3
Low-fat (1 or 0.5 percent) white milk	59.1	61.1	64.9	60.7
Fat-free/skim flavored milk	52.1	56.9	61.0	54.9
Fat-free/skim white milk	35.5	38.1	32.8	35.4
Low-fat (1 or 0.5 percent) flavored milk	18.1	17.7	15.2	17.4
Reduced-fat (2 percent) white milk	4.0	3.5	2.6	3.6
Whole white milk	3.3	2.1	1.8	2.8
Reduced-fat (2 percent) flavored milk	3.4	1.0	1.6	2.6
Other milk, including non-dairy milks	2.7	2.9	2.6	2.7
Missing	6.9	8.0	5.7	6.8
100 Percent Juice or Water	36.8	63.5	67.4	48.4
Bottled water (plain, flavored, or sparkling)	32.2	58.2	61.3	43.3
100 percent fruit or vegetable juice	26.7	56.3	56.4	38.6
Missing	7.2	8.1	5.7	7.1
Other Beverages	5.0	11.3	43.2	14.6
Sports drinks	2.0	6.6	38.7	10.9
Hot or cold coffee or tea	1.7	1.5	13.5	4.3
Juice drinks and other sweetened drinks	1.8	3.5	5.8	3.0
Carbonated diet soft drinks	0.1	0.0	5.9	1.4
Hot or cold chocolate drinks	0.2	1.2	1.6	0.7
Energy drinks	0.0	0.1	0.3	0.1
Carbonated sweetened soft drinks	0.0	0.0	0.4	0.1
Other	0.0	0.0	0.7	0.1
Missing	7.2	8.1	5.7	7.1
Fruit	34.2	51.2	55.7	42.0
Fresh fruit	30.4	48.0	53.2	38.6
Canned fruit	26.1	40.4	44.0	32.7
Dried fruit	9.9	14.7	18.7	12.7
Missing	7.2	8.1	5.7	7.1
Vegetables	30.0	49.7	51.1	38.2
Bread or Grain Products	20.0	37.0	39.6	27.4
Regular bread, rolls, bagels, or tortillas	2.0	5.8	8.7	4.2
Whole-grain bread, rolls, bagels, or tortillas	13.5	24.2	28.8	18.8
Rice, pasta, or cereal	6.2	12.4	13.6	8.9
Other bread items (such as biscuits, croissants, or hot pretzels)	6.0	9.9	14.0	8.5
Low-fat muffins	3.0	9.3	10.4	5.8
Ready-to-eat breakfast cereal	3.2	8.4	6.1	4.8
Pancakes, waffles, or French toast	2.8	4.7	4.5	3.5
Regular muffins	0.8	1.4	1.1	1.0
Other	1.3	0.4	0.7	1.0
Missing	7.2	8.1	5.7	7.1

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Meat and Meat Alternates	24.5	44.9	48.9	33.6
Fried or baked cheese or pizza sticks	5.0	12.9	18.4	9.4
Breaded fish (nuggets, patties, strips, sticks)	4.8	7.5	13.0	7.1
Unbreaded chicken/turkey (nuggets, patties, strips, parts)	4.8	7.3	12.8	7.0
Unbreaded beef/pork (nuggets, patties, strips)	4.5	7.1	9.3	6.0
Breaded beef/pork (nuggets, patties, strips)	2.4	6.1	7.2	4.1
Missing	7.2	8.1	5.7	7.1
Entrees	28.7	54.4	59.0	40.0
Missing	7.2	8.1	5.7	7.1
Baked Goods/Desserts	20.5	42.2	45.7	30.0
Low-fat cookies	14.1	30.0	31.6	20.8
Low-fat cakes, cupcakes, or brownies	4.5	9.3	11.3	6.9
Regular cookies	3.7	4.7	11.0	5.5
Low-fat pies, turnovers, or toaster pastries	1.8	5.0	4.5	2.9
Regular pies, turnovers, or toaster pastries	1.1	5.8	4.0	2.6
Low-fat doughnuts or cinnamon rolls	0.9	3.4	5.2	2.3
Fruit crisp or cobbler	1.4	2.0	4.7	2.2
Regular doughnuts or cinnamon rolls	0.7	1.4	2.6	1.2
Regular cakes, cupcakes, or brownies	0.9	2.0	1.4	1.2
Other	0.0	0.2	0.0	0.0
Missing	7.2	8.1	5.7	7.1
Frozen or Dairy Desserts	21.7	34.6	36.1	27.2
Snacks	29.3	58.1	58.7	41.0
Missing	7.2	8.1	5.7	7.1
Other A la Carte Items	1.9	1.2	2.8	1.9
Number of Schools	**454**	**384**	**372**	**1,210**

Source: School Nutrition and Meal Cost Study, A la Carte Checklist, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Note: Percentages reflect all schools (not just schools that offered a la carte).

Table C.33. Foods and Beverages Offered by Schools for A la Carte Purchase at Breakfast

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Milk Only	14.7	6.9	5.1	11.2
Milk	47.6	50.2	52.9	49.2
Low-fat (1 or 0.5percent) white milk	40.3	40.7	44.8	41.4
Fat-free/skim flavored milk	32.7	37.8	43.9	36.1
Fat-free/skim white milk	23.4	25.3	24.1	23.9
Low-fat (1 or 0.5 percent) flavored milk	11.0	10.3	8.5	10.3
Reduced-fat (2 percent) white milk	2.2	2.7	1.2	2.0
Whole white milk	1.7	1.5	1.5	1.6
Reduced-fat (2 percent) flavored milk	1.0	0.1	1.3	0.9
Other milks, including non-dairy milks	2.0	2.2	2.4	2.1
100 Percent Juice or Water	28.7	39.7	47.7	34.9
100 percent fruit or vegetable juice	26.6	37.4	44.4	32.5
Bottled water (plain, flavored, or sparkling)	15.8	30.2	36.9	23.0
Other Beverages	2.1	4.1	22.6	7.0
Hot or cold chocolate drinks	1.3	2.0	18.0	5.1
Carbonated sweetened soft drinks	0.3	0.6	8.6	2.2
Juice drinks and other sweetened drinks	0.5	1.2	2.4	1.0
Carbonated diet soft drinks	0.2	0.9	1.9	0.7
Energy drinks	0.0	0.0	2.7	0.6
Other	0.0	0.0	0.7	0.1
Fruit	22.6	34.4	39.0	28.3
Fresh fruit	19.7	32.3	37.7	25.9
Canned fruit	15.3	22.7	24.9	18.8
Dried fruit	7.1	8.9	13.4	8.8
Vegetables	1.7	1.3	3.5	2.0
Bread or Grain Products	21.3	28.8	33.6	25.3
Ready-to-eat breakfast cereal	16.2	22.2	25.7	19.4
Whole-grain bread, rolls, bagels, or tortillas	9.0	12.2	17.2	11.4
Pancakes, waffles, or French toast	10.0	11.6	14.4	11.3
Low-fat muffins	4.0	11.2	15.8	7.9
Rice, pasta, or cereal	5.6	4.3	7.2	5.7
Regular bread, rolls, bagels, or tortillas	1.6	2.2	3.4	2.1
Regular muffins	2.2	1.3	2.4	2.1
Other bread items (such as biscuits, croissants, or hot pretzels)	5.0	5.7	9.5	6.1
Other	0.3	0.4	0.3	0.3
Meat and Meat Alternates	15.4	18.8	26.8	18.5
Yogurt	10.6	13.8	19.9	13.3
Entrees	11.5	17.0	23.0	15.0
Sausage and biscuits	4.3	3.8	7.9	5.0
Pizza with meat	2.9	4.5	6.0	3.9
Pizza without meat	1.5	1.9	1.7	1.6
Burritos	1.2	1.1	2.0	1.4
Other Mexican foods (such as tacos, nachos, or quesadillas)	0.1	0.3	0.5	0.3
Calzone or Hot Pocket	0.0	0.0	0.3	0.1
Chinese food	0.0	0.0	0.1	0.0
Other entrees	1.0	1.2	0.9	1.0

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Baked Goods/Desserts	5.3	13.6	19.4	9.9
Low-fat doughnuts or cinnamon rolls	3.3	3.2	7.9	4.3
Low-fat pies, turnovers, or toaster pastries	2.6	4.5	5.5	3.6
Regular pies, turnovers, or toaster pastries	0.8	3.9	7.9	2.9
Low-fat cookies	0.5	4.1	6.0	2.4
Regular doughnuts or cinnamon rolls	1.4	2.8	3.1	2.0
Low-fat cakes, cupcakes, or brownies	0.1	1.2	3.5	1.0
Regular cakes, cupcakes, or brownies	0.0	0.5	0.6	0.2
Fruit crisp or cobbler	0.0	0.4	0.2	0.1
Regular cookies	0.0	0.0	0.3	0.1
Frozen or Dairy Desserts	1.2	3.3	6.7	2.8
Snacks	6.6	14.7	22.4	11.5
Other A la Carte Items	0.1	0.0	1.3	0.4
Number of Schools	**454**	**384**	**372**	**1,210**

Source: School Nutrition and Meal Cost Study, A la Carte Checklist, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Note: Percentages reflect all schools (not just schools that offered a la carte).

Table C.34. Availability of and Pricing Practices for Reimbursable Meal Components Sold A la Carte, by SFA Size

	Percentage of Small SFAs		
	Elementary Schools	Middle Schools	High Schools
Components of Reimbursable Meals, Other Than Milk, Sold A la Carte	22.8	31.2	37.4
Among SFAs with Schools that Sold Components of Reimbursable Meals A la Carte (n=61):			
Practices Used in Setting Prices for Reimbursable Meal Components Sold A la Carte[a]			
A combination of reimbursable meal components sold a la carte are priced higher than a reimbursable meal	–	–	–
Less healthful items are offered at "premium" prices	–	–	–
Items sold as second servings are priced lower for students who select a reimbursable meal	–	–	–
More healthful items are discounted	–	–	–
	Percentage of Medium-Size SFAs		
	Elementary Schools	Middle Schools	High Schools
Components of Reimbursable Meals, Other Than Milk, Sold A la Carte	46.1	68.5	81.7
Among SFAs with Schools that Sold Components of Reimbursable Meals A la Carte (n=159):			
Practices Used in Setting Prices for Reimbursable Meal Components Sold A la Carte[a]			
A combination of reimbursable meal components sold a la carte are priced higher than a reimbursable meal	82.3	83.6	82.0
Less healthful items are offered at "premium" prices	27.9	35.1	35.6
Items sold as second servings are priced lower for students who select a reimbursable meal	27.2	42.0	41.1
More healthful items are discounted	29.3	34.1	37.1
	Percentage of Large SFAs		
	Elementary Schools	Middle Schools	High Schools
Components of Reimbursable Meals, Other Than Milk, Sold A la Carte	65.8	72.1	79.5
Among SFAs with Schools that Sold Components of Reimbursable Meals A la Carte (n=164):			
Practices Used in Setting Prices for Reimbursable Meal Components Sold A la Carte[a]			
A combination of reimbursable meal components sold a la carte are priced higher than a reimbursable meal	84.0	86.3	88.7
Less healthful items are offered at "premium" prices	35.8	36.9	36.2
Items sold as second servings are priced lower for students who select a reimbursable meal	28.8	25.2	27.2
More healthful items are discounted	37.6	40.4	38.9

	Percentage of All SFAs		
	Elementary Schools	Middle Schools	High Schools
Components of Reimbursable Meals, Other Than Milk, Sold A la Carte	37.1	79.0	59.3
Among SFAs with Schools that Sold Components of Reimbursable Meals A la Carte (n=384):			
Practices Used in Setting Prices for Reimbursable Meal Components Sold A la Carte[a]			
A combination of reimbursable meal components sold a la carte are priced higher than a reimbursable meal	74.2	79.2	79.9
Less healthful items are offered at "premium" prices	27.1	31.1	35.1
Items sold as second servings are priced lower for students who select a reimbursable meal	28.4	34.7	35.6
More healthful items are discounted	38.3	40.4	42.3
Number of SFAs	**250**	**310**	**359**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Small SFAs have fewer than 1,000 students. Medium-size SFAs have between 1,000 and 5,000 students. Large SFAs have more than 5,000 students.

[a]Multiple responses were allowed.

– Sample size is too small to produce reliable estimate.

SFA = school food authority.

Table C.35. Availability of and Pricing Practices for Reimbursable Meal Components Sold A la Carte, by District Child Poverty Rate

	Percentage of Lower Poverty SFAs		
	Elementary Schools	Middle Schools	High Schools
Components of Reimbursable Meals, Other Than Milk, Sold A la Carte	38.2	52.4	62.7
Among SFAs with Schools that Sold Components of Reimbursable Meals A la Carte (n=232):			
Practices Used in Setting Prices for Reimbursable Meal Components Sold A la Carte[a]			
A combination of reimbursable meal components sold a la carte are priced higher than a reimbursable meal	72.6	77.1	78.5
Less healthful items are offered at "premium" prices	32.5	33.7	39.0
Items sold as second servings are priced lower for students who select a reimbursable meal	29.7	36.4	36.7
More healthful items are discounted	35.2	41.9	44.6
	Percentage of Higher Poverty SFAs		
	Elementary Schools	Middle Schools	High Schools
Components of Reimbursable Meals, Other Than Milk, Sold A la Carte	35.5	47.4	54.4
Among SFAs with Schools that Sold Components of Reimbursable Meals A la Carte (n=152):			
Practices Used in Setting Prices for Reimbursable Meal Components Sold A la Carte[a]			
A combination of reimbursable meal components sold a la carte are priced higher than a reimbursable meal	76.6	82.5	82.4
Less healthful items are offered at "premium" prices	18.9	27.0	28.7
Items sold as second servings are priced lower for students who select a reimbursable meal	26.4	32.0	33.8
More healthful items are discounted	43.0	38.1	38.5
	Percentage of All SFAs		
	Elementary Schools	Middle Schools	High Schools
Components of Reimbursable Meals, Other Than Milk, Sold A la Carte	37.1	79.0	59.3
Among SFAs with Schools that Sold Components of Reimbursable Meals A la Carte (n=384):			
Practices Used in Setting Prices for Reimbursable Meal Components Sold A la Carte[a]			
A combination of reimbursable meal components sold a la carte are priced higher than a reimbursable meal	74.2	79.2	79.9
Less healthful items are offered at "premium" prices	27.1	31.1	35.1
Items sold as second servings are priced lower for students who select a reimbursable meal	28.4	34.7	35.6
More healthful items are discounted	38.3	40.4	42.3
Number of SFAs	**250**	**310**	**359**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Notes: Lower poverty districts have less than 20 percent of students in poverty. Higher poverty districts have 20 percent or more of students in poverty.

[a]Multiple responses were allowed.

SFA = school food authority.

Table C.36. Availability of and Pricing Practices for Reimbursable Meal Components Sold A la Carte, by Urbanicity

	Percentage of Urban SFAs		
	Elementary Schools	Middle Schools	High Schools
Components of Reimbursable Meals, Other Than Milk, Sold A la Carte	25.4	29.2	35.4
Among SFAs with Schools that Sold Components of Reimbursable Meals A la Carte (n=65):			
Practices Used in Setting Prices for Reimbursable Meal Components Sold A la Carte[a]			
A combination of reimbursable meal components sold a la carte are priced higher than a reimbursable meal	–	–	84.2
Less healthful items are offered at "premium" prices	–	–	32.9
Items sold as second servings are priced lower for students who select a reimbursable meal	–	–	38.0
More healthful items are discounted	–	–	29.9
	Percentage of Suburban SFAs		
	Elementary Schools	Middle Schools	High Schools
Components of Reimbursable Meals, Other Than Milk, Sold A la Carte	40.8	60.2	68.7
Among SFAs with Schools that Sold Components of Reimbursable Meals A la Carte (n=198):			
Practices Used in Setting Prices for Reimbursable Meal Components Sold A la Carte[a]			
A combination of reimbursable meal components sold a la carte are priced higher than a reimbursable meal	78.4	82.6	84.3
Less healthful items are offered at "premium" prices	29.5	36.4	45.8
Items sold as second servings are priced lower for students who select a reimbursable meal	29.6	35.0	35.4
More healthful items are discounted	37.0	45.1	45.3
	Percentage of Rural SFAs		
	Elementary Schools	Middle Schools	High Schools
Components of Reimbursable Meals, Other Than Milk, Sold A la Carte	37.3	48.5	58.5
Among SFAs with Schools that Sold Components of Reimbursable Meals A la Carte (n=121):			
Practices Used in Setting Prices for Reimbursable Meal Components Sold A la Carte[a]			
A combination of reimbursable meal components sold a la carte are priced higher than a reimbursable meal	70.1	74.6	75.4
Less healthful items are offered at "premium" prices	24.8	25.7	26.0
Items sold as second servings are priced lower for students who select a reimbursable meal	27.2	33.5	35.3
More healthful items are discounted	42.4	38.4	41.6

	Percentage of All SFAs		
	Elementary Schools	Middle Schools	High Schools
Components of Reimbursable Meals, Other Than Milk, Sold A la Carte	37.1	79.0	59.3
Among SFAs with Schools that Sold Components of Reimbursable Meals A la Carte (n=384):			
Practices Used in Setting Prices for Reimbursable Meal Components Sold A la Carte[a]			
A combination of reimbursable meal components sold a la carte are priced higher than a reimbursable meal	74.2	79.2	79.9
Less healthful items are offered at "premium" prices	27.1	31.1	35.1
Items sold as second servings are priced lower for students who select a reimbursable meal	28.4	34.7	35.6
More healthful items are discounted	38.3	40.4	42.3
Number of SFAs	**250**	**310**	**359**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

[a]Multiple responses were allowed.

– Sample size is too small to produce reliable estimate.

SFA = school food authority.

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Table C.37. Pricing Practices for A la Carte Foods

	Percentage of SFAs
SFAs That Sell A la Carte Foods in Any School Cafeteria	77.3
Among SFAs That Sell A la Carte Foods in Any School Cafeteria (n=449):	
Factors School District Considers in Setting Prices[a]	
Food cost	92.4
Production labor cost (for example, wages or benefits)	59.2
Other production costs (for example, utilities, equipment, or supplies)	27.4
Incentive for student participation in the reimbursable meal program	26.9
Incentive for student consumption of specific items	21.8
Administrative or indirect costs	19.3
Ease of collecting payments	10.7
School principal input	5.3
Other	5.6
Don't know	4.8
Prices Set Using a Percentage or Fixed-Dollar Markup on Food or Other Costs	
Yes	62.6
No	24.5
Don't Know	12.9
Missing	12.9
Among SFAs That Set A la Carte Prices Using a Percentage or Fixed-Dollar Markup (n=309):	
Costs Included in the Base Price[a,b]	
Food cost	99.1
Production labor	62.9
Other production costs	25.0
Administrative or indirect costs	18.0
Other	1.6
Prices for Milk Set Using . . .	
Percentage markup	38.9
Dollar markup	20.3
No specified markup	31.6
Not applicable	9.2
Prices for Other Items on Reimbursable Menu Set Using . . .	
Percentage markup	44.5
Dollar markup	20.4
No specified markup	25.1
Not applicable	10.0
Prices for Other, A la Carte–Only Items Set Using . . .	
Percentage markup	58.4
Dollar markup	17.3
No specified markup	16.1
Not applicable	8.2
Number of SFAs	**518**

Source: School Nutrition and Meal Cost Study, School Food Authority Director Survey, school year 2014-2015. Tabulations are weighted to be representative of all public SFAs offering the National School Lunch Program.

Note: Estimates are limited to SFAs reporting that a la carte items are sold in any of the school cafeterias.

[a]Multiple responses allowed.

[b]The base price is the amount to which the markup is added.

SFA = school food authority.

Table C.38. Foods and Beverages Offered in Vending Machines

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Beverages Sold in Vending Machines				
100% Juice or Water				
Water (plain, flavored, or sparkling)	8.8	40.0	65.8	26.7
Juice (100% fruit or vegetable juice)	1.5	19.4	31.5	11.2
Other Beverages				
Energy and sports drinks	4.7	9.7	50.4	15.6
Diet carbonated soft drinks	3.1	10.1	38.4	12.1
Juice drinks and other sweetened drinks	1.2	9.9	26.8	8.4
Regular carbonated soft drinks	2.8	9.7	19.5	7.7
Hot or cold chocolate drinks	0.3	2.5	2.2	1.1
Other beverages	1.2	1.0	10.1	3.1
Milk				
Low-fat (1%) flavored milk	0.3	1.6	3.3	1.2
Fat-free/skim flavored milk	0.2	0.8	2.4	0.8
Low-fat (1%) unflavored milk	0.0	1.0	2.3	0.7
Whole or reduced-fat (2%) flavored milk	0.0	0.0	1.6	0.4
Whole or reduced-fat (2%) unflavored milk	0.0	0.2	1.3	0.3
Fat-free/skim unflavored milk	0.0	0.0	1.1	0.2
Foods Sold in Vending Machines				
Baked Goods				
Regular pies, turnovers, or toaster pastries	0.4	5.3	11.7	3.8
Regular cookies	0.4	4.2	9.8	3.1
Low-fat cookies	0.3	3.1	7.5	2.4
Low-fat pies, turnovers, or toaster pastries	0.0	0.8	3.6	0.9
Doughnuts	0.0	0.2	2.0	0.5
Low-fat/reduced-fat cakes, cupcakes, or brownies	0.0	0.8	2.5	0.7
Regular cakes, cupcakes, or brownies	0.0	0.8	1.4	0.5
Bread, rolls, bagels, or tortillas	0.0	0.2	0.4	0.1
Other baked goods	0.0	0.2	1.5	0.4
Snacks				
Low-fat/reduced-fat baked chips	1.6	14.3	32.3	10.5
Crispy rice bars or treats	1.2	8.0	24.9	7.6
Regular granola, cereal, or energy bars	1.4	9.1	22.2	7.3
Fruit snacks (including Fruit Roll-Ups and fruit leather)	0.5	6.8	19.3	5.7
Other types of crackers (including animal crackers)	0.2	7.3	19.2	5.6
Low-fat/reduced-fat granola, cereal, or energy bars	1.1	8.1	17.2	5.8
Popcorn	1.2	8.5	16.1	5.8
Regular chips	1.3	9.5	14.4	5.6
Nuts and/or seeds (almonds, peanuts, sunflower seeds, trail mix)	0.9	6.6	16.9	5.4
Pretzels	0.5	5.1	14.1	4.3
Candy	0.9	2.3	10.0	3.1
Cracker sandwiches with cheese or peanut butter	0.4	4.5	8.8	3.0

	Percentage of Schools			
	Elementary Schools	Middle Schools	High Schools	All Schools
Meat snacks (jerky, pork rinds)	0.7	2.5	5.3	2.0
Gum	0.2	1.5	3.0	1.1
Other snacks	0.7	1.8	3.3	1.5
Other Foods				
Canned fruit	0.2	0.6	1.2	0.5
Cheese	0.0	0.5	1.7	0.5
Regular ice cream, frozen yogurt, or sherbet	0.0	1.3	1.6	0.6
Frozen fruit bars or popsicles	0.0	0.8	1.7	0.5
Low-fat/reduced-fat ice cream, frozen yogurt, or sherbet	0.0	0.6	1.2	0.4
Yogurt	0.0	0.4	1.0	0.3
Dried fruit	0.0	0.6	1.0	0.3
Milkshakes, smoothies, or yogurt drinks	0.0	0.5	0.5	0.2
Fresh fruit	0.0	0.0	0.5	0.1
Vegetables	0.0	0.0	0.2	0.0
Other foods	0.0	1.0	0.5	0.3
Number of Schools	**350**	**258**	**250**	**858**

Source: School Nutrition and Meal Cost Study, Vending Machine Checklist, school year 2014-2015. Tabulations are weighted to be representative of all public, non-charter schools offering the National School Lunch Program.

Notes: Percentages reflect all schools, not just schools with vending machines. If respondents indicated the presence of at least one item in a vending machine but left other items unmarked, other items were assumed not to have been present.

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