

USDA Summer Meals Study Summary

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Overview of the USDA Summer Meals Study

The USDA Summer Meals Study provides a comprehensive assessment of the two summer meal programs operated by the U.S. Department of Agriculture (USDA), the Summer Food Service Program (SFSP), and the Seamless Summer Option (SSO). This study examines the characteristics of participating and nonparticipating children, including sociodemographic characteristics, household food security status, reasons for participation or nonparticipation, and satisfaction with the meals served to children in the summer of 2018. The USDA Summer Meals Study also describes the operational aspects of the programs at summer meal sites, characteristics of their food service environments, and the nutritional quality of the meals served to children.

Study Objectives

The USDA Summer Meals Study addresses six study objectives focused on participation, food quality, and implementation of the summer meal programs.

1. Identify reasons for participation and satisfaction levels with the summer meal programs;
2. Assess how characteristics differ between participants and nonparticipants;
3. Determine the reasons for nonparticipation;
4. Determine the food service characteristics of the summer meal sites;
5. Describe the characteristics and content of the summer meals; and
6. Assess facilitators and barriers to preparing and serving summer meals.

This is a summary of the findings discussed in the USDA Summer Meals Study report series. The first volume in the USDA Summer Meals Study report series focuses on the national estimates of program coverage, characteristics of participants and nonparticipants and their households, reasons for participation and nonparticipation, and satisfaction with the summer meal programs. Volume 2 examines the operational characteristics of summer meal program sponsors and sites and program sponsor and site perspectives on children's participation in the summer meal programs; Volume 3 focuses on the characteristics of food service environments at summer meal program sites; Volume 4 assesses the content and nutritional quality of summer menus; Volume 5 provides additional information about the study methodology; and Volume 6 contains all the study instruments.

Key Findings

Participant and Nonparticipant Characteristics

- **Nearly 80 percent of children in low-income households live within one mile of an urban summer meals site or within 10 miles of a rural site.** One-third of children in low-income households live within 0.25 miles of an urban site and within five miles of a rural site.
- **Although the majority of children living in low-income households live near a Summer Meals Program site, most do not participate.** More than 80 percent (83%) of caregivers with children ages 5 through 18 living near a summer meals site report that they do not receive free meals from the site closest to their home.
- **Overall, 45 percent of households with children living near a summer meals site are food insecure, which is higher than the 14 percent of households with children who are food insecure nationally.¹ Further, household food insecurity is significantly higher for summer meal program participants than for nonparticipants (49% and 44%, respectively).** At the child level (rather than the household), there are no significant differences in food security between participants and nonparticipants; both are about 30 percent food insecure, with 5 percent having very low child food security.
- **Participant caregivers most frequently find out about the program through word of mouth (46% of participants), hearing about the program from school staff (17%), friends and neighbors (16%), and their children (13%).** Caregivers at open sites are significantly more likely to hear about the program through a flyer or poster at their child's school, through a flyer or poster at a local food bank, by television or radio, and through a poster or billboard on a bus stop, bus, or train, compared to caregivers whose children attend closed sites.
- **Two-thirds of all caregivers (participants and nonparticipants) indicate that mail is the best way to provide program information; however, only about 13 percent of participant caregivers find out about the program through the mail.** The other top responses, each cited by at least one-quarter of all caregivers, include flyers or posters at the child's school, email or text messages, and the internet/social media.
- **The most common form of transportation to all site types, used by half (50%) of children attending both open and closed sites, is a family vehicle, followed by walking (31%).** Children attending open sites are significantly more likely to walk to and from the site than children attending closed sites (33% compared to 21%). There is no significant difference in the percentage of children using site-provided transportation

¹ Coleman-Jensen et al., 2019.

to get to and from open versus closed sites, although this is much more likely to be an option at closed sites (24%) than open sites (7%).

- **Lack of awareness about the summer program located near their home is the most frequent reason both nonparticipant teens and nonparticipant caregivers give as to why they or their children do not participate in the summer meals program.** Seventy-three percent of nonparticipant teens and 46 percent of nonparticipant caregivers indicate that they did not know about the program at the site closest to their home. At the same time, about one-third (35%) of nonparticipant caregivers have prior experience with a free summer meals program, mostly with children 5 through 12 years of age.
- **Overall, 90 percent of participant caregivers are satisfied or very satisfied with the program.** Only two percent are dissatisfied. Eighty percent of caregivers say they are very likely to recommend the program to others, and 20 percent say they are somewhat likely. No caregivers said that they would not recommend the program to others.

Sponsor and Site Operational Characteristics

- **Three-fourths of program sponsors operate the SFSP and not the SSO.** The most frequent reasons for participating in SFSP instead of SSO are that sponsors prefer the SFSP meal patterns (reported by 53% of SFSP sites) and because of higher SFSP reimbursement rates (36%). Fewer than one in five (17.5%) of SFA-sponsored sites had sponsors that ever participated in SSO. Of these, sites sponsored by SFAs reported that they operated the SSO because there is less paperwork (67%), reviews and monitoring are easier (58%), and State agency administrative reviews are easier (36%).
- **Summer meal sites are most often open to all children who want to attend and are located in urban areas.** About 8 in 10 sites (83%) are open sites, compared with 17 percent of sites that are closed sites. Sites that restrict attendance to enrolled children and/or teens most often describe those who may enroll in their program as children only of a certain age group (38% of sites that require enrollment). Four out every five sites are urban (83%), and 17% of sites are located in rural areas.
- **Schools are the most frequent setting across all sites (48% of all sites) and for sites with an SFA sponsor (65%).** Sites with non-SFA sponsors have more diversity in settings but are most frequently set in recreation or community centers (23% of sites with a non-SFA sponsor) or churches or other religious organizations (17% of sites with a non-SFA sponsor).
- **Children who receive meals from summer meal sites are most often of elementary school age.** On average, sites serve 55 percent of their meals to elementary school age children on a typical day. They serve 21 percent of meals to middle school age children, 14 percent to high school age children, and 10 percent to preschoolers.

- **Access to meal sites is a considerable challenge to children’s participation.** Most sites (89%) report that transportation is needed for children to get to and from the site. However, while children need transportation to attend most sites, just 30 percent of sites provide transportation.
- **Changing the program statute to relax the congregate feeding requirement was the most frequently mentioned suggestion from sponsors and sites to increase participation of children in the summer meal programs.** Sponsors and sites noted that the congregate feeding requirement was challenging for sites with transportation and/or safety issues and for sites with frequent bad weather.

Food Service Characteristics

- **Nearly three out of four sites (74%) follow the SFSP meal pattern.** About one-quarter of sites (24%) follow the school meal programs’ meal patterns, and only two percent follow the CACFP meal pattern². All sites operated by SSO sponsors are required to follow the school meal program meal patterns, while SFA sponsors operating SFSP sites may choose the SFSP or school meal program meal patterns. Among SFSP sites that are sponsored by SFAs, only 17 percent choose to follow school meal program meal patterns. Those that do say that they do so because the school menus provide a good variety (72%), there is no need to retrain staff (66%), and it is cost effective (61%).
- **Sponsors play a significant role in planning summer menus.** For 67 percent of sites, sponsors are responsible for all aspects of menu planning, and for 24 percent of sites, sponsors review the menus prepared by sites and/or vendors or provide guidance materials.
- **Two-thirds of sites offer two meal/snack services.** About half (54%) of sites offer breakfast and lunch, 21 percent of sites offer lunch only, 10 percent offer lunch and a snack, and 5 percent offer breakfast, lunch and a snack.
- **Most sites (82%) serve meals indoors.** Ten percent of sites serve meals outdoors, and eight percent of sites serve meals indoors and outdoors.
- **Most sites (89%) serve fresh fruits and/or vegetables twice a week or more.** Nearly two-thirds (65%) of sites serve fresh fruits and/or vegetables every day or almost every day. Four percent never serve fresh fruits or vegetables.

² There are two instances in which the meal patterns for the Child and Adult Care Program (CACFP) may be used. First, State agencies may authorize sponsors to follow the CACFP meal pattern requirements for children under six years old, which include smaller serving sizes than are indicated in the SFSP meal pattern. Second, sponsors serving teenagers may choose to follow the adult meal patterns found in CACFP, which have larger portion sizes than the SFSP meal patterns.

- **Eighty-five percent of sites have special accommodations in place for children with food allergies or special dietary needs.** Most sites (80%) determine what accommodations need to be made on a case-by-case basis.
- **Ninety-three percent of sites have a written food safety plan.**³ Common food safety procedures followed by sites that have a written food safety plan include hand washing (94%), disposing of meals or foods that fail a food safety check (87%), wearing gloves while handling food (86%), keeping meals cold until serving (85%), using thermometers to check food holding temperatures (81%), serving perishable food within two hours of being left out (66%), and using thermometers to check food cooking temperatures (66%).
- **Eighty-five percent of primary menu planners experience challenges planning or preparing meals.** The most common challenges reported are food costs (72%), children's food preferences (68%), and insufficient staff time (58%). SFSP sites were more likely to cite food costs as a challenge (74%) than SSO sites (57%). Several sponsors and sites noted that the meal reimbursement rates, which are established by statute, have not risen sufficiently to match the increased cost of purchasing, preparing, and transporting the meals, which has led to budgetary challenges.

Nutritional Quality of Meals Offered at Summer Meal Program Sites

Compliance with Meal Pattern Requirements

Site menus were assessed to examine the extent to which sites offer meals and snacks that comply with the daily meal pattern requirements for food components and quantities. Menus were assessed based on the meal patterns that they follow—either SFSP or school meal program (NSLP/SBP) meal patterns. As site menus provided by sponsors did not specify portion size adjustments by age, and since the majority of sites served children in the K-5 grade range, results are presented for the comparison to the meal pattern for the K-5 grade range.

- **Lunch: Nearly all sites (98%) offer foods in all of the required food components at lunch daily, and about 71 percent of sites also provide the required quantities of those components. Results are similar for sites following the SFSP and school meal program meal patterns.** For food component quantities, the vast majority of sites offer milk (99%), grains/breads (96%), fruits (93%), and vegetables (89%) in the required amounts. When less-than-required quantities of food are seen, it is primarily in the meats/meat alternates component, with 16 percent of sites offering less-than-required amount of meats/meat alternates at lunch. Insufficient quantities are seen

³ School food authorities participating in the NSLP are required to have a written food safety program in accordance with 7 CFR 210.13(c). There is no similar requirement for sponsors in SFSP.

primarily in the vegetables component for sites following the NSLP meal patterns, with about 21 percent of sites not offering the required amount of vegetables at lunch.

- **Breakfast:** All sites (100%) offer foods in the three required food components at breakfast daily, and 84 percent of sites provide the required quantities of those components. Results are similar for sites following the SFSP and school meal program meal patterns, though somewhat fewer sites following the school meal program meal patterns meet all quantity requirements (76% compared with 87%). Overall, milk is offered in the required amount by nearly all sites (98%); more than 90 percent of sites meet the quantity requirements for fruits (94%) and grains/breads (92%). Fewer sites that follow the SBP meal patterns meet the quantity requirements for milk (92% compared with 100%) and fruits (85% compared with 97%).
- **Snack:** Nearly all sites (98%) offer snacks that include two food components daily, as required; however, only about 12 percent of sites offer them in the required quantities. The two most commonly offered food components at snack are grains/breads and fruits/vegetables. Most sites (92%) offer foods from the grains/breads component, and 85 percent offer them in the required amount. In contrast, 88 percent of sites offer foods from the fruits/vegetables component, but only one percent offer the required $\frac{3}{4}$ cup amount. Only 15 percent of sites offer foods from the meats/meat alternates food group, and nine percent offer milk at snack. When they are offered, however, sites generally provide the required amounts: 97 percent of sites provide the required quantity of meats/meat alternates, and 98 percent of sites provide the required quantity of milk.

Types of Foods Offered

Site menus were assessed to determine the foods offered at meals and snacks, including the number of choices per day and different items per week and most frequently offered foods in each food group. Foods were classified into eight major food groups and 88 minor food groups, consistent with the groups reported in the USDA, FNS, School Nutrition and Meal Cost Study (Gearan et al, 2019). One of the eight major groups is combination entrées; the other seven groups exclude items that are part of a combination entrée. The major food groups are milk; fruits/100% fruit juices; vegetables; combination entrées; separate grains/breads; separate meats/meat alternates; desserts/other menu items; and accompaniments. The 88 minor groups subdivide the major food groups on the basis of factors that affect nutrient content, such as ingredients or preparation method.

- **Lunch:** On a daily basis, all sites (100%) offer one or more types of milk at lunch, and most sites offer one or more types of fruits/100% fruit juices (98%), vegetables (79%), and combination entrées (85%) that typically contain

meats/meat alternates and grains/breads. In addition, about one-third (34%) of sites offer separate meats/meat alternates and 29 percent offer separate grains/breads. Six out of ten sites (60%) offer one or more accompaniments at lunch, and about one out of ten sites (12%) offers one or more desserts/other menu items. SFSP sites are less likely than SSO sites to offer fruits/fruit juices (94% compared with 98%), vegetables (76% compared with 97%) and accompaniments (57% compared with 75%) at lunch.

- **Breakfast: All sites (100%) offer one or more types of milk at breakfast, nearly all sites offer fruits/100% fruit juices (99%), and most sites offer one or more types of a separate grain/bread item that is not part of a combination entrée (82%).** Nearly one-third of sites (32%) offer desserts/other menu items at breakfast; and one out of five offer separate meats/meat alternates (not part of a combination entrée). Combination entrées are offered by 13% of sites.
- **Snack: More than three-quarters of sites offer one or more type of fruits/100% fruit juices (84%); almost half offer desserts/other menu items (48%) and separate grains/breads (47%).** Sites offer the remaining components less frequently in snacks: meats/meats alternates are offered by 15 percent of sites; milk is offered by 10 percent of sites; and vegetables are offered by 3 percent of sites.

Calorie and Nutrient Content of Summer Meals

The calorie and nutrient content of summer meals is compared with national dietary standards: the 2015-2020 Dietary Guidelines for Americans (DGA) (U.S. Department of Health and Human Services and USDA, 2015), which provides the recommended calorie needs, and the Health and Medicine Division's⁴ Dietary Reference Intakes (DRIs) for children 3 to 18 years of age (National Academy of Sciences, 2019), which provides the recommended daily amounts of vitamins and minerals. Findings are discussed only for children ages 9 to 13, since elementary school age children represent the largest group served through summer meal programs (55%) (Rothstein et al., 2020), and the calorie and nutrient needs for children ages 9 to 13 years are the highest among elementary school age children.

- **On average, lunches offered in summer meal programs provide 659 calories (30% of the recommended daily calorie needs of children 9 to 13 years of age) in addition to essential nutrients for growth and development:**
 - Lunches provide an average of 85 percent of the recommended daily amount of **protein** for children 9 to 13 years.

⁴ The Health and Medicine Division was previously the Institute of Medicine (IOM) program unit of the National Academies.

- **Total fat** accounts for 32 percent of calories offered at lunch, and **saturated fat** provides 10 percent of calories at lunch. The percentage of calories from total fat is within the daily recommended range recommended by the DRI, while the percentage of calories from saturated fat is marginally above the recommended amount.
- Lunches provide 64 percent of the recommended daily amount of **vitamin A**, and 71 percent of the recommended daily amount of **vitamin C** for children 9 to 13 years.
- Lunches provide about 45 percent of the recommended daily amount for both **calcium** and **iron**, and 102 percent of the recommended daily amount for **sodium**.
- Lunches provide about 22 percent of the recommended daily amount of **dietary fiber** for children 9 to 13 years.
- **On average, breakfasts offered in Summer Meals Programs provide 433 calories (20% of the recommended daily calorie needs of children 9 to 13 years of age) in addition to essential nutrients for growth and development:**
 - Breakfasts provide an average of 43 percent of the recommended daily amount of **protein** for 9 to 13 year old children.
 - **Total fat** provides 20 percent of calories and **saturated fat** provides 7 percent of the calories offered at breakfast; these are within the ranges recommended by the DRI and DGA.
 - On average, breakfasts provide 46 percent of the recommended daily amount of **vitamin A**, and 68 percent of the recommended daily amount of **vitamin C** for children 9 to 13 years.
 - On average, breakfasts provide 34 percent of the recommended daily amount of **calcium**, 55 percent of the recommended amount of **iron**, and 38 percent of the recommended amount of **sodium** for children 9 to 13 years.
 - Breakfasts provide an average of 12 percent of the recommended daily amount of **dietary fiber** for children 9 to 13 years.
- **On average, snacks offered in Summer Meals Programs provide 242 calories (11% of the recommended daily calorie needs of children 9 to 13 years of age) in addition to essential nutrients for growth and development:**
 - Snacks provide an average of 13 percent of the recommended daily amount of **protein** for children 9 to 13 years.

- **Total fat** provides 21 percent of the calories offered and **saturated fat** provides less than six percent of the calories offered at snacks; these are within the recommended ranges.
- On average, snacks provide 8 percent of the recommended daily amount of **vitamin A** and 82 percent of the recommended amount of **vitamin C** for children 9 to 13 years.
- On average, snacks provide 8 percent of the recommended daily amount of **calcium** and 19 percent of the recommended amount of **iron** for children 9 to 13 years.
- On average, snacks provide 19 percent of the recommended amount of **sodium** for children 9 to 13 years.
- Snacks provide about 6 percent of the recommended daily amount of **dietary fiber** for children 9 to 13 years.

Background

School Meal Programs

USDA’s Food and Nutrition Service (FNS) administers several programs that address food insecurity among families and children, including programs that provide benefits to families to purchase food or to organizations that serve meals to children in congregate settings. The largest programs that provide meals directly to children are the school meal programs—the National School Lunch Program (NSLP) and the School Breakfast Program (SBP). These programs provide meals to children attending schools during the regular academic school year. The SFSP and SSO provide meals to children during the summer months when the NSLP and SBP are not operating.

In 2018, the school meal programs delivered free and reduced-price lunches to more than 21.9 million children, and free and reduced-price breakfasts to more than 12.5 million children every day (FNS, 2019).

The school meal programs are part of USDA’s overall effort to improve nutrition and reduce food insecurity among children in low-income households. In 2018, food insecurity—defined as not

Six million children experienced food insecurity in 2018 (Coleman-Jensen et al., 2019).

having consistent, dependable access to adequate food for active, healthy living—affected 13.9 percent of households with

children at some time during the year (Coleman-Jensen et al., 2019).⁵ Because families allocate food within the household to shield children from disrupted eating patterns, fewer children experience food insecurity themselves. Research also suggests that some children fear stigma around hunger and actively hide it (Popkin, Scott, and Galvez, 2016). Compared to food secure children, those who experience food insecurity are at risk of numerous negative physical, emotional, and educational outcomes, including higher rates of obesity, more behavioral problems, poorer social skills, and poorer test scores and educational achievement (Jyoti, Frongillo, and Jones, 2005; Metallinos-Katsaras, Must, and Gorman, 2012; Winicki and Jemison, 2003).

Findings from multiple studies with varying methodologies and data sources consistently show that the school meal programs reduce food insecurity. Specifically, past research shows that food insecurity rises during the summer months, when the NSLP and SBP are not operating. Using data from the Current Population Survey, Nord and Romig (2006) compared household food security during the school year to food security during the summer and found higher rates of household food insecurity when school was out for the summer. Similar analyses using the National Health and Nutrition Examination Study and the Early Childhood Longitudinal Study-Birth Cohort confirm these findings (Arteaga and Helfin, 2014; Gundersen, Kreider, and Pepper, 2012). These consistent findings from three large-scale, national studies suggest that the school meal programs play an important role in alleviating food insecurity among households with children and highlight the struggle for families to find alternative sources of food for children during the summer.

Summer Meal Programs

The summer meal programs help children who rely on school meals during the school year to access nutrition assistance during the summer months. The SFSP and SSO, authorized under section 13(a) of the Richard B. Russell National School Lunch Act (42 U.S.C. 1761(a)), provide free, nutritious meals and snacks to children ages 18 years and younger.⁶ These programs serve meals at sites located in low-income areas and at sites in other areas serving a high proportion of low-income children, both in the summer when school is not in session and during long school breaks in communities

⁵ Program participation and household food security data for 2018 are displayed because this is the year in which study data were collected.

⁶ Individuals over age 18 who are enrolled in school programs for persons with disabilities may also receive meals.

with year-round school calendars. Children who participate in the summer meal programs receive meals free of charge, regardless of household income.⁷ Sponsors may receive reimbursement on behalf of sites for up to two meals (including snacks) per child per day, with the exception of migrant sites and camps that can receive reimbursement for up to three meals each day. Meal types include breakfast, lunch, supper, and snack (morning, afternoon, and evening).

The summer meal programs are federally funded and State administered. In both the SFSP and SSO, sponsors are approved by the State to operate one or more summer meal sites. Sites are located in a variety of settings, such as schools, parks, community centers, Boys and Girls clubs, apartment complexes, churches, and migrant centers. Sites can be open or have closed enrollment, and they can also be camps. Open sites are located in a low-income area where at least half of the children in the area are eligible for free or reduced-price school meals; any child aged 18 and under can receive free meals. Closed-enrollment sites may or may not be located in a low-income area; however, at least half of the children enrolled at the program site (e.g., a parks and recreation program, summer enrichment programs) must be eligible for free or reduced-price meals, and all children who are enrolled receive free meals. Residential or day camps only receive reimbursement for meals served to children who qualify for free and reduced-price meals.

In many ways, the SSO program is an extension of the school meal programs, while the SFSP differs in terms of management structure, meal pattern requirements, and reimbursements. First, SFSP program sponsors can include a variety of entities, including school food authorities (SFAs), private nonprofit organizations, and local governments. SSO program sponsors, in contrast, are exclusively SFAs. While all SSO sponsors are SFAs, SSOs can operate in a variety of settings. Second, the SFSP and SSO programs follow different meal patterns, with SSO sites required to follow the meal patterns set forth for the school meal programs. There are key differences between the SFSP and school meal patterns for milk, grains, fruits, and vegetables, and for calories, sodium and saturated fat (see Table 1).

⁷ Except for children in camps, who must be individually eligible for free or reduced-price meals to receive free summer meals.

Table 1. Differences in the meal patterns used in SFSP and SSO in summer 2018

Meal component	SFSP	SSO
Milk	All varieties allowed	Only low-fat (1% milk fat or less, unflavored) or fat-free (unflavored or flavored) allowed
Grain	Whole grain-rich or enriched products allowed	All grain products must be whole grain-rich (unless the site has a waiver)
Fruits and vegetables	Single requirement for fruit and/or vegetable quantity No weekly quantity requirements for types of vegetables	Requires separate quantities of fruits and vegetables at lunch Weekly quantity requirements for types of vegetables
Calories, sodium, and saturated fat	No limits	Limits

Finally, the federal per meal reimbursement rates differ between the SFSP and SSO; SFSP reimbursement rates for meals are higher (the snack reimbursement rate is the same) (see Table 2). With simplified meal patterns and higher reimbursement rates, many SFA sponsors choose to operate the SFSP over the SSO; however, the SSO offers continuity in operations over the entire year and requires less paperwork, making it easier and more attractive for many schools to feed children.

Table 2. Federal reimbursement rates for meals served in SFSP and SSO, summer 2018¹

Meal type	SFSP rates for rural and self-prep sites	SFSP rates for all other types of sites	SSO ²
Breakfast	\$2.2325	\$2.1900	\$2.14
Lunch or supper	\$3.9225	\$3.8575	\$3.48
Snack	\$0.9300	\$0.9100	\$0.91

¹ Reimbursement rates are higher in Alaska, Hawaii, and Puerto Rico.

² SFSP reimbursement rates also differ for rural or self-prep sites. SSO reimbursement rates are the same as the free reimbursement rates for the NSLP and the SBP. SSO reimbursement rates also differ for SFAs that serve fewer than 60 percent free or reduced-price meals and severe need sites. In addition, for SSO sites, school food authorities certified as meeting the meal pattern and nutrition standard requirements set forth in 7 CFR 210 and 220 are eligible to receive performance-based cash assistance for each reimbursable lunch served (an additional six cents per lunch, adjusted annually).

Participation rates in the summer meal programs are much lower than in the school meal programs, suggesting that the programs may not reach everyone who may need food assistance. In July 2018, an average of 2.7 million children per day received meals through SFSP. An additional 1.0 million children received free and reduced-price lunches in NSLP⁸ that same month, some of which were

⁸ FNS does not collect separate program data for the SSO but reports it as part of NSLP/SBP.

lunches served through SSO (FNS, 2019). This is far below the school-year free and reduced-price lunch participation level of 21.9 million children per day in 2018 (FNS, 2019).

There are several fundamental differences between the summer meal programs and the school meal programs that likely account for the lower participation levels. First and foremost, USDA offers the school meal programs through schools where attendance is mandatory, thus ensuring access to all children. Provision of summer meals, in contrast, is through a variety of summer programs and delivery sites for which attendance is voluntary. Additionally, virtually every public school and many private schools make the school meal programs available and provide transportation, while the summer meal programs are primarily offered in areas or sites with high concentrations of low-income children and may or may not provide transportation.⁹ Furthermore, summer meal sites may serve different populations or subgroups of children, depending on the programs and activities of the site. Finally, while the school meal programs operate for the entire duration of the school year, summer meal programs are available for varying lengths of time, ranging from less than one week to the entire summer and at specific times during the day.

Methods

The USDA Summer Meals Study is a nationally representative study of summer meal program sites and program participants and nonparticipants. The study employed a mixed-methods design to address the research objectives. Surveys were administered to sponsors, site staff, and participating and nonparticipating caregivers and children.¹⁰ In-depth interviews were conducted with a subset of current and former sponsors, site staff, and participant and nonparticipant caregivers. Table 3 illustrates the primary data collection activities supporting each study objective.

⁹ The Richard B Russell National School Lunch Act (NSLA) allows the use of school or census data to establish area eligibility in the Summer Food Service Program. When determining area eligibility using school data, the proposed meal site must be located in the attendance area of a school where at least 50 percent of the children are eligible for free or reduced price school meals. When using census data to determine eligibility, the proposed site must be located in a Census Block Group (CBG) or Census Tract in which 50 percent or more of the children are eligible for free or reduced price meals.

¹⁰Site Surveys and Caregiver Surveys were available in Spanish.

Table 3. Primary data collection activities supporting the research objectives

Respondent type and data collection method	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6
Caregivers of participants and nonparticipants						
Survey	✓	✓	✓			
In-depth interviews	✓		✓			
Child participants and teen participants and nonparticipants¹						
Survey	✓		✓			
Site staff						
Survey				✓		✓
Menus					✓	
In-depth interviews						✓
Current and former sponsors²						
Survey				✓		✓
In-depth interviews						✓

¹ Child nonparticipants did not complete a survey.

² Former sponsors did not complete a survey.

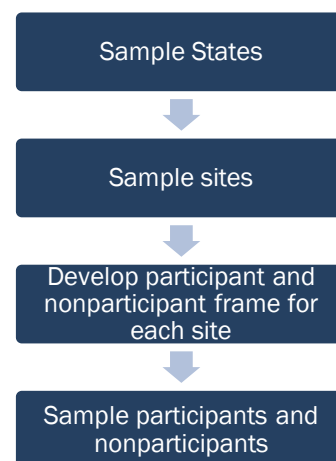
Provided below is a summary of the sampling methodology, data collection protocols, and analysis techniques. A more detailed description of the technical details of the study is provided in Volume 5 (Vericker et al., 2020).

Sampling

This study implemented a multi-stage sampling procedure to obtain a nationally representative sample of summer meal sites and program participants and nonparticipants. Figure 1 illustrates the sampling approach employed.

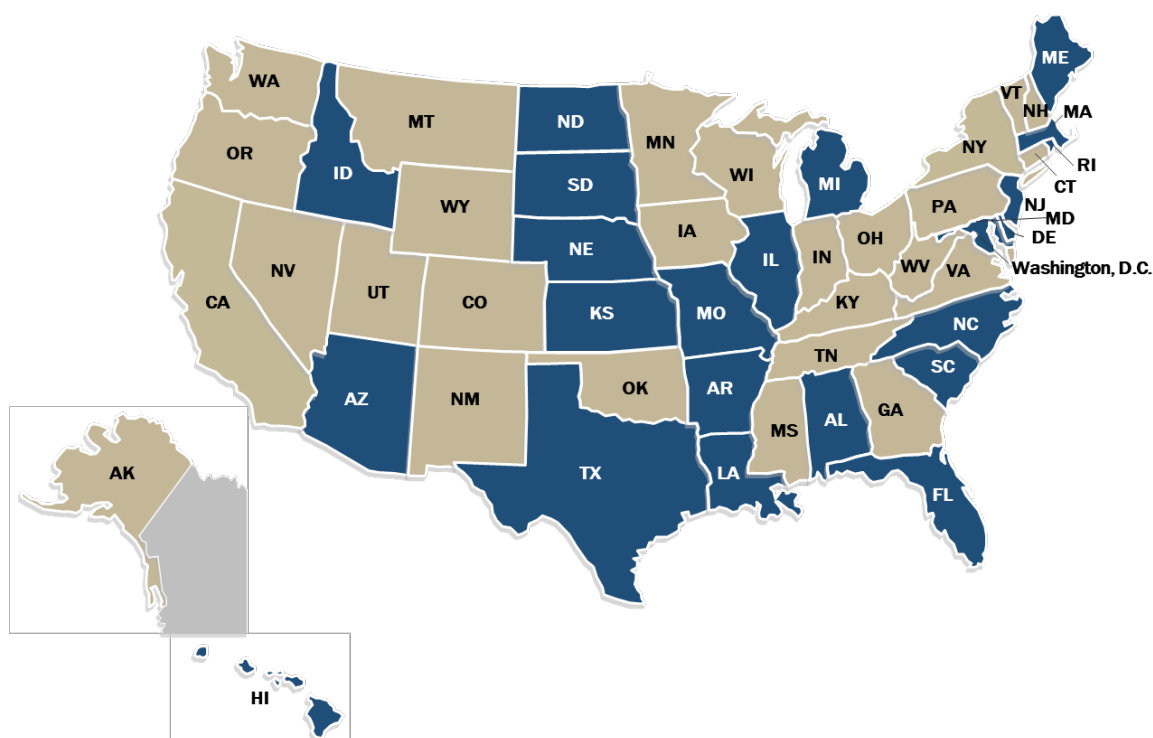
First, 24 States were randomly selected using a systematic sampling method after first sorting by FNS region and a measure of size.¹¹ Twenty-three States agreed to participate in the study. Figure 2 depicts the States that participated in the study.

Figure 1. Sampling approach



¹¹The measure of size used in this study was a normalized value for each State that combined the number of summer meal sites in the State with the average daily number of meals served in July 2018.

Figure 2. States that participated in the USDA Summer Meals Study



Note: The following States highlighted in blue participated in the study: Alabama, Arizona, Arkansas, Delaware, Florida, Hawaii, Idaho, Illinois, Kansas, Louisiana, Maine, Maryland, Massachusetts, Michigan, Missouri, North Carolina, North Dakota, Nebraska, New Jersey, Rhode Island, South Carolina, South Dakota, and Texas.

The study States provided lists of summer meal sites planned for operation in 2018. From those lists, 3,349 sites were sampled using a stratified sampling approach. The site sample size was designed to allow for comparisons between several key subgroups of interest (e.g., program type [SFSP/SSO] and SFA status [SFA/non-SFA]).

A multipronged approach was used to develop a sample frame of summer meal participants and nonparticipants, as neither FNS nor the States had lists of these groups. The sample frame for participants and nonparticipants is based on defining site catchment areas. The concept is that the catchment area represents the community the site serves and where the participating children live. A 0.75-mile catchment area was drawn around each urban site and a five-mile catchment area was drawn around each rural site.¹² To be eligible for the study, a household living in a catchment area had to have at least one child age 5 through 18. To determine presence of children in the household and summer-meal participation status, screeners were mailed to a sample of addresses in the

¹²This study used the U.S. Census Bureau's definition of an urban area. Census defines an urban area as one that has at least 2,500 people. Rural includes all areas that are not included in an urban area.

catchment areas. From the responses to the screener, the sample frames of participants and nonparticipants were built.

Sampling Participants. Participants were sampled using two strategies. First, hard copies of the survey were provided to the sites to distribute to caregivers and children directly. This was the most direct way to contact participants. Second, additional participants were identified through the screener process. All caregivers who responded to the screener and said there were children in the household who went to the sampled site were asked to complete a survey. Survey responses were reviewed to ensure that no individuals provided more than one survey response.

Sampling Nonparticipants. For nonparticipants, the screener was used to create the sample frame. A subsample of households was drawn from those that responded to the screener indicating that they had children but that no one in the household participated in the summer meal programs. This sample of nonparticipants was asked to complete a survey.

Data

The USDA Summer Meals Study collected data from program sponsors and sites, and from participant and nonparticipant caregivers and their children. Data collection from sponsors and sites included a survey of sponsors, a survey of sites, a survey of primary menu planners, weekly summer menus for meals and snacks provided by summer meal program sites, and in-depth interviews with program site staff and current and former program sponsor staff. The survey instruments and in-depth interviews covered a range of topics including characteristics of sponsoring organizations and sites (e.g., program size, site type, site setting, operation schedule, transportation availability); sponsor and site perspectives on summer meal program participation (e.g., promotional activities, program expansion, reasons for sponsor discontinuation); meal patterns; meal provision/acquisition; food storage; menu planning; meals served; and facilitators and barriers to preparing and serving summer meals.

Data collection for participant and nonparticipant caregivers and their children included a survey of caregivers of program participants and nonparticipants; a survey of program participants ages 5 through 12; a survey of program participants ages 13 through 18; a survey of program nonparticipants ages 13 through 18; and in-depth interviews with caregivers of participants and

nonparticipants. The survey instruments and in-depth interviews covered a range of topics including characteristics of participants and nonparticipants and their households (e.g. food security status, where children spend their time in the summer, types of summer programs they frequent, and demographic characteristics such as household income and economic well-being), their reasons for participation or nonparticipation, and participants' satisfaction with the programs.

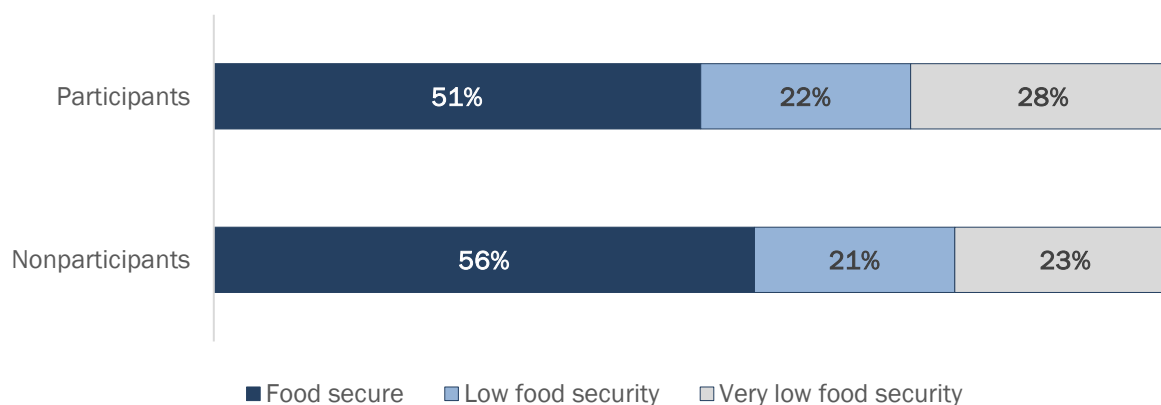
Data collection activities took place between June and November 2018. Data were collected from 453 program sponsors, more than 1,000 sites (completed sample sizes vary by data collection instrument), 4,688 caregivers, and 1,744 children. In-depth interviews were conducted by phone with 19 current sponsors, 19 sites, 14 former sponsors, 24 caregivers of participants, and 24 caregivers of nonparticipants. A discussion of the study methods is provided in Volume 5 (Vericker et al., 2020). Study instruments are provided in Volume 6 (Rothstein et al., 2020).

Participant and Nonparticipant Characteristics

Characteristics of Participants and Nonparticipants

- Nearly 80 percent of children in low-income households live within one mile of an urban summer meals site or within 10 miles of a rural site. One-third of low-income children live within 0.25 miles of an urban site and within five miles of a rural site.
- Although the majority of children living in low-income households live near a Summer Meals Program site, most do not participate. More than 80 percent (83%) of caregivers with children ages 5 through 18 living near a summer meals site report that they do not receive free meals from the site closest to their home.
- Overall, 45 percent of households with children living near a summer meals site are food insecure, which is higher than the 14 percent of households with children who are food insecure nationally (see Figure 3).¹³ Further, household food insecurity is significantly higher for summer meal program participants than for nonparticipants (49% and 44%, respectively). Twenty-eight percent of participant households and 23 percent of nonparticipant households report very low food security. At the child level (rather than the household), there are no significant differences in food security between participants and nonparticipants; both are about 30 percent food insecure, with 5 percent having very low child food security.

Figure 3. Participant and nonparticipant household food security



Source: Summer Meal Study, Caregiver Survey, Summer 2018. Tabulations are weighted to be nationally representative of all children ages 5 through 18 living near a site that offered the summer meal programs. Participant households are representative of all participant households. Nonparticipant households are representative of nonparticipants who live within 0.75 miles of an urban site or 5 miles of a rural site. Participants: unweighted n = 1,713, weighted n = 1,986,284. Nonparticipants: unweighted n = 2,958, weighted n = 9,731,328.

Note: Totals may not add to 100 due to rounding. Differences between participants and nonparticipants are significant at the 0.05 confidence level using t-tests for household food security for food secure, food insecure, and very low food security.

¹³Coleman-Jensen et al., 2019.

- **Seventy-eight percent of participant caregivers and 85 percent of nonparticipant caregivers report that their children receive free or reduced-price school lunches.** Together, the majority of caregivers (participants and nonparticipants in the areas surrounding the site) report that children in the household receive free or reduced-price lunches (84%) or breakfasts (66%) during the school year.
- **Nearly three-quarters (74%) of caregivers report receiving benefits through the Supplemental Nutrition Assistance Program (SNAP) in the past 12 months and about one-fourth (23%) report receiving benefits through the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).** Participation rates in SNAP and WIC do not differ between participants and nonparticipants.
- **About one-quarter (26%) of caregivers report obtaining food from a food pantry, food bank, or soup kitchen.** The use of emergency food sources, such as food pantries, food banks, and soup kitchens, is more common among participant households (35%) than nonparticipant households (24%).
- **The majority of children (79%) spend the summer months at home during the day with their parent, guardian, or sibling.** The second most frequent place children spend their time during the day in the summer is at a summer camp or summer school (20%), with nearly twice as many participant children attending these types of summer programs than nonparticipant children (30% and 17%, respectively).
- **Household demographic characteristics are relatively similar between participants and nonparticipants, though participants have lower household income:**
 - On average, households with children who live near summer meals sites are composed of two adults and two children. Most households have elementary-age children (78%); nearly half have teens in the household (48%); and about one-third (34%) have children under age five. Participant households are significantly more likely to have younger children—ages 5 through 12—than nonparticipant households (83% compared with 77%).
 - For the majority of households with children living near a summer meals sites (85%), English is the primary language spoken at home.
 - Participant households have lower income than nonparticipant households and relatively few households have income above 185 percent of the poverty threshold. Most participant (82%) and nonparticipant (76%) households have incomes at or below 130 percent of the poverty threshold. Nine percent of participant households and 11 percent of nonparticipant households have incomes between 130 and 185 percent of the poverty threshold. Fewer households have income above 185 percent of poverty (9% of participant households and 13% of nonparticipant households). Overall, 36 percent of households report having difficulty making ends meet each month, including

7 percent who report that they are “in over their head” (response options range from “very comfortable and secure” to “in over my head”).

Reasons for Participation and Nonparticipation

- **Over half (56%) of participant caregivers first find out about the summer meal program closest to their home the same year they send their child(ren) to the site.** Another 19 percent first heard of the program last year, so about three-quarters of participants do not have a long history with the program. One-quarter of caregivers report first hearing of the program a few years ago.
- **Participant caregivers most frequently find out about the program through word of mouth (46% of participants), hearing about the program from school staff (17%), friends and neighbors (16%), and their children (13%) (see Table 4).** Caregivers at open sites are significantly more likely to hear about the program through a flyer or poster at their child’s school, through a flyer or poster at a local food bank, by television or radio, and through a poster or billboard on a bus stop, bus, or train, compared to caregivers whose children attend closed sites.

Table 4. Top five ways participant caregivers find out about the program, by site type

How caregivers find out about the program	All caregivers (%)	Caregivers at open sites (%)	Caregivers at closed sites (%)
Flyer or poster at child’s school	30.7	33.5*	20.0
Staff at child’s school told me about it	16.8	15.9	20.1
My friend or neighbor told me about it	15.8	15.3	17.6
My child told me about it	13.1	13.0	13.3
Mail	12.8	12.4	14.6

Source: Summer Meal Study, Caregiver Survey, Summer 2018. Tabulations are weighted to be nationally representative of all children ages 5 through 18 living near a site that offered the summer meal programs. Participant households are representative of all participant households.

*T-test statistic testing of site type differences is significant at $p \leq 0.05$.

- **Two-thirds of all caregivers (participants and nonparticipants) indicate that mail is the best way to provide program information; however, only about 13 percent of participant caregivers find out about the program through the mail.** The other top responses, each cited by at least one-quarter of all caregivers, include flyers or posters at the child’s school, email or text messages, and the internet/social media.
- **Nearly three-quarters of caregivers send their children to summer meals sites because the meals served at the sites are free.** This is the most frequently cited reason for caregivers at both open and closed sites, although caregivers at open sites are more likely to cite this reason than those at closed sites (76% and 65%, respectively). Other reasons cited by at least one-third of caregivers include the site location (47%); the opportunity for the child to make friends (44%); games and activities are provided

(36%); the site's hours (32%); and the child's friends go to the site (31%). Caregivers whose children attend closed sites more frequently mention the opportunity to make friends and the provision of games and activities than those at open sites.

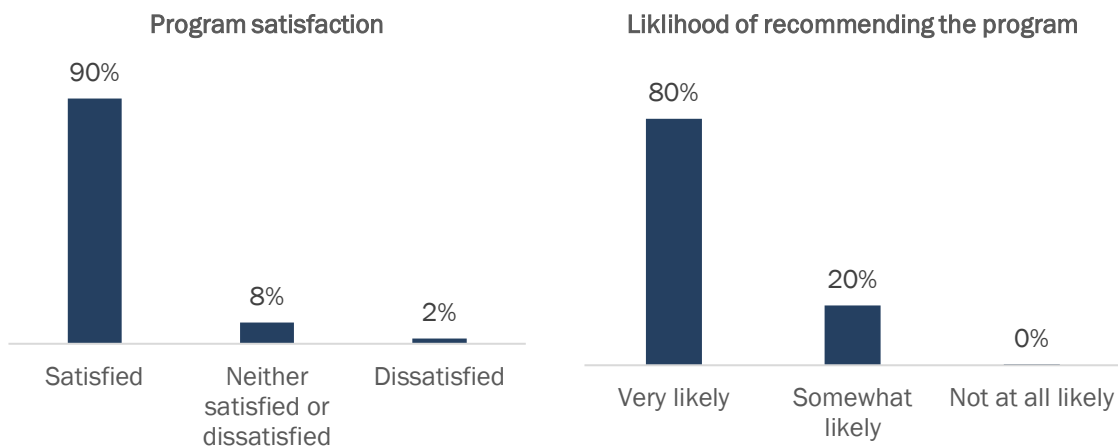
- **The most common form of transportation to all site types, used by half (50%) of children attending both open and closed sites, is a family vehicle, followed by walking (31%).** Children attending open sites are significantly more likely to walk to and from the site than children attending closed sites (33% compared to 21%). There is no significant difference in the percentage of children using site-provided transportation to get to and from open versus closed sites, although this is much more likely to be an option at closed sites (24%) than open sites (7%).
- **Children usually attend the summer meals program as often as their caregivers' desire.** Only 16 percent of caregivers report that their children attend less often than they desire. Participant caregivers at open sites are more likely to report that their children do not attend the site as often as the caregiver desires (18%) than participant caregivers at closed sites (9%). Almost half (49%) of participant caregivers who report that their children do not attend the program every day suggest that better attendance would be possible if the site provides more or better games and activities. Other frequently reported ways to increase attendance include providing free transportation (32%), having the child's friends attend the program (30%), and having a safe location for the site (26%). About one-quarter of these caregivers suggest changes to the site schedule that would improve attendance, including increasing the number of weeks the program is offered over the summer (27%), the number of days each week it operates (24%), and the hours of operation each day (24%). There are no significant differences in these responses between participants of children at open and closed sites.
- **The most frequently cited ways to encourage children to eat summer meals more often all revolve around meal quality.** Caregivers suggest children would be encouraged to eat summer meals on all the days they attend if the meals include more variety of foods (44%), better tasting food (35%), and better looking food (26%). Other top recommendations include serving more hot meals (26%) and allowing children to bring meals and/or snacks home (20%).
- **Lack of awareness about the summer program located near their home is the most frequent reason both nonparticipant teens and nonparticipant caregivers give as to why they or their children do not participate in the summer meals program.** Seventy-three percent of nonparticipant teens and 46 percent of nonparticipant caregivers indicate that they did not know about the program at the site closest to their home. At the same time, about one-third (35%) of nonparticipant caregivers have prior experience with a free summer meals program, mostly with children 5 through 12 years of age.
- **The most frequently cited program features that would encourage nonparticipants to attend the site are the provision of games and activities (38%); free transportation (28%); a daily schedule with more hours (20%), and an**

affordable program cost¹⁴ (20%). Only 12 percent of nonparticipant caregivers would not be interested in sending children to a summer program that offers free meals regardless of the program’s features.

Satisfaction with the Summer Meal Programs

- **Overall, 90 percent of participant caregivers are satisfied or very satisfied with the program (see Figure 4).** Only two percent are dissatisfied. Eighty percent of caregivers say they are very likely to recommend the program to others, and 20 percent say they are somewhat likely. No caregivers said that they would not recommend the program to others.

Figure 4. Caregiver satisfaction with program children attended and likelihood of recommending the program to others



Source: Summer Meal Study, Caregiver Survey, Summer 2018. Tabulations are weighted to be nationally representative of all participant children ages 5 through 18 living near a site that offered the summer meal programs. Answered only by those caregivers whose children had already attended a program at the time of the survey. Participants’ program satisfaction: unweighted n = 1,077; weighted n = 1,138,741. Participants’ likelihood of recommending the program to others: unweighted n = 1,074; weighted n = 1,130,155.

Note: Totals may not add to 100 due to rounding.

- **Over three-quarters of caregivers (77%) report being satisfied or very satisfied with the meals and snacks served.** Just 4 percent say they are dissatisfied or very dissatisfied.
- **More than three-fourths of caregivers rate both the appearance of meals and snacks served by the program (81%) and the variety of foods served at meals and snacks (77%) to be “excellent” or “good.”** Few caregivers say the appearance (6%) or variety (10%) are poor.

¹⁴While meals served at Summer Meals Program sites are free, sites may charge participants to participate in the activities.

- **Ninety-one percent of participant caregivers say they would send their child to the summer meals program next summer.**
- **More than half of nonparticipant caregivers (58%) say they would send their child to the program at the site next summer.** One-third say they are not sure if they would send their child to the site. Just one percent of participants and nine percent of nonparticipants say they would not send their child to the site next summer.

Teens

- **More than half of teens think the foods served are delicious (16%) or pretty good (49%).** About one-third (34%) rate the food as “okay.” Only 1 percent of teens say that the food served at their site is “terrible.”
- **Sixty-five percent of teens report that the food served at their site “tastes good” all or most of the time.** Seventy-three percent say the food served “looks fresh” all or most of the time, and 74 percent say it “smells good” all or most of the time. Few teens (6%) indicate that the taste, appearance, and smell of the food served is hardly ever or almost never good.
- **About half (51%) of teens report that there are many food choices each day “all or most of the time,” and 62 percent report that there are many food choices during the week “all or most of the time.”** Fewer participant teens report food choices available “hardly ever” or “almost never.”
- **Nearly 60 percent of teens report that there is enough free food at the site most of the time for them to feel full.** However, about one-quarter of teens feel there is enough free food served at the site they attend to make them feel full just “some of the time,” and 17 percent say that sites serve enough free food to make them feel full “hardly ever” or “almost never.”
- **The most frequently cited reason teens like eating at their summer meals site (cited by 52% of teens) is that they get to eat with their friends.** Another common reason for liking to eat at the site is that the teen is hungry (38%).
- **Most teens say they would recommend the program to their friends.** Two-thirds of teens would tell their friends to attend the summer meals program next summer. Just one percent of teens say “no,” they would not recommend the summer meals program to a friend.

Children

- **Nearly all children ages 5 through 12 (95%) say that the food served at the summer meals site is “delicious” (29% of children) or “okay” (67% of children).** Only 5 percent of children say the food is “terrible.”

- When asked specifically about the appearance, smell, and taste of the foods served, children ages 5 through 12 tend to respond more positively, with 86 to 87 percent of children saying the food looks good, smells good, and tastes good. Smaller percentages, but still a majority of children, say they feel full after eating the food (68%) and that there are different kinds of food to pick from (63%).

Caregiver Likes and Dislikes about the Summer Meal Programs

During the 24 interviews and among 308 open-ended survey comments,¹⁵ participant caregivers provided comments about specific aspects of the program that they liked or disliked. Their most common likes and dislikes include the following:

What caregivers like most about the program:

- The quality of the food served at their child's summer meal program (54 caregivers);
- The quality of the program staff (48 caregivers); and
- The recreational and/or educational programming that their child's meal site provided (21 caregivers).

"[The summer meals program] helps a lot of families because some families like mine sometimes can't afford the breakfast and the lunches during the summer so I'm grateful..."

- Caregiver

What caregivers like least about the program:

- The requirement that children stay at the site to eat their meal (15 caregivers);
- The limited variety in the summer menu (14 caregivers);
- The site ran out of meals before all the children arrived to eat and/or that the meal portion sizes are too small to meet their children's needs (12 caregivers); and
- Lack of transportation assistance (10 caregivers).

¹⁵A total of 1,722 participant caregivers completed surveys.

Caregiver Recommendations for Program Improvement

During the 24 interviews and in 308 open-ended survey comments,¹⁶ many of the participant caregivers provided suggestions that they believe would improve the summer meals program at their sampled site. Their most common recommendations include the following:

- Improve the variety of food served and allow for options to accommodate children's preferences (17 caregivers);
- Relax the statutory requirement that children stay at the site to eat their meal so that certain children are always allowed to eat off site and all children are allowed to take all or part of their meal or snack home sometimes (15 caregivers);
- Improve the overall quality and taste of the meals by incorporating foods that are both healthy and kid-friendly (11 caregivers);
- Provide transportation to the site (10 caregivers);
- Modify program and meal schedules (10 caregivers);
- Increase meal and snack portion size, particularly for teenagers (8 caregivers);
- Encourage family engagement with the children and offer meals for caregivers at a minimal or no-cost (6 caregivers); and
- Provide meal and other accommodations for children with special dietary needs (5 caregivers).

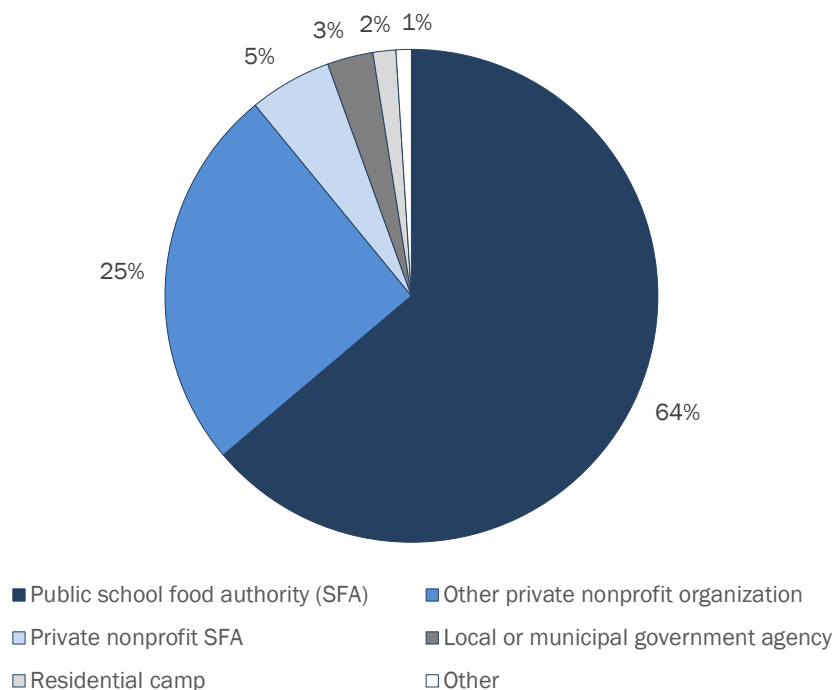
¹⁶A total of 1,722 participant caregivers completed surveys.

Sponsor and Site Operational Characteristics

Characteristics of Program Sponsors

- **Three-fourths of program sponsors operate the SFSP and not the SSO.** The most frequent reasons for participating in SFSP instead of SSO are that sponsors prefer the SFSP meal patterns (reported by 53% of SFSP sites) and because of higher SFSP reimbursement rates (36%). Fewer than one in five (17.5%) of SFA-sponsored sites had sponsors that ever participated in SSO. Of these, sites sponsored by SFAs reported that they operated the SSO because there is less paperwork (67%), reviews and monitoring are easier (58%), and State agency administrative reviews are easier (36%).
- **Nearly two-thirds (64%) of sponsors are public SFAs (see Figure 5).** One-quarter of sponsors are private nonprofit organizations (not including private nonprofit SFAs), while the remainder are other types of organizations, such as local or municipal government agencies or private nonprofit SFAs. Sponsors classified as private nonprofit organizations are most frequently religious organizations.
- **Sponsors are most commonly responsible for two to 10 sites (43% of sponsors).** The number of sites overseen by sponsors ranges from 1 to 418.

Figure 5. Summer Meals Program sponsor types

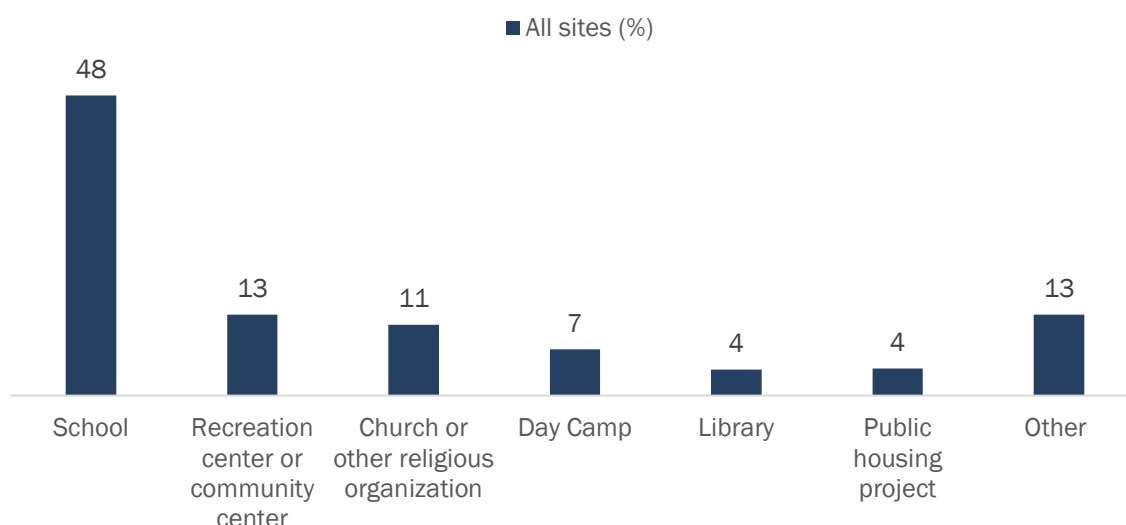


Source: USDA Summer Meals Study, Sponsor Survey, summer 2018. Tabulations are weighted to be nationally representative of all sponsors offering the summer meal programs. Unweighted n = 451; weighted n = 7,362.

Program Site Operational Characteristics

- **Summer meal sites are most often open to all children who want to attend and are located in urban areas.** About 8 in 10 sites (83%) are open sites, compared with 17 percent of sites that are closed sites. Sites that restrict attendance to enrolled children and/or teens most often describe those who may enroll in their program as children only of a certain age group (38% of sites that require enrollment). Four out every five sites are urban (83%), and the remaining 17 percent of sites are located in rural areas.
- **Schools are the most frequent setting across all sites (48% of all sites) and for sites with an SFA sponsor (65%) (see Figure 6).** Sites with non-SFA sponsors have more diversity in settings but are most frequently set in recreation or community centers (23% of sites with a non-SFA sponsor) or churches or other religious organizations (17% of sites with a non-SFA sponsor).
- **The majority of sites (52%) have been operating summer meal programs between two and five years.** More sites with SFSP sponsors are in their first year of program operation (21%) compared with sites with SSO sponsors (11%).
- **About half of sites (53%) have an average daily attendance of 50 children or fewer.** Average daily attendance at summer meal sites ranges from one to 1,000 children.
- **Meal programs typically run from June through August and run for seven weeks.** Few sites (4%) operate for one week or less. Sites operate an average of 5.9 hours daily.

Figure 6. Summer Meals Program site settings



Source: USDA Summer Meals Study, Site Survey, summer 2018. Tabulations are weighted to be nationally representative of all sites offering the summer meal programs. Unweighted n = 945; weighted n = 68,321.

Characteristics of Children Served, Site Activities, and Transportation Offered

- **Children who receive meals from summer meal sites are most often of elementary school age.** On average, sites serve 55 percent of their meals to elementary school age children on a typical day. They serve 21 percent of meals to middle school age children, 14 percent to high school age children, and 10 percent to preschoolers.
- **Almost all sites (95%) provide both free meals and activities to children who attend the site.** Education/instructional activities are the type of activity most often offered to children at summer meal sites, offered by 81 percent of sites, followed by arts and crafts (62% of sites), and supervised free play (55% of sites).
- **Access to meal sites is an important challenge for children's participation.** Most sites (89%) report that transportation is needed for children to get to and from the site. However, while children need transportation to attend most sites, just 30 percent of sites provide transportation.

Promotional Activities and Program Expansion

- **Promotional activities typically begin near the end of the school year and include the use of written materials and public media outlets.** Promotional activities used by sponsors differed for sites that were open to all children versus closed sites that enrolled children. Most sponsors with open sites conducted at least some of the summer meal program outreach themselves, though open sites also do their own outreach. Sponsors do limited, if any, outreach for closed sites, which have their own recruitment efforts and publicity designed to enroll children in their programs' activities.
- **The sponsor and site staff interviewed viewed program expansion differently, with the majority of sponsors indicating they would like to expand, while the majority of site staff said they lacked the capacity to expand.** In discussing barriers to their expansion of meals and hours, sponsors most frequently mentioned programmatic rules and their own resource limitations (e.g., transportation assistance and staff for adult supervision).

Encouraging Program Participation of Sponsors, Sites, and Children

- **To encourage sponsor and site participation, the most frequent recommendation was a statutory change to increase the meal reimbursement rates.**
- **Nearly all program sponsors (98%) said that they were likely to participate in the program next year.**

- **Changing the program statute to relax the congregate feeding requirement was the most frequently mentioned suggestion from sponsors and sites to increase participation of children in the summer meal programs.** Sponsors and sites noted that the congregate feeding requirement was challenging for sites with transportation and/or safety issues and sites with frequent bad weather.

Providing meals at schools, churches, community centers, parks, and libraries has ensured that no kid in our community went hungry this summer.

- Program Sponsor

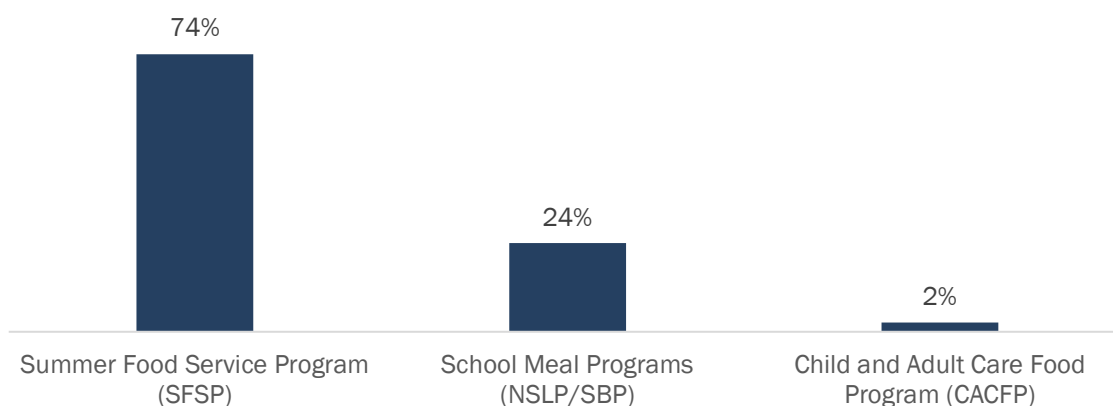
Food Service Characteristics

Meal Patterns and Menu Planning

Survey results are presented at the site level, to provide a nationally representative depiction of site operations. However, it is important to note that sponsors are responsible for many program operational decisions, which includes menu planning.

- **Nearly three out of four sites (74%) follow the SFSP meal pattern.** About one-quarter of sites (24%) follow the school meal programs' meal patterns, and only two percent follow the CACFP meal pattern¹⁷ (see Figure 7). All sites operated by SSO sponsors are required to follow the school meal program meal patterns, while SFA sponsors operating SFSP sites may choose the SFSP or school meal program meal patterns. Among SFSP sites that are sponsored by SFAs, only 17 percent choose to follow school meal program meal patterns. Those that do say that they do so because the school menus provide a good variety (72%), there is no need to retrain staff (66%), and it is cost effective (61%).

Figure 7. Meal patterns used by summer meal sites



Source: USDA Summer Meals Study, Menu Planning Survey, summer 2018. Tabulations are weighted to be nationally representative of all sites offering the summer meal programs. Unweighted n = 1,030; weighted n = 68,188.

Note: Total may not add to 100 due to rounding.

¹⁷There are two instances in which the meal patterns for the Child and Adult Care Program (CACFP) may be used. First, State agencies may authorize sponsors to follow the CACFP meal pattern requirements for children under six years old, which include smaller serving sizes than are indicated in the SFSP meal pattern. Second, sponsors serving teenagers may choose to follow the adult meal patterns found in CACFP, which have larger portion sizes than the SFSP meal patterns.

- **Sponsors play a significant role in planning summer menus.** For 67 percent of sites, sponsors are responsible for all aspects of menu planning, and for 24 percent of sites, sponsors review the menus prepared by sites and/or vendors or provide guidance materials.
- **More than three-quarters (81%) of menu planners use one or more menu planning tools.** Over half of menu planners (60%) use the USDA Summer Meals Toolkit to plan menus. Over forty percent use tools and resources developed by the State Agency (47%), USDA MyPlate materials (43%), and USDA Team Nutrition materials (42%). Most menu planners (95%) report that they have the tools and resources they need to plan menus.
- **About one-fifth (21%) of menu planners consider local or cultural preferences when they develop menus.** Of those that consider local or cultural food preferences, kosher, halal, or other religious preferences are considered in menu planning by 40 percent of sites. About one-quarter of menu planners consider vegetarian (26%) and Hispanic food options (24%).

Meal Provision

- **Two-thirds of sites operated by SFSP sponsors have meals prepared on site or at a central kitchen, while nearly all sites operated by SSO sponsors have meals prepared on site or at a central kitchen (99%).** About one-quarter of sites operated by SFSP sponsors serve meals that are purchased from a private or commercial vendor.
- **Sponsors play a major role in meal provision and acquisition.** Eighty-seven percent of sites in SFSP and 71 percent of sites in SSO have sponsors that prepare, purchase, or assist with purchasing or delivering meals to sites.
- **Two-thirds of sites offer two meal/snack services.** About half (54%) of sites offer breakfast and lunch, 21 percent of sites offer lunch only, 10 percent offer lunch and a snack, and 5 percent offer breakfast, lunch and a snack.
- **Sites vary in their method of meal service.** About half of sites (52%) serve pre-plated or packaged meals, and 43 percent serve meals cafeteria-style; few (5%) use family-style or other meal service types (see Table 5). SFA sites are more likely to use cafeteria-style than non-SFAs (56% compared with 22%), whereas non-SFA sites are more likely to use pre-plated or packaged meals than SFA sites (72% compared with 41%).

Table 5. Meal service types

Meal service characteristic	All sites (%)	SFA status	
		SFA sites (%)	Non-SFA sites (%)
Type of meal service system			
Cafeteria-style	43.1	55.8*	21.9
Pre-plated/pre-packaged	52.4	40.8*	71.6
Family-style	3.2	2.4	4.7
Other	1.3	1.0	1.8
Unweighted n	947	623	324
Weighted n	68,373	42,750	25,623

Source: USDA Summer Meals Study, Site Survey, summer 2018. Tabulations are weighted to be nationally representative of all sites offering the summer meal programs.

Note: Total may not add to 100 due to rounding.

* Differences between SFA sites and non-SFA sites are significant at the 0.05 confidence level using t-tests.

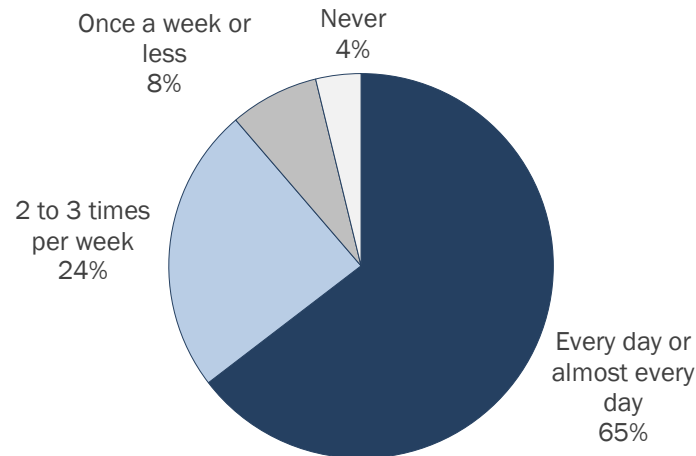
- **Most sites (82%) serve meals indoors.** Ten percent of sites serve meals outdoors, and eight percent of sites serve meals indoors and outdoors.
- **About two-thirds (68%) of sites offer hot meals.** Forty-six percent of sites offer hot meals every day and 22 percent offer hot meals on some days only. Nearly one-third of sites (32%) never serve hot meals.
- **Nearly all sites offer meals at traditional meal times, and children have about 40 minutes, on average, to eat their meals.** Breakfast is served between 7:00 and 9:00 at 94 percent of sites. Ninety-four percent of sites offer lunch between 11:00 and 1:30. Supper is served between 4:00 PM and 7:00 PM for 91 percent of sites.

Food Sources and Other Foods Served

- **Nearly two-thirds of sites (65%) use USDA foods.** SFA sites are more likely to use USDA foods than non-SFA sites (86% compared with 24%) and to use them more often. The most common types of USDA Foods used are meat/poultry (81%), fruits (80%), vegetables (67%), and cheese and yogurt (62%).
- **About two-thirds (67%) of sites serve local foods.** Fruit is the most common local food, served by 83 percent of sites that serve local foods. Other frequently served local foods include vegetables (70%), milk (68%), and bakery products (34%). Among the sites that do not serve local foods, the primary factor for the decision not to serve local foods is limited availability of local vendors (41%), followed by limited availability of local foods (29%).
- **Most sites (89%) serve fresh fruits and/or vegetables twice a week or more.** Nearly two-thirds (65%) of sites serve fresh fruits and/or vegetables every day or almost every day. Four percent never serve fresh fruits or vegetables (see Figure 8).

- **About one-third of sites (35%) offer adult meals.** The majority of these sites require adults to pay for the meal, with only 5 percent of sites offering free meals to adults.
- **Sixteen percent of sites offer extra foods to children, in addition to the reimbursable meal components.** The most common extra food offered is fruit (70%) and the most common beverage is water (43%). Few sites (7%) sell a la carte foods to children.

Figure 8. Use of fresh fruits and vegetables



Source: USDA Summer Meals Study, Menu Planning Survey, summer 2018. Tabulations are weighted to be nationally representative of all sites offering the summer meal programs. Unweighted n = 1,022; weighted n = 67,512.
Notes: Total may not add to 100 due to rounding.

Accommodations

- **Eighty-five percent of sites have special accommodations in place for children with food allergies or special dietary needs.** Most sites (80%) determine what accommodations need to be made on a case-by-case basis (see Table 6).

Table 6. Types of guidelines to accommodate special dietary needs, among sites with guidelines

Types of guidelines	All sites (%)
Accommodations made on case-by-case basis	79.9
Signed statements from healthcare professional required	59.4
Menus adapted	58.3
Special training for staff	54.1
Special sanitation procedures in kitchen and/or dining area	39.9
Staff inspect trays of children	34.7
Team of parents/staff/health professionals makes determination	23.3
Separate tables	17.9
Other	4.2
Unweighted n	746
Weighted n	51,750

Source: USDA Summer Meals Study, Site Survey, summer 2018. Tabulations are weighted to be nationally representative of all sites offering the summer meal programs.

Food Safety

- Ninety-three percent of sites have a written food safety plan.**¹⁸ Common food safety procedures followed by sites that have a written food safety plan include hand washing (94%), disposing of meals or foods that fail a food safety check (87%), wearing gloves while handling food (86%), keeping meals cold until serving (85%), using thermometers to check food holding temperatures (81%), serving perishable food within two hours of being left out (66%), and using thermometers to check food cooking temperatures (66%).

Facilitators to Preparing and Serving Summer Meals

Sponsor and site staff report several factors that facilitate preparing and serving summer meals, including:

- A high-quality and responsive vendor.** Several sponsors and sites praised the quality of their vendor and noted how accommodating they are to their program's and site's needs.

¹⁸School food authorities participating in the NSLP are required to have a written food safety program in accordance with 7 CFR 210.13(c). There is no similar requirement for sponsors in SFSP.

- **Collaboration and support from their partner agencies.** Sponsors attributed their summer meal program's success to collaboration with the State agency, site staff, and other key partners, such as their vendors and the health department.
- **Dedicated and high-quality staff and increased capacity with volunteers.** Comments from sponsors and site staff highlighted the importance of the front-line staff and volunteers who prepare and serve the meals to the program's success.
- **Being able to implement the program utilizing the SSO.** Several SFA sponsors indicated that they very much appreciate being able to use the SSO, which is intended to streamline summer operations for SFAs operating the school meal programs, instead of the SFSP. Sponsors explained that their staff are already familiar with the school meal program requirements and processes so it is easier to implement.

The support that we get from the [name of State] Child Nutrition Program is also valuable to us. I believe it is the commitment that we all share for the sake of our children that makes this program as successful as it is.

–Program Sponsor

We credit a successful program to the positive collaboration with the [vendor name] and the health inspector, and the [name of State] State Department of Education.

–Program Sponsor

Site and Sponsor Perspectives

- Overall, sponsors and sites are satisfied with the summer meal programs, but they do report challenges.
- **All 38 program sponsors and sites interviewed reported overall satisfaction with the summer meal programs.** These respondents praised the program overall for the benefits it allows them to provide for children and the communities they are serving. Among these, the majority also indicated that the summer meal program resources were critical to their organization being able to feed food insecure children and in some cases provide other free or low-cost summer programming for children where none exists.

- **Eighty-five percent of primary menu planners experience challenges planning or preparing meals.** The most common challenges reported are food costs (72%), children's food preferences (68%), and insufficient staff time (58%). Several sponsors and sites noted that the meal reimbursement rates, which are established by statute, have not risen sufficiently to match the increased cost of purchasing, preparing, and transporting the meals, which has led to budgetary challenges.

Many of the children would go hungry if there wasn't a summer meal provided. This is crucial to the healthy development of the child and to enable them to learn and grow.

- Program Site

We have joined with our county library to provide meals to outlying rural communities; that has helped fill a need for activities for learning as well as nutrition needs.

-Program Sponsor

Some sponsors and sites had suggestions for changing current program requirements, including the following, all of which would require changes to the program statute:

- **Relaxing the congregate feeding requirement.** Do not require children to stay onsite in situations where there are transportation or safety issues, nor when it is bad weather days for outdoor sites.
- **Allowing parents to receive meals with their children.** Several sponsors and sites noted that not allowing parents to receive meals paid for by the program was sometimes a barrier to children's participation.
- **Expanding the number of reimbursable meals and snacks to three meals or two meals and a snack per day.** This would allow sites operating all day to serve more meals to children. This recommendation aligns with the current combination of USDA meal programs that are available to low-income children through school meals and the Child and Adult Care Food Program (CACFP) during the school year.

The congregate rule is very challenging. Parents worry about their children's safety when they have to remain onsite to consume the meal. Violence is a huge concern for many families who are served through our mobile feeding program.

-Program Site

If we're having a driving rain, or if it's 120 degrees heat index, the kids have to wait outside in the rain or in that incredible heat, as do the adults that brought them, which is even more of a problem if they walked. We need the flexibility to let the kids take the lunch home on those days.

-Program Sponsor

Nutritional Quality of Meals Offered at Summer Meal Program Sites

Compliance with Meal Pattern Requirements

Site menus were assessed to examine the extent to which sites offer meals and snacks that comply with the daily meal pattern requirements for food components and quantities. Menus were assessed based on the meal patterns that they follow—either SFSP or school meal program (NSLP/SBP) meal patterns.¹⁹ As site menus provided by sponsors using the NSLP/SBP meal patterns did not specify portion size adjustments by age, and since the majority of sites served children in the K-5 grade range, results are presented for the comparison to the meal pattern for the K-5 grade range. There are no age groups for the SFSP meal patterns. For lunch and breakfast, menus for sites following the school meal program meal patterns were also assessed to determine compliance with weekly food component and quantity requirements, and for compliance with the dietary specifications for calories, saturated fat, and sodium. There are no weekly meal pattern requirements for SFSP.

Lunch

- **Nearly all sites (98%) offer foods in all of the required food components at lunch daily, and about 71 percent of sites also provide the required quantities of those components. Results are similar for sites following the SFSP and school meal program meal patterns.** For food component quantities, the vast majority of sites offer milk (99%), grains/breads (96%), fruits (93%), and vegetables (89%) in the required amounts. When less-than-required quantities of food are seen, it is primarily in the meats/meat alternates component, with 16 percent of sites offering less-than-required amount of meats/meat alternates at lunch. Insufficient quantities are seen primarily in the vegetables component for sites following the NSLP meal patterns, with about 21 percent of sites not offering the required amount of vegetables at lunch.
- **Among sites following the NSLP meal pattern, 88 percent of sites offer all required food components across the week, with 11 percent serving lunches that meet all weekly requirements, which include quantities and subgroup requirements for all components. Nearly all sites meet all weekly requirements**

¹⁹No analysis was done for the 10 sites that stated they followed the CACFP meal pattern, due to the low number.

for milk, fruits/100% fruit juice, and meats/meat alternates. There is lower compliance for the vegetable and grain/bread components.

- More than nine out of ten sites (94%) offer vegetables at every lunch, and slightly more than eight of ten sites (81%) provide the weekly required amounts. For vegetable subgroups, most sites offer vegetables in all subgroups over the course of a week. More than three-quarters of sites offer the required weekly amount of red/orange vegetables (80%) and starchy vegetables (78%), with slightly less than three-quarters offering the required weekly amount of dark green vegetables (70%) and other vegetables (69%); fewer than one-half of sites (44%) offer the required weekly amount of beans/peas.
- Nearly all sites (99%) offer grains at every lunch, but slightly less than three-quarters (71%) meet all weekly requirements for grains (i.e., offer the required weekly amount, meet the 100 percent whole grain-rich requirement in effect at the time of the study, and meet the grain-based desserts requirement). Nearly all sites (99%) offer at least half of their grains as whole grain-rich products at lunch.
- **All sites following the NSLP meal pattern offer the minimum required daily amount of calories and meet the requirement to limit saturated fat to less than 10 percent of calories, while only 12 percent of sites meet every dietary specification.** Twenty-two percent meet the requirement for sodium (the Target 1 values in effect in SY 2017-2018), and 16 percent do not exceed the maximum daily calorie requirement.

Breakfast

- **All sites (100%) offer foods in the three required food components at breakfast daily, and 84 percent of sites provide the required quantities of those components. Results are similar for sites following the SFSP and school meal program meal patterns, though somewhat fewer sites following the school meal program meal patterns meet all quantity requirements (76% compared with 87%).** Overall, milk is offered in the required amount by nearly all sites (98%); more than 90 percent of sites meet the quantity requirements for fruits (94%) and grains/breads (92%). Fewer sites that follow the SBP meal patterns meet the quantity requirements for milk (92% compared with 100%) and fruits (85% compared with 97%).
- **Among sites following the SBP meal pattern, almost all sites (98%) offer foods in all three required food components over the week, and about half (47%) offer breakfasts that include the required weekly amounts of foods in all three components.** Most sites (95%) offer the required weekly amount of milk, while nearly three-fourths (74%) of sites meet all weekly requirements for fruits (i.e., they offer the required weekly amount of fruit and no more than half that amount as 100% fruit juice). Nearly two-thirds (65%) meet all weekly requirements for grains (i.e., they offer the required weekly amount of grains and meet the 100 percent whole grain-rich requirement in effect at the time of the study). All sites (100%) offer at least half of their grains as whole grain-rich products at breakfast.

- **All sites (100%) following the SBP meal pattern offer breakfasts that provide the minimum daily calories and meet the requirement to limit saturated fat to less than 10 percent of calories, while about 13 percent of sites meet all SBP dietary specifications.** About one-half of sites (47%) offer breakfasts that meet the sodium requirement (the Target 1 values in effect in SY 2017-2018); fewer than one-fifth (16%) do not exceed the maximum daily calorie requirement at breakfast.

Snack

- **Nearly all sites (98%) offer snacks that include two food components daily, as required; however, only about 12 percent of sites offer them in the required quantities. The two most commonly offered food components at snack are grains/breads and fruits/vegetables.** Most sites (92%) offer foods from the grains/breads component, and 85 percent offer them in the required amount. In contrast, 88 percent of sites offer foods from the fruits/vegetables component, but only one percent offer the required $\frac{3}{4}$ cup amount. Only 15 percent of sites offer foods from the meats/meat alternates food group, and nine percent offer milk at snack. When they are offered, however, sites generally provide the required amounts: 97 percent of sites provide the required quantity of meats/meat alternates, and 98 percent of sites provide the required quantity of milk.

Types of Foods Offered

Site menus were assessed to determine the foods offered at meals and snacks, including the number of choices per day and different items per week and most frequently offered foods in each food group. Foods were classified into eight major food groups and 88 minor food groups, consistent with the groups reported in the USDA, FNS, School Nutrition and Meal Cost Study (Gearan et al, 2019). One of the eight major groups is combination entrées; the other seven groups exclude items that are part of a combination entrée. The major food groups are: milk; fruits/100% fruit juices; vegetables; combination entrées; separate grains/breads; separate meats/meat alternates; desserts/other menu items; and accompaniments. The 88 minor groups subdivide the major food groups on the basis of factors that affect nutrient content, such as ingredients or preparation method.

Lunch

- **On a daily basis, all sites offer one or more types of milk at lunch, and most sites offer one or more types of fruits/100% fruit juices (94%), vegetables (79%), and combination entrées (85%) that typically contain meats/meat alternates and grains/breads. In addition, about one-third (34%) of sites offer separate meats/meat alternates and 29 percent offer separate grains/breads.** Six out of ten sites (60%) offer one or more accompaniments at lunch, and about one out of ten sites

(12%) offers one or more desserts/other menu items. SFSP sites are less likely than SSO sites to offer fruits/fruit juices (94% compared with 98%), vegetables²⁰ (76% compared with 97%) and accompaniments (57% compared with 75%) at lunch.

- **On a daily basis, almost two-thirds of sites (64%) offer two or more choices of milk at lunch, and almost half (46%) offer two or more choices of fruits/100% fruit juices.** One-quarter of sites (25%) offer only one option of separate grains/breads, and only four percent offer two or more choices of separate grains/breads (due to the inclusion of grains/breads as part of combination entrées); twenty-two percent of sites offer two or more combination entrées each day. Substantially more SSO sites offer two or more choices of vegetables each day than SFSP sites (71% of SSO sites compared with 28% of SFSP sites).
- **Lunches offered over the course of a week typically include more than one type of food in seven of the eight major food groups, with the greatest number of items in the fruits/100% fruit juices group (an average of 5.9 different items per week), followed by the vegetables group (an average of 4.1 different items per week).** SSO sites on average offer more items than SFSP sites in the vegetables, combination entrées, and milk food groups.
- **The most frequently offered foods at lunch are as follows:**
 - Unflavored low-fat milk is the most frequently offered type of **milk** at lunch, offered by 86 percent of sites, followed by flavored fat-free milk (offered by 65% of sites).
 - The top five most frequently offered **vegetables** at lunch are carrots (offered by 30% of sites), tomatoes (13%), broccoli (10%), French fries and other fried potatoes (9%), and corn (9%).
 - The top five most frequently offered **fruits** at lunch are apples (offered by 30% of sites), oranges (21%), peaches (21%), bananas (17%), and applesauce (17%). Slightly more than half of summer meal sites (55%) offer fresh or raw fruits at lunch, while about one-third (34%) offer sweetened canned fruits. Slightly more than one-fourth of all sites (27%) offer 100% fruit juice; fewer SSO sites than SFSP sites offer 100% fruit juice (8% compared with 31%).
 - The most frequently offered **combination entrée** is a sandwich with plain meat, poultry, or fish, offered by nearly four of ten sites (36%). A peanut butter sandwich is offered by nearly 16 percent of all sites.

²⁰In the SFSP meal patterns, fruits/vegetables are combined into one component, which may partially explain why SFSP sites offer fewer vegetables than SSO sites.

- The most frequently offered **separate grain/bread items** (not part of a combination entrée) include crackers, croutons, or pretzels; and breads, rolls, bagels, or other plain breads, both offered by 10 percent of sites.
- The most frequently offered separate **meats/meat alternates item (not part of a combination entrée)** at lunch is cheese, offered at 15 percent of sites, followed by breaded or fried chicken/turkey, offered by eight percent of sites.
- The most frequently offered **dessert/other menu item** at lunch is cookies, offered by six percent of sites. All other items in the desserts and other menu items category are offered by fewer than three percent of sites.
- For **accompaniments**, almost half of sites (47%) offer condiments and toppings, such as ketchup and mayonnaise, at lunch and about one-third (32%) offer salad dressing.

Breakfast

- **All sites (100%) offer one or more types of milk at breakfast, and most sites offer one or more types of a separate grain/bread item that is not part of a combination entrée (82%), and fruits/100% fruit juices (82%).** Nearly one-third of sites (32%) offer desserts/other menu items at breakfast; and one out of five offer separate meats/meat alternates (not part of a combination entrée). Combination entrées are offered by 13% of sites.
- **On a daily basis, 62 percent of sites offer two or more choices of milk at breakfast; more than half (53%) offer two or more choices of fruits/100% fruit juices; and 21 percent offer two or more choices of separate grain/bread items.** The percentages of sites offering choices in other food groups are much lower. When examining the number of choices by program type, SSO sites are two to three times as likely as SFSP sites to offer two or more choices for milk (77% for SSO compared with 38% for SFSP), fruits/100% fruit juices (60% compared with 18%), and separate grains/breads (32% compared with 12%).
- **Breakfasts offered over the course of a week typically include more than one type of food in each of the three required components, with the greatest number of items in the fruits/100% fruit juices group (an average of 6 different items per week), followed by the grain or bread items from the separate grains/breads group (an average of 4 different items per week), and milk group (an average of 2 different items per week).** Sites offer fewer weekly items (1 or less per week) in the remaining food components.

- **Among the most frequently offered food components at breakfast, the most frequently offered foods are as follows:**
 - Unflavored low-fat milk is the most frequently offered type of **milk** at breakfast, offered by 93 percent of sites, followed by flavored fat-free milk (offered by 49% of sites). About one-quarter of sites (26%) offer fat-free, unflavored milk.
 - The most commonly offered **separate grains/breads** at breakfast include sweetened cold cereal (offered by 45% of sites), followed by unsweetened cold cereal (25%). Besides cereal, the other most commonly offered foods from the separate grains/breads group include muffins, sweet/quick breads (offered by 17% of sites); breads, rolls, bagels, and other plain breads (14%); and pancakes, waffles, or French toast (11%).
 - Fresh **fruit** is offered in nearly half of all breakfasts (44%), while sweetened canned fruit is offered in three out of ten breakfasts (29%). The most frequently offered fruits, excluding 100% juices, at breakfast are apples (offered by 23% of sites), bananas (19%), applesauce (19%), oranges (19%), and peaches (17%). Juice is the most common form of fruits/100% fruit juices offered at breakfast, offered by 60 percent of sites.

Snack

- **Slightly more than half of sites offer one or more type of fruits/100% fruit juices (52%); almost half offer desserts/other menu items (48%) and separate grains/breads (47%).** Sites offer the remaining components less frequently in snacks: meats/meats alternates are offered by 15 percent of sites; milk is offered by 10 percent of sites; and vegetables are offered by 3 percent of sites.
- **On a daily basis, slightly more than one out of ten sites (13%) offers two or more choices from the fruits/100% fruit juices group at snack. Most of the fruit offered at snack is in the form of 100% fruit juice.** Five percent or fewer sites offer two or more choices of milk (5%), separate grains/breads (3%), and desserts/other menu items (<1%).
- **Snacks offered over the course of the week typically include more than one type of food in four of the eight food groups: Fruits/100% fruit juices, separate grains/breads, separate meats/meat alternates, and desserts/other menu items.** The fruits/100% fruit juice group includes an average of 3 items per week, followed by separate grains/breads (an average of 2 items per week), and desserts and other menu items (an average of 2 items per week). For all remaining food groups, sites offer one or fewer items per week.

- **Among the most frequently offered food components at snack, the most frequently offered foods are as follows:**
 - Apple juice (offered by 39% of sites) and fruit juice blend (39%) are the two most frequently offered **fruits/100% fruit juices** at snack. Apples are the most commonly offered whole fruit, offered by five percent of sites.
 - The most commonly offered foods at snack from the **separate grains/breads** group are crackers, croutons, or pretzels (offered by 29% of sites). About five percent of the sites offer granola (5.4%) or breakfast bars and muffins (4.9%) at snack.
 - Cookies are the most frequently offered food from the **desserts/other menu items** group, offered by 42 percent of sites.

Calorie and Nutrient Content of Summer Meals

The calorie and nutrient content of summer meals is compared with national dietary standards: the 2015-2020 Dietary Guidelines for Americans (DGA) (U.S. Department of Health and Human Services and USDA, 2015), which provides the recommended calorie needs, and the Health and Medicine Division's²¹ Dietary Reference Intakes (DRIs) for children 3 to 18 years of age (National Academy of Sciences, 2019), which provides the recommended daily amounts of vitamins and minerals. Findings are discussed only for children ages 9 to 13, since elementary school age children represent the largest group served through summer meal programs (55%) (Rothstein et al., 2020), and the calorie and nutrient needs for children ages 9 to 13 years are the highest among elementary school age children.

Lunch

- **The average calorie content of lunches offered in summer meal programs is 659 calories, which is 30 percent of the recommended daily calorie needs of children 9 to 13 years of age.** Food items from the combination entrées and the milk groups are the largest contributors to calories at lunch, contributing 39 percent and 20 percent, respectively. The top three food sources of calories at lunch include sandwiches with plain meat, poultry, or fish; unflavored low-fat milk; and flavored fat-free milk.
- **Summer meal program lunches provide an average of 85 percent of the recommended daily amount of protein for children 9 to 13 years.** Food items from the combination entrées (48%) and the milk groups (30%) are the largest contributors

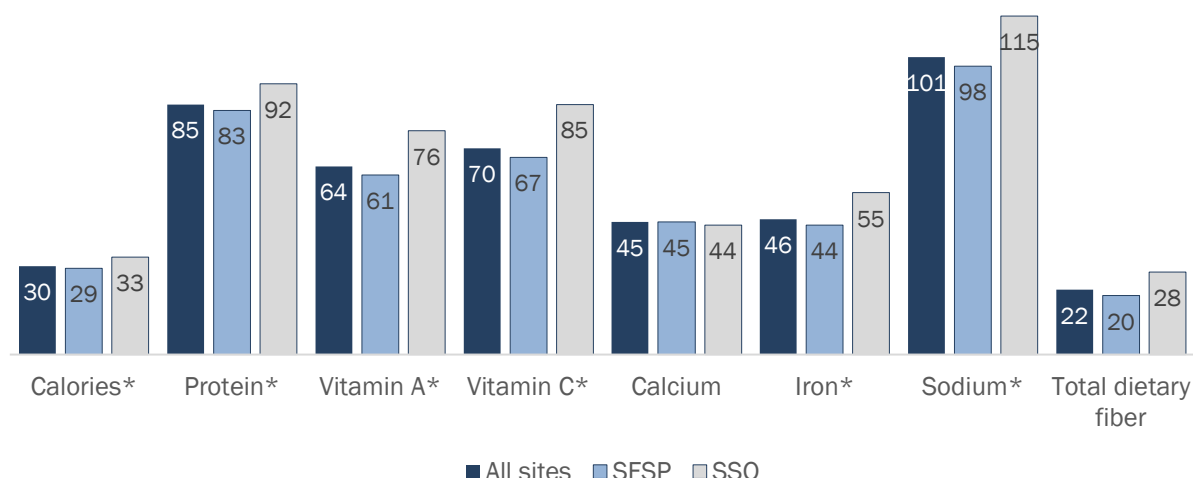
²¹The Health and Medicine Division was previously the Institute of Medicine (IOM) program unit of the National Academies.

to protein at lunch. Similar to calories, the top three food sources of protein at lunch include sandwiches with plain meat, poultry, or fish; unflavored low-fat milk; and flavored fat-free milk.

- **Total fat accounts for 32 percent of calories offered at lunch, and saturated fat provides 10 percent of calories at lunch.** The percentage of calories from total fat is within the daily recommended range recommended by the DRI and DGA, while the percentage of calories from saturated fat is marginally above the recommended amount. Food items from the combination entrées group contribute about half the total fat (51%) and saturated fat (53%) served at lunch. Accompaniments, such as salad dressing, are the second largest food group contributor to total fat at lunch; milk is the second largest food group contributor to saturated fat. The top food source of total fat and saturated fat at lunch is sandwiches with plain meat, poultry, or fish.
- **Lunches provide 64 percent of the recommended daily amount of vitamin A, and 71 percent of the recommended daily amount of vitamin C for children 9 to 13 years.** Milk (51%) is the largest contributing food group source of vitamin A at lunch, followed by vegetables (27%). The top three food sources of vitamin A at lunch are unflavored low-fat milk, flavored fat-free milk, and raw red and orange vegetables. Food items from the fruits/100% fruit juices (58%) and the vegetables (28%) food groups are the largest contributors of vitamin C at lunch. The top three food sources of vitamin C are fresh fruits, 100% juices, and raw red and orange vegetables.
- **Lunches provide about 45 percent of the recommended daily amount for both calcium and iron, and 102 percent of the recommended daily amount for sodium.** Milk (55%) is the largest contributing food group of calcium at lunch, followed by combination entrées (29%). The top three sources of calcium at lunch are unflavored low-fat milk; flavored fat-free milk; and a sandwich with plain meat, poultry, or fish. Food items from the combination entrées group (53%) are the largest contributors to iron, and the top three food sources of iron include sandwiches with plain meat, poultry, or fish; flavored fat-free milk; and peanut butter sandwiches. Food items from the combination entrées group (49%) are also the largest contributors to sodium. The top three food sources of sodium include sandwiches with plain meat, poultry, or fish; flavored fat-free milk; and condiments and toppings.
- **Lunches provide about 22 percent of the recommended daily amount of dietary fiber for children 9 to 13 years.** Food items from the combination entrées (33%) and the fruit groups (29%) are the largest contributors of fiber at lunch. The top three sources of fiber at lunch are fresh fruits; sandwiches with plain meat, poultry, or fish; and raw red and orange vegetables.

Figure 9 presents a summary of the contributions of summer meal lunches to the daily recommended amounts of energy, vitamins, and minerals discussed above.

Figure 9. Percent of recommended daily calories and nutrients provided by summer meal lunches, overall and by summer meal program type



Source: USDA Summer Meals Study, site menu analysis, summer 2018. Tabulations are weighted to be nationally representative of all sites offering the summer meal programs. All sites: unweighted n = 731; weighted n = 67,285; SFSP: unweighted n = 578; weighted n = 55,926; SSO: unweighted n = 153; weighted n = 11,359.

* Differences between SFSP sites and SSO sites are significant at the 0.05 confidence level using t-tests.

SFSP = Summer Food Service Program SSO = Seamless Summer Option

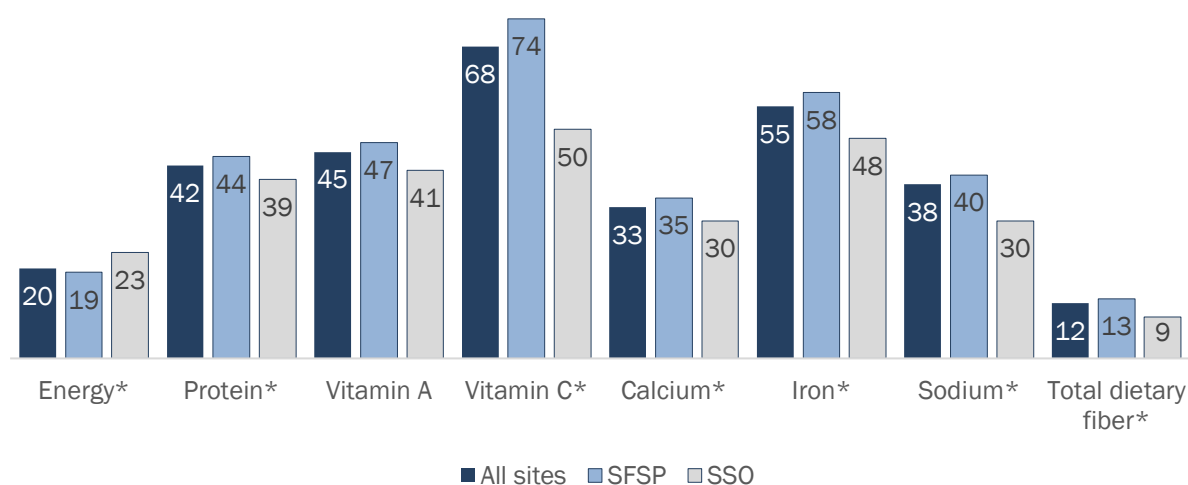
Breakfast

- **The average caloric content of breakfasts offered in summer meal programs is 433 calories, which is 20 percent of the daily recommended calorie amounts for children 9 to 13 years of age.** Food items from the separate grains/breads (30%), milk (28%), and fruit groups (20%) are the top three contributors to calories at breakfast. The top three food sources of calories at breakfast are unflavored low-fat milk, flavored fat-free milk, and sweetened cold cereal.
- **Breakfasts provide an average of 43 percent of the recommended daily amount of protein for 9 to 13 year old children.** Food items from the milk (60%), separate grains/breads (18%), and separate meats/meat alternates groups (6%) are the largest contributors of protein at breakfast. The top three food sources of protein at breakfast are all milk: unflavored low-fat milk, flavored fat-free milk, and unflavored fat-free milk.
- **Total fat provides 20 percent of calories and saturated fat provides 7 percent of the calories offered at breakfast; these are within the ranges recommended by the DRI and DGA.** Food items from the separate grains/breads (36%), milk (25%), and desserts/other menu items (16%) groups are the largest contributors to total fat at breakfast. These are also the largest contributors to saturated fat, though with different contributions: milk (41%), separate grains/breads (25%), and desserts/other menu items (12%). The top food source of total fat and saturated fat is unflavored low-fat milk.

- **On average, breakfasts provide 46 percent of the recommended daily amount of vitamin A, and 68 percent of the recommended daily amount of vitamin C for children 9 to 13 years.** Similar to lunch, milk (60%) is the largest contributing food group source of vitamin A at breakfast, followed by separate grains/bread (28%) and desserts/other menu items groups (3%). The top three food sources of vitamin A at breakfast include unflavored low-fat milk, flavored fat-free milk, and unsweetened cold cereal. Food items from the fruits/100% fruit juices (80%), separate grains/breads (14%), and milk food groups (3%) are the largest contributing sources of vitamin C at breakfast. The top three food sources of fiber at breakfast are fresh fruits; sweetened cold cereal; and sweetened canned fruits. One hundred percent fruit juices and fresh fruits are the top two food sources of vitamin C at breakfast.
- **On average, breakfasts provide 34 percent of the recommended daily amount of calcium, 55 percent of the recommended amount of iron, and 38 percent of the recommended amount of sodium for children 9 to 13 years.** Food items from the milk (72%) and separate grains/breads (15%) groups are the largest contributing food groups for calcium at breakfast. The top three food sources of calcium at breakfast are all from the milk food group and include unflavored low-fat milk, flavored fat-free milk, and unflavored fat-free milk. Food items from the separate grains/breads (64%), desserts/other menu items (12%), and fruits/100% fruit juices (9%) food groups are the largest contributors to iron at breakfast. The top three sources of iron at breakfast are from the grain/breads group and include sweetened cold cereal, unsweetened cold cereal, and muffins (excluding English muffins) and sweet/quick breads.
- **On average, breakfasts provide 38 percent of the recommended daily amount of sodium for children 9 to 13 years.** Food items from the separate grains/breads (39%), milk (35%), and desserts/other menu items (11%) groups are the largest contributors to sodium at breakfast. The top three food sources of sodium at breakfast are unflavored low-fat milk, flavored fat-free milk, and sweetened cold cereal.
- **Breakfasts provide an average of 12 percent of the recommended daily amount of dietary fiber for children 9 to 13 years.** Fruits/100% fruit juices (41%) is the largest contributing food group for fiber at breakfast, followed by separate grains/breads (41%) and desserts and other menu items (10%). The top three food sources of fiber at breakfast are fresh fruits; sweetened cold cereal; and sweetened canned fruits.

Figure 10 presents a summary of the contributions of summer meal breakfasts to the recommended daily amounts of energy, vitamins, and minerals discussed above.

Figure 10. Percent of recommended daily calories and nutrients provided by summer meal breakfasts, overall and by summer meal program type



Source: USDA Summer Meals Study, site menu analysis, summer 2018. Tabulations are weighted to be nationally representative of all sites offering the summer meal programs. All sites: unweighted n = 523; weighted n = 43,795; SFSP: unweighted n = 405; weighted n = 35,321; SSO: unweighted n = 118; weighted n = 8,475.

* Differences between SFSP sites and SSO sites are significant at the 0.05 confidence level using t-tests.

SFSP = Summer Food Service Program SSO = Seamless Summer Option

Snack

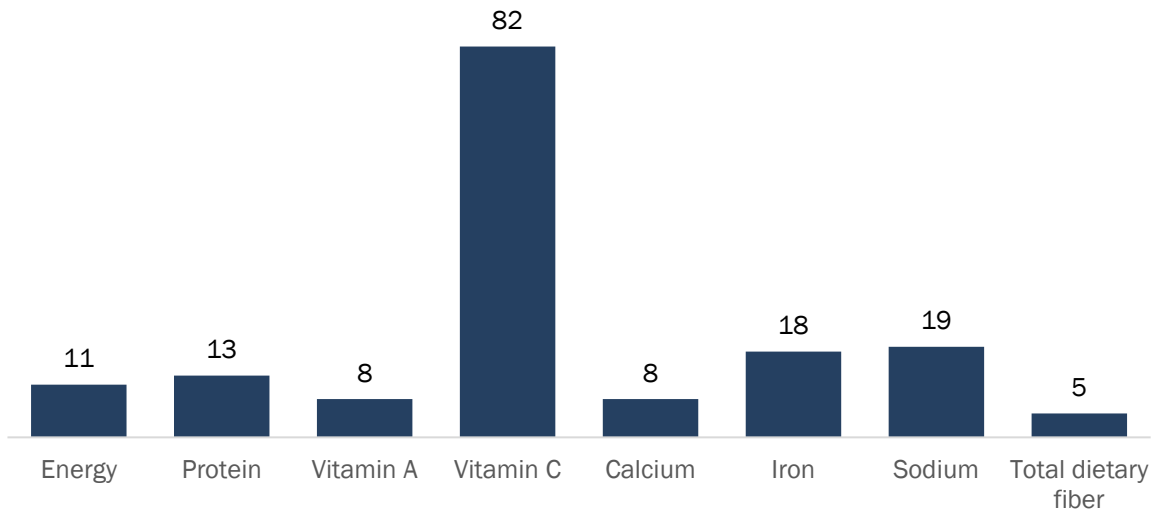
- **The average calorie content of snacks offered at summer meal programs is 242 calories, which is 11 percent of the recommended daily amount of calories for children 9 to 13 years of age.** Food items from the fruits/100% fruit juices (35%), desserts/other menu items (27%), and separate grains/breads (26%) food groups are the top three contributors to calories at snacks. The top three food sources of calories at snacks are 100% fruit juices; cookies; and crackers, croutons, or pretzels.
- **Snacks provide an average of 13 percent of the recommended daily amount of protein for children 9 to 13 years.** Food items in the desserts/other menu items (34%), separate grains/breads (33%), and fruits/100% fruit juices (13%) food groups are the top three contributors to protein at snacks. The top three food sources of protein at snacks are cookies; crackers, croutons, or pretzels; and 100% fruit juices.
- **Total fat provides 21 percent of the calories offered and saturated fat provides less than 6 percent of the calories offered at snacks; these are within the recommended ranges.** Food items from the desserts/other menu items (40%), separate grains/breads (37%), and separate meats/meat alternates (11%) groups are the top contributors to total fat and to saturated fat at snack. The top three food sources of both total fat and saturated fat at snack are cookies; crackers, croutons, or pretzels; and cheese.

- **On average, snacks provide 8 percent of the recommended daily amount of vitamin A and 82 percent of the recommended amount of vitamin C for children 9 to 13 years.** Food items from the separate grains/breads (33%), fruits/100% fruit juices (29%), and separate meat/meat alternates (16%) groups are the largest contributors to vitamin A at snack. The top three sources of vitamin A at snacks are 100% fruit juices; crackers, croutons, or pretzels; and cheese. Food items from the fruits/100% fruit juices (87%) food group are the largest contributors of vitamin C at snacks. The top two sources of vitamin C at snacks are 100% fruit juices and fresh fruits, with 100% fruit juices contributing 74 percent of vitamin C and fresh fruits 8 percent.
- **On average, snacks provide 8 percent of the recommended daily amount of calcium and 19 percent of the recommended amount of iron for children 9 to 13 years.** Food items from the fruits/100% fruit juices, separate grains/breads, and desserts/other menu items groups are the largest contributors of calcium at snacks (31%, 24% and 22% respectively). The top three food sources of calcium at snacks are 100% fruit juices; cookies; and crackers, croutons, or pretzels. Food items in the grains/bread, desserts/other menu items, and fruits/100% fruit juices groups are also the largest contributors to iron at snacks (37%, 37% and 20% respectively). The top three food sources of iron at snacks are cookies; crackers, croutons, or pretzels; and 100% fruit juices.
- **On average, snacks provide 19 percent of the recommended amount of sodium for children 9 to 13 years.** Food items from desserts/other menu items, separate grains/breads, and separate meats/meat alternates groups are the largest contributors to sodium at snacks (40%, 39%, and 10%, respectively). The top three food sources of sodium at snacks are cookies; crackers, croutons, or pretzels; and cheese.
- **Snacks provide about 6 percent of the recommended daily amount of dietary fiber for children 9 to 13 years.** Food items from the fruits/100% fruit juices (35%), desserts/other menu items (31%), and separate grains/breads (30%) groups make an almost equal contribution to the fiber at snacks. The top three food sources of fiber at snacks are cookies; 100% fruit juices;²² and crackers, croutons, or pretzels.

Figure 11 presents a summary of the contributions of summer meal snacks to the recommended daily amounts of energy, vitamins, and minerals discussed above.

²²100% fruit juice provides 29% of the fiber at snack, or approximately 0.5 g fiber; this is roughly equal to the amount of fiber provided by 8 ounces of 100% apple juice.

Figure 11. Percent of recommended daily calories and nutrients provided by summer meal snacks



Source: USDA Summer Meals Study, site menu analysis, summer 2018. Tabulations are weighted to be nationally representative of all sites offering the summer meal programs. Unweighted n = 132; weighted n = 11,212.

SFSP = Summer Food Service Program

SSO = Seamless Summer Option

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