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Feeding Low-Income Children When School Is Out—The Summer Food Service Program

By Anne Gordon, Ronette Briefel, Karen Needels, Nancy Wemmerus, Teresa Zavitsky, Randy Russo, Tania Tasse, Laura Kalb, Anne Peterson, and Darryl Creel of Mathematica Policy Research, Inc.

ERS project representative: Jane E. Allshouse

Abstract

The U.S. Department of Agriculture, through the Summer Food Service Program (SFSP), funds meals for children in low-income areas when school is not in session. The first comprehensive study of the SFSP since 1986 found that, in fiscal year 2001, more than 4,000 local sponsors provided about 130 million meals at more than 35,000 feeding sites. The number of children served in July 2001 (2.1 million per day) was about 14 percent of the number who received free or reduced-price school meals each day during the previous school year. On average, SFSP meals provided the levels of key nutrients recommended for school meals. However, breakfasts were slightly lower in food energy than recommended, and lunches were higher in fat. Half the SFSP sponsors were school districts, which operated about half the sites and served about half the meals. Other sponsors included government agencies, private nonprofit organizations, and residential camps. The nationally representative study, which was sponsored by USDA's Economic Research Service, surveyed State administrators, sponsor staff, and site staff on program operations and on factors that affect participation.

This report was prepared by Mathematica Policy Research, Inc., under a research contract from the Economic Research Service.

Executive Summary

Acknowledgments

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Introduction

The Summer Food Service Program (SFSP) provides meals to children when school is not in session. To be eligible to offer the program, feeding sites generally must be located in low-income areas or must serve primarily low-income children. Because SFSP meals usually are provided in conjunction with activities for children, the program also helps to sustain summer programs that promote physical activity, and that foster children's social and educational development.

The SFSP is funded through the U.S. Department of Agriculture (USDA) and is supervised by State administrative agencies and USDA's Food and Nutrition Service (FNS). The program had expenditures of $272 million in fiscal year 2001. More than 4,000 local agencies (sponsors) provided meals at more than 35,000 feeding sites. In July 2001, about 2.1 million children per day received SFSP meals.

This report summarizes the results of the SFSP Implementation Study, a descriptive study of the operations of the SFSP at the State and local levels.

Mathematica Policy Research, Inc., under contract to USDA's Economic Research Service (ERS), collected nationally representative data during summer 2001 to describe how the program works, and how SFSP staff think it could be improved. The study's major research questions are as follows:

- ***How does the SFSP operate at the State, sponsor, and site levels?***
- ***What factors affect participation by sponsors and children?*** What barriers to participation do program staff believe are the most important? What efforts are program staff making to expand participation? What factors are associated with sponsors' entry and exit?
- ***What is the nutritional quality of meals served, and what is the extent of plate waste?*** How are SFSP meals prepared and served, and what types of foods do they contain? How well do the meals meet USDA requirements and other nutrition standards? What factors are associated with more nutritious meals and less waste?

Data Sources

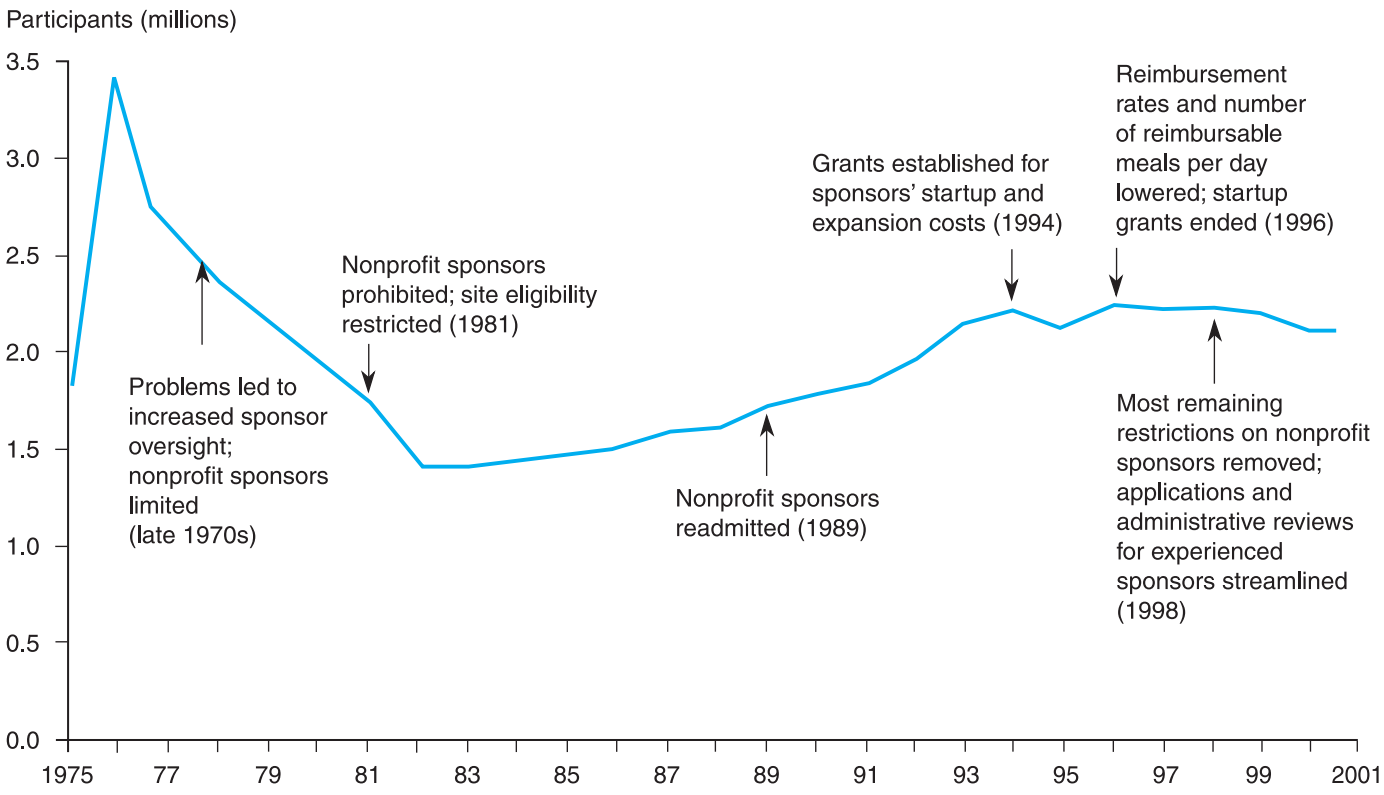
Study interviewers collected nationally representative data at the State, sponsor, and site levels, as well as from former sponsors. All SFSP State administrators were interviewed by telephone. Samples of sponsors and samples of sites were selected from lists of sponsors provided by State agencies and from lists of sites provided by sampled sponsors, respectively. Study staff then conducted a mail survey with telephone followup of 126 SFSP sponsors and a telephone survey of 131 former sponsors (organizations that had participated as sponsors in 2000 but not in 2001). In addition, study interviewers visited 162 sites operated by sampled sponsors. While on site, the interviewers conducted in-person interviews with site supervisors; completed structured observations of site operations (including the site's setting and activities offered, characteristics of participants, and food service facilities); recorded detailed descriptions of the types and amounts of foods served on 5 or 10 randomly selected plates; and recorded detailed descriptions of the types and amounts of food left on 10 randomly selected plates. During the site visits, interviewers always observed lunch and, if multiple meals were served at a site, observed either breakfast or supper in addition to lunch. (They did not observe snacks.) The survey response rates ranged from 89 percent (for the survey of former sponsors) to 100 percent (for the survey of State administrators). In the analysis, data from each survey have been weighted to be nationally representative.

The study also compiled a database of basic characteristics of all 2001 SFSP sponsors and sites, based on lists provided by the State agencies. Key sponsor characteristics were tabulated from this census database.

Program Characteristics

The SFSP began in 1968 as a pilot program to provide meals to low-income children during the summer. In 1975, it was authorized as a permanent program, and participation (measured by reported average daily attendance in July) increased dramatically (fig. 1). However, findings of fraud and abuse (particularly among nonprofit sponsors) during the late 1970s led to greater administrative oversight of sponsors, and to

Figure 1
SFSP participation and program milestones



Note: Participation measure is average daily attendance in July.
Source: Food and Nutrition Service, 2002a.

restrictions on nonprofit sponsors. The Omnibus Budget Reconciliation Act of 1981 went further, prohibiting private nonprofit groups (except private schools and residential camps) from serving as sponsors. It also set a more restrictive income threshold for site eligibility. Participation declined from the mid-1970s through the mid-1980s but then began to increase as USDA and advocates worked to publicize and expand the program. In 1989, nonprofit sponsors were readmitted, but with restrictions. The program continued to expand throughout the early 1990s.

The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 reduced reimbursement rates, reduced the number of reimbursable meals per day, and eliminated startup and expansion grants to sponsors. However, other legislative changes implemented in 1998 eased restrictions on nonprofit sponsors and streamlined paperwork requirements for experienced sponsors. Average daily attendance has changed little since the mid-1990s.

State Agencies

The SFSP operates in all 50 States, Puerto Rico, the Virgin Islands, and the District of Columbia (all of which are referred to as "States" in this report). In most States, a State government agency—usually the State education agency that administers the school meal programs—administers the SFSP. In 2001, State education agencies administered the entire SFSP program in 41 States; in New York, the State education agency administered the program for school and government sponsors. In nine States, a State agency other than the education agency administered the program. (Departments of agriculture, health, and social services were among the other agencies.) In two States in which the State governments did not operate the program—Virginia and Michigan—FNS regional offices performed the functions of the State agency. FNS also administered nonprofit and camp sponsors in New York.[1]

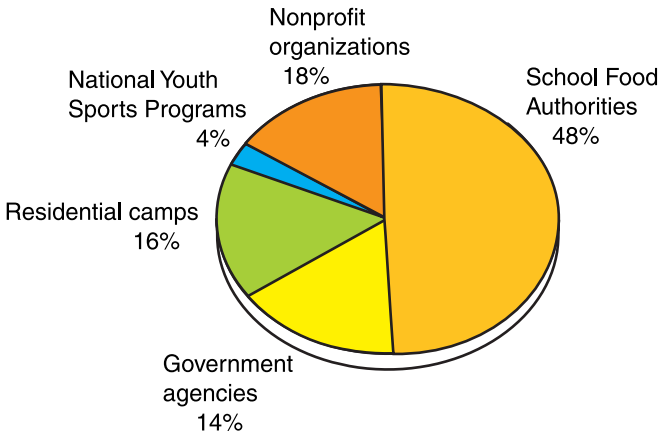
Sponsors

SFSP sponsors are extremely diverse in terms of the nature of their organizations, the size of their programs, and the way they prepare and serve meals. The nature of SFSP sponsor organizations affects the activities they offer with the program, their administrative capacities, and the fit between the SFSP and the sponsors' missions. The five major types of SFSP sponsors are (1) School Food Authorities (SFAs—the entities that administer the National School Lunch Program (NSLP) in schools or school districts), (2) government agencies, (3) residential camps, (4) National Youth Sports Programs (NYSPs—federally funded sports camps for low-income children run by colleges or universities), and (5) other nonprofit organizations (fig. 2).

(1) SFAs made up roughly half (48 percent) of all sponsors in 2001, ran about half (49 percent) of all sites, and served about half (51 percent) of all meals. SFAs generally are well-suited to serve as sponsors, as they are experienced in preparing meals for children and often have school buildings and staff available for sites. To increase access, some SFAs sponsor sites at other locations in the community in addition to schools.

(2) Government agencies (usually municipal recreation or social services departments) constituted 14 percent of sponsors but were the largest sponsors, on average, operating 36 percent of sites and serving 31 percent of meals. Government sponsors often lack the facilities and expertise needed to prepare meals at their sites and therefore are the most likely sponsor type to use vendors.

Figure 2
Types of SFSP sponsors
SFAs sponsored half the program



Note: SFA = School Food Authority.
Source: ERS SFSP 2001 Sponsor-Site Database. Total number of sponsors = 4,372.

[1] FNS regional office staff who administered State programs were included in the State administrator survey. For New York, staff from both the State education agency and the FNS regional office were interviewed, essentially counting New York as two States.

(3) Residential camps made up about 16 percent of all sponsors. Camps operated few sites relative to other sponsors but served three meals daily so that, overall, they ran 3 percent of sites and served 7 percent of meals. Although food service is an essential part of their programs, camps focus primarily on other activities. Camps almost always have staff and facilities on site to prepare meals.

(4) NYSPs constituted fewer than 4 percent of sponsors and served fewer than 1 percent of meals. Like camps, NYSPs focus on offering activities to participants. NYSPs may use college facilities or may contract with vendors for preparation of meals.

(5) Other nonprofit organizations (including religious organizations, youth organizations, and community agencies) represented 18 percent of sponsors. However, program regulations generally restricted them to no more than 25 sites. They operated 12 percent of sites and served 10 percent of all meals. Nonprofit sponsors offer a diverse range of activities and approaches to meal service.

Most SFSP sponsors operated small programs, but a few sponsors that operated large numbers of sites served a large proportion of program meals (fig. 3). Half of all sponsors ran only one site; these sponsors together served just 11 percent of all meals. Another 36 percent of sponsors ran 2 to 10 sites and served 20 percent of all meals. In contrast, 1 percent of sponsors operated more than 100 sites; they served 35 percent of all meals.

Most sponsors prepared meals themselves, most frequently at the serving site. Sixty-three percent prepared meals on site; however, many of these sponsors were small, serving only 26 percent of all SFSP meals (fig. 4). Other sponsors, including many large ones, prepared at least some meals at a central kitchen and delivered them to their sites; 19 percent of sponsors used central kitchens, but they prepared 44 percent of meals.[2] About 18 percent of sponsors (providing 30 percent of meals) purchased meals from vendors—12 percent contracted with private food service management companies, and 6 percent contracted with their local SFAs.

[2] Sponsors that used onsite preparation at some sites but delivered to others from a central kitchen are included in the "central kitchen" category here. A distinction is made in *Feeding Low-Income Children When School Is Out—The Summer Food Service Program: Final Report* between these sponsors and sponsors that only used a central kitchen.

Sites

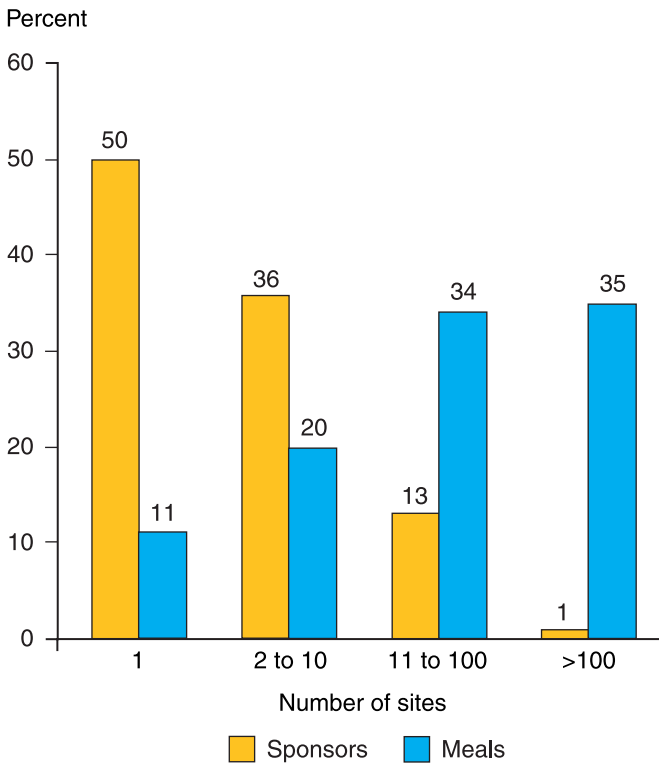
Most SFSP sites are in low-income neighborhoods and are open to all children. Sites qualify as SFSP sites in three major ways (fig. 5):

(1) ***Open sites*** (83 percent of sites) are eligible because they are located in neighborhoods in which at least 50 percent of children live in households with incomes at or below 185 percent of the poverty line. These sites must be open to all children who wish to attend.[3] They are reimbursed for all meals served to children.

(2) ***Enrolled sites*** (14 percent) establish eligibility by documenting that at least 50 percent of enrolled children live in households with incomes at or below 185 percent of the poverty line. A site that has demonstrated eligibility is reimbursed for all

[3] Some open sites may restrict attendance for safety, security, or control reasons. The study did not assess how common these "restricted open" sites were.

Figure 3
Number of sites per sponsor
A few sponsors with many sites served a large proportion of meals



Source: ERS SFSP 2001 Sponsor-Site Database. Total number of sponsors = 4,372.

meals served to enrolled children, regardless of the household income.[4]

(3) ***Residential camp sites*** (3 percent) are reimbursed only for meals served to children from households with incomes at or below 185 percent of the poverty line.

Most SFSP sites can be reimbursed for only two meals or snacks served per day. Camp sites and sites that serve primarily migrant children can be reimbursed for as many as three meals or snacks per day. Almost all sites served lunch in 2001, and about half served breakfast (fig. 6).[5] Considerably fewer sites served supper (5 percent) or a snack (19 percent).

Nearly all sites (93 percent) offered activities. More than three-quarters offered each of the following activities: educational activities, supervised free play, organized games or sports, and arts and crafts. About two-thirds offered field trips, and half offered swimming. Smaller percentages of sites offered a wide range of other activities, such as cooking, job training, and religious activities. The activities that open sites offered sometimes required enrollment, even though the meals were available to all children.[6] For example, SFAs that offer the SFSP in conjunction with summer school must open their sites to children who are not attending summer school. Some open sites made activities available on a "drop-in" basis. About one-third of sites provided some or all children with transportation.

On average, SFSP sites were open for slightly longer than 7 weeks. Sixty-two percent of sites were open for 6 weeks or longer, and 32 percent were open for 8 weeks or longer (fig. 7). Only 10 percent of sites were open for fewer than 4 weeks. Almost all sites (93 percent) were open at least 5 days per week.

Participant Characteristics

Based on site supervisors' estimates, the SFSP served primarily elementary-age children in 2001 (58 percent of children attending), although it also served preschoolers (17 percent) and older children (25 percent) (table 1). Boys and girls attended in equal numbers. Children who attended were of diverse racial and ethnic backgrounds—39 percent were African American, 29 percent were White (non-Hispanic), 27 percent were Hispanic, and 5 percent were Asian, American Indian, or members of other racial and ethnic groups.

[4] NYSP sites (fewer than 1 percent of sites) are subject to special eligibility rules, but they are most similar to enrolled sites.

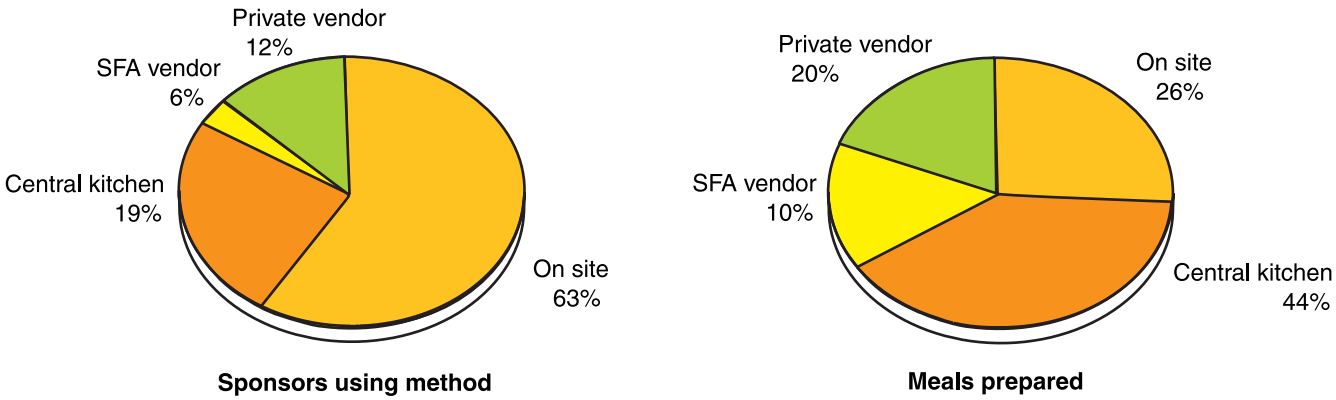
[5] All sites in the sample served lunch. Administrative data suggest that about 2 percent of sites did not serve lunch.

[6] The interviewers did not collect quantitative information on how often the activities were not open, but they observed that enrollment for activities was required at multiple sites.

Figure 4

Sponsors' meal preparation methods

Most sponsors prepared their own meals



Note: SFA = School Food Authority.
Source: ERS SFSP 2001 Sponsor Survey (n = 126).

Changes Since 1986

The last major study of the SFSP was conducted in 1986 (Ohls et al., 1988). At the time, the program was just beginning to grow after a period of decline. From 1986 to 2001, the number of sponsors nearly doubled, and average daily attendance in July grew 40 percent, from 1.5 million to 2.1 million. SFA sponsors and nonprofit sponsors accounted for nearly all of the growth in the number of sponsors and in participation. The number of SFA sponsors nearly tripled, and nonprofit sponsors, which were not part of the program in the late 1980s, comprised nearly one-fifth of sponsors in 2001. Partly as a reflection of the changes in the types of sponsors, SFSP sites were more likely to serve breakfast in 2001 than in 1986 and were more likely to be open for longer than 6 weeks. However, the proportion of sites that established eligibility as open sites did not change, nor did the proportion of children served who were of elementary-school age.

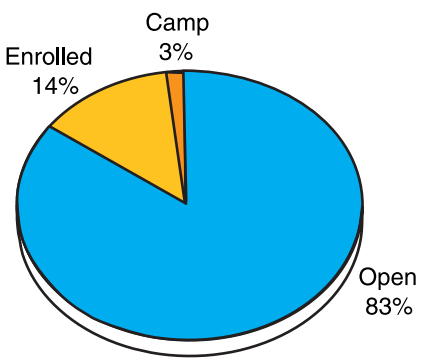
Program Administration

The study examined the interactions between SFSP State agencies and sponsors and between sponsor staff and site staff. These relationships are key to the administration of the SFSP.

State Agencies' Administration of Sponsors

State agencies play vital roles in the SFSP. These agencies recruit new sponsors, process sponsors' applications, provide training and technical assistance to sponsors, monitor their operations, and process their claims.

Figure 5
Types of SFSP sites
Most sites were "open" sites



Source: ERS SFSP 2001 Site Supervisor Survey (n = 162).

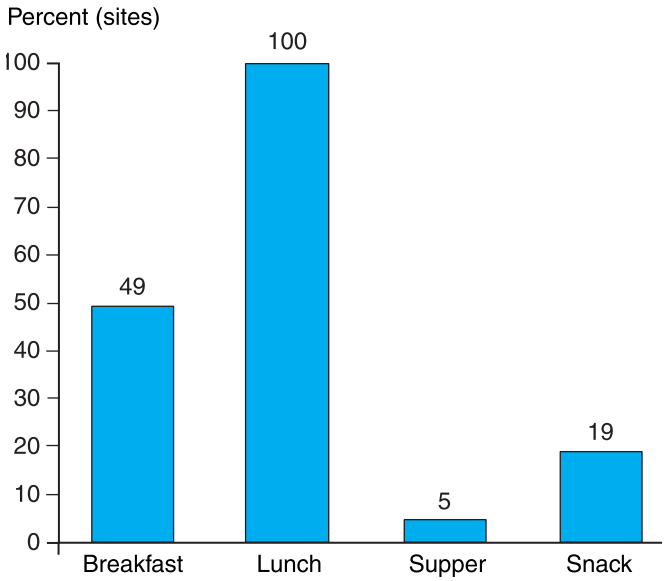
Applications

In their applications, new sponsors must establish their eligibility, describe how they will provide meals, and provide a budget for administrative and operating costs that meets program requirements. They also must provide detailed information on every site they intend to operate, including site location, estimated attendance, hours of meal service, and documentation of site eligibility. State staff also must visit the new sponsors' facilities before approval is granted. Experienced sponsors recently were allowed to omit some information from their applications that remains the same from year to year, but they still must provide a detailed budget.[7]

State administrators considered the application process for SFSP sponsorship to be demanding for their agencies and sponsors. Thirty-nine percent of State agencies reported that their staffing was inadequate for the application process. This shortfall may reflect the fact that most applications are processed in the spring. Most State agencies (82 percent) reported that they

[7] Some of these requirements have been changed for sponsors under current pilot or waiver projects; see the discussion in the concluding section. The pilot projects affected 25 percent of sponsors in summer 2001, based on data from the Sponsor-Site Database.

Figure 6
Types of meals served at SFSP sites
Half the sites served breakfast as well as lunch



Note: Administrative sources suggest that about 2 percent of sites did not serve lunch; however, all the sampled sites served lunch.
Source: ERS SFSP 2001 Site Supervisor Survey (n = 162).

often (as opposed to sometimes or rarely) provided technical assistance with the application process; applications ranked higher than any other topic in terms of frequency of technical assistance. According to 46 percent of the State administrators, budget preparation for applications was the most difficult of all the training topics for new sponsors both during and after training. State agencies ultimately accepted 96 percent of applications.

The questionnaire asked sponsors to comment on the application process in an open-ended question; only 25 percent volunteered any comments. Half the sponsors who did comment stated that the paperwork should be simplified; a few others suggested simplifying specific parts of the application.

Training and Technical Assistance

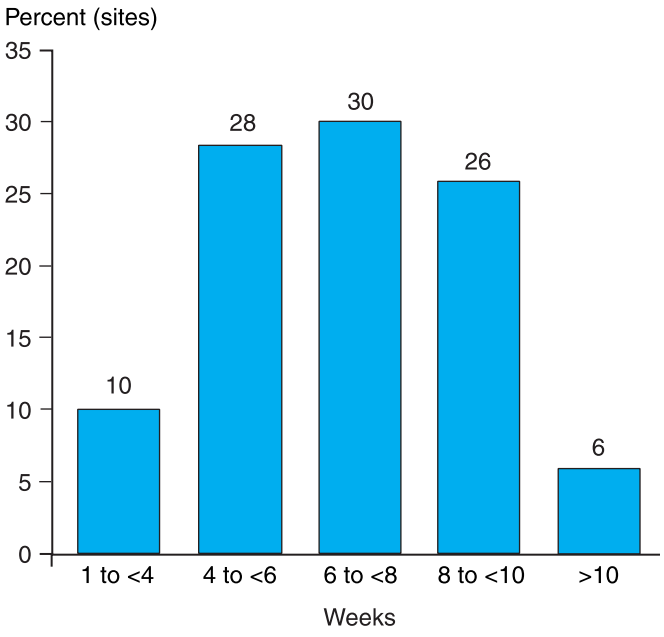
The State administrators reported that providing training and technical assistance to sponsors was one of their major activities. Most sponsors reported that the formal training sessions were helpful. States provided an average of 6 hours of sponsor training. Training sessions were held during the late winter or the spring, while sponsors were preparing applications. Many States (69 percent) provided longer sessions for new sponsors. Eighty-eight percent of sponsors reported that some of their staff attended the State training. All the sponsors that did not send staff were experienced sponsors.

Fifty-eight percent of sponsors reported receiving technical assistance (individualized help outside of a formal training session) from a State agency, and they were generally satisfied with the assistance they received. However, two out of every five sponsors would have liked additional technical assistance on at least one topic.

Monitoring

State administrators reported undertaking monitoring activities that were largely consistent with the monitoring required by SFSP regulations. To ensure that sponsors follow program rules and correct any problems, State agencies are required to conduct administrative reviews of all sponsors at least once every 3 years, to review all new sponsors, and to review annually sponsors with large programs or recent problems. Administrative reviews consist of a detailed inspection of all paperwork that sponsors must keep to document their reimbursement claims, including meal count sheets from sites, meal production or vendor delivery records, and staff time sheets. State monitors also visit some of the sponsors' sites to ensure that meals meet nutritional and safety requirements, and that they are counted appropriately.

Figure 7
Duration of SFSP site operations
Most sites were open at least 6 weeks



Source: ERS SFSP 2001 Site Supervisor Survey (n = 162).

Table 1—Characteristics of SFSP participants
Most participants were of elementary-school age

Characteristic	Meals served
	Percent
Grade level/age:	
Preschool age	17
Elementary-school age	58
Middle-school or junior high-school age	20
High-school age	5
Sex:	
Female	51
Male	49
Race/ethnicity:	
African American, not Hispanic	39
White, not Hispanic	29
Hispanic	27
Other[1]	5
Sample size	**162**

Note: Data have been weighted to estimate the percent of SFSP meals served to children in each group.
[1]Other racial or ethnic groups include American Indian, Alaskan Native, Asian, Pacific Islander, and any others.
Source: ERS SFSP 2001 Site Supervisor Survey.

The State administrators reported that, on average, State agencies reviewed about 94 percent of new sponsors and 58 percent of experienced sponsors; some of these estimates were preliminary.[8] State agencies visited 30 percent of all sites, on average. In 52 percent of the States, all or most site visits were unannounced. Unannounced visits are preferable for ensuring that the program is observed as it usually operates, but they may be impractical if monitors must travel long distances.

Sponsors' Administration of Their Sites

Sponsors are responsible for arranging for meal service at their sites, providing training and technical assistance to site staff, monitoring their sites' compliance with program rules, and preparing claims for reimbursement. The complexity of these activities varies considerably with the size and type of sponsor. In the case of single-site sponsors, sponsor and site staff may be the same. Larger sponsors may hire site staff directly, find other organizations to provide sites and staff (often, organizations that provide activities for children) and provide only the meals themselves (along with appropriate training, monitoring, and financial oversight), or operate some sites with their own staff and provide meals to others.

Costs and Funding

Most sponsors (72 percent) expected that SFSP reimbursements would not cover all their costs. Previous research also found that SFSP reimbursements did not fully cover most sponsors' costs (U.S. General Accounting Office, 1998). Fifty-seven percent of sponsors that did not expect costs to be fully covered planned to supplement SFSP resources with their own funds. Others planned to use funds from other State or Federal sources or from their parent organizations. About 75 percent of sponsors that had operated for longer than 1 year reported using one or more strategies, such as reducing the number of staff or sites, to control costs during the past few years.

Training and Technical Assistance

Sponsors generally provided the required training and often provided technical assistance. However, site staff reported varying amounts of contact with sponsors.

[8] State administrators provided estimates of new sponsors, new sponsor reviews, and experienced sponsor reviews, as many agencies had not completed reviews or paperwork at the time of the interview. Because these estimates were preliminary, it is not possible to conclude that States were not meeting the regulation to review all new sponsors.

Most sponsors (93 percent) reported that they conducted training sessions for their site staff. Training lasted an average of 3 hours. The sessions covered such topics as meal count records, health regulations, and site violations. The sponsors that did not train their site staff were single-site sponsors with only a few staff; they sent some staff to the State-run training sessions.

As of the time of data collection, 60 percent of site supervisors reported receiving technical assistance from sponsor staff. The most frequent technical assistance topics were record keeping (mentioned by 88 percent of those receiving assistance), meal order adjustments (73 percent), and food safety (72 percent).

Site staff reported wide variation in the number of sponsor visits and the frequency of discussions with sponsors about menus.[9] Some sites had received no visits from sponsors at the time of data collection, whereas some had received as many as three visits daily. Twenty-five percent had frequently discussed menus with sponsors, and 34 percent sometimes discussed menus; 41 percent never had this discussion.

Monitoring

Sponsors reported monitoring their sites regularly, but a few sites reported that the sponsor had not yet visited. Sponsors are required to visit each of their sites at least once during the first week of program operations, and to conduct a more comprehensive review at least once during the first 4 weeks of operations. Eighty-four percent of sponsors reported that they reviewed all sites at least twice, and 73 percent reported that all visits to sites were unannounced. At the same time, about 10 percent of supervisors of sites that had been open more than a week before data collection reported that the sponsor had not yet visited.

Outreach and Participation

FNS has expressed its commitment to expanding the availability of the SFSP to low-income children (Food and Nutrition Service, 2002b). July SFSP participation is approximately 14 percent of the number of low-income children who received free or reduced-price school lunches through the NSLP during the school year. One reason participation is lower is that SFSP open sites must be located in low-income neighborhoods, whereas the NSLP is available everywhere. In

[9] These questions were asked only of site supervisors for multisite sponsors.

addition, attendance at SFSP sites is voluntary, while children must attend school and, thus, are a "captive audience" for the school meal programs.

The study explored each of the major approaches to expanding participation in the SFSP: recruiting new sponsors, expanding the number of sites that existing sponsors operate, extending the duration of site programs, attracting more children to existing sites, and reducing the number of sponsors that leave the program.

Staffs' Views on Barriers and Outreach

Staff at the State, sponsor, and site levels provided their views on the barriers to increasing participation in the SFSP and on their outreach methods. Sponsor and site staff also discussed their capacity for and interest in expansion. Although staff's views help identify issues or areas of concern, they should be interpreted cautiously. For example, site supervisors or sponsors may believe that their programs meet local demand, when, in fact, family barriers or lack of awareness that sites exist keep additional children from attending. In other cases, supervisors may be concerned about barriers when, in fact, the area contains fewer unserved children than the supervisors believe are there.

State Agencies' Views on Outreach

State administrators believed that recruiting new sponsors was challenging. Although 41 percent of State administrators reported having inadequate numbers of staff for outreach, almost all State agencies (91 percent) worked with other organizations on outreach or publicity for the SFSP; about half (52 percent) worked with nutrition or antihunger advocacy groups. Help from partner organizations may have compensated to some extent for the shortage of staff resources.

Thirty-three percent of State administrators cited personal contact as the most successful approach used to recruit new sponsors—a higher percentage than mentioned any other approach. One-on-one meetings enabled State agencies to respond to sponsors' concerns about the complexities of managing the SFSP, to present the positive aspects of the program, and to provide assurance of assistance from the State. Twenty-four percent of State administrators mentioned outreach to school districts as their most successful approach. State agencies often identified school districts in low-income areas that did not participate and targeted them for recruiting efforts.

Sponsors' Interest in Expansion

Many sponsors were not interested in expanding the number of sites or the duration of their operations. More than half (59 percent) of sponsors stated that they were not interested in expanding the number of sites they operated. The reasons varied: 38 percent of these sponsors felt that their geographic area had a sufficient number of sites, 19 percent were not interested because they were a camp or single-site sponsor, 11 percent mentioned lack of staff, 10 percent mentioned lack of available locations for sites, and smaller percentages cited other reasons. More sponsors operating open sites than other sponsors were interested in expansion (53 percent versus 17 percent). Nearly three-quarters of sponsors of open sites who were not interested in expansion believed that the number of sites in their area was sufficient.

Half the sponsors were not interested in extending the duration of their SFSP operations, 27 percent reported that their program already ran all summer, and 23 percent reported that they might be interested in extending their program. Many sponsors were not interested in staying open longer because their schedules were dictated by their activity programs (24 percent); external constraints (32 percent), such as having to vacate school sites so maintenance could be performed; staffing constraints (22 percent); or financial constraints (20 percent).

Site Supervisors' Views on Expansion

Site supervisors typically reported that they had the capacity to serve additional children at their sites. One-third estimated that they could serve more than 50 additional children, and 48 percent estimated that they could serve 1 to 50 additional children. Only 18 percent reported that they were unable to serve additional children. Site supervisors cited a range of barriers that might explain why children do not attend, including lack of transportation (mentioned by 33 percent), lack of publicity about the program (26 percent), limited hours (17 percent), children's dislike of the food (16 percent), lack of or insufficient numbers of activities (12 percent), and parents' concerns about neighborhood safety (11 percent).

Sponsor Entry and Exit

For SFSP sponsorship to grow, it is important not only to recruit new sponsors, but to minimize the exit of current sponsors. Some turnover unrelated to SFSP

policies is inevitable, however, as staff or priorities change and sponsors periodically renovate their facilities or perform other temporary activities. Furthermore, some sponsors, particularly new ones, leave after realizing that they have overestimated demand for the program or their administrative capacity to operate it. The study interviewers collected data on turnover in the SFSP to inform discussions of these issues.

The percentages of sponsors entering and exiting the program in 2001 were similar, as estimated from State agency administrative data. In summer 2001, 10 percent of sponsors were new. Half the new sponsors were SFAs, and one-third were nonprofit organizations. New sponsors were smaller than continuing sponsors, and fewer new sponsors than continuing sponsors offered breakfast and supper.

Between summer 2000 and summer 2001, 8 percent of SFSP sponsors left the program. Former sponsors were disproportionately small, new, or nonprofit organizations. Inadequate reimbursement rates and time-consuming paperwork were the main reasons that former sponsors gave for leaving the SFSP; each reason was cited by about 45 percent of former sponsors. Forty percent reported that low participation levels were a contributing factor. Thirty percent of former sponsors reported that another SFSP sponsor had taken over some or all of their sites.

Meal Service

SFSP sites serve food in a variety of settings and facilities, such as outdoor shelters at parks; recreation centers that have refrigerators but no cooking facilities; and cafeterias at schools, universities, and residential camps. The study examined how SFSP meals were served, their nutritional content, and the extent of plate waste.

Meal Service Arrangements

In 2001, 76 percent of all sites served meals indoors. More than two-thirds (70 percent) of sites served meals in a serving line or food pickup line, and 80 percent had access to refrigerators.

Most sites (81 percent) served more than 90 percent of their available meals on the day of the observation. In general, 29 percent of the sites that had leftover meals discarded all of them (sometimes because of health regulations), 22 percent stored all of them, and 39 percent discarded some meals or parts of meals and stored others; smaller numbers used other approaches to handling leftovers (fig. 8). About 22 percent of site supervisors reported that their site had run out of food or meals during SFSP meal service at some point during the summer.

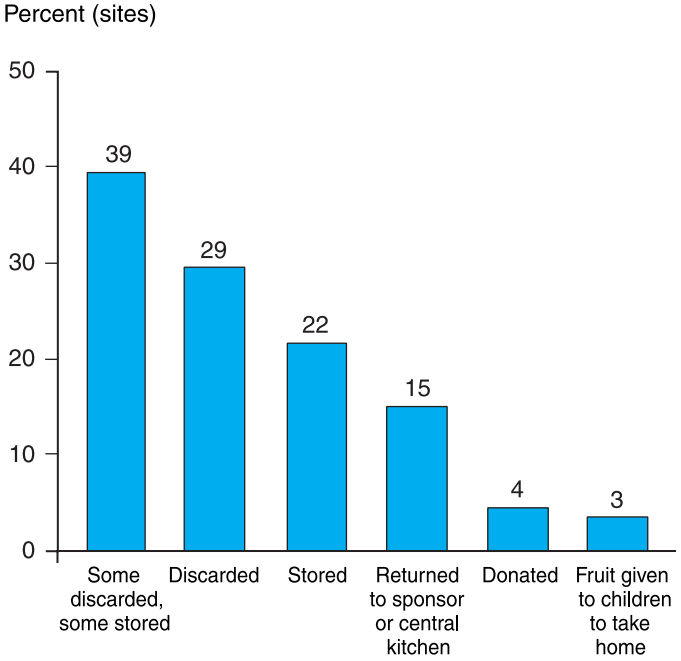
SFSP Meal Pattern Requirements

To ensure that sites serve nutritious meals, SFSP regulations specify a meal pattern that all non-SFA sponsors must follow. The meal pattern specifies that SFSP lunches include foods from the following food groups: (1) milk, (2) a bread or a bread alternate, (3) two fruits or vegetables, and (4) a meat or a meat alternate. It also specifies minimum serving sizes for foods from each food group.[10]

Instead of using the SFSP meal pattern, SFA sponsors have the option of using the same system that they use for the NSLP. The system may be a food-component-based system similar to the SFSP meal pattern or a

[10] Compliance with the SFSP meal pattern at breakfast is discussed in *Feeding Low-Income Children When School Is Out–The Summer Food Service Program: Final Report* (E-FAN-03-001).

Figure 8
What happens to leftover meals?
Sites' approaches varied



Notes: Multiple responses were allowed. Figure represents usual practices, as reported by site supervisors.
SFSP regulations permit children to take fruit home at some sites.
Source: ERS SFSP 2001 Site Supervisor Survey (n = 162).

nutrient-based system, called "nutrient standard menu planning," which is based on nutritional analysis of menus, rather than on specific food components. SFA sponsors also may use "offer versus serve" (OVS), which is intended to reduce waste by permitting children to refuse some items offered and still have the meal count as meeting program requirements. Other types of sponsors may not use OVS.

Because SFA sponsors may use other meal planning approaches and/or OVS, compliance with the SFSP meal pattern was assessed only for non-SFA sponsors. Seventy-one percent of the SFSP lunches that non-SFA sponsors served met all the meal pattern requirements (fig. 9). Most lunches that fell short served all the required components but did not meet the minimum serving size for one of them. The meat/meat alternate was the component most often served in an inadequate amount; it was nearly always served, but 20 percent of lunches did not include it in the required minimum serving size. Various factors, such as cooks' measurement errors, food shrinkage during cooking, lack of training on the requirements, or measurement errors associated with the visual estimation and coding of food portion sizes, may explain these findings.

Nutritional Standards Used To Assess Meals

The SFSP regulations do not specify nutritional goals for the SFSP other than the meal pattern. This study adapted the standards used in the school meals programs — the School Breakfast Program (SBP) and the NSLP — to evaluate SFSP meals. These standards include the following:

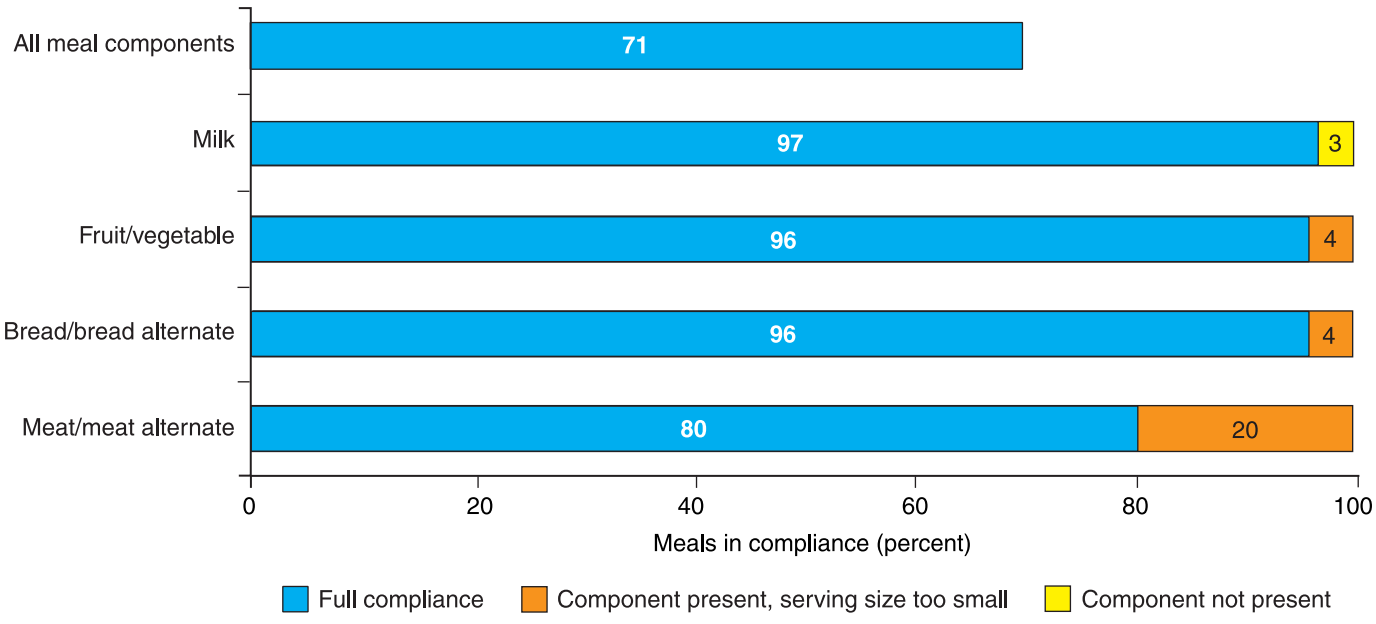
- On average over a week, meeting one-fourth of the Recommended Dietary Allowance (RDA) at breakfast and one-third of the RDA at lunch for key nutrients.[11] Key nutrients specified in the SBP and

[11] The RDA is the average daily nutrient intake level sufficient to meet the nutrient requirements of nearly all healthy individuals in a particular life stage and gender group (Institute of Medicine, National Academy of Sciences, 2000). Standards for school meals are based on the 1989 RDAs. Beginning in 1997, the Institute of Medicine gradually has been releasing updated RDAs for specific nutrients based on the Dietary Reference Intakes (DRIs). The DRIs include nutrient standards for RDAs and for Adequate Intakes (AIs), to be used when the available scientific evidence is insufficient to establish an RDA. In this study, the AI was used as the nutrition standard for calcium, as an RDA for calcium is not available. To evaluate whether SFSP meals met the RDA standard, the mean nutrient content of meals served was compared with the RDA standard for the two DRI age groups that most closely correspond to the age range of most children in the SFSP (4 to 8 years and 9 to 13 years). However, because DRIs for energy and protein were not available at the time of the analysis, the means for these nutrients were compared with the 1989 RDAs, which were defined for children aged 7 to 10 years.

Figure 9

Non-SFA-sponsored sites' compliance with lunch meal pattern requirements

Some serving sizes fell short



Note: Compliance was assessed for 449 plates observed at 83 non-SFA-sponsored sites. Compliance was not assessed for SFA-sponsored sites, as regulations permit these sites to use either the SFSP meal pattern or the menu planning approach they use for the school meal programs.
Source: ERS SFSP site observations (2001).

NSLP regulations are energy, protein, vitamin A, vitamin C, calcium, and iron.

- On average over a week, providing 30 percent of calories or less from total fat and less than 10 percent of calories from saturated fat, as recommended by the Dietary Guidelines for Americans.[12]

The average nutrient content of SFSP breakfasts and lunches was compared with these standards to assess how well SFSP meals were meeting the nutritional needs of children.

Nutrient Content of Meals

On average, SFSP meals provided at least one-quarter of the RDAs for most key nutrients at breakfast (fig. 10). Breakfasts fell slightly below the standard for energy, providing an average of 21 percent of the RDA. The mean levels of most other nutrients were substantially above the standard. The nutrient patterns of SFSP breakfasts reflect the fact that many of the observed meals consisted of ready-to-eat cereals, milk, and 100-percent fruit juice. These foods provided children with energy and other key nutrients—fortified cereals and grains contributed iron and vitamin A; milk contributed protein, calcium, and vitamin A; and juice contributed vitamin C.

Nutrient patterns in SFA- and non-SFA-sponsored breakfasts generally were similar. Mean energy in both groups' breakfasts was below the RDA standard of 25 percent (21 percent of the RDA in SFA-sponsored breakfasts and 22 percent in non-SFA-sponsored ones). Means for other key nutrients were above the RDA standard for both SFA- and non-SFA-sponsored breakfasts.

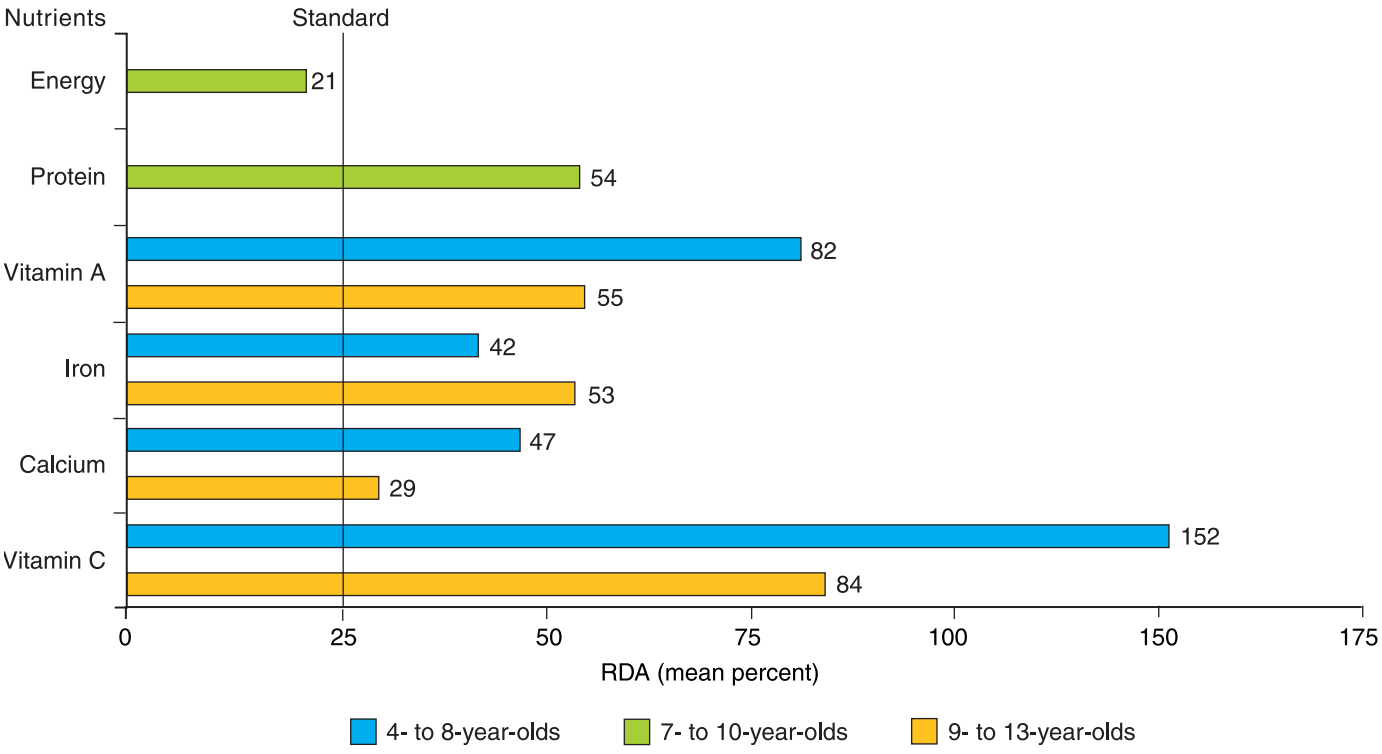
On average, SFSP lunches provided at least one-third of the RDA for energy and for other key nutrients (fig. 11). Lunches provided average energy just equal

[12] Results for other vitamins and minerals, sodium, cholesterol, and fiber are discussed in *Feeding Low-Income Children When School Is Out–The Summer Food Service Program: Final Report* (E-FAN-03-001).

Figure 10

Nutrients served at SFSP breakfasts

Breakfasts met nutritional standards, on average, but were slightly below the standard for food energy



Note: The standard for breakfast is 25 percent of the RDA (vertical line). Means of energy and protein were compared with the 1989 RDA for children aged 7 to 10 years. (Updated RDAs were not available at the time of the analysis.) Means of calcium were compared with the AI.
Source: ERS SFSP site observations (2001). Sample size = 556 breakfast plates observed at 85 sites.

to the standard of 33 percent of the RDA. As at breakfast, other key nutrients were provided at levels above the standard. More than 90 percent of lunch plates included fruit, so it is not surprising that the meals' vitamin C contributions were high. (For example, one orange would provide both age groups with more than 100 percent of the RDA for vitamin C.) Milk and vegetables contributed vitamin A. Along with meats, fortified breads and rolls provided significant amounts of iron. Milk and dairy products helped the lunches to meet the standard for calcium for children in both age groups. The average content of both SFA- and non-SFA-sponsored lunches met the RDA standards for energy and for other key nutrients.

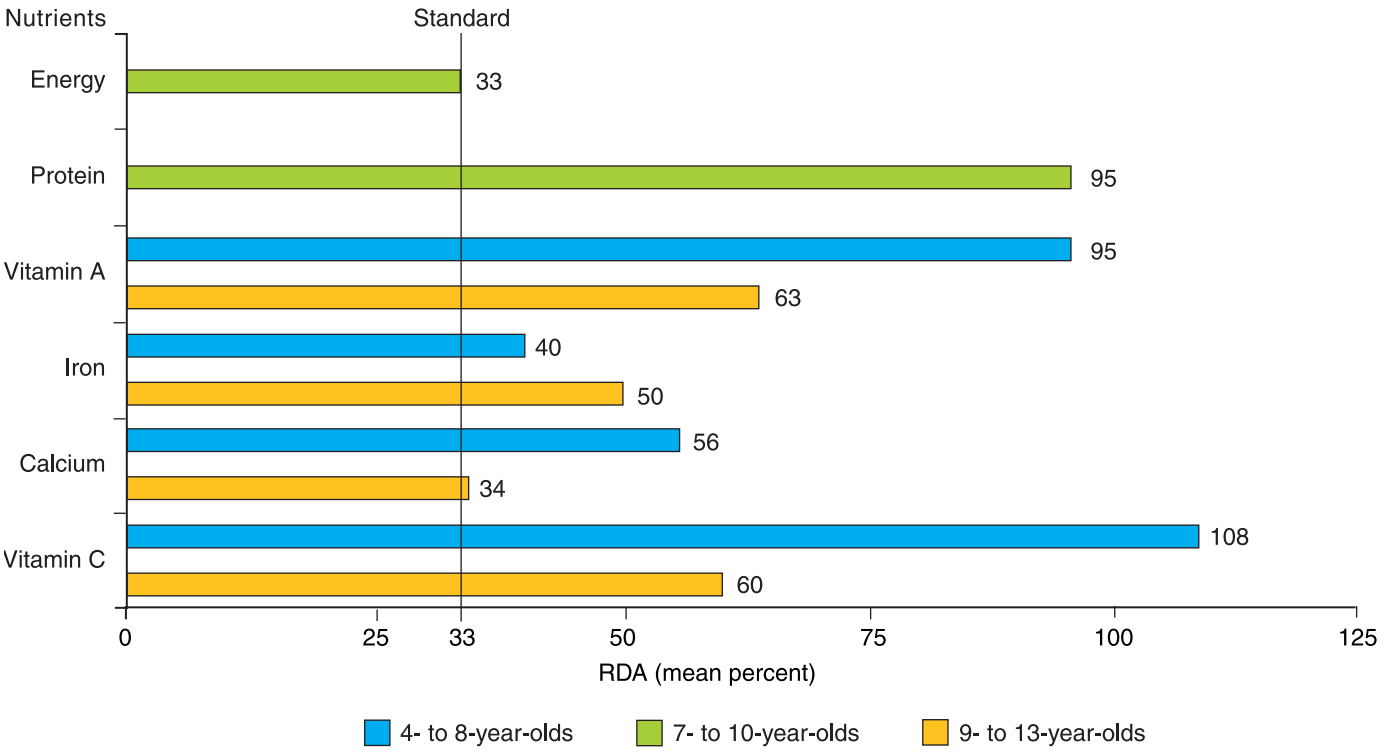
On average, SFSP breakfasts exceeded the Dietary Guidelines standard for saturated fat content, and SFSP lunches exceeded the standard for fat and saturated fat (fig. 12). At the same time, the average fat and saturated fat contents of SFSP meals were similar to those reported for school breakfasts and school lunches provided in elementary schools in 1998-99 (Fox et al., 2001).

Plate Waste

Plate waste is defined as foods that children select or are served, but do not eat. It does not include either leftover meals that are not served to children or food wasted during meal preparation. In this study, it also excludes foods left by children in a designated area, known as a "share box," which other children could then take, but which were occasionally wasted. Share boxes were available at 44 percent of the sites. The extent of plate waste in the SFSP is important because it affects the nutritional benefit that children obtain from SFSP meals, as well as sponsors' costs (and thus their ability to operate the SFSP cost-effectively).

Although some wasted food on children's plates is to be expected, many factors may influence the extent of plate waste: the children's age, sex, and family background; their food preferences; the extent to which

Figure 11
Nutrients served at SFSP lunches
Lunches met nutritional standards, on average



Note: The standard for lunch is 33 percent of the RDA (vertical line). Means of energy and protein were compared with the 1989 RDA for children aged 7 to 10 years. (Updated RDAs were not available at the time of the analysis.) Means of calcium were compared with the AI.
Source: ERS SFSP site observations (2001). Sample size = 989 lunch plates observed at 161 sites.

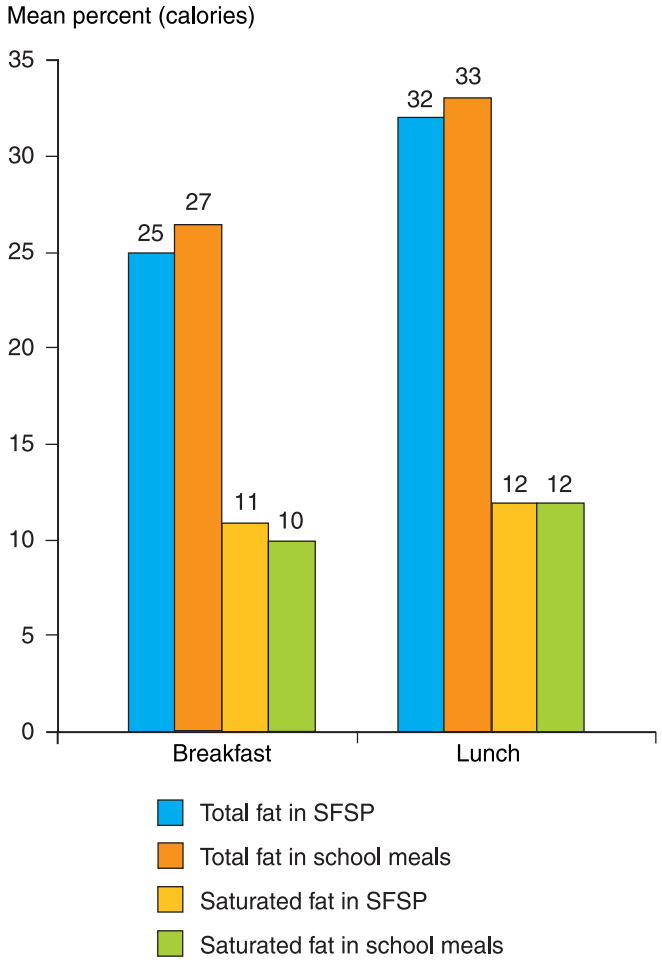
they can choose or refuse specific foods; the serving temperature of the foods; specific forms of preparation or presentation, such as whether fresh fruits are cut up; the time available for children to eat; how hungry they are at meal time; the environment (including cleanliness, comfort, and air or room temperature); and the site staff's interactions with the children during meals.

Children wasted an average of about one-third of the calories and nutrients they were served at both breakfast and lunch (fig. 13). However, this fraction varied across sites and by foods. The children ate 11 percent of meals completely, with no plate waste. Vitamin A at lunch had the highest level of waste (53 percent), which reflects a relatively high level of wasted vegetables (48 percent of serving weight wasted), particularly raw carrots (73 percent) and salads (66 percent). At lunch, 30 percent of milk served was wasted, 37 percent of fruit, and 39 percent of breads or bread alternates not in mixed dishes. Waste was 32 percent for mixed dishes and 36 percent for meats not part of mixed dishes. The level of waste observed for specific foods and food groups is similar to the level observed in previous studies of children in the SFSP (Ohls et al., 1988) and in the NSLP (Reger et al., 1996).

Figure 12

Fat and saturated fat in SFSP meals and school meals

Both programs' meals exceeded Dietary Guidelines for fat at lunch



Note: The standard for total fat is less than or equal to 30 percent of calories; the standard for saturated fat is less than 10 percent of calories.
Source: SFSP data are from SFSP site observations for this study (2001). School meals data are from a nationally representative sample of elementary schools in school year 1998-99, from the School Nutrition Dietary Assessment-II study (Fox et al., 2001).

Conclusions

The study findings suggest several key SFSP challenges: (1) how to simplify the required paperwork and the reimbursement structure without compromising program quality and integrity; (2) where to target SFSP expansion efforts; and (3) how to increase meal pattern compliance and improve the acceptance of meals to reduce plate waste, yet maintain or improve nutritional content.

Simplifying Program Administration

To safeguard program integrity and meal quality, SFSP regulations require both careful documentation for sponsor applications and claims and ongoing monitoring of site operations by State agencies and sponsors. However, responses to a range of questions indicated that many State and sponsor staff perceived the detailed program rules and the complex reimbursement procedures as burdensome, and some believed that they could discourage program growth.

In 2001, FNS began experimenting with several approaches to simplifying the reimbursement process. A 14-State pilot project — targeted to States with low SFSP participation rates — allows sponsors to combine administrative and operating costs and to be reimbursed at a fixed reimbursement rate per meal, with less paperwork. A second initiative, the "Seamless Summer" waiver, allows SFAs to run community-based summer feeding programs under the NSLP and to receive the NSLP free rate (slightly lower than the SFSP rate) for all meals served. Without the waiver, SFAs have to follow SFSP rules if they serve children during the summer in community-based programs.[13]

[13] SFAs that serve only summer school students operate under the NSLP and are reimbursed on the basis of the students' meal-price eligibility status (free, reduced, or paid).

Studies of these initiatives will help to assess whether the approaches should be adopted more widely.

Expanding Participation

USDA is developing a Web-based geographic information systems tool, based partly on data collected in this study on locations of sponsors and sites, to help State agencies and local groups identify underserved areas. This tool will make it possible to target outreach efforts more effectively.

At the same time, the views of State agency staff, sponsors, and former sponsors suggest that, by themselves, better targeting and outreach are not enough. Simplifying program administration through initiatives such as those just described may also be important to expand participation and reduce sponsor attrition. New sponsors, nonprofit sponsors, and smaller sponsors seem to have the most difficulty administering the program. Reimbursement rates may also affect sponsor participation. Nearly half of former sponsors mentioned reimbursement rates as reasons for leaving the program, and 72 percent of current sponsors did not expect SFSP reimbursements to cover all of their costs.

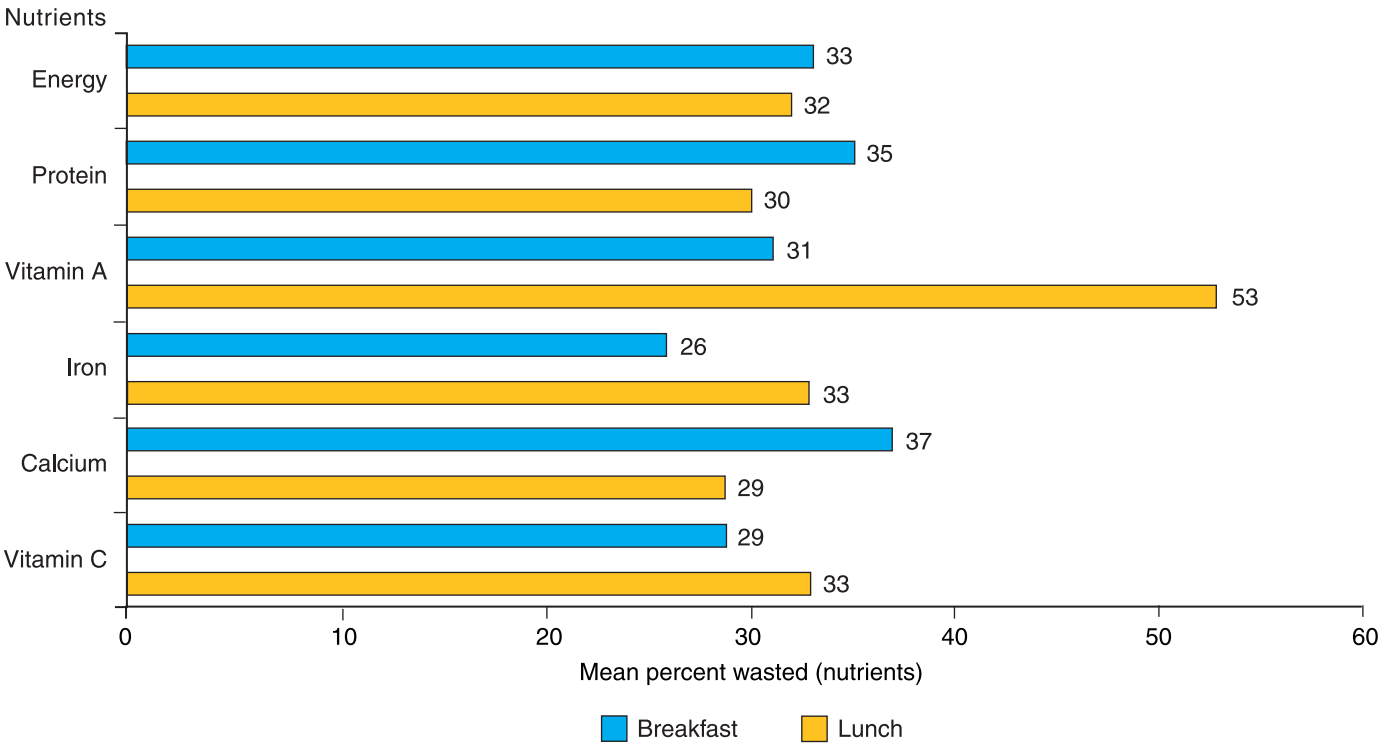
Improving Meals and Reducing Waste

The findings on meal pattern compliance and on the food and nutrient content of SFSP meals may guide USDA in determining which changes in program requirements and which kinds of assistance might help sponsors provide meals that meet program requirements and nutrition standards. The findings on plate waste suggest that sponsors should be encouraged to consider children's preferences, present meals in an appealing way, and offer children choices, whenever possible. The study findings also suggest that nutrition education for sponsors' staff, site staff, and SFSP participants may help improve menus, promote healthy eating, and reduce waste. For example, nutrition education may teach sponsor and site staff to offer lower fat options, and to offer fruits and vegetables in forms that appeal to children. Nutrition education could encourage children to eat more fruits and vegetables.

Figure 13

Plate waste at breakfast and lunch

About one-third of nutrients was wasted



Note: Plate waste estimates were based on 815 breakfast plate wastes at 85 sites and 1,570 lunch plate wastes at 161 sites. The percent wasted was calculated as mean nutrient wasted divided by mean nutrient served times 100.
Source: ERS SFSP site observations (2001).

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Final Report

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The sponsor survey was directed by Lindsay Crozier, with assistance from Barbara Schiff. Barbara also helped collect sample frame information, planned the field training, conducted state interviews, and monitored the survey of former sponsors. Theresa Boujada supervised telephone center operations for the surveys of sponsors and former sponsors. Bea Jones developed the Access databases that were key to tracking data collection for the study and the Sponsor-Site Database that was delivered to ERS. Bea also helped collect sample frame information and conducted state interviews. Neil DeLeon, Mark Dentini, Linda Gentzik, and Ron Palanca provided programming support for the surveys. Sue Golden and her staff performed yeoman work in data entry of sample frame lists, survey instruments, and, finally, lists of all 2001 sponsors and sites (close to 40,000 records).

Francene Barbour coordinated field efforts for the site visits, with help from Mike Haas, Adrienne Wilschek, and LaShona Burkes. They were responsible for sending a staff of 15 field interviewers to 38 states, helping them with travel arrangements, and dealing with any problems that arose. (Adrienne and LaShona also helped with the Sponsor Survey, and Adrienne later

conducted state interviews.) At Garcia Research Associates, a subcontractor to MPR, Steve Goodwillie coordinated Garcia's field interviewers, who handled California site visits.

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FIGURES

I. INTRODUCTION

The primary goal of the Summer Food Service Program (SFSP) is to provide nutritious meals to children in low-income areas when school is not in session. The program is intended to fill a gap in services for low-income, school-age children, who receive free or reduced-price school meals during the school year through the National School Lunch Program (NSLP) and the School Breakfast Program (SBP). However, the SFSP always has served far fewer children than are reached by free or reduced-price NSLP lunches during the school year.

Because the SFSP, which had expenditures of $272 million in fiscal year (FY) 2001, is one of the smaller child nutrition programs administered by the U.S. Department of Agriculture (USDA), it has not been studied extensively. However, growing interest in improving program operations and expanding participation has led USDA to commission a new study of the SFSP, known as the SFSP Implementation Study. This report presents the results of the SFSP Implementation Study, a descriptive study of the operations of the SFSP at the state and local levels. Mathematica Policy Research, Inc. (MPR), under contract to the USDA Economic Research Service (ERS), has collected nationally representative data to describe how the program works and how SFSP staff feel it could be improved.

To help the reader understand the program and the issues considered in the study, this chapter first provides background information on the SFSP. It then describes the research questions, the study design, and the data sources used in the rest of the report.

A. THE SFSP

This section describes the SFSP and its history. It also provides a brief overview of trends in participation since the 1970s.

1. What Is the SFSP?

The SFSP was created to provide nutritious meals for children from low-income families, particularly those who live in low-income neighborhoods, when school is not in session. The program operates in all 50 states, the District of Columbia, the Virgin Islands, and Puerto Rico. The USDA's Food and Nutrition Service (FNS) provides federal funds to operate the SFSP, and states distribute the funds to local program sponsors, which are the organizations that carry out the day-to-day operations of the SFSP. Meals often are provided in conjunction with educational and/or recreational activities, such as summer school, sports, arts and crafts activities, and camp.

a. Eligibility of Sponsors, Sites, and Children

Sponsor Eligibility. Organizations eligible to sponsor the SFSP are public or private nonprofit School Food Authorities (SFAs—governing bodies of schools or school districts that offer the NSLP); public or private nonprofit residential summer camps; local, municipal, county,

or state government units; public or private colleges or universities that participate in the National Youth Sports Program (NYSP)[1]; and other private nonprofit organizations. Private nonprofit sponsors include youth organizations (such as branches of the YMCA and Boys and Girls Clubs), religious organizations, social service agencies, and other community groups.

Site Eligibility. Each sponsor operates one or more SFSP sites that serve meals to children. These sites may be school cafeterias, parks, recreation centers, playgrounds, and other locations. Two main types of sites operate under the SFSP: (1) "open" sites, and (2) "enrolled" sites. Less common types of sites are "camp" sites and NYSP sites.

An open site must be located in a neighborhood in which at least 50 percent of the children live in households that have incomes at or below 185 percent of the federal poverty level. Meals served at open sites must be provided to children at no charge.[2] Sponsors must use NSLP records from a local school (showing the percentage of children certified for free or reduced-price school lunches) or census block group records of household income to document the eligibility of open sites for the SFSP.[3]

At enrolled sites, at least 50 percent of the children who are enrolled at the site must live in households that are at or below 185 percent of poverty. However, sponsors are reimbursed for meals served to *all* children who are enrolled. To demonstrate their eligibility as enrolled sites, sponsors must collect either enrollment forms documenting the family income of participating children or NSLP records from local schools documenting the enrolled children's eligibility for free or reduced-price meals.

Residential summer camps may qualify as SFSP sites. Unlike enrolled sites, however, residential camps are reimbursed only for meals served to children from households with incomes at or below 185 percent of poverty, and they are not subject to the requirement that at least 50 percent of enrolled children be low-income. Documentation required to show children's eligibility is the same as for enrolled sites.

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[1]The NYSP is a federally funded program that provides organized instruction in athletics to low-income children.

[2]A "restricted open" site is a new subcategory of open site. Attendance at a restricted open site initially is open to the broad community but is later limited by the sponsor for security, safety, or control reasons. For example, space limitations might require that a restricted open site serve only the first 100 children who arrive each day. Children must be served on a first-come, first-served basis at all open sites.

[3]According to current federal policy, sponsors should use NSLP records, if possible. As with the SFSP, eligibility for the NSLP is based on household income at or below 185 percent of the federal poverty level. Therefore, an open site can demonstrate SFSP eligibility if 50 percent of the children in the attendance area are eligible to receive free or reduced-price NSLP meals, and, as discussed in the text above, an enrolled site can demonstrate its eligibility for the program if 50 percent of the children attending the program are eligible for NSLP meals.

NYSP sites serve children enrolled in National Youth Sports Programs. An NYSP site may qualify for the program (1) as an enrolled site, (2) by showing that attending children live in areas that would qualify for open sites, or (3) by providing written documentation that it meets U.S. Department of Health and Human Services (DHHS) income eligibility guidelines for the NYSP.[4]

Children's Eligibility. Children through age 18 are eligible to receive SFSP meals.[5] Individuals older than age 18 may receive these meals if they have physical or mental disabilities and if they participate in special school programs for students with disabilities.

b. Administrative Structure

The SFSP operates on three administrative levels: (1) the federal FNS, (2) state agencies, and (3) local sponsors. Each level has unique roles and responsibilities.

FNS. The FNS develops SFSP regulations and procedures and distributes program funds through its seven regional offices. Regional FNS offices fund state SFSP programs on the basis of annual state plans describing the size and scope of SFSP operations, provide technical assistance to states and sponsors, and monitor state programs.

State Agencies. In most states, a state government agency—usually the state education agency that administers the school meals programs—administers the SFSP. State agencies are responsible for recruiting sponsors, approving sponsors' applications, providing training and technical assistance to sponsors and sites, monitoring compliance with program rules and regulations, and handling claims for reimbursement. Many of these activities are seasonal, as the SFSP operates primarily during the summer.[6] Many state agency staff who work on SFSP work on other nutrition programs in the nonsummer months.

When a state government has not assumed responsibility for administering the program, FNS regional offices manage the program and perform all the functions that state agencies would perform. In 2001, FNS regional offices administered the program only in Michigan and Virginia and for nonprofit and camp sponsors in New York.

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[4]DHHS is the primary grantor for the NYSP. To qualify for participation in the NYSP under DHHS rules, at least 90 percent of enrolled children must be at or below the federal poverty level.

[5]A state agency must approve a sponsor's request to serve infants. If infants are served, the sponsor must use the Child and Adult Care Food Program's (CACFP's) meal requirements for infants.

[6]Some SFSP programs operate on a year-round basis. For example, schools using a year-round schedule may use the SFSP to feed children who are off-track (that is, who are on a scheduled school break) throughout the year.

Sponsors. Program sponsors operate the SFSP at the local level and have direct responsibility for either purchasing or preparing meals and for monitoring program operations and food safety and quality. Sponsors must publicize their program; select meal sites; hire and train staff; arrange for the preparation or delivery of meals that meet the SFSP's standards; monitor meal attendance levels; and maintain records and complete paperwork on costs, attendance, food served, and related matters. Under federal regulations, state agencies are required to make training available to sponsors, and to ensure that sponsors receive the training they need.

Sponsors must submit SFSP applications to the state agency annually. After an application has been approved, the sponsor enters into an agreement with the state to provide services. States monitor sponsors' compliance with program rules; serious violations may result in a sponsor's termination or in the denial of its application for the next program year. States may also disallow meals for reimbursement purposes if the meals are not served according to program rules.

Sponsors must train site supervisors on SFSP rules before their sites open. Site staff must serve meals to children in a way that meets program requirements; supervise the children while they eat; and accurately record the number of meals prepared or delivered, the number served to children as firsts and as seconds, and the number served to program staff. They also must follow appropriate procedures related to food safety and to storage or disposal of leftovers. (Meal pattern requirements, which are intended to ensure that SFSP meals provide good nutrition, are discussed in detail in Chapter V.)

c. Funding

The SFSP is funded through the USDA budget. Total federal expenditures on the program were $272 million in FY 2001 (Food and Nutrition Service 2002a).[7] The federal government funds state agencies for their costs of administering the program and also funds sponsor reimbursements. States are not required to match federal SFSP funds.

State agencies receive SFSP state administrative funds (SAFs) to cover their administrative costs. The SAF amount is calculated on the basis of the total amount of program funds—sponsors' operating, sponsors' administrative, and health inspection funds—properly payable to a state for the SFSP in the preceding fiscal year (7CFR 225.5[a][1]). A state receives administrative funding equal to (1) 20 percent of the first $50,000 in program funds, (2) 10 percent of the next $100,000, (3) 5 percent of the next $250,000, and (4) 2.5 percent of any additional dollars in program funds that it received during the previous fiscal year. FNS may

[7]Total federal expenditures include cash payments for meals served, sponsors' administrative costs, the states' administrative expenses, health inspection costs, and entitlement and bonus commodity costs.

adjust the level of state administrative funding based on changes in program size since the previous year.[8]

Most sponsors are eligible to be reimbursed for the costs of serving up to two meals or snacks per child per day at their sites; sites that are residential camps or sites serving migrant children may receive reimbursement for up to three meals or snacks per child per day. Sponsor reimbursements cover two types of costs: (1) operational costs, including those associated with the purchase, preparation, and delivery or service of meals; and (2) administrative costs, including office expenses, administrative staff's salaries, program management costs, and insurance. The amount of reimbursement that sponsors receive is the lesser of (1) actual net documented costs, or (2) the number of reimbursable meals served multiplied by the corresponding per meal reimbursement rates for operating and administrative costs. In addition, administrative cost reimbursements may not exceed the amount specified in the budget approved by the state agency. States may provide advance funding to sponsors to help cover costs until their reimbursement claims are paid, but these advances are deducted from later reimbursements.

The SFSP operating reimbursement rate in 2001 was $2.23 per lunch or supper meal; breakfast and snacks were reimbursed at lower rates (Table I.1).[9] Sponsors' maximum per-meal reimbursement rates for administrative costs vary according to their location and/or method of meal preparation (Table I.1). SFSP meals may be prepared by the sponsor or delivered by a vendor; administrative reimbursements are lower for meals purchased from a vendor and served at urban sites. For example, the 2001 SFSP administrative reimbursement rate for a lunch or supper was $0.2325 per meal for rural sites and for urban self-preparation sites and was $0.1925 per meal for urban vended sites.

SFSP per-meal reimbursement rates (for administrative and operating costs combined) are higher than NSLP and SBP per-meal reimbursement rates for students who qualify for free meals (which include both operating costs and administrative costs in a single rate). The size of the difference depends on whether the SFSP sponsor receives the higher or lower administrative cost reimbursement rate, and whether the NSLP or SBP rates are those for an SFA in a highly disadvantaged area. For lunch, the maximum 2001 SFSP combined reimbursement rate per meal ($2.4625) was about 17 percent higher than the NSLP reimbursement rate for free lunches for

[8]As discussed in detail in Chapter III, states commonly supplement these funds with State Administrative Expense (SAE) funds, a pool of federal funds that is used for state agency administrative costs incurred in connection with other child nutrition programs, including the NSLP, SBP, Special Milk Program, and CACFP. These funds can be transferred to cover SFSP administrative costs that are not covered by SAF.

[9]Alaska's and Hawaii's rates are higher than those of the other states and territories.

TABLE I.1

SFSP MAXIMUM PER-MEAL REIMBURSEMENT RATES FOR ALL STATES EXCEPT ALASKA AND HAWAII, 2001
(Dollars)

Meal	Operating Rate	Administrative Rates	
		Self-Preparation or Rural Sites	Other Sites
Breakfast	1.28	0.1275	0.1000
Lunch and Supper	2.23	0.2325	0.1925
Snack	0.52	0.0625	0.0500

SOURCE: Food and Nutrition Service (2002b).

NOTE: Rates effective January 1, 2001, through December 31, 2001.

school year 2001-2002 in heavily low-income areas ($2.11).[10] The higher reimbursement rates for the SFSP are one of several factors that affect whether SFAs decide to operate the SFSP or the NSLP during the summer.[11] In the case of other types of sponsors, the higher rates reflect the fact that these sponsors are likely to have higher costs than are SFAs, especially if they do not provide food service year-round.

2. History of the Program

The SFSP began in 1968 as a pilot program aimed at providing meals to low-income children during the summer. It was authorized as a permanent program in 1975. Over time, changes in policy goals and concerns have led to revisions in the eligibility criteria for sponsors and sites, administrative rules and regulations, and levels of reimbursement. Participation has fluctuated accordingly.

a. Late 1970s: Problems Led to Contraction

When it was authorized, the SFSP provided funding to open sites located in areas in which at least one-third of children came from households with an income at or below 185 percent of the poverty level. Subsequently, fraud and abuses in program administration occurring during the mid-to-late 1970s were described in a series of findings by the U.S. General Accounting Office (GAO) and in the media (U.S. General Accounting Office 1977 and 1978). Some program operators were prosecuted. In addition to outright fraud, there were reports of high levels of food waste, poor-quality food, and failure to meet meal pattern guidelines. Most abuses involved large nonprofit sponsors. During the late 1970s, in response to concerns about fraud and abuse, administrative oversight of sponsors increased, sponsorship by nonprofit organizations was limited, and registration requirements for food service management companies were introduced (Food and Nutrition Service 2002c). The Omnibus Budget Reconciliation Act of 1981 went further by prohibiting private nonprofit groups (except private schools and residential camps) from serving as sponsors. In addition, for budgetary reasons, the Act

[10]The NSLP rate used applies to areas in which 60 percent or more of meals are served free or at a reduced-price. The maximum SFSP breakfast reimbursement is about 3 percent higher than the maximum SBP reimbursements for "severe needs" districts ($1.4075 for SFSP rural sponsors and self-preparation sponsors versus $1.37 for SBP severe needs districts). NSLP and SBP rates are from the *Federal Register* (2001). All rates discussed are for the contiguous United States.

[11]Under current rules, SFAs may operate the NSLP during the summer for children in educational programs. They are reimbursed for these meals at the free, reduced, or paid rates, according to the children's income levels. If they choose to participate in the SFSP instead, they must open their sites to all children and are subject to additional paperwork requirements, but they can then receive the higher reimbursement rate. The "Seamless Summer Initiative" (discussed in Section I.2.d of this chapter) is testing changes in these rules.

restricted eligible areas for open sites to those in which at least 50 percent of children came from households at or below 185 percent of the poverty level.

These changes led to a decline in participation in the SFSP (Figure I.1). In 1976, before the changes went into effect, average daily attendance in July (the estimate of program participation used by FNS) was more than 3 million—the highest level of SFSP participation ever reported. By 1982, participation had dropped to fewer than 1.5 million children.

b. Late 1980s and Early 1990s: Renewed Interest in Expansion

Starting in the late 1980s, USDA worked with Congress and advocacy groups to reverse the decline in SFSP participation. At around the same time, FNS undertook a national evaluation of the SFSP (Ohls et al. 1988). The evaluation suggested that the program was operating without major problems. FNS increased outreach and technical assistance to potential sponsors and collaboration with nutrition advocates. In addition, a major nutrition policy advocacy group, the Food Research and Action Center (FRAC), undertook a campaign to expand the SFSP in 1991 that has continued to the present. FRAC has published an annual report on SFSP participation since 1993, titled "Hunger Doesn't Take a Vacation" (Food Research and Action Center 2002).

Several pieces of legislation were passed to address the reduction in participation. In 1989, private nonprofit sponsors were allowed back into the program, subject to provisions for expanded state agency training and monitoring and with restrictions on their operations. A major objective of this action was to increase program coverage (Decker et al. 1993). Two studies conducted by MPR at this time found that the reentry of private nonprofit sponsors contributed significantly to an increase in the number of sponsors and sites between 1989 and 1991, as well as to an increase in program attendance and in the number of SFSP meals served (Decker et al. 1990; and Decker et al. 1993).

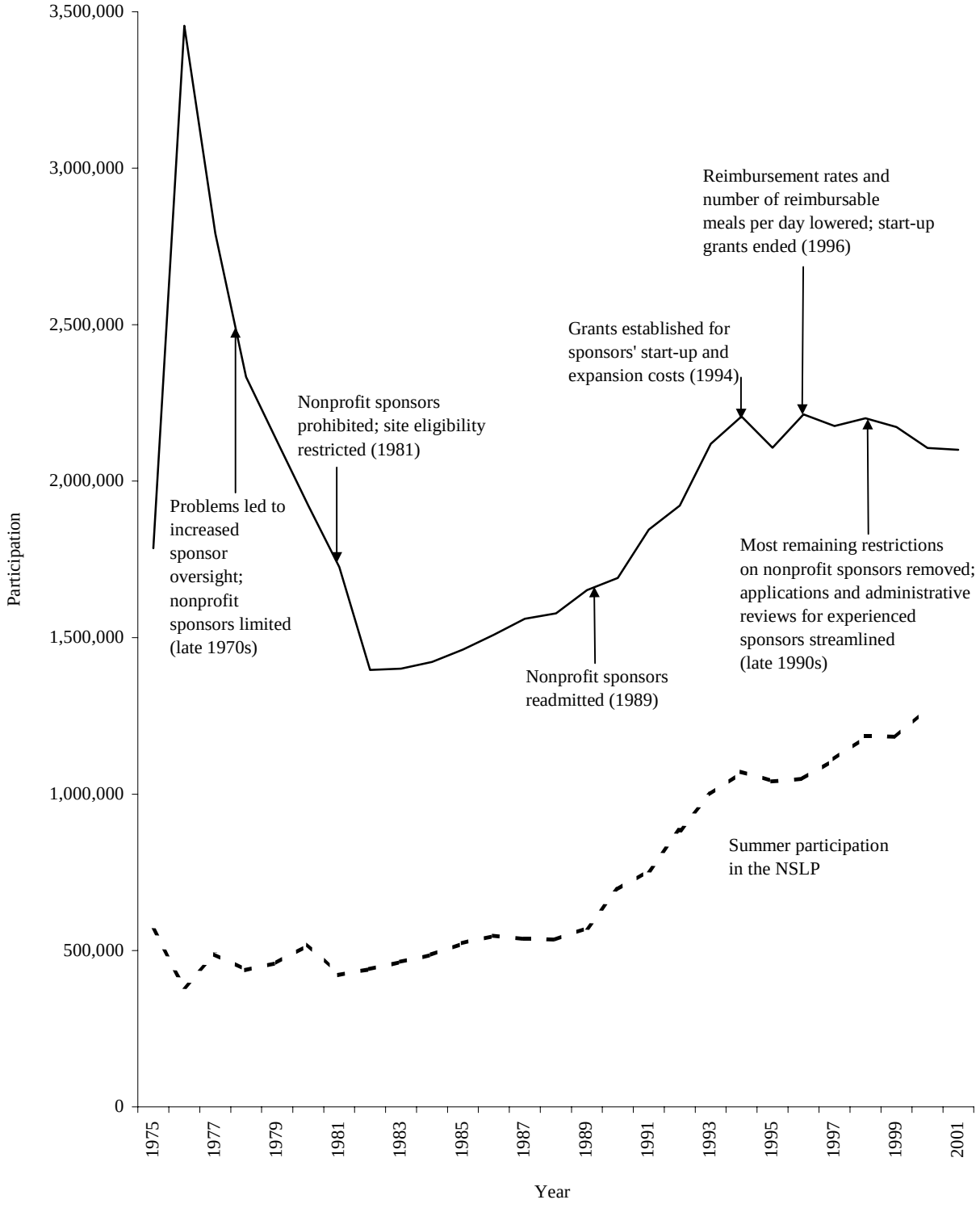
In 1994, special grants were established for sponsors' start-up and expansion costs, which provided funds in addition to meal reimbursements. Some of the restrictions on private nonprofit sponsors were relaxed as well. For example, nonprofit sponsors operating in areas formerly served by school or government sites no longer were subject to a 1-year waiting period.

c. The Late 1990s: Reimbursement Cuts and Streamlined Administration

In 1996, the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) mandated major changes to many social welfare programs, including cutbacks in the Food Stamp Program and in several child nutrition programs, one of which was the SFSP. PRWORA removed expansion of the SFSP as a stated program goal, reduced reimbursement rates and the number of reimbursable meals allowed per day, and eliminated start-up and expansion grants for sponsors. In a GAO study conducted shortly after the changes took effect, some sponsors reported that they had substituted less expensive foods for those previously served, reduced staff wages, and reduced the number of sites they operated (U.S. General Accounting Office 1998). The study also reported that, overall, the reductions in reimbursements had little effect on the number and characteristics of sponsors participating in the program or on the number of

FIGURE I.1

SFSP PARTICIPATION AND PROGRAM MILESTONES



SOURCE: SFSP participation (Food and Nutrition Service 2002a); NSLP July participation is from unpublished data provided by the FNS Child Nutrition Division, May 7, 2002.

participants. However, the GAO study examined the SFSP only during the first year after the changes took effect.

During the late 1990s, most of the remaining restrictions on private nonprofit sponsors were removed.[12] Changes were made to streamline application procedures for sponsors that successfully had participated in the SFSP during the prior year. Other changes focused state monitoring requirements on new sponsors, large sponsors, sponsors that had operational problems, and sponsors experiencing frequent staff turnover. The federal requirement for registering food service management companies was removed, thereby giving states discretion as to whether they continue this practice (Food and Nutrition Service 1998).

d. Recent Federal and State Initiatives

Currently, states and FNS have renewed their focus on how to increase the availability of summer meals to children in low-income areas (Food and Nutrition Service 2002d). Both FNS and the states are experimenting with new approaches to expanding the program.

At the federal level, two initiatives began in summer 2001: (1) a pilot project, mandated by Congress, to simplify reimbursement rates in certain states; and (2) the Seamless Summer Feeding Waivers, an initiative designed to encourage school districts to serve more meals during the summer. In late 2000, Congress mandated a 3-year pilot project as part of the Richard B. Russell School Lunch Act (Public Law 106-554). The "14-state" pilot project, which began in summer 2001 (as this study went into the field), applies to sponsors in 13 states and Puerto Rico, jurisdictions which have low SFSP participation levels. One of the goals of the pilot is to test an approach to reducing paperwork for sponsors (Food and Nutrition Service 2002f). The pilot provides the maximum reimbursement rate to sponsors in these jurisdictions. It also removes the division between administrative and operating cost reimbursements; sponsors receive one reimbursement to cover all of their expenses, whether administrative or operating. Sponsors no longer have to track administrative and operating costs separately, or to report costs to the state agency. They earn "meals times rates," which makes it easier for them to estimate the amount of funding they will receive. The pilot applies to most sponsors; however, it excludes private nonprofit sponsors that are not schools or residential camps.

Another federal initiative—the Seamless Summer Food Waiver—seeks to encourage more school districts to serve more meals to children in low-income areas during the summer. Under this waiver, school districts use NSLP meal service and claims procedures to provide summer meal service to children aged 18 or younger at sites that meet SFSP criteria. School districts operating these waiver sites are subject to the less complicated administrative requirements of the NSLP. All meals served at the waiver sites are claimed as NSLP meals and are reimbursed at the NSLP free rate, including the allowance for commodities. Sponsors do not receive a separate

[12]Nonprofit SFSP sponsors continue to be limited to operating no more than 25 sites. However, the National School Lunch Act provides authority for FNS to approve waivers from this limit.

administrative reimbursement for these meals. The seamless summer initiative began in 2001 with initial waivers granted to five school districts (two in California and three in Florida). Starting in 2002, school districts nationwide may request a waiver through their state education agency to operate a seamless summer feeding program through summer 2004 (U.S. Department of Agriculture 2002a).

Several states have implemented laws to require school districts in low-income areas to operate the SFSP; because these initiatives are relatively recent, however, little information is available on how they are working. Texas state law requires public school districts in which at least 60 percent of children are eligible for free or reduced-price school meals to sponsor the SFSP or to arrange for a sponsor in their enrollment areas. There is no minimum, however, on the number of days or the number of sites at which the program must operate. Furthermore, school districts may receive a waiver exempting them from this responsibility if they can demonstrate that the costs of running the program will exceed available funds, that renovations or construction in the district prevent them from operating the program, or that other extenuating circumstances exist. Texas also provides funds for outreach and for supplemental meal reimbursements. Missouri also has a mandate to operate the SFSP in high poverty areas of the state (Food Research and Action Center 2002).

Six states in addition to Texas provided state funding for the SFSP in 2001 (Food Research and Action Center 2002).[13] Some states provided supplemental reimbursements for all sponsors, some provided start-up and expansion grants, and some provided funding for outreach.

3. Participation and Participation Rates

At the time of its authorization as a permanent program in 1975, the SFSP served almost 1.8 million children per day during the peak summer month of July (Figure I.1).[14] In 1976, before the tightening of program regulations and of restrictions on nonprofit sponsors, participation rose to almost 3.5 million. By 1982, it had fallen below 1.5 million. Starting in 1983, participation rose slowly but steadily, reaching 2 million children in 1993. Since then, despite declining slightly since 1999, participation has been relatively stable, hovering between 2.1 and 2.2 million children.

[13]The states are California, Massachusetts, Minnesota, New York, Vermont, and Washington.

[14]FNS measures participation as average daily attendance reported by sponsors operating in July, the peak month for SFSP participation. State agencies collect these data and report them to FNS. Because the program does not track individual children who participate, it is not possible to determine the number of children who ever receive meals during the summer.

Like the SFSP, the NSLP provides meals to children during the summer.[15] NSLP participants are children attending summer school and on-track students at year-round schools. In line with national trends toward year-round schooling and increased requirements for summer school participation, summer participation in the NSLP has more than doubled during the past decade (see Figure I.1). Recently, NSLP participation rose from 1.06 to 1.14 million between July 1999 and July 2000, more than offsetting a small decrease in the number of children fed through the SFSP. Thus, recent decreases in SFSP participation do not necessarily reflect fewer children receiving summer meals through federal nutrition programs overall. Rather, they may reflect a redistribution in the number of children accessing specific meal programs.[16]

The difference between the number of children who participate in the SFSP and the number who participate in the free or reduced-price component of the NSLP *during the school year* always has been large. For example, in 1999, an average of 15 million children from low-income households received free or reduced-price NSLP lunches each month during the school year, whereas only 2.2 million received meals through the SFSP in July (Figure I.2). The ratio of SFSP participants to free or reduced-price NSLP participants, converted to a percentage, can be interpreted as an approximate participation rate in the SFSP among low-income children. This percentage was relatively stable between 1989 and 1996, varying only from 14.5 percent to 15.8 percent (Figure I.3). It has been declining slightly but continually since then. In 2000, the participation rate was less than 14 percent for the first time since 1989. These recent decreases reflect both the slight decline in SFSP participation and an increase in school-year participation in the NSLP by low-income children.

B. STUDY OBJECTIVES AND RESEARCH QUESTIONS

The main objective of this study is to describe the operations of the SFSP at the state, sponsor, and site levels, using nationally representative data. The specific research questions include:

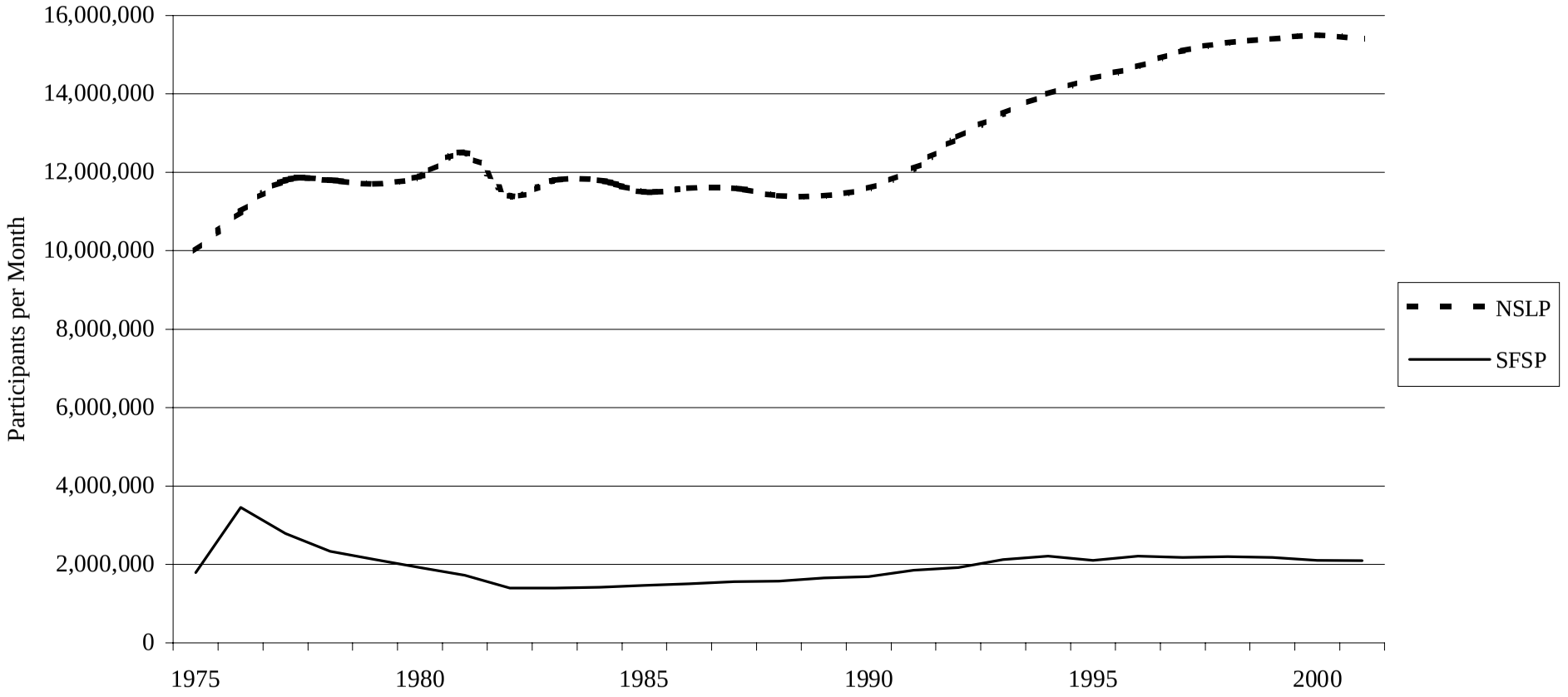
1. ***How does the SFSP operate at the state, sponsor, and site levels?*** Is the program operating as intended by current policy and regulations? What areas do staff believe are in need of improvement?

[15]The CACFP is another year-round nutrition program that serves meals to children in the summer. Average daily participation in the CACFP was approximately 2.65 million in 2001 (including children and adults served in day care homes and in child care centers). According to data provided by the FNS Child Nutrition Division, participation levels in the summer are similar to those throughout the rest of the year, suggesting that the CACFP does not generally serve the school-aged children served by the NSLP during the school year.

[16]As the Seamless Summer Food Waivers are implemented more widely, this redistribution may increase, which implies that it will be increasingly important to examine NSLP and SFSP participation jointly.

FIGURE I.2

SFSP PARTICIPATION AND NSLP FREE OR REDUCED-PRICE PARTICIPATION, 1975 THROUGH 2001

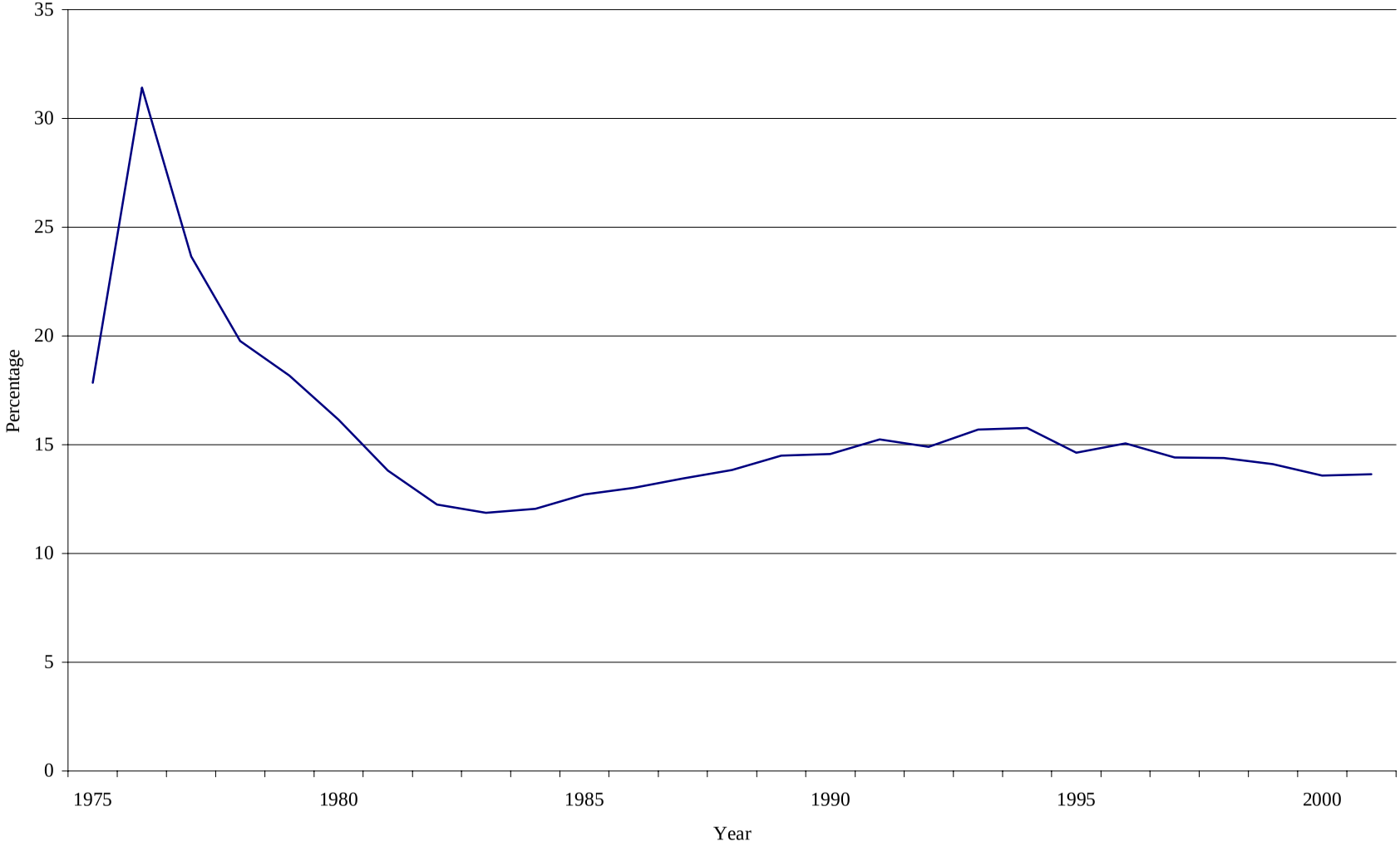


SOURCE: SFSP program data (Food and Nutrition Service 2002a); NSLP program data (Food and Nutrition Service 2002e).

NOTE: Data reflect 9-month averages for free or reduced-price participation in the NSLP (summer months are excluded) and July participation in the SFSP. Data for 2001 are preliminary.

FIGURE I.3

SFSP PARTICIPATION RATE
(Number of SFSP Participants as a Percentage of Free or Reduced-Price NSLP Participants)



SOURCE: SFSP program data (Food and Nutrition Service 2002a); NSLP program data (Food and Nutrition Service 2002e).

NOTES: Data reflect July participation in the SFSP divided by 9-month averages for free or reduced-price participation in the NSLP (summer months are excluded). Data for 2001 are preliminary.

2. ***What factors affect participation by sponsors and children?*** What do program staff see as the most important barriers to participation? What efforts are they making to expand participation? What are the levels of entry and exit of program sponsors? Why do some sponsors leave the program, and how do their characteristics compare with those of sponsors overall?

3. ***What is the nutritional quality of meals served, and what is the extent of plate waste?*** How are SFSP meals prepared and served? What are the foods served and portion sizes? How does the nutritional content of SFSP meals compare with relevant nutrition standards? What factors are associated with more nutritious meals and less waste?

C. STUDY DESIGN AND DATA SOURCES

This section provides an overview of the design of the SFSP Implementation Study, the data sources used, and the methods used to collect the data. Appendix A and Appendix B discuss, respectively, data collection in detail and the sample design and weights used in the study.

1. Study Design

ERS worked with MPR to design this study under a previous contract (Briefel et al. 2000). Key requirements of the design included nationally representative data on sponsors, former sponsors, and sites and the ability to link sponsor and site data. The final study design included the following components:

- Telephone interviews with all SFSP state administrators
- A mixed-mode mail/telephone survey of a national sample of sponsors
- A telephone survey of former sponsors, defined as organizations that sponsored the SFSP in 2000 but not in 2001
- Visits by interviewer-observers to a national sample of program sites sponsored by the programs in the sponsor sample, which included in-person interviews with site supervisors, structured observations of program operations, and coding of a random sample of meals served and plate waste

The design for this study was influenced heavily by the last comprehensive national evaluation of the SFSP (also conducted by MPR), which collected data in 1986 (Ohls et al. 1988). The study by Ohls et al. collected data at the state, sponsor, and site levels and demonstrated that on-site observers could collect data on the content of meals served and plate waste. Whenever appropriate, the results of the current study are compared with the 1986 data.

In designing the current study, ERS asked MPR to consider the feasibility of studying factors associated with participation. The designs developed included (1) geocoding of the locations of SFSP sponsors and sites and geographic analysis of the characteristics of areas

served and not served, and (2) a survey of families in areas served by SFSP sites that would include both participants and nonparticipants (Gordon et al. 2000). ERS decided not to pursue the participant-nonparticipant survey because of concerns about feasibility. ERS is planning a future study that will include the geographic analysis of data on sponsor and site addresses in relation to census poverty data, which will allow USDA to assess how well the SFSP is reaching areas in which low-income children live.

2. Data Collection

Data collection for this study took place during the spring, summer, and fall of 2001. The data collection for the study consisted of four surveys—a state administrator survey, a sponsor survey, a former sponsor survey, and a site supervisor survey—plus in-person observations of operations at a national sample of sites and a large effort to compile administrative data.

Developing the sample frames for the study was a major undertaking. State SFSP agencies provided lists of year 2000 sponsors in spring 2001 and subsequently provided lists of new 2001 sponsors and lists of sponsors that had left the program. These lists comprised the sample frames from which the samples of sponsors and of former sponsors were selected. After sponsors were selected for the sample, they were contacted and asked to provide lists of their sites; the lists became the sample frame for selecting the sample of sites to visit. The level of cooperation received at all levels was very high.

Table I.2 describes the four surveys and the site observations. The table shows their mode of data collection, sample sizes, and response rates. To reduce respondent burden, all four surveys asked some questions about administrators' problems or challenges as open-ended questions. However, because respondents generally mention only a few issues in response to open-ended questions—most often, the ones about which they feel strongly—responses to such questions likely provide lower bounds on the numbers of administrators who believe particular challenges or problems are important. Throughout this report, tables indicate when data reflect responses to open-ended questions.

During the fall and winter of 2001, SFSP state agencies also provided MPR with detailed lists of all their 2001 SFSP sponsors and lists of each sponsor's sites. These lists included addresses of sponsors and sites that have been geocoded for future analysis, as well as descriptions of basic program characteristics.[17] The data collected on sponsors included the type of sponsor (school, government, residential camp, NYSP, other nonprofit), dates of operation, types of meals served, whether the sponsor was new to the program, and meal counts for each meal. The data collected on sites included dates of operation, types of meals served, an estimate of average daily attendance for each meal, and an indicator of whether the site was open or enrolled. These data, which represent a census of the SFSP as of summer 2001, have been compiled into a linked database, the "SFSP 2001 Sponsor-Site Database."

[17]Decision Demographics, Inc., under subcontract to MPR, geocoded the addresses in the database.

TABLE I.2

DATA COLLECTION FOR THE SFSP IMPLEMENTATION STUDY

Survey	Mode of Data Collection	Sample Size	Response Rate (Percentage)
State Administrator Census	Telephone interview	54[a]	100
Sponsor Survey	Mail survey with telephone followup	126	96
Former Sponsor Survey[b]	Telephone interview	131	89
Site Supervisor Survey and Site Observations	In-person interview and structured observations of site operations, participant characteristics, content of meals served, and plate waste	162	95

NOTE: See Appendix A for additional details on data collection.

[a]There are 54 state agencies to represent all 50 states, Puerto Rico, Virgin Islands, and the District of Columbia. The program in New York state is partly run by the State Department of Education and partly run by the FNS regional office, so both agencies were included in the survey.

[b]Former sponsors are defined as agencies that were SFSP sponsors in 2000 but not in 2001.

D. PLAN OF THE REPORT

Chapter II describes the SFSP at the state, sponsor, and site levels and its participants, based on data from the Sponsor-Site Database and the various surveys. It also considers how the characteristics of the program have changed since 1986, when data for the previous study were collected.

Each of the next three chapters addresses one of the three research questions in turn. Chapter III describes how the program was administered at the state, sponsor, and site levels, as well as areas of program operations that staff believed could be improved. Chapter IV discusses participation and outreach, including staffs' views on barriers to participation, the extent of outreach efforts, and the reasons why sponsors left the program. Chapter V describes the meals served in the SFSP, their nutrient content, and the extent of plate waste. Finally, Chapter VI summarizes the findings and considers issues for the future.

II. PROGRAM CHARACTERISTICS

This chapter presents a statistical picture of the Summer Food Service Program (SFSP) in 2001 that covers the characteristics of the state agencies, sponsors, and sites that operated the program.[1] The chapter also describes SFSP participants and discusses factors that may affect their participation. Many of the discussions compare the SFSP in 2001 with the program as it was 15 years earlier, when the last comprehensive study was undertaken. The highlights of the findings are:

- Half the program was school-sponsored in 2001. School Food Authorities (SFAs—the governing bodies of schools or school districts that operate the National School Lunch Program [NSLP]) comprised roughly half of all sponsors, ran about half of all sites, and served about half of all meals. The number of school sponsors operating in July almost tripled from 1986 to 2001, and their average daily attendance increased by 66 percent.

- Government agencies (usually municipal recreation or social services departments) constituted 14 percent of sponsors, but they were the largest sponsors, on average, and served 31 percent of meals. Residential camp sponsors were about 16 percent of all sponsors but served only 7 percent of meals. Because the number of government and camp sponsors and the number of meals they served had changed little from 1986 to 2001, these sponsor types are, proportionately, smaller parts of the program than in 1986.

- Nonprofit organizations, which have rejoined the program since 1986, represented 18 percent of all sponsors in 2001. However, they generally are restricted in size to no more than 25 sites and served just 10 percent of all meals.

- Sponsors that obtained meals from vendors comprised 18 percent of sponsors, but they operated 36 percent of sites and served 30 percent of meals. SFA vendors provided about one-third of vended meals, and private vendors provided about two-thirds.

- Since 1986, the number of sites that provide breakfast and the number that stay open for longer than 6 weeks have increased. Almost all sites (93 percent) offered activities in addition to meals, and most (61 percent) were open for longer than 6 weeks. About half of all sites served breakfast, and essentially all served lunch.

[1]Appendix C provides a qualitative description of the SFSP, through in-depth profiles of nine sites selected to convey the wide variability in the program. Readers who are not familiar with the program may find that this appendix provides a feel for what it looks like on the "ground."

- As in 1986, 58 percent of children served at SFSP sites were of elementary-school age. About 25 percent of those served were middle- or high-school age children; 17 percent were preschoolers.
- About one-third of sites provided transportation to at least some children.

A. CHARACTERISTICS OF STATE AGENCIES

In 2001, most states (42) administered the SFSP through their state education agency, which also administers the NSLP and the School Breakfast Program. In three cases (Michigan, Virginia, and nonprofit and camp sponsors in New York), the regional offices of the Food and Nutrition Service (FNS), U.S. Department of Agriculture (USDA), administered the program (Table II.1).[2] In nine states, a state agency other than the education agency administered the program (including departments of agriculture, health, and social services).[3]

SFSP state agencies administered programs that varied widely in scale. Eight state agencies had 20 or fewer sponsors, 31 state agencies had from 21 to 100 sponsors, and 15 had more than 100. The number of sites that the state agencies were responsible for monitoring also varied widely. About two-thirds of the states had between 101 and 1,000 sites; a small group (15 percent) had 100 or fewer sites, and 12 states (22 percent) had more than 1,000 sites.

The number of SFSP meals that were served in each state varied widely as well. In 22 states (41 percent), sponsors served 1 million or fewer meals in the summer of 2001. In most of the other states (44 percent), sponsors served between 1 million and 4 million meals. The sponsors in the state-run portion of the New York program (the largest "state") served more than 12 million meals. On average, 2.4 million SFSP meals were served per state in 2001.

During the late 1970s, as part of efforts to improve program integrity, state agencies were required under federal regulations to register commercial vendors that provided meals to SFSP sponsors; the registration process included training vendors on SFSP rules and inspecting their facilities. The federal requirement was dropped during the late 1990s as part of efforts to simplify program administration. Although no longer mandated by FNS, about one-third of state agencies (17) still require private vendors to register in order to be eligible for SFSP contracts.

[2]In 1986, in contrast, FNS regional offices administered the SFSP in one-third of the states (Ohls et al. 1988).

[3]The two New York agencies (the New York State Department of Education, which administers school and government sponsors, and the FNS Northeast Regional Office, which administers camp and nonprofit sponsors) are counted separately. Although Wyoming was not officially a regional-office-administered state in 2001, the FNS regional office assisted the Wyoming Department of Health. For 2002, Wyoming has changed its state agency to the Department of Education.

TABLE II.1

CHARACTERISTICS OF STATE AGENCIES

	Number of State Agencies	Percentage of State Agencies
Type of Agency[a]		
State education agency	42	77.8
Other state agency	9	16.7
FNS regional office	3	5.6
Number of SFSP Sponsors in 2001[b]		
1 to 20	8	14.8
21 to 50	13	24.1
51 to 100	18	33.3
101 to 150	9	16.7
151 to 200	3	5.6
≥201	3	5.6
Median	69	—
Mean	81	—
Number of SFSP Sites in 2001[c]		
1 to 50	4	7.4
51 to 100	4	7.4
101 to 250	13	24.1
251 to 500	9	16.7
501 to 750	7	13.0
751 to 1,000	5	9.3
1,001 to 1,500	6	11.1
≥1,500	6	11.1
Median	412	—
Mean	657	—

TABLE II.1 *(continued)*

	Number of State Agencies	Percentage of State Agencies
Number of SFSP Meals Served in Summer 2001[c]		
<1 million	22	40.7
1 to 2 million	14	25.9
>2 to 4 million	10	18.5
>4 to 8 million	4	7.4
>8 to 12 million	3	5.6
>12 million	1	1.8
Mean (millions)	2.4	—
Number of States Continuing Vendor Registration[d]	17	31.5
Total	**54**	**—**

SOURCE: See the footnotes.

[a]Derived from state plans submitted to FNS and state contact information.

[b]Tabulated from SFSP Implementation Study, Sponsor-Site Database (2001).

[c]Preliminary estimates provided by the Child Nutrition Division, FNS (January 2002). These data reflect claims reported to FNS by state agencies for the months of May through September.

[d]Tabulated from SFSP Implementation Study, State Administrator Census (2001).

FNS = Food and Nutrition Service.

B. CHARACTERISTICS OF SPONSORS

Several sources of data on the characteristics of SFSP sponsors were collected for this study. The SFSP Sponsor-Site Database, compiled from lists of sponsors submitted by state agencies, provides a census of key characteristics. The information in the database makes it possible to examine the characteristics of each major type of sponsor.[4] The Sponsor Survey is the source of more-detailed information on sponsors' characteristics.[5] Data from both sources are presented here in two different ways: (1) to reflect the percentage of sponsors nationally with particular characteristics, and (2) to reflect the percentage of SFSP meals nationally served by sponsors with particular characteristics.[6]

To assess changes in sponsors' characteristics over time, both FNS program data and comparisons of the data from the 2001 Sponsor Survey (or the Sponsor-Site Database) with 1986 data from the report by Ohls et al. (1988) are used. The FNS data are essentially a census of the SFSP; however, they were collected only for SFSP sponsors and sites operating in July, so they understate the size of the overall program. Comparisons of data from the two surveys must be made with caution because of differences in data collection approaches and sample design in the two studies, and because both sets of estimates are subject to statistical sampling error; comparisons of the 1986 survey data and the 2001 census data are more reliable, as only one set of estimates is subject to sampling error.

1. Overview of Sponsors' Characteristics

About half the 2001 SFSP sponsors were SFAs, and they served half the SFSP meals (Table II.2).[7] Only 14 percent of sponsors were government agencies, but these sponsors served 31 percent of all meals in 2001, indicating that government agencies are larger than the average sponsor. Nonprofit organizations, National Youth Sports Programs (NYSPs), and residential

[4]The database also can be used to examine other subgroups. Appendix D provides tabulations from the database on sponsor characteristics at the state and regional levels. Chapter IV compares new and continuing sponsors.

[5]Appendix D compares the census data from the Sponsor-Site Database and the Sponsor Survey data on key sponsor characteristics. As discussed in greater detail in Appendix D, the survey data were weighted to match key control totals from the Sponsor-Site Database.

[6]Using the census data, the first type of tabulation is based on unweighted tabulations of the data, with each sponsor receiving an equal weight, regardless of size. For the second type of tabulation, each sponsor is weighted by the total number of meals it served, so that larger sponsors are weighted more heavily than are smaller ones. For the survey data, a different set of sampling weights corresponds to each type of tabulation, but the underlying idea is the same. (See Appendix B for additional details on sampling weights.)

[7]According to responses to the Sponsor Survey, about 2 percent of sponsors were private schools. Thus, private school sponsors comprise a small portion of all school sponsors.

TABLE II.2

SELECTED CHARACTERISTICS OF SPONSORS

	Percentage of Sponsors	Standard Error	Percentage of Meals Served	Standard Error
Type of Sponsor[a]				
School	48.5	—	50.9	—
Government	14.2	—	31.4	—
Camp/Upward Bound	16.4	—	6.8	—
NYSP	3.5	—	1.4	—
Nonprofit organization	17.5	—	9.5	—
New Sponsor[a]	10.1	—	2.9	—
Number of Years as Sponsor[b]				
First year (new this year)	2	(1.0)	2	(1.0)
2 to 5	41	(5.6)	16	(4.0)
≥6	57	(5.6)	82	(4.2)
Unknown (but >1 year)	0	(0.4)	1	(0.7)
Number of Sites Sponsored[a]				
1	49.6	—	10.8	—
2 to 5	27.1	—	12.4	—
6 to 10	9.1	—	8.0	—
11 to 50	11.6	—	24.2	—
51 to 100	1.5	—	9.3	—
101 to 200	0.8	—	12.4	—
201 to 300	0.2	—	6.9	—
>300	0.1	—	16.0	—
Median	2.0	—	34.0	—
Mean	8.1	—	205.5	—
Average Daily Attendance[b,c]				
<100	31	(5.6)	4	(1.0)
100 to 500	54	(5.7)	23	(4.4)
501 to 1,000	7	(1.6)	11	(3.1)
1,001 to 5,000	7	(1.4)	25	(5.8)
>5,000	2	(0.5)	38	(9.2)
Median	145	(20)	2,026	(1,779)
Mean	687	(138)	35,631	(18,459)

TABLE II.2 (*continued*)

	Percentage of Sponsors	Standard Error	Percentage of Meals Served	Standard Error
Total Meals Served During Summer[a,c]				
<1,000	5.6	—	0.1	—
1,000 to 2,500	14.2	—	0.8	—
2,501 to 5,000	19.2	—	2.3	—
5,001 to 7,500	11.7	—	2.4	—
7,501 to 10,000	8.9	—	2.6	—
10,001 to 20,000	17.5	—	8.3	—
20,001 to 100,000	18.5	—	26.8	—
≥100,001	4.5	—	56.7	—
Median	7,285	—	153,365	—
Mean	29,858	—	1,160,433	—
Duration of Program (Calendar Weeks)[a]				
Missing	2.9	—	1.8	—
<2	1.4	—	0.1	—
2 to <4	11.8	—	2.3	—
4 to <6	24.3	—	8.1	—
6 to <8	26.6	—	23.6	—
8 to <10	22.4	—	46.2	—
10 to <12	7.1	—	10.7	—
≥12	3.3	—	7.1	—
Median	6.7	—	8.7	—
Mean	7.5	—	9.9	—
Site Eligibility Status[b]				
All open	55	(5.2)	61	(7.4)
All enrolled	11	(3.9)	5	(1.9)
Combination of open and enrolled	13	(2.8)	24	(6.5)
Camp or Upward Bound sites	19	(5.0)	8	(2.4)
NYSP sites	2	(1.2)	2	(1.1)
Presence of Special Sites[b]				
Any rural sites	56	(5.6)	30	(5.6)
All rural sites	53	(5.6)	23	(5.1)
Any migrant sites	9	(2.6)	10	(4.9)
Any mobile sites	3	(1.4)	6	(2.4)
Any sites that serve homeless children	8	(2.7)	14	(3.7)

TABLE II.2 (*continued*)

	Percentage of Sponsors	Standard Error	Percentage of Meals Served	Standard Error
Meals Offered at One or More Sites[a]				
Breakfast	72.1	—	78.4	—
Lunch	98.4	—	99.7	—
Supper	20.7	—	13.7	—
Any snack	15.2	—	33.0	—
Type of Meal Preparation[b]				
Self-preparation on site	63	(4.8)	26	(5.5)
Self-preparation at central kitchen	14	(3.1)	16	(4.0)
Self-preparation on site or at central kitchen	5	(1.7)	28	(9.0)
SFA as vendor	6	(1.9)	10	(3.4)
Private vendor	13	(3.8)	20	(6.1)
Total Sponsors—Sponsor-Site Database	**4,372**	**—**	**—**	**—**
Sample Size—Sponsor Survey	**126**	**—**	**—**	**—**

SOURCE: SFSP Implementation Study, Sponsor Survey and Sponsor-Site Database (2001).

[a]From the Sponsor-Site Database. These data are a census, so they have no standard errors. Sponsors with missing data were omitted from the tabulations.

[b]From the Sponsor Survey. Tabulations are weighted to be representative of sponsors nationally.

[c]Average daily attendance was reported in the Sponsor Survey. Sponsors that served more than one meal were not instructed in any way on how to calculate average daily attendance, but most seem to have used either attendance at the meal serving the largest number of children or usual attendance for the activity program associated with the meal service. The measure does not adjust for differences in the number of days that programs are open. By contrast, the measure, total meals, counts every meal served during the summer.

NYSP = National Youth Sports Program; SFA = School Food Authority.

camps/Upward Bound programs comprised 37 percent of sponsors but served only 18 percent of the meals.[8]

Sponsors tend to be stable. As reported in the survey, 57 percent of all sponsors had been in the SFSP for longer than 6 years (and these sponsors served 82 percent of all meals). The lists provided by the state agencies indicate that 10 percent of the 2001 SFSP sponsors had not sponsored the SFSP in 2000; some of these sponsors may have offered the program in previous years. Based on the Sponsor Survey, only 2 percent of sponsors were new. Some of the lists of new sponsors that were used to select new sponsors for the survey were incomplete, so it is possible that new sponsors were underrepresented somewhat in the survey. In addition, sponsors that had not operated in 2000 but had operated in the past may not have reported themselves to be "new."

In 2001, the SFSP had a few very large sponsors, and a large number of very small ones. This breakdown holds whether measured in terms of the number of sites, average daily attendance, or total meals served during the year.

Most SFSP sponsors operated only a few sites. About half the sponsors had only 1 site, and 86 percent had 10 sites or fewer. However, sponsors with 10 sites or fewer served fewer than one-third of all meals. By contrast, only 1 percent of sponsors operated more than 100 sites, but they served 35 percent of all meals.

Another indicator of the wide dispersion in sponsor size is that most sponsors (85 percent) had daily attendance of 500 children or fewer, but sponsors that had more than 500 children attending per day served 74 percent of all meals.[9] A similar dispersion is evident in the number of meals served during the course of the summer. The majority of sponsors (60 percent) served 10,000 meals or fewer. Although only 5 percent served more than 100,000 meals, these sponsors served 57 percent of all meals served.

Sponsors varied greatly in the duration of their SFSP programs, but the average program operated for 7.5 weeks. About one-quarter of programs were between 4 and 6 weeks in duration, one-quarter were between 6 and 8 weeks in duration, and one-quarter were between 8 and 10 weeks in duration. The small group of sponsors (3 percent) that operated for 12 weeks or longer includes sponsors that operated year-round or almost year-round to serve off-track children in year-round school districts.

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[8]Upward Bound programs are federally funded educational programs for disadvantaged youths, which are operated by colleges or universities. Although they may be residential or nonresidential, they are grouped with residential camps in this report, as most state agencies use that classification.

[9]Average daily attendance measures the number of children eating at any time during the day. This measure counts children who receive several meals in a day only once; furthermore, the measure does not adjust for differences in the number of days that programs are open. By contrast, the measure, total meals, counts every meal served during the summer.

More than half (55 percent) of sponsors operated only open sites.[10] About 11 percent ran only enrolled sites, and another 13 percent ran a combination of open sites and enrolled sites. In general, sponsors that operated both types of sites were large; they served 24 percent of all meals. Nineteen percent operated residential camp sites (including Upward Bound sites), but they served only about 8 percent of the meals. These sponsors served a relatively small percentage of meals because they ran fewer sites than did other sponsors (as discussed in Section B.2.a).

The majority (56 percent) of sponsors had at least one rural site, but these sponsors served just 30 percent of all meals. Most sponsors with any rural sites operated only rural sites; 53 percent of all sponsors had only rural sites. Nine percent of sponsors had one or more migrant sites. These sites serve children from migrant worker families and are allowed to serve an extra meal. About 8 percent of sponsors reported having one or more sites that served homeless children. Mobile sites—sites located on a bus or van that moves among several locations—have been developed during the past few years. Three percent of sponsors reported operating at least one mobile site.

Lunch is typically the primary meal at SFSP sites, and 98 percent of sponsors served this meal. Nearly three out of four sponsors (72 percent) had sites that served breakfast, but breakfast was not necessarily served at all these sponsors' sites. About 21 percent of all sponsors had sites that served supper, but these sponsors served only 14 percent of all meals; most sponsors that serve supper are residential camps, which generally have only one site. Fifteen percent of sponsors ran sites that served snacks; these sponsors served about one-third of all meals. Some larger sponsors served snacks at only a few of their sites.

Nearly two-thirds of sponsors (63 percent) prepared all their meals at their sites, but these sponsors served only 26 percent of all meals.[11] By contrast, 14 percent of sponsors prepared meals for all their sites at central kitchens, and 5 percent prepared meals at some sites and delivered meals to other sites from a central kitchen. These two groups together served 44 percent of all meals. Thirteen percent of sponsors obtained meals from private vendors, and 6 percent obtained meals from SFAs (acting as vendors rather than as sponsors). Sponsors that used vendors served 30 percent of meals overall.

[10]Appendix A describes procedures used for resolving discrepancies between sponsor and site data regarding the open/enrolled status of sites. In general, sponsors' applications were used when these data sources did not agree.

[11]See Appendix A for a discussion of cleaning of sponsor and site data on meal preparation. In general, discrepancies in sponsors' and site supervisors' reports of meal preparation methods were resolved by consulting sponsors' applications. Note also that some meals prepared in central kitchens may be warmed up or portioned out at the sites; for this study, sponsors that used this approach have been classified as using central kitchen preparation.

2. Characteristics of Different Types of Sponsors

The major types of sponsors—SFAs, government agencies, residential camps, NYSP sponsors, and nonprofit sponsors—offer very different types of programs. The Sponsor-Site Database provides a census of data on sponsors and enables one to consider how each sponsor type differs for a limited set of characteristics. Unfortunately, the survey sample is not sufficient to provide reliable data for each sponsor type. Thus, for some key variables obtained from the survey but not available in the census, comparisons are between school sponsors and nonschool sponsors. Much recent SFSP policy has focused on expanding the role of school sponsors, so these comparisons are also of great interest.

a. Characteristics of Major Types of Sponsors, from the Sponsor Census

In general, different sponsor types served different meals (Table II.3). Other than camps, school sponsors were the most likely group to serve breakfast (75 percent did so), perhaps because many have become accustomed to serving breakfast during the school year. By contrast, government sponsors were the least likely to serve breakfast; 47 percent served this meal. Suppers were largely served at camp sites, but some sponsors in every group served supper. School sponsors were least likely to serve supper; only 3 percent served this meal.

Camp, NYSP, and nonprofit sponsors never operated large numbers of sites. In 2001, about 85 percent of camp sponsors and about the same percentage of NYSP sponsors had one site; about three-quarters of nonprofit sponsors had five or fewer sites (Table II.3). Furthermore, no NYSP sponsor had more than 10 sites, and no camp, Upward Bound, or nonprofit sponsor had more than 50.[12] Despite their small number of sites, however, some of these sponsors served a relatively large number of meals per site: their sites were relatively large, and most camp sponsors served three meals.

Government sponsors generally were the largest sponsors overall, as they ran an average of 21 sites and, on average, served the largest number of meals. (By contrast, schools ran an average of eight sites, nonprofit organizations, five sites, camps, one site, and NYSPs, one site.) School sponsors fell in the middle of the size range, on average; although a substantial fraction (42 percent) operated only one site, some school sponsors were very large.

Camp and NYSP sponsors operated shorter programs, on average, than did other types of sponsors. Camp programs ran for an average of 6.6 weeks, and NYSPs ran for an average of 5.3 weeks. (NYSPs almost always operated for 4 to 6 weeks.) By contrast, nonprofit sponsors operated programs with the longest average duration (8.9 weeks) and were most likely to operate programs that lasted 10 weeks or longer (20 percent did so). The average durations of school-

[12] As noted in Chapter I, although regulations prevent nonprofit organizations from operating more than 25 sites, FNS may grant waivers from these regulations. According to the Sponsor-Site Database, 12 nonprofit sponsors nationally operated between 25 and 50 sites; none operated more than 50 sites.

TABLE II.3

SELECTED CHARACTERISTICS OF SPONSORS, BY TYPE OF SPONSOR
(Percentages)

	School	Government	Camp	NYSP	Nonprofit
Meals Offered					
Breakfast	75.4	47.0	98.3	66.9	59.6
Lunch	98.1	98.6	98.9	95.4	98.0
Supper	3.4	7.1	95.4	15.2	10.5
Any snack	11.9	22.1	8.1	22.5	24.3
Number of Sites					
1	42.3	32.1	84.5	85.4	44.2
2 to 5	32.7	23.4	13.8	13.9	29.6
6 to 10	10.6	11.1	1.1	0.7	12.6
11 to 50	12.0	23.7	0.6	0.0	13.6
51 to 100	1.7	4.7	0.0	0.0	0.0
101 to 200	0.6	3.4	0.0	0.0	0.0
201 to 300	0.1	1.3	0.0	0.0	0.0
>300	0.1	0.5	0.0	0.0	0.0
Median	2.0	4.0	1.0	1.0	2.0
Mean	8.2	21.5	1.3	1.2	4.8
Total Meals Served					
<1,000	4.2	3.9	9.6	1.5	7.8
1,000 to 2,500	12.7	11.8	24.0	2.0	13.4
2,501 to 5,000	18.9	14.4	25.1	12.0	19.9
5,001 to 7,500	12.7	8.6	12.2	6.7	12.0
7,501 to 10,000	9.4	7.3	4.9	18.0	10.6
10,001 to 20,000	19.2	13.6	12.7	47.3	14.6
20,001 to 100,000	18.9	28.0	9.3	12.7	19.5
≥100,000	4.1	12.6	2.1	0.0	2.1
Median	7,892	11,664	3,899	11,373	6,783
Mean	31,448	66,256	12,434	12,292	16,420

TABLE II.3 *(continued)*

	School	Government	Camp	NYSP	Nonprofit
Duration of Program (Calendar Weeks)					
Missing	2.7	0.8	3.8	1.3	4.7
<2	0.8	0.5	4.7	0.7	1.2
2 to <4	20.4	2.7	5.9	0.0	3.2
4 to <6	23.2	18.7	31.7	85.4	13.2
6 to <8	26.9	33.0	24.0	11.3	26.1
8 to <10	17.3	32.2	24.3	1.3	31.2
10 to <12	4.9	9.0	4.6	0.0	15.3
≥12	3.8	3.1	1.1	0.0	5.1
Median	6.6	7.7	6.6	5.1	8.6
Mean	7.3	8.3	6.6	5.3	8.9
New Sponsor	9.9	6.1	5.0	7.3	18.7
Total Sponsors	**2,118**	**621**	**717**	**151**	**763**

SOURCE: SFSP Implementation Study, Sponsor-Site Database (2001).

NYSP = National Youth Sports Program.

sponsored programs and government-sponsored programs fell in the middle of this range (7.3 weeks and 8.3 weeks, respectively), and both sponsor types included sponsors with a wide range of durations.

Ten percent of all sponsors were new in 2001; fully 19 percent of nonprofit sponsors were new. About 10 percent of school sponsors were new (which is proportionate to sponsors overall). Smaller proportions of government, camp, and NYSP sponsors were new.

b. Comparison of School Sponsors and Nonschool Sponsors, from the Survey Data

Almost all school sponsors (97 percent) prepared their meals themselves; nonschool sponsors were much more likely to rely on vendors (33 percent did so, compared with only 3 percent of school sponsors; see Table II.4).[13] Sixty-eight percent of school sponsors always prepared meals on site, and 30 percent made some use of central kitchens. Two-thirds of nonschool sponsors prepared their own meals either on site or at a central kitchen. However, 22 percent of nonschool sponsors used private vendors, compared with only 3 percent of school sponsors. Eleven percent of nonschool sponsors used an SFA as a vendor.

School sponsors were substantially more likely than nonschool sponsors to operate any rural sites (71 percent versus 42 percent), to operate only rural sites (68 percent versus 40 percent), and to operate migrant sites (18 percent versus 2 percent). One possible explanation is that, in rural areas, there may be few organizations other than school districts with the ability to serve as sponsors. School and nonschool sponsors did not differ significantly in their use of mobile sites or in whether their sites served homeless children.

Although school sponsors generally were larger than nonschool sponsors, as measured by average daily attendance, the differences were not statistically significant. About one-quarter of school sponsors and about 36 percent of nonschool sponsors had fewer than 100 children attend per day. About half of both school sponsors and nonschool sponsors served 100 to 500 children per day.

3. Changes in Characteristics of Sponsors Since 1986

The last major study of the SFSP was undertaken in 1986 (Ohls et al. 1988), and it seems useful to assess how SFSP sponsorship has changed since then. This section compares the two periods, using FNS administrative data, and compares findings from survey and census data obtained in the current study with findings from survey data collected by Ohls et al.

[13]School sponsors may use private vendors if they do so for the NSLP and are continuing the same contract.

TABLE II.4

SELECTED CHARACTERISTICS OF SPONSORS,
BY SCHOOL/NONSCHOOL SPONSOR
(Percentage of Sponsors)

	School Sponsor	Standard Error	Nonschool Sponsor	Standard Error
Type of Meal Preparation				
Self-preparation on site	68	(5.7)	58**	(7.6)
Self-preparation at central kitchen	18	(4.9)	10	(4.1)
Self-preparation on site or at central kitchen	11	(3.4)	0	(0.0)
SFA vendor	0	(0.0)	11	(3.7)
Private vendor	3	(2.7)	22	(6.6)
Presence of Special Sites				
Any rural sites	71	(6.9)	42**	(7.8)
All rural sites	68	(7.2)	40*	(7.9)
Any migrant sites	18	(5.0)	2**	(1.5)
Any mobile sites	3	(1.8)	4	(2.5)
Any sites that serve homeless children	6	(3.8)	9	(4.0)
Average Daily Attendance				
<100	26	(8.2)	36	(8.4)
100 to 500	56	(8.6)	52	(7.9)
501 to 1,000	9	(3.1)	5	(2.0)
1,001 to 5,000	8	(2.3)	6	(1.8)
>5,000	2	(0.9)	1	(0.6)
Median	177	(44)	116	(29)
Mean	883	(250)	501	(130)
Sample Size	**61**	—	**64**	—

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

SFA = School Food Authority.

*Significantly different at the .05 level, chi-squared test.
**Significantly different at the .01 level, chi-squared test.

a. Program Growth Overall and Among Sponsors of Different Types

For many years, FNS has collected detailed SFSP program data from state agencies for the month of July, the peak month for the SFSP.[14] The agencies are required to report their total average daily attendance in July (the sum of the average daily attendance at each sponsor), the number of sponsors of each major type, and the number of sites sponsored by sponsors of each major type. In collecting data for this study, Mathematica Policy Research, Inc. found that the number of SFSP sponsors and sites operating for the entire summer was substantially larger than the number operating in July.[15] Nonetheless, although the FNS data reflect the program only as it operates in July, they provide the only consistently available measure of trends in program characteristics, by sponsor type.

Between 1986 and 2001, the number of sponsors and sites in the July SFSP program almost doubled, while average daily attendance increased by 40 percent, from 1.5 million to 2.1 million (Table II.5).[16] School sponsors accounted for almost three-quarters of the growth in daily attendance. Nonprofit organizations and NYSP sponsors—categories that did not exist in 1986—provided the rest.[17] The number of government and camp sponsors and the number of meals these sponsor types served were essentially the same in 2001 as they had been 15 years before.

According to the July data, the number of school sponsors almost tripled from 1986 to 2001, from 602 to 1,646. School sponsors as a percentage of all sponsors increased less—by 12 percentage points (from 32 to 44 percent)—because, at the same time as the number of school sponsors grew, many sponsors in new categories (nonprofit organizations and NYSPs) also joined the program. Although the number of school sponsors tripled, average daily attendance at school sponsors increased 66 percent, from about 650,000 to 1.1 million, which implies that

[14]These data are collected as part of the "FNS-418" reporting forms submitted by state agencies each month to document meal reimbursements. FNS requires that the agencies provide additional data on their July forms on sponsors, sites, and average daily attendance.

[15]See Appendix D for a comparison of data from the Sponsor-Site Database with FNS-418 data.

[16]The fact that most new sponsors were relatively small explains this difference. Unless granted a waiver, nonprofit organizations generally are permitted to run no more than 25 sites, and new school sponsors tended to be smaller school districts, because many of the larger school districts already were SFSP participants. Existing sponsors may have increased the number of their sites by adding smaller sites.

[17]Some NYSPs participated in 1986 but were counted in other categories, most likely as camps.

TABLE II.5

NUMBER OF SFSP SPONSORS, SITES, AND PARTICIPANTS,
BY TYPE OF SPONSOR, JULY 1986 AND JULY 2001

	July 1986						July 2001					
Type of Sponsor	Number of Sponsors	Percentage	Number of Sites	Percentage	Average Daily Attendance	Percentage	Number of Sponsors	Percentage	Number of Sites	Percentage	Average Daily Attendance	Percentage
School	602	31.6	4,957	30.9	653,142	43.6	1,646	43.9	14,023	44.8	1,082,894	51.7
Government	599	31.5	10,258	63.8	775,661	51.8	610	16.3	13,067	41.7	728,781	34.8
Residential Camp	703	36.9	853	5.3	69,976	4.7	651	17.4	872	2.8	71,044	3.4
NYSP	0	0.0	0	0.0	0	0.0	131	3.5	140	0.4	29,679	1.4
Other Nonprofit Organization	0	0.0	0	0.0	0	0.0	709	18.9	3,202	10.2	180,263	8.6
Total	**1,904**	**100.0**	**16,068**	**100.0**	**1,498,779**	**100.0**	**3,747**	**100.0**	**31,304**	**100.0**	**2,092,661**	**100.0**

SOURCE: Data for 2001 were provided to Mathematica Policy Research, Inc. by FNS in January 2002. The 1986 data are from Table II.1 in Ohls et al. (1988) and were derived from FNS program data. Both sets of data are from the "FNS-418" reporting forms submitted to FNS by SFSP state agencies.

NOTE: NYSPs were not recognized as an official sponsor category in 1986 but may have been counted in other categories. Nonprofit organizations were not allowed to participate in the SFSP in 1986.

FNS = Food and Nutrition Service; NYSP = National Youth Sports Program.

much of the growth in school sponsors occurred in school districts that operate smaller Summer Food programs (as defined by average daily attendance).[18]

The number of government sponsors in July remained relatively constant (at about 600); as a percentage of all sponsors, however, this sponsor type decreased substantially (from 32 percent to 16 percent). Camp sponsors decreased slightly in number and substantially in percentage terms (from 37 percent to 17 percent). Although not permitted to participate in 1986, nonprofit sponsors represented 19 percent of all sponsors in 2001.[19] (However, nonprofit sponsors served only 9 percent of children attending the SFSP on an average July day, another indication of the relatively small size of their programs.) NYSPs, which were not counted separately in 1986, represented 3.5 percent of all sponsors in 2001.

b. Changes in Sponsor Characteristics

Comparison of the 1986 sponsor survey data and the data from either the 2001 survey or the 2001 Sponsor-Site Database reveals patterns of changes in the types of sponsors similar to patterns in the FNS data.[20] The data discussed in this section reflect the program as it operated for an entire summer, not as it operated in July only. In 1986, sponsors were almost equally divided among government, school, and residential camp sponsors (Table II.6). In 2001, by contrast, only 14 percent of sponsors were government agencies, and only 20 percent were residential camps, Upward Bound programs, or NYSPs. School sponsors constituted 48 percent of all sponsors in 2001, and nonprofit organizations, 18 percent. The percentage distributions of sponsor types in the 1986 survey and in the 2001 Sponsor-Site Database are thus very similar to those obtained using the July data (compare back to Table II.5).

Sponsors in 2001 were more likely than they were in 1986 to have from two to five sites (27 percent versus 15 percent). The percentage of single-site sponsors decreased from 63 percent to slightly fewer than 50 percent.

[18]Based on the data in Table II.5, average daily attendance per school sponsor fell from 1,085 in 1986 to 659 in 2001.

[19]As discussed in Chapter I, the Omnibus Budget Reconciliation Act of 1981 prohibited private nonprofit sponsors (except for private schools and residential camps) from participating in the SFSP. In 1989, nonprofit organizations were again permitted to serve as sponsors SFSP.

[20]Note that, because the census data are not subject to sampling error, comparisons of 1986 survey data and 2001 census data are much more precise than are comparisons of survey data between the two points in time. Ohls et al. (1988) did not provide standard errors for their estimates, so it was possible only to approximate whether differences observed were statistically significant. Based on an estimated design effect of 2 for the study by Ohls et al., the differences discussed here are likely to be significant at the 95-percent level.

TABLE II.6

CHANGES IN SELECTED CHARACTERISTICS OF SPONSORS SINCE 1986
(Percentage of Sponsors)

	1986	2001
Type of Sponsor[a]		
School	32	48
Government	31	14
Residential camp/Upward Bound/ NYSP[b]	36	20
Other nonprofit organization[b]	0	18
Number of Sites Sponsored[a]		
1	63	50
2 to 5	15	27
6 to 10	7	9
>10	16	14
Median	1.0	2.0
Average Daily Attendance[c]		
<100	44	31
100 to 500	31	54
501 to 1,000	15	7
>1,000	11	8
Median	145	145

SOURCE: The 2001 data are from the SFSP Implementation Study, Sponsor Survey, or the Sponsor-Site Database (2001). The 1986 data are from Table IV.1 in Ohls et al. (1988); the sample size for 1986 sponsors was 208. Survey data were weighted to be nationally representative.

[a]The 2001 data are from the Sponsor-Site Database, which is a census of 4,372 sponsors.

[b]NYSPs were not recognized as an official sponsor category in 1986 but may have been counted in other categories. Nonprofit organizations were not allowed to participate in the SFSP in 1986.

[c]The 2001 data are from the Sponsor Survey (n = 125).

NYSP = National Youth Sports Program.

Average daily attendance was less likely to be very low or very high in 2001. Only 31 percent of sponsors in 2001 had an average daily attendance of fewer than 100 children, a drop from the 44 percent in 1986. Similarly, only 15 percent of sponsors in 2001 had an average daily attendance of more than 500 children, compared with 26 percent in 1986. The percentage with an average daily attendance between 100 and 500 children increased 23 percentage points, to 54 percent in 2001. However, the median number of children served per day was 145 in both years. Thus, although the distribution of average daily attendance has narrowed, the middle of the distribution remained at the same point.

C. CHARACTERISTICS OF SITES

This section describes the SFSP at the site level. It then compares school-sponsored sites with other sites and compares sites in 2001 with sites in 1986. As with the data on sponsors, site data are weighted in two ways: (1) to show the percentage of SFSP sites nationally with particular characteristics, and (2) to show the percentage of meals served nationally by SFSP sites with particular characteristics. Most of the data describing sites were obtained from the interviews with site supervisors; in some instances, however (noted in the tables), the data reflect interviewers' observations.

1. Overview of Sites

In 2001, schools sponsored about half of all SFSP sites (49 percent), and these sites served about half of all meals (Table II.7). Government agencies sponsored another one-third of sites (36 percent), and nonprofit organizations sponsored about one-eighth (12 percent). Residential camps, Upward Bound sites, and NYSP sites comprised about 3 percent of all sites but served 10 percent of all meals; these sites generally were larger than sites run by other sponsor types, and, in the case of residential camps, they served three meals daily.

Most SFSP sites (83 percent) were open sites (serving 79 percent of all meals).[21] Only 14 percent were enrolled sites, and the remaining 3 percent were either NYSP or residential camp/Upward Bound sites. Sponsors may use enrolled site eligibility to a limited extent because enrollment requires collecting income documentation from children (or obtaining eligibility status for free or reduced-price meals from their schools), and because schools are not permitted to operate enrolled SFSP sites that only serve summer school students. (They must operate the NSLP if they do not wish to open their sites.)

Because many programs are sponsored by schools, it is not surprising that summer feeding most often takes place in public school buildings (usually, in cafeterias). In some areas, public schools may host sites sponsored by other organizations. Conversely, school sponsors sometimes operate sites that are not located in schools. Thirty-nine percent of sites (serving

[21]The site data did not measure whether sites were classified as migrant sites. Any migrant sites are counted as either open or enrolled.

TABLE II.7

SELECTED SITE CHARACTERISTICS

	Percentage of Sites	Standard Error	Percentage of Meals Served	Standard Error
Sponsor Type				
School	49	(7.5)	53	(8.1)
Government	36	(7.7)	27	(7.1)
Residential camp/Upward Bound/NYSP	3	(1.2)	10	(4.1)
Other nonprofit organization	12	(3.6)	10	(3.0)
Type of Site				
Open	83	(4.1)	79	(5.8)
Enrolled	14	(3.8)	12	(4.0)
NYSP	>0	(0.2)	1	(0.5)
Camp/Upward Bound	3	(1.2)	9	(4.0)
Site Setting[a,b]				
Public school	39	(5.4)	46	(6.5)
Playground/park (not at a school)	16	(4.0)	9	(2.4)
Indoor recreational center	13	(4.3)	7	(2.2)
Community center	11	(3.0)	8	(2.5)
Religious organization	9	(2.7)	17	(5.8)
Day camp	7	(2.6)	5	(1.7)
Private school	5	(2.1)	11	(5.6)
Home/apartment	4	(2.6)	3	(1.9)
Playground outside on school grounds	4	(1.9)	4	(2.0)
Private nursery school or day care center	4	(1.6)	3	(1.4)
Native American reservation facility	2	(2.1)	1	(0.5)
Residential camp	2	(1.1)	8	(4.0)
Housing project	2	(1.8)	1	(0.6)
Mental health center	2	(1.9)	1	(0.6)
University/college	2	(0.7)	2	(0.8)
Family service agency	1	(0.5)	1	(0.8)

TABLE II.7 *(continued)*

	Percentage of Sites	Standard Error	Percentage of Meals Served	Standard Error
Number of Years Site Has Offered SFSP (n = 160)				
First year	8	(2.7)	6	(2.0)
2 to 5	49	(4.6)	42	(5.3)
≥6	37	(4.3)	47	(4.9)
Don't know	6	(1.9)	5	(1.7)
Site Location[a] (n = 161)				
Urban	51	(6.9)	47	(7.4)
Suburban	24	(5.1)	27	(5.6)
Rural	25	(4.8)	26	(5.5)
Security Guard on Site	9	(3.4)	13	(5.7)
Meals Served				
Breakfast	49	(5.8)	69	(6.4)
Lunch	100	—	100	—
Supper	5	(1.9)	12	(4.4)
Any snack	19	(5.4)	21	(4.7)
Type of Meal Preparation				
Self-preparation on site	31	(5.2)	49	(5.9)
Self-preparation at central kitchen	33	(6.1)	22	(4.2)
SFA as vendor	10	(3.7)	10	(3.5)
Private vendor	26	(7.7)	20	(6.9)
Average Daily Attendance, Lunch (n = 157)				
1 to 20	7	(3.0)	3	(1.4)
21 to 50	35	(5.1)	18	(3.7)
51 to 100	30	(5.0)	23	(4.6)
101 to 300	20	(4.0)	32	(5.2)
>300	8	(2.8)	24	(6.0)
Median	60	(7.4)	150	(33.5)
Mean	110	(13.5)	229	(43.3)

TABLE II.7 *(continued)*

	Percentage of Sites	Standard Error	Percentage of Meals Served	Standard Error
Activities Offered[b]				
Educational/instructional activities	88	(2.9)	89	(3.1)
Supervised free play	85	(3.2)	89	(3.0)
Organized games or sports	76	(3.6)	79	(3.7)
Arts and crafts	76	(4.8)	74	(5.3)
Off-site field trips	67	(5.5)	72	(4.8)
Swimming	52	(5.3)	55	(5.4)
Supervised child care	49	(5.6)	53	(6.4)
Job training for participants	23	(3.8)	28	(5.8)
Cooking	22	(3.9)	27	(6.3)
Religious activities	18	(4.2)	29	(6.5)
Job training for adults	18	(3.4)	15	(2.9)
Unsupervised free play	12	(3.6)	8	(2.5)
Counseling/therapy	3	(1.9)	1	(0.6)
Performing arts	2	(1.4)	2	(1.1)
Community involvement	2	(1.3)	2	(1.3)
Social skills or cultural training	2	(1.1)	2	(1.3)
Other	6	(3.2)	3	(1.0)
No activities	5	(2.3)	3	(1.6)
Any Activities Other Than Free Play	93	(2.5)	95	(2.2)
Sample Size	**162**	**—**	**162**	**—**

SOURCE: SFSP Implementation Study, Site Supervisor Survey and Site Observations (2001). All data are from the interview except where noted.

[a]Interviewer observation. This measure of rural sites does not necessarily correspond to sites that receive the rural reimbursement rate.

[b]Multiple responses allowed.

NYSP = National Youth Sports Program; SFA = School Food Authority.

46 percent of all meals) were located in public schools, and another 4 percent were located on school grounds (in playgrounds). Sites were located in a wide variety of other settings as well, ranging from day camps (7 percent of sites) and residential camps (2 percent) to mental health centers (2 percent) and Native American reservation facilities (2 percent). After public schools, the most common settings were nonschool playgrounds and parks (16 percent). Interestingly, 9 percent of sites, serving 17 percent of all meals, were at religious organizations. The sites may have had faith-based sponsors, or they may have had other types of sponsors that rented space from a religious organization.

Sites, like sponsors, tended to be stable. Most had been in the program for at least 2 years. Thirty-seven percent had served SFSP meals for 6 years or longer.

As judged by interviewers, about half (51 percent) of the sites were located in urban settings, with the remainder evenly split between suburban and rural ones.[22] Some rural sites were residential camps and may therefore have served children from urban areas. Nine percent of sites had an on-site security guard, indicating that safety may have been an issue.[23]

Nearly all sites (and every site visited) served lunch.[24] Sites that offered breakfast—about half of all sites—served 69 percent of all meals. Only 5 percent of sites served supper, but 12 percent of meals were served at these sites. These sites, many of which were residential camps, usually served three meals per day. Nineteen percent of sites served snacks.[25]

Almost one-third of sites (31 percent) prepared their meals on site; these sites served almost half (49 percent) of all meals. Another 33 percent received food from a central kitchen, but they served only 22 percent of meals. About one-quarter of sites received meals from a private vendor; these sites served 20 percent of all meals. The remaining 10 percent of sites (serving 10 percent of meals) received meals from an SFA vendor. In recent years, FNS has encouraged nonschool sponsors to purchase meals from an SFA whenever possible (7CFR 225.15[b][1]), and nearly one-third of vended meals were provided in this way in 2001. The argument for promoting SFAs as vendors (when they are not sponsors) is that SFAs have both experience with

[22]Data on the percentage of sites classified as rural under SFSP rules were not available. However, the study examined the percentage of sites whose sponsors reported operating rural sites. About 23 percent of sites were definitely rural, as their sponsors reported operating only rural sites, and the sponsors of fully 33 percent of sites reported operating some rural sites. The true proportion of rural sites thus lies between these two figures.

[23]Sites with security guards had either school or NYSP sponsors.

[24]Based on the sites on which data were available in the Sponsor-Site Database, 98 percent of SFSP sites served lunch. However, data on meals served was missing for nearly one in five sites.

[25]Some site supervisors may have reported snacks that were served but were not reimbursed through the SFSP.

USDA meal requirements and the knowledge and facilities to prepare meals for children (U.S. Department of Agriculture 2001).

Although sites served anywhere from a few children to more than 1,000, about two-thirds served lunch to 21 to 100 children on an average day. Twenty percent of sites served lunch to an average of 101 to 300 children, accounting for 32 percent of all meals. Eight percent of sites served more than 300 children on an average day, and they accounted for almost one-quarter of all meals served by the program.

In addition to providing meals, the sites offered a broad array of activities. Even excluding "free play," nearly all the sites (93 percent) offered activities other than meals, ranging from swimming to counseling.[26] Arts and crafts, educational activities, games and/or sports, swimming, and field trips were each available at more than half the sites. However, these activities were not necessarily available to all children attending the site; even at open sites, the activity programs (such as summer school or day camp) may have required formal enrollment. Children who did not enroll in a formal program may have had less incentive to attend a site solely to receive SFSP meals or may have felt uncomfortable doing so. Although some open sites provided activities on a "drop-in" basis, available data do not show which sites' activities were open to all children.

2. Comparison of Sites with School Sponsors and Sites with Nonschool Sponsors

Sites with school sponsors and sites with nonschool sponsors had substantially different types of locations, types of meals served, and meal preparation methods. School-sponsored sites also were more diverse in size.

Sites with school sponsors were much less likely than those with nonschool sponsors to be located in urban settings; however, these differences are not statistically significant. Almost two-thirds of sites with nonschool sponsors but only 38 percent of sites with school sponsors were in urban settings (Table II.8). Nearly one-third (31 percent) of school sites were in rural settings, compared with 19 percent of nonschool sites.

Sites with school sponsors were far more likely than their nonschool counterparts to offer breakfast (64 percent versus 35 percent). The fact that schools are accustomed to providing breakfast during the school year may explain this difference. Perhaps because they can be reimbursed only for two meals, sites with school sponsors were less likely to serve a snack.

[26]Site supervisors reported the activities their site offered.

TABLE II.8

SELECTED CHARACTERISTICS OF SITES,
BY SCHOOL/NONSCHOOL SPONSOR
(Percentage of Sites)

	School	Standard Error	Nonschool	Standard Error
Site Location[a]				
Urban	38	(10.0)	63	(8.4)
Suburban	31	(7.7)	18	(6.2)
Rural	31	(7.6)	19	(5.4)
Meals Served				
Breakfast	64	(8.2)	35*	(7.0)
Lunch	100	(0.0)	100	(0.0)
Supper	3	(3.2)	6	(2.5)
Any snack	6	(2.7)	32*	(9.0)
Type of Meal Preparation				
Self-preparation on site	44	(6.9)	19**	(5.7)
Self-preparation at central kitchen	56	(6.9)	10	(5.0)
SFA as vendor	0	(0.0)	20	(7.0)
Private vendor	0	(0.0)	51	(10.8)
Average Daily Attendance, Lunch				
1 to 20	12	(5.5)	1**	(1.2)
21 to 50	21	(5.7)	49	(7.1)
51 to 100	20	(5.7)	40	(6.5)
101 to 300	32	(6.5)	8	(2.7)
>300	15	(5.4)	1	(0.7)
Median	94	(28.0)	50[b]	(5.6)
Mean	154	(24.0)	66**	(5.6)
Sample Size	**78**	**—**	**84**	**—**

SOURCE: SFSP Implementation Study, Site Supervisor Survey (2001).

[a]Interviewer observation. This measure of rural sites does not necessarily correspond to sites that receive the rural reimbursement rate.

[b]Statistical test for difference in medians was not available.

SFA = School Food Authority.

*Significantly different at the .05 level, chi-squared test or *t*-test.
**Significantly different at the .01 level, chi-squared test or *t*-test.

School sites prepared their meals on site or received them from a central kitchen.[27] (About half used each method.) Only about 30 percent of nonschool sites prepared their own meals; in most cases, their sponsors purchased prepared meals from a private vendor (51 percent) or from an SFA (20 percent).

Sites with school sponsors varied in size much more than did sites with nonschool sponsors; on average, the former also were larger. School sites were more likely than nonschool sites to serve fewer than 20 lunches per day (12 percent versus 1 percent) and were more likely to serve more than 100 lunches per day (47 percent versus 9 percent). On average, school sites served 154 lunches daily; nonschool sites served 66 lunches daily.

3. Changes in Site Characteristics Since 1986

Changes in site characteristics since 1986 suggest that SFSP sites offered more meals in 2001 than in the past. More sites offered breakfast in 2001 than in 1986. Overall, sites also remained open for more weeks.[28]

Sites were more likely to serve breakfast than in 1986 (49 percent in 2001 versus 34 percent in 1986) and were less likely to serve supper (5 percent versus 16 percent) (Table II.9). The growth in school-sponsored sites since 1986 partly may account for these changes, as school sites were more likely than nonschool sites to serve breakfast. The decline in residential camps as a percentage of total sites may account for the decline in sites serving supper.

Sites were more likely to be located in a school setting in 2001 (44 percent in 2001 versus 33 percent in 1986) and were less likely to be in a camp setting (10 percent versus 16 percent). The percentage of sites that were very small (an average of 20 or fewer in attendance at lunch) declined, whereas the percentage of sites that were medium in size (21 to 100 in attendance at lunch) or extremely large (more than 300 attending) increased. Sites also tended to be open longer. Sixty-one percent of sites were open for longer than 6 weeks in 2001, compared with 42 percent in 1986.[29]

[27]A small proportion of school sites had a private vendor on site to prepare the meals; these sites were coded as "vended" at the sponsor level, but as "on-site preparation" at the site level, as questions about delivery, adjusting food orders, and so forth, did not apply. See Appendix A for further discussion of this issue.

[28]As noted in the discussion on sponsors in Section B.3.b, the report by Ohls et al. (1988) does not provide standard errors. Assuming an approximate design effect of 2 in the 1986 data, the differences discussed in this section would be statistically significant at the 95 percent level or above.

[29]Data are not available on the average duration of site programs in 1986.

TABLE II.9

CHANGES IN SELECTED SITE CHARACTERISTICS
SINCE 1986
(Percentage of Sites)

	1986	2001
Meals Served		
Breakfast	34	49
Lunch	99	100
Supper	16	5
Any snack	25	19
Site Setting[a,b]		
School (public or private)	33	44
Playground/park (not at a school)	17	16
Camp (residential or day)	16	10
Indoor recreational center	14	13
Community center	14	11
Religious organization	11	9
Housing project	5	2
Playground outside on school grounds	1	4
Other	8	13
Average Daily Attendance, Lunch[c]		
1 to 20	17	7
21 to 50	24	35
51 to 100	30	30
101 to 300	25	20
>300	5	8
Duration of Service (Calendar Weeks)		
<2	4	0
2 to <4	4	10
4 to 6	50	29
>6	42	61
Open/Enrolled Status[d]		
Open site	79	83
Enrolled or camp site	21	17
Sample Size	**741[e]**	**162**

TABLE II.9 *(continued)*

SOURCE: The 2001 data are from the SFSP Implementation Study, Site Supervisor Survey and Site Observations (2001). All data are from the interview except where noted. The 1986 data are from Table IV.4 and Table V.1 in Ohls et al. (1988).

[a]Interviewer observation in 2001; sponsor report in 1986.

[b]Multiple responses allowed.

[c]n = 157 for 2001 data.

[d]n = 535 for 1986 data, because these data were collected only for sites asked about in the sponsor survey.

[e]In the study by Ohls et al. (1988), characteristics of sites were collected in two ways. Sponsors were asked about the characteristics of one to three of their sites. In addition, site supervisors at visited sites were asked the same questions about their sites. Both sets of data were pooled in the analysis, resulting in the sample of 741 sites.

In both 1986 and 2001, about 80 percent of sites qualified as open sites. This is one aspect of the program that has not changed.

D. DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS

Because most SFSP sites are open to all children who wish to attend, the program does not systematically collect any data on the characteristics of participants. To provide an approximate picture of children served by the SFSP in 2001, site supervisors at the visited sites were asked to estimate the age, sex, and racial and ethnic composition of the children attending their sites. Weighting these data to reflect the number of meals that each site's data represents made it possible to estimate the characteristics of children served by SFSP meals.[30] These data reflect site supervisors' impressions and should be viewed as approximate. Nonetheless, they provide the best picture available of the characteristics of SFSP participants.

Based on site supervisors' reports, the SFSP serves primarily elementary-age children. In 2001, 58 percent of meals were served to children in this age group; another 20 percent were served to children of middle-school age (Table II.10). About 17 percent of meals were served to preschool-age children, and about 5 percent were served to high-school age children. Boys and girls were equally represented.

Almost 39 percent of meals were served to African American children, 27 percent to Hispanic children, and 29 percent to white (non-Hispanic) children. A small percentage of meals were served to American Indian or Alaskan native children, Asians or Pacific Islanders, and children of other races.

The distributions of SFSP participants in 2001 by age and sex were very similar to those observed in 1986, but the racial/ethnic distributions appear to be quite different.[31] The percentage of meals served to African American children is estimated to have dropped from 56 percent in 1986 to 39 percent in 2001 (Table II.11). Meanwhile, meals served to Hispanic children increased 7 percentage points, to 27 percent, and meals served to white (non-Hispanic) children increased 12 percentage points, to 29 percent. Although these trends are interesting, it is important to note that they may not be statistically significant; thus, they may represent sampling

[30]At many sites, some children attended only some of the available meals. The estimates assume that site supervisors were able to estimate the average characteristics of children attending, even with variation from day to day and from meal to meal.

[31]In 1986, data on characteristics of participants at sites were collected from both sponsors (who were asked about three of their sites) and site supervisors (for sites that were visited), but the questions asked were comparable to those asked in this study.

TABLE II.10

DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS

	Percentage of Meals Served	Standard Error
Grade Level/Age		
Preschool	17	(2.2)
Elementary-school age	58	(2.5)
Middle-school or junior high-school age	20	(2.0)
High-school age	5	(0.8)
Sex (n = 159)		
Female	51	(1.9)
Male	49	(1.9)
Race/Ethnicity (n = 161)		
African American or black, not Hispanic	39	(4.8)
White, not Hispanic	29	(6.4)
Hispanic	27	(3.4)
American Indian or Alaskan Native	2	(0.8)
Asian or Pacific Islander	3	(1.3)
Other	1	(0.5)
Sample Size	**162**	**—**

SOURCE: SFSP Implementation Study, Site Supervisor Survey (2001).

NOTE: These data reflect site supervisors' estimates and should be viewed as approximate. At many sites, some children attended only some of the available meals. The estimates assume that site supervisors were able to estimate the average characteristics of children attending, even with variation from day to day and from meal to meal.

TABLE II.11

DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS
IN 1986 AND 2001
(Percentage of Meals Served)

	1986	2001
Grade Level/Age		
Preschool	18	17
Elementary-school age	58	58
Middle-school or high-school age	23	25
Age ≥18	1	—
Sex		
Female	50	51
Male	50	49
Race/Ethnicity		
African American or black, not Hispanic	56	39
White, not Hispanic	17	29
Hispanic	20	27
American Indian or Alaskan Native	5	2
Asian or Pacific Islander	2	3
Other	—	1
Sample Size	**741**[a]	**162**[b]

SOURCE: The 2001 data are from the SFSP Implementation Study, Site Supervisor Survey (2001). The 1986 data are from Table IV.8 in Ohls et al. (1988).

[a]In the study by Ohls et al. (1988), characteristics of participants attending sites were collected in two ways. Sponsors were asked about the characteristics of participants at one to three of their sites. In addition, site supervisors at visited sites were asked the same questions about participant characteristics. Both sets of data were pooled in the analysis, resulting in the sample of 741 sites.

[b]Because of missing data, n = 159 for tabulations for sex, and n = 161 for race/ethnicity.

variability, rather than a true change in the population.[32] (Nationally, the percentage of poor children who were Hispanic increased from 1986 to 2000, the percentage who were African American stayed about the same, and the percentage who were white declined [U.S. Census 2002].) However, the SFSP grew substantially between 1986 and 2001; it is possible it expanded more in areas of the country in which most low-income children are white and Hispanic. Additional research to explore this issue may be useful.

E. SITE SCHEDULING AND TRANSPORTATION ISSUES

Key factors affecting participation at a site include the number of weeks and number of days per week that the site is open, the regularity with which children attend the site, and the degree of site accessibility via various means of transportation. In 2001, the majority (62 percent) of sites were open for 6 weeks or longer; 32 percent were open for 8 weeks or longer (Table II.12). Only 10 percent of sites were open for fewer than 4 weeks. On average, sites were open just over 7 weeks. Almost all sites (93 percent) were open for at least 5 days per week, including 6 percent of sites (largely those at residential camps) open for 6 or 7 days per week. According to site supervisors, 82 percent of children attended their sites at least five times per week.[33]

Many factors can lead to variations in attendance from day to day (Table II.13). The factors most commonly cited by site supervisors were beyond the sites' control; they included parents' plans (62 percent), illness (47 percent), and weather (46 percent). One factor that SFSP sites can influence is transportation. About 24 percent of site supervisors reported that transportation problems influenced day-to-day attendance.

Site supervisors reported that participants used diverse modes of transportation to reach SFSP sites (Table II.14). At about one-third of sites, at least some children were provided with transportation by the program. Supervisors estimated that 36 percent of children arrived via program-provided transportation. At most sites (82 percent), some children were dropped off by car; about 37 percent of children arrived by car. Given that SFSP sites are intended to serve their immediate neighborhoods, it is not surprising that most sites (72 percent) also served some children who walked or rode bicycles to attend; about one-quarter of children used these means to reach their sites. Very few children used public transportation to reach SFSP sites.

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[32]Because we do not know the standard errors of the estimates from 1986, we cannot conduct a formal statistical test. However, the differences seem unlikely to be statistically significant. The estimates of meals served to African American and white children in 2001 have standard errors of 4.8 and 6.4, respectively. Thus, the 95-percent confidence interval for the percentage of meals served to African American children ranges from 29.1 percent to 47.9 percent; it ranges from 16.3 percent to 41.3 percent for meals served to white (non-Hispanic) children.

[33]The estimate weighted by meals served gives the best estimates for the population of participants overall.

TABLE II.12

SITE SCHEDULE AND ATTENDANCE

	Percentage of Sites	Standard Error	Percentage of Meals Served	Standard Error
Duration of Program (Calendar Weeks)				
1 to <4[a]	10	(3.1)	10	(4.5)
4 to <6	28	(4.3)	25	(4.5)
6 to <8	30	(5.7)	29	(5.9)
8 to <10	26	(4.8)	27	(4.9)
10 to <12	3	(1.4)	6	(2.8)
≥12[b]	3	(1.6)	4	(1.7)
Median	7.4	(0.4)	7.5	(0.5)
Mean	7.1	(0.2)	7.2	(0.3)
Number of Days Open per Week				
1 or 2	>0	(0.3)	>0	(0.1)
3 or 4	7	(2.4)	8	(2.8)
5	87	(3.3)	82	(4.2)
6 or 7	6	(2.7)	10	(4.1)
Mean Percentage of Children Who Attend (Times per Week)				
<1	1	(0.9)	0	(0.2)
1 or 2	4	(1.0)	3	(0.7)
3 or 4	18	(2.6)	14	(2.5)
≥5	77	(3.0)	82	(2.9)
Sample Size	**162**	—	—	—

SOURCE: SFSP Implementation Study, Site Supervisor Survey (2001).

[a]The sample omitted sites open for less than 1 week.

[b]Includes some year-round sites.

TABLE II.13

FACTORS AFFECTING DAY-TO-DAY VARIATION
IN PARTICIPATION AT SITE

	Percentage of Sites	Standard Error
Parents' Plans/Vacation	62	(4.3)
Illness	47	(4.7)
Weather	46	(4.7)
Transportation Issues	24	(5.2)
Parents' Motivation	19	(3.8)
Whether Beginning, Middle, or End of Program/Summer	14	(2.8)
Menu for the Day	13	(3.0)
Activities Offered	12	(3.2)
Day of the Week	12	(3.5)
Time Commitments	8	(2.5)
Timing of Food Stamps or Other Government Benefits	4	(1.9)
Behavioral Issues[a]	1	(0.8)
Other[b]	9	(3.1)
Nothing	1	(0.6)
Don't Know	5	(3.0)
Sample Size	**157**	**—**

SOURCE: SFSP Implementation Study, Site Supervisor Survey (2001).

NOTE: Multiple responses were allowed.

[a]Includes children's motivation and behavioral problems.

[b]Includes holidays, lack of air-conditioning, unsafe neighborhood, children sometimes go to another camp.

TABLE II.14

TRANSPORTATION TO SITE

	Percentage of Sites	Standard Error	Percentage of Nonrural Sites	Standard Error	Percentage of Rural Sites	Standard Error
Some Participants Used This Form of Transportation to Reach Site						
Transportation provided by program	33	(5.1)	26	(5.5)	55	(8.0)
Dropped off by car	82	(4.9)	80	(6.3)	88	(4.8)
Walked or rode bicycle	72	(4.9)	77	(5.7)	57	(7.9)
Public transportation	20	(5.1)	24	(6.3)	9	(5.1)
Other[a]	4	(2.3)	1	(0.6)	13	(8.2)

	Percentage of Meals Served	Standard Error	Percentage of Meals Served, Nonrural Sites	Standard Error	Percentage of Meals Served, Rural Sites	Standard Error
Mean Percentage of Meals Served to Participants Who:						
Used transportation provided by program	36	(7.0)	28	(8.5)	60	(7.8)
Were dropped off by car	37	(4.3)	38	(5.6)	30	(6.8)
Walked or rode a bicycle	25	(5.9)	31	(7.4)	9	(2.2)
Used public transportation	2	(0.8)	3	(1.1)	1	(0.3)
Other[a]	0	(0.1)	0	(0.2)	0	(0.2)
Sample Size	**155**	**—**	**95**	**—**	**59**	**—**

SOURCE: SFSP Implementation Study, Site Supervisor Survey and Site Observations (2001).

[a]Includes horses, scooters, and skateboards.

Participants in rural areas were less likely than those in nonrural areas to live within walking distance of their sites and therefore were more likely to need transportation assistance (Table II.14).[34] Only 9 percent of meals in rural sites were served to participants who walked or rode bicycles to the sites, compared with 31 percent in nonrural sites. Rural sites were much more likely than nonrural sites to provide transportation to at least some children; 55 percent of rural sites but only 26 percent of nonrural sites offered transportation.

Compared with sites that did not provide transportation, sites that provided transportation were more likely to be school, camp, or NYSP sites and were more likely to offer enrolled or camp programs (Table II.15). This finding makes sense, as larger programs and programs that offer structured activities, such as summer school programs, day camps, or residential camps, are more likely to have the resources to offer transportation. At the same time, two-thirds of the sites that offered transportation to some children were open sites; however, these sites may include school sites that provided transportation only to those enrolled in the summer school program. Sites that offered transportation also were more likely to be in rural locations, as noted; 41 percent of sites that offered transportation were rural, versus 17 percent of those that did not offer transportation.

[34]For the analyses in Tables II.14 and II.15, sites were classified as rural, urban, or suburban based on interviewers' observations. For purposes of this discussion, both urban sites and suburban sites classified as "nonrural." As discussed earlier, data are not available on whether specific sites qualified for rural SFSP reimbursements. If sites are classified as rural on the basis of their *sponsor* reporting operating any sites that qualify for rural reimbursements, results are very similar.

TABLE II.15

CHARACTERISTICS OF SITES THAT PROVIDE TRANSPORTATION
(Percentage of Sites)

	Provide Transportation	Standard Error	Do Not Provide Transportation	Standard Error
Sponsor Type				
School	62	(8.0)	41**	(9.6)
Government	16	(7.5)	46	(9.7)
Camp/Upward Bound/ NYSP	9	(3.5)	1	(0.5)
Other nonprofit	13	(4.7)	12	(4.8)
Type of Site				
Open	67	(8.0)	90*	(4.2)
Enrolled	24	(7.5)	9	(4.1)
NYSP	1	(0.6)	0	(0.1)
Camp/Upward Bound	8	(3.4)	1	(0.5)
Average Daily Attendance, Lunch				
1 to 20	4	(4.2)	8**	(4.0)
21 to 50	18	(7.3)	44	(5.7)
51 to 100	32	(6.5)	30	(6.6)
101 to 300	26	(5.6)	16	(5.9)
>300	19	(5.5)	3	(2.0)
Site Location				
Urban	31	(8.3)	61**	(8.1)
Suburban	28	(6.9)	23	(6.2)
Rural	41	(7.2)	17	(4.9)
Sample Size	**78**	**—**	**82**	**—**

SOURCE: SFSP Implementation Study, Site Supervisor Survey and Site Observations (2001).

NYSP = National Youth Sports Program.

*Distributions are significantly different at the .05 level, chi-squared test
**Distributions are significantly different at the .01 level, chi-squared test.

III. PROGRAM ADMINISTRATION

One of the main objectives of the Summer Food Service Program (SFSP) Implementation Study is to describe the operations of the SFSP at the state, sponsor, and site levels. The analysis in this chapter focuses on SFSP administrative activities.[1] In particular, it examines whether the program is operating according to policy and regulations and describes program areas that state, sponsor, and site staff believe are in need of improvement. To provide data for these analyses, state administrators, sponsors, and site supervisors were asked a wide range of questions about their SFSP resources; their tasks, especially training, technical assistance, and monitoring; and their interactions with other levels of SFSP administration and, if applicable, with vendors. Key findings include:

- ***Although most state administrators and sponsors reported that staff levels were adequate, significant minorities did not.*** Forty-four percent of state agencies and 25 percent of sponsors believed they had inadequate numbers of staff for some activities. State administrators considered the application process to be an especially staff- and paperwork-intensive activity and were particularly likely to report having insufficient staff to process applications. Staff constraints also affected outreach activities. These constraints may hinder the success of FNS's recent policy focus on program expansion.

- ***Sponsors typically relied on their own resources or on other sources to supplement their SFSP funds.*** More than 70 percent reported that SFSP funds did not fully cover their costs.

- ***The states reported providing extensive training and technical assistance to sponsors.*** Most sponsors found this assistance to be useful. However, about two out of every five sponsors would have liked additional technical assistance in at least one area.

- ***State administrators and sponsors reported undertaking monitoring activities that were largely consistent with the extensive monitoring required by SFSP regulations.*** The state agencies reviewed about 94 percent of new sponsors and 58 percent of experienced sponsors; they visited an average of 30 percent of the sites. About 84 percent of sponsors monitored all sites at least twice, and nearly three-quarters reported that their visits always were unannounced.

[1]Outreach to attract new sponsors and participants, although an important administrative activity, is largely covered in Chapter IV, which focuses on factors affecting participation.

- ***Eighty-two percent of sponsors prepared the meals for their sites, often because they had the facilities and staff in place or because of cost considerations.*** About 80 percent of the sponsors that used vendors were satisfied, but about half had some concerns about the quality or variety of the food. Eighty percent of sponsors that used vendors received only one bid for the contract.

Section A presents the perceptions of the state agencies and of the sponsors about the adequacy of their staffs and funding. It also describes sponsors' strategies to control their costs. Section B discusses the application process and sponsors' suggestions for improving the process. Section C focuses on state training and technical assistance provided to sponsors and sites, and on similar types of sponsor-site interactions. Section D discusses program monitoring. Finally, Section E examines factors underlying sponsors' choice between preparing meals for their sites or contracting with a vendor to do so. It also describes how sponsors monitor their vendors.

A. STAFFING AND FUNDING

Because state agencies play a key role in ensuring that sponsors and sites understand and correctly implement program policies, and that reimbursements for sponsors' expenditures are appropriately disbursed, it is important to examine the resources the state agencies devote to the SFSP. Similarly, the sponsors' resources help to determine whether they operate efficiently and in a way that encourages program participation.

- The majority of state agencies and sponsors reported having enough staff to adequately perform their key tasks. However, 44 percent of state agencies and 25 percent of sponsors reported they had insufficient staff for some tasks, especially outreach.

- To fund their activities, most state agencies used SFSP state administrative funds (SAFs) or a combination of SAF and state administrative expense (SAE) funds; a few state agencies supplemented funding with state funds.[2]

- More than 70 percent of sponsors reported that SFSP funds did not fully cover their costs. About 60 percent of sponsors whose costs were not fully covered supplemented SFSP resources with their own funds. About 75 percent of experienced sponsors reported that they had used one or more strategies to control costs during the past few years.

- Almost all state agencies (87 percent) provided advance payments to help sponsors start programs. Most of these agencies occasionally had problems administering the payments; in particular, they had problems recovering funds from sponsors that overestimated their costs.

[2]SAE funds are federal funds provided to states to administer other child nutrition programs. States are permitted to use those funds for SFSP administration if necessary.

- The 14-state pilot project that provides maximum reimbursement for sponsors' combined administrative and operating costs may have helped some sponsors to cover their costs. Pilot state administrators were less optimistic than nonpilot state administrators about the pilot's potential effects on program participation. However, the pilot states traditionally have lower SFSP participation rates relative to the nonpilot states and may face greater barriers to program expansion.

1. State-Level Staffing and Funding

State agencies employed an average of 13 staff who worked on the SFSP during the summer, and slightly more than half that many during the rest of the year (Table III.1). However, representing these staff as full-time equivalents (FTEs) reduces the number considerably, especially during nonsummer months, as many also work on other children nutrition programs, such as the National School Lunch Program or Child and Adult Care Food Program.

Analysis of the ratio of state staff to sponsors shows that more than half the state agencies (56 percent) had less than one-tenth of an FTE per sponsor (that is, less than 1 FTE staff member per 10 sponsors) during the summer. The four states with more than one-quarter of an FTE per sponsor in the summer each had 50 sponsors or fewer, suggesting that states with more sponsors realize some economies of scale.

Most state administrators (56 percent) reported that staffing was adequate, but 44 percent reported having an overall shortage of staff (Table III.2). Almost all (from 74 to 89 percent) of the state administrators reported having enough staff to provide technical assistance and training to sponsors, and to conduct claims review and processing. However, only about 60 percent reported having adequate staff for applications processing and outreach (including helping sponsors with outreach). Providing technical assistance to applicants and reviewing their applications are complicated processes that must be completed during a short time frame each spring, so it is not surprising that state agencies have high levels of demand for staff for these tasks. Outreach is in some sense an optional activity (although the Food and Nutrition Service [FNS] recently has reemphasized it), so it also is not surprising that more state administrators believed they had insufficient staff in this area than in other areas.

In reviewing state agency staffing, it is important to bear in mind that most state agencies are part of state governments; thus, staffing decisions may be affected by state-level factors (such as state budget problems or reorganizations of state government) as well as by the levels of federal funding. According to almost half the state administrators, SFSP staffing levels had remained unchanged in recent years; 32 percent reported increases, however, and 22 percent reported decreases (Table III.3). Common reasons for increasing the number of staff were to fulfill specific functions and to provide better service. In some cases, staffing increases reflected program growth. Staffing decreases largely were related to organizational changes or unfilled vacancies. It seems possible that state agencies experiencing staff decreases may have more

TABLE III.1

STATE-LEVEL STAFFING

	Summer		Rest of Year	
	Number of State Agencies	Percentage of State Agencies	Number of State Agencies	Percentage of State Agencies
Number of Staff Who Worked on the SFSP[a]				
0	0	0	1	1.8
1 to 5	15	27.8	35	64.8
6 to 10	17	31.5	10	18.5
11 to 15	8	14.8	4	7.4
16 to 20	5	9.3	2	3.7
>20	9	16.7	2	3.7
Mean	13.2	—	7.2	—
Number of FTEs Who Worked on the SFSP				
≤5	29	53.7	50	92.6
6 to 10	13	24.1	4	7.4
11 to 20	8	14.8	0	0
21 to 50	3	5.6	0	0
>50	1	1.8	0	0
Mean	8.3	—	1.8	—
Number of FTEs per Sponsor Who Worked on the SFSP				
<0.1	30	55.6	53	98.2
0.1 to <0.25	20	37.0	1	1.2
0.25 to <0.5	2	3.7	0	0
0.5 to <0.75	1	1.9	0	0
0.75 to 1	1	1.9	0	0
Total	**54**	**—**	**54**	**—**

SOURCE: SFSP Implementation Study, State Administrator Census (2001).

[a]These figures count equally staff who worked on the SFSP full-time and staff who worked on the SFSP part-time (and who may also have worked on other programs).

FTE = full-time equivalent.

TABLE III.2

STATE AGENCIES' REPORTS ON THE ADEQUACY OF THEIR STAFFING, BY FUNCTION AND OVERALL
(Row Percentages)

Function	Percentage of State Agencies Reporting Staffing Is:		
	Adequate	Inadequate	Do Not Do/ Missing
Technical Assistance for Experienced Sponsors	88.9	11.1	0
Formal Training	85.2	14.8	0
Claims Review and Processing	83.3	11.1	5.6
Technical Assistance for New Sponsors	74.1	24.1	1.8[a]
Monitoring of Sponsors and Sites	72.2	24.1	3.6[b]
Vendor Management	64.8	3.7	31.5
Application Process	61.1	38.9	0
Outreach	59.3	40.7	0
Health Inspections and Food Safety Issues	55.6	3.7	40.7[c]
Overall Needs	55.6	44.4	0
Total		**54**	

SOURCE: SFSP Implementation Study, State Administrator Census (2001).

[a]One state agency administrator (1.8 percent) responded, "don't know."

[b]The response of one state agency administrator (1.8 percent) is missing.

[c]Many state agencies contract with local health departments for health inspections.

TABLE III.3

CHANGES IN STATE AGENCY STAFFING

	Number of State Agencies	Percentage of State Agencies
How SFSP Staffing in State Office Has Changed in Recent Years		
Remained the same	25	46.3
Increased	17	31.5
Decreased	12	22.2
Main Reason for Staffing Increase (n = 17)		
Needed more staff for specific functions or to provide better service	7	41.2
Program growth	5	29.4
Staff pulled in from other programs	2	11.8
Other	3	17.6
Main Reason for Staffing Decrease (n = 12)		
Turnover and unfilled vacancies	3	25.0
Functions transferred to another department/ reassignment of duties	3	25.0
Staff cuts in agency	2	16.7
Decrease in number of sponsors	1	8.3
Other	1	8.3
Don't know	2	16.7
If the SFSP Were to Grow Significantly, the Agency Would Need[a]		
A lot more staff and resources	8	14.8
A little more staff and resources	31	57.4
Nothing—resources are adequate	14	25.9
Don't know	1	1.8
Total	**54**	—

SOURCE: SFSP Implementation Study, State Administrator Census (2001).

[a]Significant growth was defined as growth of more than 10 percent.

difficulty than others in expanding the SFSP to serve more children, particularly if the responsibilities of individual staff members have grown.[3]

Because FNS policy favors program expansion, the state administrators were asked whether they would need more staff and/or more resources to accommodate program growth of 10 percent or more. About three-quarters reported that they would, suggesting that policies to expand the program may require additional funding for the state agencies to ensure the same level of program quality.

As discussed in Chapter I, FNS provides SAFs for the administration of the SFSP through an administrative funding formula based on the program funds paid to the state in the previous year (7 CFR 225.5[a]). At least 57 percent of state administrators reported that the funds do not cover all their administrative costs (Table III.4).[4] However, states are free to use SAE funds (state administrative expense funds for the other child nutrition programs) to make up the difference, and more than 80 percent of the state administrators whose agencies did not rely on SAF funds alone used SAE funds; current law allows states to use both the SAF and SAE funding streams as needed to administer the child nutrition programs. Five states used their own funds to cover the difference between their administrative costs and their SFSP allotments. Because states are not required to contribute their own funds to the SFSP, this action may indicate a particularly strong commitment to providing nutritious meals during the summer to children in low-income areas.[5]

2. Sponsor Staffing and Funding

Understanding the administrative experiences of sponsors is important because sponsors are the organizations that carry out the day-to-day operations of the SFSP—ensuring that eligible community members are notified about sites; meals are nutritious and safe; and records on costs, attendance, food served, and related matters are maintained. For this reason, it is important to understand sponsors' perspectives on the adequacy of their resources to administer the SFSP effectively. As discussed further in Chapter IV, sponsors' resource constraints also may affect their interest in expanding or ability to expand participation.

[3]States that had experienced staff decreases were more likely than average to report inadequate staff (58 percent did so), whereas states that had experienced increases were less likely to report inadequate staff (35 percent).

[4]This question does not pertain to three state programs run by FNS regional offices, because they receive their funding through another mechanism (see Chapter I).

[5]In 2001, seven states provided supplemental funding, usually targeted to increase meal reimbursements, encourage outreach, or facilitate start-up activities (Food Research and Action Center 2002).

TABLE III.4

STATE AGENCY FUNDING

	Number of State Agencies	Percentage of State Agencies
Federal SFSP Funds Covered All State Administrative Costs in 2001		
Yes	18	33.3
No	31	57.4
Don't know	2	3.7
Not applicable[a]	3	5.6
If Not, Funds Used to Cover Difference (n = 31)		
SAE funds	25	80.6
State funds	5	16.1
Food Stamp Program funds	1	3.2
Total	**54**	**—**

SOURCE: SFSP Implementation Study, State Administrator Census (2001).

[a]The three state agencies run by FNS regional offices are coded "not applicable" in this question and are excluded from the following question because their funding mechanism differs from that of the other state agencies.

FNS = Food and Nutrition Service; SAE = State Administrative Expense.

This section discusses sponsors' perceptions of the adequacy of their staffing and reimbursements for SFSP costs. It also discusses strategies that experienced sponsors have used to control their costs.

a. Sponsors' Staffing

Most sponsors thought they had adequate staffing for most activities (Table III.5). More than 90 percent of sponsors believed they had adequate staffing for claims processing, site monitoring, the application process, and formal training. A slightly smaller percentage felt they had adequate staff for outreach activities, such as promoting and publicizing the program (83 percent) and increasing participation at the sites (81 percent). Just half (52 percent) reported adequate staff for increasing the number of sites. Most of the remaining sponsors (38 percent) reported that they did not undertake any activities to expand their sites; most might have had no interest in doing so (see Chapter IV for a related discussion), but some might have been able to undertake activities if more staff were available.

It is not clear why some sponsors reported that they "did not do" some essential SFSP functions, such as completing applications or meal service. They may have relied on staff from partner organizations or vendors for these functions. Single-site sponsors may not have to undertake such activities as finding site personnel because they use their own staff.

Three-quarters of sponsors reported that staffing was adequate for all activities mentioned in the survey.[6] About 14 percent reported having inadequate staff for one or two activities; the remainder reported having inadequate staff for three or more activities. About 15 percent reported having a problem with employee turnover, another factor that could affect a sponsor's ability to conduct its activities in a timely and efficient manner or to grow.

b. Reimbursements of Sponsors' Costs

The sponsor survey asked sponsors for their best estimate of the proportion of their allowable SFSP costs that would be reimbursed by the state agency. Sponsors were interviewed for this study during the mid to late summer, and, at that time, they did not know precisely what their reimbursement would be; thus, they offered their best guess, often based on past experience. Although this study did not collect documentation on actual sponsor claims, it documents sponsors' estimates of the extent to which their costs are reimbursed, both because they are likely to approximate actual experience and because they may influence sponsors' decisions about whether to continue or expand their SFSP participation. Furthermore, sponsors'

[6]In computing this measure, sponsors' reports that they did not perform an activity, such as managing vendors or increasing the number of sponsored sites, was counted as if staffing for the activity was adequate. Because some sponsors might consider performing an activity if they had more staff, the estimate of the percentage of sponsors with adequate staffing for all activities can be considered an upper bound on that percentage.

TABLE III.5

SPONSORS' REPORTS ON THE ADEQUACY OF THEIR STAFFING, BY FUNCTION AND OVERALL

Function	Percentage of Sponsors	Standard Error
Claims Processing		
Adequate	97	(1.6)
Inadequate	3	(1.5)
Did not do	1	(0.7)
Monitoring Sites		
Adequate	95	(2.5)
Inadequate	5	(2.5)
Did not do	0	(0.0)
Application Process		
Adequate	94	(2.5)
Inadequate	2	(1.3)
Did not do	4	(2.1)
Formal Training		
Adequate	92	(3.2)
Inadequate	5	(2.7)
Did not do	3	(1.7)
Health Inspections and Food Safety Issues		
Adequate	90	(3.4)
Inadequate	1	(1.1)
Did not do	9	(3.3)
Meal Service Arrangements		
Adequate	90	(3.1)
Inadequate	3	(2.2)
Did not do	8	(2.3)
Technical Assistance to Sites		
Adequate	84	(4.2)
Inadequate	4	(2.4)
Did not do	11	(3.5)
Finding and Recruiting Site Personnel		
Adequate	84	(4.4)
Inadequate	7	(2.8)
Did not do	9	(3.6)

TABLE III.5 *(continued)*

Function	Percentage of Sponsors	Standard Error
Promoting and Publicizing SFSP		
Adequate	83	(3.6)
Inadequate	7	(2.4)
Did not do	9	(3.3)
Increasing Participation at Sites		
Adequate	81	(3.8)
Inadequate	13	(3.1)
Did not do	6	(2.1)
Vendor Management[a]		
Adequate	63	(5.6)
Inadequate	2	(0.9)
Did not do	36	(5.5)
Increasing Number of Sponsored Sites		
Adequate	52	(5.3)
Inadequate	10	(2.6)
Did not do	38	(4.9)
Transporting Food and/or Children		
Adequate	49	(5.5)
Inadequate	5	(1.9)
Did not do	47	(5.4)
Staffing Adequate for All Activities	75	(4.8)
Staffing Inadequate		
For 1 or 2 activities	14	(3.7)
For ≥3 activities	11	(3.1)
Employee Turnover Problem	15	(3.9)
Sample Size	**126**	—

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NOTES: Tabulations are weighted to be representative of sponsors nationally. Because of missing data, sample sizes for individual items range from 121 to 126.

It is not clear why some sponsors reported that they "did not do" some essential SFSP functions, such as applications or meal service; see discussion in text.

[a]As shown in Table II.2, 19 percent of sponsors used vendors for the full meal. Some sponsors who reported that their staffing for vendor management was "adequate" may have interpreted the question as referring to vendors that supplied parts of meals or specific foods.

reports are generally consistent with past studies, as discussed below. This consistency supports the credibility of their estimates.

Collecting data on sponsor costs was complicated by the congressionally mandated pilot that began in 2001, as discussed in Chapter I. SFSP program rules dictate that sponsors are reimbursed separately for the administrative costs and operating costs of running the program. Under normal program rules, sponsors may not transfer costs from one category to the other. However, the pilot project allowed 14 state agencies to reimburse sponsors other than nonprofit sponsors for their combined administrative and operating expenses.[7] These reimbursements were at the maximum rate. FNS hopes that this change in reimbursement policies will help increase program participation by making the program easier for sponsors to administer (Food and Nutrition Service 2002f). Because of the pilot project, sponsors in pilot states and sponsors in nonpilot states were asked somewhat different questions about their costs.

Fewer than one-third of the sponsors reported being reimbursed for *all* their administrative and operating costs, but a majority were reimbursed for *most* (more than 75 percent) of these costs (Table III.6). In the pilot states, 39 percent of sponsors expected to be reimbursed for all their SFSP costs; in the nonpilot states, 47 percent of sponsors expected to be reimbursed for all their operating costs, and 35 percent expected to be reimbursed for all their administrative costs. Twenty-eight percent of all sponsors (those in pilot states and nonpilot states) expected to be reimbursed for all their SFSP costs, including both operating and administrative costs.[8,9] Sponsors in pilot states were somewhat more likely than those in nonpilot states to be reimbursed for most of their costs, as they always received the maximum reimbursement. Specifically, 77 percent of sponsors in pilot states reported that they expected most (at least 75 percent) of their costs would be reimbursed. Sixty-one percent of sponsors in nonpilot states expected that most of their administrative costs would be reimbursed, and 70 percent expected most of their operational costs would be reimbursed.

Past research also found that SFSP reimbursements tend to cover most, but not all, sponsor costs. In 1986, 35 percent of sponsors expected to be fully reimbursed for their operating costs, and 43 percent expected to be fully reimbursed for administrative costs (Ohls et al. 1988). However, 59 percent of sponsors expected to be reimbursed for at least 80 percent of operating costs, and the same percentage expected to be reimbursed for at least 80 percent of administrative costs. As in this study, these data reflect sponsors' best estimates. In a 1998 study, the General Accounting Office collected administrative data from state agencies on

[7]See Chapter I for more details on this program.

[8]Some nonpilot sponsors expected to be reimbursed for all operating costs but not for all administrative costs, or vice versa, which results in a lower percentage expecting to be reimbursed for all costs.

[9]Sponsors who reported having inadequate staff for at least one activity were more likely to report that reimbursements did not cover their full costs (87 percent, versus 67 percent for other sponsors; n = 117).

TABLE III.6

SPONSORS' REPORTS ON SFSP REIMBURSEMENTS AND OTHER FUNDING SOURCES

	Percentage of Sponsors	Standard Error
Sponsors in Nonpilot States		
Percentage of Administrative Costs State Agency Will Cover (n = 99)		
0 to 50	26	(5.9)
51 to 75	13	(3.4)
76 to 99	26	(5.8)
100	35	(5.7)
Percentage of Operating Costs State Agency Will Cover (n = 100)		
0 to 50	14	(5.3)
51 to 75	17	(4.8)
76 to 99	23	(5.4)
100	47	(6.3)
Sample Size	**104**	**—**
Sponsors in Pilot States		
Percentage of SFSP Costs State Agency Will Cover		
0 to 50	6	(6.3)
51 to 75	17	(9.0)
76 to 99	38	(13.2)
100	39	(12.3)
Believes Sponsor Will Increase Number of Sites or Children Served in 2001 or Future, Due to Reimbursement Process Changes (n = 21)	60	(13.5)
Sample Size	**22**	**—**

TABLE III.6 *(continued)*

	Percentage of Sponsors	Standard Error
All Sponsors		
Expects State Agency to Cover All Costs	28	(4.9)
Sample Size	**126**	**—**
If Not Expecting All Costs to Be Covered, Sources to Cover Differences Between Actual Costs and State Reimbursement[a]		
Sponsor Funds	57	(6.2)
Parent Organization/Affiliation Funds	16	(5.1)
Federal Funds	28	(6.6)
State Funds	29	(6.2)
Local Government Funds	19	(5.0)
Donations/Volunteers[b]	4	(2.5)
Other Sources[c]	15	(5.0)
Sample Size	**84**	**—**

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NOTE: Tabulations are weighted to be representative of sponsors nationally.

[a]Because of missing data, sample sizes for specific responses range from 79 to 83.

[b]Category constructed from answers about "any other sources" that would help cover the difference between actual operating and administrative costs and the state's reimbursement.

[c]Category combines two categories from the survey: (1) "other nonfederal funds," and (2) "any other sources," excluding donations and volunteers.

sponsors' costs claimed and reimbursed in 1996 and 1997 (just before and after the 1997 cut in reimbursement rates). The study found that 67 percent of sponsors remaining in the program from 1996 through 1998 reported costs exceeding maximum reimbursements in 1996, and that 73 percent of those remaining in the program reported costs exceeding maximum reimbursements in 1997 (U.S. General Accounting Office 1998).

Some sponsors, particularly in nonpilot states, reported that they expected to be reimbursed for less than half their SFSP operating or administrative costs. Twenty-six percent of nonpilot state sponsors reported this reimbursement shortfall for administrative costs; another 13 percent reported that they expected to be reimbursed for 51 to 75 percent of their costs. The expected low reimbursement rates may have been a function of unusually high costs relative to other sponsors' costs or the result of sponsors' inaccurate attendance or expense estimates in their SFSP applications. It is also possible that sponsors may not have recalled their costs accurately, or that they misunderstood what their reimbursements would likely be.

About 60 percent of pilot-state sponsors believed they would increase the number of sponsored sites and/or children served in 2001 or in the future in response to the change in the reimbursement process.

Most sponsors (57 percent) reporting that they would be reimbursed for less than 100 percent of their administrative and operating costs used some of their own funds to supplement SFSP funds. About one-quarter reported that they planned to rely on federal sources other than the SFSP; a similar proportion reported that they would use funds from state sources.

School sponsors expected to recover more of their costs than did nonschool sponsors; fully 42 percent of school sponsors (versus 14 percent of nonschool sponsors) expected to have all their costs covered (Table G.1 in Appendix G). A possible explanation for this difference is that school sponsors have more experience managing food service programs, as they run programs all year. However, SFSP experience does not seem to be what matters—the cost recovery expectations reported by more-experienced SFSP sponsors (those participating in the SFSP for 6 years or longer) and by less-experienced ones did not differ significantly (Table G.2).

c. Sponsors' Strategies to Control Costs

To obtain additional data on sponsors' responses to financial pressures, sponsors who reported that they had operated in previous years were asked whether they had used any of a number of strategies to control costs during the past few years (Table III.7). About three-quarters reported using at least one strategy.[10] The most commonly reported strategies included (1) using fewer staff—most often by combining job functions (42 percent), hiring fewer

[10]Sponsors who reported having inadequate staff for at least one activity were more likely than other sponsors to report having used strategies to reduce costs (98 percent, versus 66 percent for other sponsors; n = 116).

TABLE III.7

EXPERIENCED SPONSORS' COST-CONTROL STRATEGIES

	Percentage of Sponsors	Standard Error
Any Strategy	74	(5.5)
Staffing		
Combined job functions	42	(5.2)
Hired fewer people	32	(4.7)
Had staff work fewer hours	28	(4.6)
Had volunteers handle work usually done by paid staff	22	(5.0)
Let staff go	10	(2.4)
Reduced hourly pay	4	(1.9)
Meal Preparation		
Found less expensive vendors or suppliers of food or meal components	31	(4.8)
Switched from mostly hot meals to mostly cold meals	10	(2.8)
Switched from vended sites to on-site cooking	7	(2.7)
Switched from on-site cooking to vended sites	3	(1.4)
Reduced food costs (found less expensive food, served fewer extra meals, changed meal plans)[a]	2	(1.0)
Program Administration		
Secured additional funds	15	(4.3)
Reduced site monitoring	4	(2.1)
Reduced site training	3	(1.5)
Participation and Outreach		
Decreased number of sites	11	(2.8)
Reduced publicity and promotion efforts	6	(1.5)
Limited number of participants	4	(1.8)
Other Strategy[a]	6	(2.6)
Sample Size	**123**	—

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NOTE: The sample is restricted to experienced sponsors, defined as sponsors reporting that they were not in their first year of SFSP participation. Sponsors were asked explicitly whether they used particular strategies to control costs, except where noted. Because of missing data, sample sizes for specific responses range from 117 to 122. Tabulations are weighted to be representative of sponsors nationally.

[a]Categories constructed from responses to an open-ended question about any other steps sponsors took during the past few years to control the costs of the SFSP.

staff (32 percent), reducing staff hours (28 percent), and relying on volunteers for work previously performed by paid staff (22 percent); and (2) attempting to reduce meal preparation costs—most often by finding less-expensive vendors or suppliers of food or meal components (31 percent). Some sponsors relied on administrative strategies, such as securing additional funds (15 percent), or limited program participation, such as by decreasing the number of sites (11 percent).

School and nonschool sponsors reported different strategies for containing costs. School sponsors were significantly more likely to have reduced costs by cutting back on staff (combining job functions, hiring fewer people, or having staff work fewer hours). Nonschool sponsors were significantly more likely to have found less-expensive vendors, obtained additional funding, or limited their enrollment (Table G.3). There were no significant differences in cost control strategies by length of participation in the SFSP (Table G.4).

3. State Payments to Sponsors

The nature of the SFSP and its program rules imposes several constraints on how sponsors incur expenses and receive reimbursement. Because the program operates intensively during the summer, sponsors may incur large cash outflows over a short period. Many sponsors also incur expenses prior to starting meal delivery, because program planning and the purchase of equipment or supplies must be completed in advance. Thus, receiving reimbursements only after costs have been incurred might cause considerable cash flow problems for some sponsors.

For many years, in an attempt to mitigate the problems associated with the timing of costs and reimbursements, FNS has allowed states to provide some funds to sponsors up front. The 14-state pilot project discussed in the previous section is another policy that FNS has instituted. This section discusses state agency administrators' views on these policies.

a. Advance and Start-Up Funding

Federal regulations allow state agencies to provide funding before sponsors have incurred expenses in the form of (1) advance funds, and (2) start-up payments. Advance funds are financial assistance provided by prespecified dates to a sponsor for a portion of its operating and/or administrative costs (7 CFR 225.2).[11] Subject to some limitations, a state agency may provide an advance payment for operating costs up to the larger of (1) the total operating costs paid to the sponsor for the same calendar month of the preceding year; or (2) 50 percent of the amount determined by the state to be required that month for meals if the sponsor uses a vendor,

[11]Generally, advance payments for operating costs are to be made by June 1, July 15, and August 15. Advance payments for administrative costs are to be made by the first two of the three dates. An exception to this schedule is permitted for sponsors that operate under a continuous school calendar. Their advance payments are to be made at the beginning of the month in which costs are incurred. See 7 CFR 225.9(c)(1) and (2).

and 65 percent if the sponsor does not. Advance payments for administrative costs generally may be between one-third and two-thirds of the costs that the state agency determines the sponsor will need to administer the program, depending on when the program operates.

Start-up payments are financial assistance to sponsors for up to 20 percent of the administrative budget and are intended to help sponsors more effectively plan SFSP activities (7 CFR 225.2). State agencies may provide start-up payments as early as 2 months before the start of a sponsor's food service operations.

Both types of payments are deducted from subsequent reimbursements for program administration and operations. However, from 1994 to 1996, state agencies were allowed to provide start-up payments in the form of grants, which were not deducted from subsequent payments (see Chapter I).

Most state agencies (87 percent) offered advance funding to sponsors in 2001 (Table III.8). State administrators reported that the process occasionally created problems. According to about half the administrators, recovering funds from sponsors that had overestimated their allowable expenses sometimes was difficult. The timing of the process (application deadlines or disbursement schedules) also created problems for sponsors in some states, making this funding option potentially more difficult for states to administer and, possibly, less useful for sponsors. Although state administrators were not asked specifically how often problems occurred, several commented that they had these problems with only a few sponsors each year.

About two-thirds of the state administrators would like to have additional start-up funds available for sponsors. Although the SFSP currently allows for deductible start-up payments only, most of the state administrators interpreted the survey question on the topic to mean start-up payments in the form of grants that were not deductible from future payments.[12] For example, several respondents stated, "I would be interested if it was a grant program." Most of the interested state administrators (54 percent) reported that they would want sponsors to use some of the money for outreach or advertising. Some would use the funds to help sponsors cover the costs of equipment, transportation, training, technical assistance, and/or staffing.

b. State Administrators' Views on the Pilot Program

State administrators in both pilot states and nonpilot states were asked for their views on the Congressionally mandated pilot. About 75 percent believed that the pilot program's policy (to reimburse sponsors the maximum rate for their combined administrative and operating costs) would help expand the SFSP (Table III.9). About two-thirds thought it would attract new sponsors and/or retain current ones. About 40 percent thought that current sponsors would add sites.

[12]The study did not ask how many state agencies currently were providing start-up payments that are deducted from subsequent reimbursements.

TABLE III.8

STATE AGENCIES' VIEWS ON THE USE OF ADVANCE AND START-UP FUNDS

	Number of State Agencies	Percentage of State Agencies
State Provided Advance Funds to Sponsors in 2001		
Yes	47	87.0
No	7	13.0
Problems with Providing Advance Funds, State Perspective[a]		
Recovering funds from sponsors that overestimated	25	46.3
Application deadlines hard for sponsors to meet	6	11.1
Advance funding paid too late for sponsors	3	5.6
Difficult to determine appropriate amount	3	5.6
Recovering funds from sponsors that did not open or did not comply with rules	2	3.7
Threshold for funds too high	2	3.2
Other	2	3.7
None[b]	15	27.8
Never used advance funding	4	7.4
Interested in Obtaining Additional Start-Up Funds for Sponsors		
Yes	37	68.5
No	17	31.5
If Yes, Sponsors' Permitted Use of Funds (n = 37)[a]		
Outreach/advertising	20	54.0
Equipment or transportation	9	24.3
Training and/or technical assistance	7	18.9
Increase staff	5	13.5
Start-up funds for new sponsors	4	10.8
Increase number of sites	4	10.8
Start-up funds for experienced sponsors	3	8.1
Security	1	2.7
Incentives for children to attend meals	1	2.7
Other[c]	4	10.8
Total	**54**	**—**

SOURCE: SFSP Implementation Study, State Administrator Census (2001).

[a]Open-ended questions; multiple responses were allowed.

[b]Two responses of "have had problems in the past, but none currently" were collapsed into this category.

[c]These state administrators seemed to misunderstand the question and responded that they would use the money for state-level needs.

TABLE III.9

STATE ADMINISTRATORS' VIEWS ON THE PILOT PROJECT

	All States		Pilot States		Nonpilot States	
	Number	Percentage	Number	Percentage	Number	Percentage
Pilot Would/Will Help Expand the SFSP in State						
Yes	41	75.9	8	57.1	33	82.5
No	9	16.7	6	42.9	3	7.5
Don't know	4	7.4	0	0.0	4	10.0
Pilot Would Lead State Agency to:[a]						
Bring in New Sponsors						
Yes	33	61.1	8	57.1	25	62.5
No	20	37.0	6	42.9	14	35.0
Don't know	1	1.8	0	0.0	1	2.5
Retain More Current Sponsors						
Yes	36	66.7	7	50.0	29	72.5
No	16	29.6	7	50.0	9	22.5
Don't know	2	3.7	0	0.0	2	5.0
Add More Sites from Current Sponsors						
Yes	22	40.7	4	28.6	18	45.0
No	25	46.3	8	57.1	17	42.5
Don't know	6	11.1	1	7.1	5	12.5
Missing	1	1.8	1	7.1	0	0.0
Total	**54**	—	**14**	—	**40**	—

SOURCE: SFSP Implementation Study, State Administrator Census (2001).

NOTE: The pilot project allows sponsors (other than nonprofit organizations) in 14 states to combine administrative and operating costs, and to receive the maximum reimbursement rate for meals served. The pilot was targeted to states with low SFSP participation rates.

[a]State administrators who did not think that the pilot will/would increase participation (or who did not know) were not asked this set of detailed questions and have been included in the "No" category for them.

Interestingly, administrators in pilot states were less likely than those in nonpilot states to believe the pilot program would increase participation.[13] Those in nonpilot states were speculating about the pilot's effects. In contrast, administrators in pilot states were drawing conclusions from actual experience, although the pilot program was only in its first year. The program's short-run effects may have been disappointing relative to expectations: it might take longer than 1 year for most potential sponsors to become aware of the new policy and to establish a program, or the program's effect may have been smaller than expected. Administrators in nonpilot states did not have to make similar adjustments to their expectations. Alternatively, because participation rates during the period before the pilot was instituted were lower in the pilot states than in the nonpilot states, the perceptions or experiences of the two groups of state administrators about efforts to expand participation in their own states may have differed systematically in ways unrelated to experience with the pilot. For example, relative to nonpilot states, pilot states may face more barriers that limit the SFSP's ability to expand in response to the pilot.

B. SPONSOR APPLICATIONS

Many sponsors and state agency staff believed that preparing the SFSP sponsor application was demanding. Applications by new sponsors (and sponsors that have had significant operational problems during the prior year) must include the following five components (7 CFR 225.6[c]):

1. Evidence that the sponsor meets program eligibility criteria
2. A complete administrative and operating budget for review and approval, including all requests for advance and start-up payments
3. Information on how meals will be obtained, including information on the vendor bidding process, if conducted
4. Documentation of adherence to the program's free meals and nondiscrimination statements
5. Additional documentation specific to the type of sponsor, such as camps

[13]Sixty percent of *sponsors* in pilot states reported that the change in the reimbursement process might lead them to increase the number of sites sponsored and/or children served (Table III.6). Sponsors were therefore somewhat more optimistic about the pilot program than were the state administrators. Although these impressions are interesting, more experience and a more systematic evaluation of the program are necessary to determine whether the pilot program will have the desired effects.

The application also must describe in detail each of the proposed sites, including documentation of the site's eligibility, based on the regulations for that type of site.[14]

In January 2000, federal application requirements were changed to allow experienced sponsors to provide less-comprehensive documentation for some parts of the application, but only if information had not changed since the previous year (7 CFR 225.6[c]).[15] The goal of this change was to reduce paperwork and the time required for sponsors to complete and states to review the applications. Experienced sponsors now may submit documentation on the eligibility of open and restricted open sites less frequently than in the past.[16] Their descriptions of each of their sites may be less comprehensive.[17] However, many parts of the application, such as the number of meals to be served at each site and the budget, must be submitted every year.

State agencies approve nearly all applications, but often only after providing extensive technical assistance. Almost all state administrators reported that 90 percent or more of the applications their agencies received were approved; only one state agency accepted fewer than

[14]These site information sheets must describe (1) an organized and supervised system for serving meals; (2) estimates of the number and types of meals to be served; (3) arrangements for delivering and storing meals until they are served, and for storing and refrigerating leftover meals until the next day; (4) arrangements for food service during bad weather; (5) a means of adjusting the number of meals delivered; (6) whether the site is rural; and (7) whether the site's food service will be self-prepared or vended.

[15]Sponsors must provide detailed information on any new sites but can provide less-comprehensive information on older ones. A state agency can require an experienced sponsor to provide more information on any site, if this step seems warranted.

[16]School data used to determine a site's eligibility now must be submitted every 3 years, rather than every 2 years. When census data are used, documentation of eligibility must be submitted when new census data are available. A state agency may require documentation of eligibility more frequently if it believes that an area's socioeconomic status has changed significantly.

[17]The information sheets for experienced sites do not need to describe (1) an organized and supervised system for serving meals; (2) arrangements for delivering and storing meals until they are served, and for storing and refrigerating leftover meals until the next day; (3) arrangements for food service during bad weather; (4) a means of adjusting the number of meals delivered; or (5) whether the site is rural.

80 percent of those submitted (Table III.10).[18,19] Because about 90 percent of sponsors in 2001 were experienced, it is not too surprising that more than 90 percent of applications were approved, on average. Furthermore, as discussed in Section C, some sponsors received substantial technical assistance after submitting their applications to ensure that the applications met all the requirements. Nearly two out of five state administrators reported having inadequate staff to handle the application process (refer to Table III.2).

Most state administrators did not believe that the reduced application requirements for experienced sponsors had any effect; however, about 30 percent thought that the effects were positive. It is not clear why most state administrators did not see any effects. It is possible that the state agencies did not implement the changes. Alternatively, the changes may have seemed minor relative to the remaining requirements. The budget component of the application, which is often perceived as the most complicated piece, did not change.

Most state agencies set the deadline for submission of applications in April or May. Twelve state administrators reported that the deadlines varied, depending on whether the sponsor was new or experienced, the program's start date, whether the sponsor requested advance funds or commodities, and/or the sponsor's size.[20,21] Many accepted applications through June 15.

In response to an open-ended question, three-quarters of the sponsors had no comments on or suggestions for improving the application process (Table III.11). The most common suggestion, given by 49 percent of sponsors who commented, was to reduce the detail and quantity of paperwork required. Some sponsors (24 percent of those with comments) suggested modifying the application schedule; one wanted an earlier deadline, to provide more staff training time, whereas others wanted a later deadline. Other suggestions included correcting problems in the electronic forms, allowing forms to be updated, changing SFSP rules for schools

[18]Initial submissions often are not considered complete. State agencies provide substantial technical assistance to sponsors in completing the application process. Sponsors that do not meet requirements may withdraw or fail to complete the application process. Thus, state agency staff may consider only eligible sponsors and sponsors without problems as having completed the process.

[19]The sole state agency that accepted fewer than 80 percent of its applications turned down relatively few applicants. However, it had few applications relative to the number submitted to many other state agencies.

[20]Although federal regulations require the state agency to have an application deadline no later than June 15, states may choose to set earlier deadlines (7 CFR 225.6[b][1]).

[21]States also must conduct visits to some sponsors or sites prior to approving the application to assess whether the sponsors are able to participate in the program successfully. These preapproval visits must be conducted for new sponsors (unless the sponsor is an SFA and successfully participated in the NSLP in the previous year) and for sponsors that had significant operational problems in the previous year (7 CFR 225.7[d][1]).

TABLE III.10

PROCESSING OF SPONSOR APPLICATIONS

	Number of State Agencies	Percentage of State Agencies
Percentage of Applications Approved		
<80	1	1.8
80 to 85	1	1.8
86 to 90	3	5.6
91 to 95	13	24.1
96 to 99	21	38.9
100	15	27.8
Mean	96.1	—
State Administrators' Views on Effects of Reduced Application Requirements for Experienced Sponsors		
Positive	16	29.6
Negative	0	0.0
No effect	35	64.8
Did not change requirements	1	1.8
Don't know	2	3.7
Month of Application Deadline for Sponsors[a]		
March	1	1.8
April	16	29.7
May	16	29.7
June	9	16.7
Varies for new/experienced sponsors	1	1.8
Varies by sponsors' start dates	4	7.4
Varies for sponsors requesting advance funds and/or commodities	3	5.6
Varies by number of sites	2	3.7
Varies by sponsors' experience *and* request for advance funds/commodities	2	3.7
Total	**54**	**—**

SOURCE: SFSP Implementation Study, State Administrator Census (2001).

[a]The federal deadline for sponsors' applications is June 15, but state agencies may set earlier deadlines.

TABLE III.11

SPONSORS' COMMENTS ON THE APPLICATION PROCESS

	Percentage of Sponsors	Standard Error
Sponsors		
Had no comments	75	(4.9)
Had a comment	25	(4.9)
Sample Size[a]	**124**	—
Suggestions on Improving Application Process[b]		
Reduce detail or quantity of paperwork (in general)	49	(10.0)
Modify timing of process; provide faster turnaround	24	(10.0)
Fix problems with electronic forms	13	(6.9)
Allow forms to be updated (electronically or other way)	9	(5.2)
Make SFSP seamless with NSLP; simplify for schools	8	(4.1)
Make site eligibility documentation easier	5	(3.9)
Simplify or eliminate process of specifying serving times and operation dates	4	(3.0)
Use one reimbursement rate; simplify reimbursement process	4	(2.9)
Provide more-clearly written materials	3	(2.7)
Simplify budgeting/estimating costs	3	(2.5)
Schedule training earlier; enhance or increase training	3	(2.1)
Pilot program helps	1	(1.2)
Other	5	(3.5)
Sample Size	**40**	—

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NOTE: Tabulations are weighted to be representative of sponsors nationally.

[a]One sponsor did not answer this question. Another sponsor gave an invalid answer. These sponsors were omitted.

[b]Multiple responses allowed.

NSLP = National School Lunch Program.

so that they would more closely resemble NSLP rules, and simplifying specific parts of the application (such as the eligibility documentation or budget estimation).

C. TRAINING AND TECHNICAL ASSISTANCE

State agencies provided training and technical assistance to sponsors to share information about program rules and regulations; strategies to provide nutritious, appetizing meals; and ways to encourage participation. Sponsors provided training and technical assistance to sites for similar purposes.

- States reported providing extensive training and technical assistance to sponsors, and most sponsors felt they received the help they needed. However, about 40 percent of sponsors would have liked more technical assistance in at least one area, such as administrative or fiscal management.
- Almost all sponsors conducted relatively brief training sessions for their sites, which covered such topics as meal count records, health regulations, and site violations. The few sponsors that did not train their site staff were single-site sponsors with only a few program staff; their staff attended the state-run training sessions.

1. State Training of Sponsors

Federal regulations require that state agencies provide training to sponsors, vendors, and other relevant personnel (such as health inspectors) in all areas of program administration. These sessions often were held before sponsors prepared their applications. This schedule enabled applicants to learn about program administration and monitoring, claims and reimbursement procedures, meal service, working with vendors, and outreach before beginning the application process. The sessions also gave potential sponsors information they needed to decide whether to submit an application.

In general, states expected sponsors to attend one training session, but some offered the training several times and/or in several locations to accommodate sponsors' schedules, and to minimize the need to travel to a training session. According to the state administrators, state agencies conducted an average of seven training sessions (Table III.12). The sessions lasted about three-quarters of a day, on average, although some took less than one-half day, and some more than a full day. About two-thirds of the state agencies conducted additional or longer training sessions for new sponsors so as to cover the material in more detail than was probably necessary for experienced sponsors.

Sponsors sent an average of two staff to the state-run training sessions (Table III.13). One-third sent only one person; about 12 percent did not send any staff. All the sponsors in the latter group were experienced.[22]

[22]In 1986, some sponsors from about one-quarter of the surveyed states did not attend state-run training sessions (Ohls et al. 1988).

TABLE III.12

STATE TRAINING OF SPONSORS

	Number of State Agencies	Percentage of State Agencies
Number of Training Sessions Held for 2001 SFSP		
1 to 4	23	42.6
5 to 8	15	27.8
9 to 12	7	13.0
≥13	9	16.7
Mean	6.9	—
Average Length of Training (Hours)		
2 to 4	18	33.3
5 to 7	25	46.3
8 to 10	7	13.0
≥11	4	7.4
Mean	6	—
Additional Training for New Sponsors[a]		
Yes	37	68.5
No	17	31.5
Total	**54**	**—**

SOURCE: SFSP Implementation Study, State Administrator Census (2001).

[a]Excludes on-site assistance provided at the start of operations.

TABLE III.13

NUMBER OF SPONSORS' STAFF ATTENDING STATE TRAINING

Number Attending	Percentage of Sponsors	Standard Error
0	12	(3.8)
1	33	(5.5)
2	32	(5.2)
3	13	(3.8)
4 to 6	6	(2.1)
≥7	5	(1.7)
Mean[a]	2	(0.2)
Sample Size	**125**	**—**

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NOTE: One sponsor did not answer this question. Tabulations are weighted to be representative of sponsors nationally.

[a]Estimate of the mean includes sponsors that did not send any staff to a training session.

The sponsors reported that the training helped them to understand a wide range of topics (Table III.14). Nearly all sponsors (85 to 95 percent, depending on the specific topic) judged training on monitoring and review issues, such as sponsors' monitoring of site staff and state and USDA monitoring of sites, to be helpful. Coverage of administrative and accounting rules for the food service (such as meal count and food expenditure records) and of reimbursements was also almost always viewed as helpful, as were discussions of health regulations. Although covered less frequently, training on how to assess food quality, purchase food, and work with vendors generally also was viewed positively. One-fifth or more of sponsors also reported that training did not cover advance and final payments or the pilot program. (These topics may not in fact have been covered, but it is also possible that sponsors did not remember receiving training on topics they did not consider relevant, or that the questionnaire and the training session used different terms to refer to a topic.)

State administrators were asked which topics gave sponsors the most difficulty both during training and after training (Table III.15). State administrators most frequently mentioned that both new and experienced sponsors had difficulty understanding how to budget for the SFSP (including how the program is reimbursed) and how to prepare claims for reimbursements and maintain the necessary accounting records; these issues were mentioned by at least 30 percent of state administrators. In addition, one-quarter to one-third of the state administrators reported that new sponsors tended to have difficulty understanding the application process, completing required paperwork, and implementing the meal pattern/menu planning requirements, but fewer state administrators believed that these topics caused problems for experienced sponsors. About one-fifth of the administrators mentioned production records (records that document the number of meals prepared or delivered to a site) as a topic giving both new and experienced sponsors difficulty. Smaller numbers mentioned staffing, staff training, and site monitoring and management.

2. State Technical Assistance to Sponsors

The state agencies provided technical assistance to sponsors in many areas (Table III.16). Most likely, both sponsors' requests for assistance with particular topics and states agencies' perceptions about areas most in need of improvement determined which topics were frequently covered. More than 80 percent of the state agencies reported that they often provided technical assistance with the application process, and about 60 percent reported that they often provided assistance with reimbursement forms, site management practices, and steps to correct violations. Most state agencies (52 percent) reported that they assisted with community outreach only sometimes. Because most sponsors did not use vendors, the agencies provided guidance on selecting vendors less often than they did on other topics.

Fifty-eight percent of sponsors reported receiving technical assistance from the state (Table III.17). Almost all these sponsors thought that the assistance provided was sufficient. However, 39 percent of sponsors, including those who did not receive any assistance, reported

TABLE III.14

TOPICS COVERED IN STATE TRAINING OF SPONSORS

State Training Topic	Percentage of Sponsors Reporting Training on Topic Was:					
	Helpful	Standard Error	Not Helpful	Standard Error	Not Covered	Standard Error
Monitoring and Reviews						
Sponsor monitoring of sites	95	(2.6)	5	(2.6)	0	(0.0)
Administrative reviews	90	(3.3)	5	(2.5)	5	(2.3)
State and USDA monitoring of sites	89	(4.2)	6	(2.5)	6	(3.5)
Site violations and deficiencies	86	(4.9)	7	(3.4)	8	(3.7)
Food Service/Management						
Meal count records	94	(2.7)	5	(2.5)	1	(1.1)
Sponsor training of site staff	90	(4.3)	9	(4.2)	1	(1.1)
Food expenditure records	88	(3.5)	8	(3.2)	4	(1.9)
Health regulations and health inspections	85	(4.6)	4	(2.4)	11	(4.1)
Assessment of food quality	69	(6.0)	12	(4.2)	19	(5.0)
Purchasing of food	66	(6.0)	12	(3.8)	22	(5.1)
Vendors and vendor contracts	53	(6.3)	20	(4.5)	27	(5.5)
Fiscal Management						
Reimbursements	86	(4.6)	9	(4.2)	5	(2.2)
Sponsor monitoring of operational budgets	77	(5.7)	14	(4.7)	9	(4.1)
Sponsor monitoring of administrative budgets	76	(5.9)	16	(4.9)	8	(4.0)
Final payments	74	(5.8)	7	(2.7)	19	(5.5)
Advance payments	65	(6.2)	15	(4.7)	20	(5.1)
New pilot program for changes in reimbursements	55	(6.1)	8	(3.7)	38	(5.6)
Eligibility Issues						
Eligibility documentation	78	(5.5)	17	(5.1)	5	(2.2)
Use of computer mapping	27	(5.6)	15	(4.6)	59	(6.6)

TABLE III.14 (*continued*)

State Training Topic	Percentage of Sponsors Reporting Training on Topic Was:					
	Helpful	Standard Error	Not Helpful	Standard Error	Not Covered	Standard Error
Outreach, Promotion, and Publicity	77	(5.5)	14	(4.5)	9	(3.7)
Other Topics						
Use of the computer system[a]	3	(2.4)	0	(0.0)	97	(2.4)
Other	4	(2.0)	0	(0.2)	96	(2.0)
Sample Size				**113**		

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NOTE: The table is restricted to sponsors who reported having at least one staff member who attended a state-run training session for the 2001 SFSP. Because of missing data, samples sizes for specific items range from 105 to 111. Tabulations are weighted to be representative of sponsors nationally.

[a]Code constructed from verbatim responses to the question on "any other topics" that were helpful to staff during the state-run training.

USDA = U.S. Department of Agriculture.

TABLE III.15

STATE ADMINISTRATORS' PERSPECTIVE ON TOPICS GIVING SPONSORS DIFFICULTY DURING OR AFTER STATE TRAINING, BY SPONSORS' EXPERIENCE

Topics Typically Giving Greatest Difficulty[a]	Number of State Agencies	Percentage of State Agencies
New Sponsors		
Budgeting for program/understanding program reimbursement	25	46.3
Paperwork (overall, for field trips, for civil rights)	18	33.3
Claims process/accounting/bookkeeping	16	29.6
Meal pattern requirements, menus, menu planning and records	16	29.6
Application process, including documenting sites' eligibility	15	27.8
Production records	11	20.4
Meal counts	7	13.0
Site monitoring or site management	6	11.1
Staffing, staff training	4	7.4
Other[b]	8	14.8
Experienced Sponsors		
Claims process/accounting/bookkeeping	16	29.6
Budgeting for program/understanding program reimbursement	15	27.8
Production records	9	16.7
Meal counts	7	13.0
Paperwork (overall, for field trips, for civil rights)	7	13.0
Application process, including documenting sites' eligibility	6	11.1
Site monitoring or site management	6	11.1
Meal pattern requirements, menus, menu planning and records	5	9.3
Staffing, staff training	5	9.3
Time sheets	1	1.8
Other[b]	8	14.8
Total	**54**	**—**

SOURCE: SFSP Implementation Study, State Administrator Census (2001).

[a]Open-ended questions. Multiple responses allowed.

[b]Other topics mentioned include rules concerning vendors and the procurement process, sanitation, computerized forms, understanding the differences between rules for the SFSP and rules for the school meal programs (for school sponsors), the need to have fixed meal times, the rules for the pilot project, and approaches to maintaining or increasing participation.

TABLE III.16

AREAS OF STATE AGENCIES' TECHNICAL ASSISTANCE
(Row Percentages)

	Percentage of State Agencies Providing Assistance		
Topic	Often	Sometimes	Rarely
Application Process	81.5	14.8	3.7
Completing Reimbursement Forms	63.0	29.6	7.4
Site Management Practices, Including Menu Planning and Meal Counts	59.3	35.2	5.6
Correcting Violations or Improper Practices	57.4	35.2	7.4
Financial Management	46.3	42.6	11.1
Community Outreach and Providing Outreach Materials	24.1	51.8	24.1
Selecting a Vendor	24.1	22.2	53.7[a]
Total		**54**	

SOURCE: SFSP Implementation Study, State Administrator Census (2001).

[a]Ten state administrators (18.5 percent) reported that they did not provide *any* assistance in selecting a vendor. Their responses were included in the "Rarely" category.

TABLE III.17

SPONSORS' VIEWS ON TECHNICAL ASSISTANCE FROM STATE AGENCIES

	Percentage of Sponsors	Standard Error
Received Technical Assistance[a]	58	(5.0)
Sponsors Receiving Assistance Believed Amount Was: (n = 77)		
About right	98	(1.3)
Too little	2	(1.3)
Would Have Liked More Technical Assistance on:[a]		
Overall administrative management	29	(5.4)
Fiscal management	21	(4.6)
Site management	15	(4.1)
Job training	14	(4.0)
Finding a vendor	5	(1.8)
Vendor relations	4	(1.7)
Other	2	(1.1)
Would Have Liked More Assistance in at Least One of These Areas[a]	39	(5.6)
Used Manual[b,c]		
Sponsor's Handbook	95	(2.4)
Monitor's Handbook	91	(3.3)
Sponsor's Meal Preparation Handbook	73	(5.3)
Food Buying Guide for Child Nutrition Programs	65	(5.5)
Site Supervisor's Guide	4	(1.7)
Other manual	3	(2.2)
Sample Size	**126**	**—**

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NOTE: Tabulations are weighted to be representative of sponsors nationally.

[a]Because of missing data, sample sizes range from 123 to 125.

[b]Because of missing data, sample sizes range from 112 to 125.

[c]Multiple responses allowed. The *Sponsor's Handbook* is formally titled, *Administrative Guidance for Sponsors*. The *Monitor's Handbook* is also known as the *Monitor's Guide.* The *Sponsor's Meal Preparation Handbook* is also known as *Nutrition Guidance for Sponsors.* All these titles were mentioned in the survey. Sponsors who reported using the *Site Supervisor's Guide* did so in response to a question about whether any other manuals were used in sponsoring the SFSP. The data here assume that sponsors who did not know whether they used any other handbook or who said they did not have any other handbooks did not, in fact, use any other handbook. However, those who left the question blank are omitted from the tabulations.

wanting more assistance in at least one area.[23] About one-quarter of all sponsors wanted more assistance with administrative and fiscal program management. Some also thought that additional technical assistance with site management and job training would be helpful.

To help sponsors with their day-to-day operations, the state agencies gave them manuals that FNS had prepared. Almost all the sponsors reported using the *Sponsor's Handbook* and the *Monitor's Handbook.* Between two-thirds and three-fourths used other manuals provided by the state agencies or by FNS for their program operations.

3. Sponsor Training and Technical Assistance to Sites

Sponsors provide training and technical assistance to sites to ensure that the sites implement program policies and procedures correctly and efficiently. Training of site staff must cover the purpose of the SFSP, site eligibility, record keeping, site operations, meal pattern requirements, and the duties of a monitor (7 CFR 225.15[d][1]). Sponsors are prohibited from allowing a site to operate until its staff have attended a training session.

Almost all the sponsors reported conducting training sessions for on-site staff, typically, one or two sessions (Table III.18).[24] The sessions generally were much shorter than the state agencies' training sessions for sponsors. Almost two-thirds of sponsors that conducted training did so in sessions lasting 2 hours or less; according to the sponsors' reports, however, some training sessions lasted longer than 4 hours. Site training almost always covered meal count records; health regulations, food safety, or sanitation; site violations and deficiencies; and monitoring of sites. When asked to cite other topics, a few sponsors mentioned safety, supervision, and discipline; civil rights, discrimination, and sensitivity issues; the purpose of the SFSP; program rules and policies; menus, meal service, and meal deliveries; budgeting; sponsor-site communication procedures; and troubleshooting. (These topics are grouped in Table III.18 as "Other.")

All the sponsors that reported no training of site staff operated only one site, and did so with only a few program staff. These sponsors sent staff to a state-run training session, which may have been sufficient.

Most sponsors reported that, because no new employees started after the SFSP began, they did not have to conduct training other than the formal training provided at the beginning of the

[23]When questioned, about 36 percent of the sponsors who reported having received the right amount of technical assistance in the past also reported wanting more assistance in specific substantive areas, such as administrative or fiscal management. The seemingly contradictory responses suggest that, despite satisfaction with the state's technical assistance, these sponsors might like additional state guidance, possibly in new areas.

[24]Some state administrators reported that state agency staff attended or made presentations at these training sessions. However, such attendance was rare.

TABLE III.18

SPONSOR-PROVIDED TRAINING FOR SITE STAFF
(Percentages, Unless Otherwise Stated)

	Percentage of Sponsors	Standard Error
All Sponsors		
Number of Training Sessions for On-Site Staff[a]		
0	7	(3.8)
1	51	(5.5)
2	26	(4.7)
3	7	(2.2)
4 to 6	8	(2.6)
≥7	1	(0.6)
Mean	1.8	(0.1)
Sample Size	**125**	**—**
Sponsors Providing Training		
Average Length of Training (Hours)[b]		
1	26	(5.1)
2	37	(5.9)
3 or 4	26	(4.9)
≥5	11	(3.6)
Mean	2.9	(0.5)
Median	2.0	—
Percentage of Training Sessions on:[c]		
Meal count records	99	(0.7)
Health regulations, food safety, or sanitation[d]	96	(2.2)
Site violations and deficiencies	94	(2.5)
State and USDA monitoring of sites	93	(2.7)
Sponsor monitoring of sites	92	(3.5)
Working with vendors	33	(5.3)
Other	17	(3.5)

TABLE III.18 *(continued)*

	Percentage of Sponsors	Standard Error
Training Method for New Site Staff Starting After Summer Begins[c,e]		
No new employees start later in the summer	63	(4.9)
On-the-job or on-site training	11	(3.4)
Training by sponsor, one-on-one or as a group	10	(3.1)
Regular orientation and/or formal training session	8	(2.6)
New staff review training agenda and materials	8	(3.8)
Other	8	(3.7)
Sample Size	**121**	**—**

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NOTE: Tabulations are weighted to be representative of sponsors nationally.

[a]One sponsor did not answer this question.

[b]The average reported by each sponsor for all the training sessions the sponsor held. It does not take into account (weight) the number of training sessions that the sponsor held.

[c]Because of missing data, sample sizes for specific items range from 119 to 121.

[d]Includes sponsors reporting that "health regulations and food safety" were covered when asked directly about this issue and sponsors reporting that cleanliness, hygiene, or sanitation topics were covered when asked about "any other topics" covered in the 2001 training sessions.

[e]Categories coded from an open-ended question on how sponsors train new site staff who start during the course of the summer. Multiple responses allowed.

USDA = U.S. Department of Agriculture.

summer. Sponsors that took on staff later in the summer used a variety of training methods. Informal ones were the most frequently used and included on-the-job or on-site training, one-on-one or group training by the sponsor, and review of the training agenda and material by the new staff. Some sponsors, disproportionately large ones, used a regular or formal training session.

To learn about sponsor-site interactions from the site perspective, site supervisors at sites run by multisite sponsors were asked during the site visit about the training and technical assistance the sponsor provided (Table III.19). (Single-site sponsors were not asked these questions because sponsor and site staff generally were the same.) Most site supervisors reported receiving training from the sponsor; in most instances, the site supervisor or program director also helped conduct the training. About three out of every five site supervisors interviewed reported that site staff received technical assistance from the sponsor in 2001 on such topics as record keeping, meal quantity adjustments, and food safety procedures. Most site supervisors considered the sponsor's help to be sufficient; however, a few would have liked the sponsor to improve the menu; provide additional training, communication, or technical assistance; or provide additional staff or resources.

Supervisors of sites run by multisite sponsors reported that their sponsor had visited an average of five times; however, the number of visits reported varied greatly. Sponsor staff visit sites both for monitoring purposes and for technical assistance purposes; they also may visit as part of basic site operations (for example, to deliver meals). Supervisors of about 1 in 10 sites reported that the sponsor had not visited by the time of data collection. Sponsors are supposed to visit all their sites during the first week of operations, but this report suggests that some sponsors may have had difficulty providing the required levels of monitoring.[25] More than half the sites (56 percent) reported three visits or fewer. In other sites, many sponsor visits were reported, up to a maximum of about three per day.

Site staff at 41 percent of sites had not discussed meal choices with sponsors. However, 26 percent of site staff often discussed this topic with sponsors, and 34 percent did so occasionally.

D. PROGRAM MONITORING

Monitoring serves to ensure that SFSP administration is consistent with program rules and regulations. It also facilitates corrective action when necessary. State agencies are required to

[25]The number of sponsor visits reported is as of the day that the interviewer visited the site. Data collection visits occurred at various points during program operations, so the data cannot be interpreted as the total number of sponsor visits conducted during the summer. However, when the sample is restricted to sites that had been open at least 1 week at the time of the interviewer's visit, 10 percent of the site supervisors reported that the site had not yet received a sponsor visit (weighted tabulation; standard error = 3.8 percent; n = 105; not shown in table).

TABLE III.19

SITE SUPERVISORS' VIEWS ON TRAINING AND TECHNICAL ASSISTANCE FROM SPONSORS

	Percentage of Sites	Standard Error
All Sites		
Site Staff Trained by:[a]		
Sponsor	91	(2.3)
Site supervisor/program director	67	(4.6)
Other site staff	36	(5.7)
State agency	27	(4.3)
Food or nutrition advocacy group	22	(3.5)
Health department	1	(0.7)
No one specified	1	(0.6)
Sample Size[b]	**162**	—
Sites of Multisite Sponsors		
Site Received Other Help or Technical Assistance from Sponsor in 2001		
Yes	60	(5.6)
No	35	(5.4)
Don't know	5	(3.3)
Technical Assistance Topics Covered, Among Those Receiving Technical Assistance (n = 73)[a]		
Record keeping	88	(4.7)
Making meal quantity adjustments	73	(6.7)
Food safety procedures	72	(7.1)
Monitoring food quality	70	(7.5)
Food purchasing	54	(7.2)
Other[c]	14	(4.7)
Ways Sponsor Could Be More Helpful[a,d]		
Improve menu	9	(3.6)
Provide more training, communication, technical assistance	5	(2.4)
Provide more staff, resources	5	(2.0)
Other[e]	6	(2.6)
Nothing	75	(4.7)

TABLE III.19 (*continued*)

	Percentage of Sites	Standard Error
Number of Sponsor Visits[f]		
0	11	(3.6)
1	12	(3.5)
2 to 3	33	(5.9)
4 to 5	17	(4.3)
6 to 10	11	(3.0)
≥11	12	(4.3)
Don't know	4	(2.0)
Mean	5.3	(0.8)
Median	2.5	(0.4)
Site Staff Discuss Meal Choices with Sponsor:		
Often	26	(4.9)
Sometimes	34	(5.3)
Never	41	(7.1)
Sample Size[g]	**119**	**—**

Source: SFSP Implementation Study, Site Supervisor Survey (2001).

NOTE: Tabulations are weighted to be representative of sites nationally.

[a]Multiple responses allowed.

[b]Because of missing data, the number of valid responses to specific items varies from 136 to 152.

[c]Includes assistance with advertising, finances, sanitation, menu planning, playground safety, and computers.

[d]Open-ended question.

[e]Includes assistance with increasing participation, enlarging or modernizing the kitchen, increasing the cap on the number of children who can participate, providing menus, and providing food handlers.

[f]Refers to the number of sponsor visits as of the time of the site supervisor survey, which could have been at any time during the site's operations.

[g]Because of missing data, the number of valid responses varies from 114 to 119, except where noted.

conduct both administrative reviews of sponsors and visits to sites. Sponsors must monitor their sites throughout program operations to ensure compliance with program regulations.

- Consistent with the federal regulations, state agencies concentrated their review efforts on new sponsors. On average, 94 percent of new sponsors and 58 percent of experienced sponsors were reviewed.
- About 84 percent of sponsors reported conducting two or more reviews per site. Nearly three-quarters arrived unannounced, helping to ensure that monitoring observations reflected actual day-to-day program operations.

1. State Monitoring of Sponsors and Sites

State agencies ensure compliance with program rules and regulations through both administrative reviews of sponsors and site visits. Regulations dictate that the agencies review all new sponsors during the sponsors' first summer of program operations, and that they conduct annual reviews of sponsors with very high levels of reimbursements and of sponsors that had operational difficulties during the previous year (7 CFR 225.7[d][2][ii]).[26] In addition, every sponsor must be reviewed at least once every 3 years. The review must include visits to 10 percent of a sponsor's sites or to one site, whichever is larger. These requirements are fairly extensive for a program that almost always operates for 3 months or less. In comparison, state agencies must conduct administrative reviews of SFAs for the school meal programs (which operate for 9 months or more) about once every 5 years, although they are encouraged to review large SFAs more often, and they must conduct follow-up reviews if problems are detected (7CFR 210.18). Of course, many SFSP sponsors have less food service experience than do SFAs.

Administrative reviews typically are conducted at the sponsor's headquarters and are reviews of documents (such as meal count sheets from the sites, vendors' invoices and delivery receipts, menus, production records, and staff timesheets) that the sponsor is required to keep to support its claims for reimbursement. About half the state agencies conducted all their administrative reviews during the summer (Table III.20). Most of the others began their reviews during the summer but completed them after program operations had ended. Two state agencies began reviews in the fall.

During the interview, state administrators estimated the number of administrative reviews of new and experienced sponsors and the total number of new sponsors. In some cases, however, the administrators admitted that they did not have precise numbers at the time of their interview, so these estimates should be interpreted as an approximate indicator of how well states are complying with monitoring regulations.

[26]States are not required to review a school food authority (SFA) sponsor if that sponsor had been reviewed for the NSLP during the same year.

TABLE III.20

STATE AGENCIES' REVIEWS OF SPONSORS AND SITES

	Number of State Agencies	Percentage of State Agencies
Period Covering Reviews of Sponsors		
Summer (May to August)	28	51.8
Summer (May to August) to early fall (September to October)	20	37.0
Summer (May to August) to late fall or winter (November to February)	4	7.4
Fall or fall to winter (September or later)	2	3.7
New Sponsor Reviews as Percentage of New Sponsors		
<60	3	5.6
61 to 99	5	9.2
100	41	75.9
>100[a]	1	1.8
Don't know	1	1.8
No new sponsors	3	5.6
Mean	94	—
Median	100	—
Experienced Sponsor Reviews as Percentage of Experienced Sponsors		
<30	9	16.7
31 to 60	27	50.0
61 to 99	9	16.7
100	5	9.3
>100[a]	3	5.6
Don't know	1	1.8
Mean	58	—
Median	50	—
New Monitoring Requirements Target Resources to Sponsors/Sites Most in Need of Additional Review[b]		
Yes	29	53.7
No	19	35.2
Don't know	6	11.1

TABLE III.20 *(continued)*

	Number of State Agencies	Percentage of State Agencies
Approximate Number of *Sites* Visited (n = 53)[c]		
1 to 25	10	18.9
26 to 50	11	20.7
51 to 100	9	17.0
101 to 200	12	22.6
201 to 500	7	13.2
>500	4	7.5
Mean	168	—
Median	80	—
Percentage of Sites Visited[c]		
<10	8	15.09
10 to <20	12	22.64
20 to <30	13	24.53
30 to <50	12	22.64
50 to <80	5	9.43
≥80	3	5.66
Mean	30	—
Median	24	—
Percentage of Unannounced Site Visits		
<25	20	37.0
25 to 50	5	9.3
51 to <75	1	1.8
75 to <100	7	13.0
100	21	38.9
Mean	57	—
Median	84	—
Total	**54**	**—**

SOURCE: SFSP Implementation Study, State Administrator Census (2001).

[a]The number of reviews was reported by the state administrators separately from the number of sponsors. The ratio sometimes exceeds 100 percent, perhaps because sponsors were reviewed more than once.

[b]The new monitoring requirements require annual reviews of new sponsors, large sponsors, and sponsors that had significant operational problems during the previous year (7 CFR 225.7 [d][2][ii]), whereas other sponsors may be reviewed every 3 years.

[c]Refers to the number of sites state agency staff visited in summer 2001.

Consistent with the federal regulations, administrative reviews focused on new sponsors; however, the state administrators reported that the state agencies reviewed 94 percent of new sponsors, on average, although they are required to review all of them.[27] The eight state agencies reporting that they did not review all their new sponsors reviewed most of them.[28] An average of 58 percent of experienced sponsors were reviewed. State administrators in eight states reported that every experienced sponsor was reviewed.

More than half the state administrators thought that the new monitoring requirements appropriately targeted visits to sponsors that most needed them. However, about one-third did not believe the new regulations were helpful. Some administrators volunteered various reasons for this belief (for example, the largest sponsors generally were not the ones with problems; state policy was to review all sponsors; and the state still was required to spend too much time monitoring sponsors, rather than helping them).

State agency staff also visited sites during the summer as part of their monitoring efforts. These visits enabled the agencies to verify that food was served according to regulations, health and safety regulations were followed, and meal counts were recorded properly. In states with a large number of sites, state monitors conducted hundreds of visits. The state administrators reported that monitoring staff reviewed an average of 30 percent of their state's sites. However, this measure varied widely; eight state agencies visited fewer than 10 percent of their sites, and eight visited at least 50 percent of their sites.

About two-fifths of the state agencies did not announce any visits to the sponsor or site in advance; however, about an equal fraction gave advance notice for all or almost all visits. On average across states, 57 percent of site visits were unannounced. State monitoring staff generally considered unannounced visits the best way to observe a site's day-to-day operations, because they increased the likelihood of detecting any infractions of rules or regulations. Nonetheless, logistical issues may have forced the state agencies to give advance notice of the visits (for example, to ensure that a remote site was open at the time of the planned visit).

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[27]Ohls et al. (1988) found that states reported reviewing about 90 percent of sponsors (as a median). However, that rate and the current one cannot be compared directly because the regulations on state monitoring have changed. Pre-January 2000 regulations focused state agency review efforts on new nonprofit organizations operating within urban areas, new sponsors with 10 or more sites, and other sponsors that the state agency believed should be reviewed within the first 4 weeks of program operations. The review of other sponsors was based on the number of sites the sponsors administered (*Federal Register* [1999]).

[28]No information is available to explain why some state agencies reported that they failed to review all their new sponsors. One state reported reviewing sites, but not sponsors. A new sponsor in another state had participated in the SFSP in the past and might have been the sole sponsor not reviewed by that state's agency. In addition, when contacted in October 2001, some states provided preliminary numbers or estimates of the number of reviews and the number of new sponsors that may not match the final numbers. Some state administrators reported they had not completed reviews or paperwork at the time of the interview, and thus did not have final numbers available.

2. Sponsors' Monitoring of Sites

Sponsors are required to visit each of their sites at least once during the first week of program operations, and to conduct a more comprehensive review at least once during the first 4 weeks of operations (7 CFR 225.15[d]).[29,30] In addition, throughout program operations, sponsors are required to maintain a reasonable level of monitoring.

Almost half the sponsors (46 percent) that operated more than one site reported that they conducted two reviews per site, and 38 percent conducted more than two; however, 16 percent conducted only one review (Table III.21).[31] Because the question asked specifically about site *reviews*, it seems likely sponsors would not count the first-week visits to sites in their responses.[32] The average on-site review required 2.4 hours to complete. According to the sponsors, monitors spent an average of 61 percent of that time on site, 14 percent of the time traveling, and 25 percent on paperwork (data not shown). About one-third of the sponsors reported spending considerable time on paperwork (more than one-quarter of the visit's time), whereas some reported spending no time on it. About three-quarters of the sponsors reported that all their on-site reviews were unannounced; as with state agency visits, unannounced visits may have helped to ensure that monitoring observations were based on routine, day-to-day program operations.

About half (51 percent) of the sponsors that conducted more than one on-site review conducted the same number of reviews per site; another 10 percent conducted at least a prespecified minimum number of reviews. A few sponsors conducted additional reviews based on the number of meals or leftovers reported or after other methods had detected problems.

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[29]During a review, monitors are required to observe all aspects of program operations—before, during, and after meal service (U.S. Department of Agriculture, Food and Nutrition Service 2001). Monitors are not required to be present for the entire meal service during a site visit. State agencies may waive the site visit requirement for experienced sponsors that are SFAs.

[30]During monitoring visits, sponsors are required to complete a monitoring form provided by the state agency (7 CFR 225.7[d][7]). These forms provide room to record such information as the time of the monitor's arrival and departure, the site supervisor's signature, a certification statement to be signed by the monitor, the number of meals prepared or delivered, the number of meals served to children, any deficiencies noted, the corrective actions taken by the sponsor, and the date of these actions.

[31]This analysis does not include sponsors that reported only one site, as site-monitoring issues were less relevant for them. This restriction excluded 43 of the 126 sponsors.

[32]However, as noted in the discussion of the data in Table III.19, about 10 percent of site supervisors from sites run by multisite sponsors reported that their sponsor had not yet visited their site.

TABLE III.21

MULTISITE SPONSORS' MONITORING OF SITES

	Percentage of Sponsors	Standard Error
Number and Length of Reviews		
Number of Reviews Planned (per Site)		
1	16	(4.4)
2	46	(6.7)
>2	38	(6.4)
Average Length of Review (Hours)		
≤1	23	(6.6)
1.1 to 2.0	39	(6.1)
2.1 to 3.0	23	(5.6)
3.1 to 4.0	1	(1.0)
>4.0	14	(4.7)
Mean	2.4	(0.2)
Portion of All Reviews that Were Unannounced		
None	7	(3.4)
Some, but no more than one-half	13	(4.4)
More than one-half, but not all	8	(3.4)
All	73	(6.2)
Sample Size	**83**	**—**
Sponsors Conducting Multiple Reviews		
How Sites Are Selected for More than One Review[a]		
All sites monitored same number of times	51	(7.5)
All sites monitored at least a minimum number of times	10	(3.8)
No method indicated; monitoring "just done"	9	(5.4)
Sites monitored daily or constantly	9	(4.5)
Sites monitored at other intervals or on rotating basis	8	(4.2)
When problems are indicated; as needed	3	(2.0)
Based on number of meals or leftovers	2	(1.3)
Sites randomly selected	1	(1.4)
Other method	7	(4.0)
Sample Size	**51**	—

TABLE III.21 *(continued)*

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NOTE: This table includes only sponsors that had more than one site. Tabulations are weighted to be representative of sponsors nationally.

[a]Thirteen sponsors were not asked this question because they conducted only one review per site. Eighteen sponsors excluded from this analysis reported conducting two reviews per site. A previous version of the questionnaire indicated that sponsors conducting two reviews per site should skip this question. A later version corrected this skip pattern. One sponsor is excluded from the analysis because the respondent did not know what selection method was used.

E. VENDOR/FOOD SERVICE MANAGEMENT

Because the quality of the meals provided to children is of the utmost importance to the SFSP, this study examined factors that influenced the sponsors' decision to prepare their own meals or to contract with vendors instead; it also examined the ways that sponsors work with vendors.[33,34]

- Eighty-two percent of sponsors (and almost all school sponsors) prepared their own meals. Many of these sponsors chose to do so because they had the necessary staff and facilities; in many cases, they viewed preparing meals as part of their mission (for example, because they were a school food service or a residential camp).
- Eighteen percent of sponsors contracted with vendors to provide meals. The ones that did so were relatively large; they operated 36 percent of the sites and served 30 percent of the total meals. Vended sponsors were more likely to be government and National Youth Sports Program (NYSP) sponsors than were nonvended sponsors.
- About 80 percent of the sponsors that used vendors were very satisfied or somewhat satisfied with their choice. The main perceived advantages were saving the time and costs of preparing the meals. However, some sponsors that used vendors believed food from vendors may have been less appealing to children or less nutritious than self-prepared food. They also thought that logistical issues could pose challenges they would not encounter with self-prepared meals.
- About 80 percent of sponsors that used vendors received only one bid for the contract.
- Most sponsors monitored their vendors at least weekly.

1. Use of Vendors

As shown in Chapter II, although only 18 percent of sponsors contracted with vendors to provide meals, these sponsors served 30 percent of total meals, indicating they were larger than average in terms of total meals served. About one-third of sponsors that used vendors used SFAs as vendors, and two-thirds used private food service management companies (refer to Table II.2). Only 3 percent of school sponsors used a vendor (refer to Table II.4).

[33]This chapter focuses on the administrative aspects of preparing meals and working with vendors. The nutritional value of the meals and children's preferences for certain types of foods are discussed in Chapter V.

[34]Note that dividing the sample by the meal preparation method reduces the sample sizes for the analysis, which reduces the precision of the estimates. This effect is especially true for the analysis of sponsors that used vendors, because most sponsors prepared their own meals.

The sample of vended sponsors in the survey is small, which makes it difficult to determine precisely how they differ from other sponsors. One difference that is statistically significant, even with this small sample, is that vended sponsors and nonvended sponsors were of different types (Table III.22). More than half (55 percent) of all vended sponsors were government sponsors. Relative to sponsors that prepared their own meals, vended sponsors were relatively more likely to be government and NYSP sponsors and were less likely to be school sponsors.

2. Reasons Why Most Sponsors Prepared Meals

Sponsors that prepared their own meals most often (36 percent) reported that they chose self-preparation because they already had the necessary facilities and staff and/or because they were a school food service or other organization that had food service as its function (Table III.23). Some sponsors also believed that (1) it was cheaper to prepare the meals themselves (25 percent); (2) self-preparation enabled them to provide higher-quality food, to adjust the food served to meet children's preferences, or to provide a greater variety of foods (16 percent); and/or (3) preparing meals themselves was more convenient, for logistical reasons (16 percent).[35] About 1 in 10 sponsors, most of which had rural sites, reported that they prepared their own meals because no vendors operated in their area.[36] A few sponsors prepared their own meals to keep workers employed or to provide jobs. A few did so because they always had done so, and a few saw self-preparation as a way to maintain control over the process.

3. Reasons Why Some Sponsors Contracted with Vendors

Regulations require that SFSP vendors provide unitized meals, which must contain the required meal components as a single "package" or "unit." (Milk or juice may be packaged separately or may be excluded from the unitized meal and obtained elsewhere.) A sponsor may request that the state provide an exception to the unitizing requirement for certain components of the meal (7 CFR 225.6[h][2][i]).

Eighteen percent of the sponsors chose to contract with vendors. Most sponsors (81 percent) that contracted with vendors reported that they were very satisfied or somewhat satisfied with the arrangement (Table III.24).[37] When asked about the advantages of using vendors, the most

[35]Logistical reasons included better management of the schedule, food preparation, and service time.

[36]Five of the seven sponsors that gave this reason operated only rural sites. However, the two other sponsors had no rural sites.

[37]Although the weighted tabulations show that 19 percent of sponsors were not satisfied with their vendors, this group consists of only 2 of the 31 sponsors that used vendors, and 1 of the 2 had a relatively large weight. The sponsor with the large weight reported that the main disadvantage of using vendors was the variety or quality of the food; the other sponsor reported logistical issues as the main disadvantage.

TABLE III.22

SPONSOR TYPE, BY SELF-PREPARED AND VENDED MEALS

Type of Sponsor	Percentage of Self-Preparation Sponsors	Standard Error	Percentage of Vended Sponsors	Standard Error
School	57	(6.4)	7	(7.0)**
Government	5	(3.0)	55	(12.8)
Camp/Upward Bound	19	(5.4)	16	(13.5)
NYSP	1	(0.6)	9	(5.4)
Nonprofit Organization	18	(4.8)	13	(7.7)
Sample Size	**95**	**—**	**31**	**—**

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NYSP = National Youth Sports Program.

**Distributions are significantly different at the .01 level, chi-squared test.

TABLE III.23

REASONS SPONSORS PREPARE MEALS RATHER THAN CONTRACT WITH A VENDOR

Reason[a]	Percentage of Sponsors	Standard Error
Already Have Facilities and Staff; Is a School or Meals/Nutrition/Food Service Program; Is the Organization's Job	36	(6.0)
Cheaper	25	(5.3)
Higher-Quality Food; More Flexibility to Meet Children's Dietary Needs/Preferences; More Meal Choices	16	(4.1)
Convenience, Ease; Logistical Reasons	16	(4.2)
Location; no Vendors in Area; Rural Area	11	(4.7)
Always Has Self-Prepared Meals	9	(3.5)
Keep Workers Employed; Provide Jobs	7	(2.7)
More Control	5	(3.4)
Appropriate or Beneficial for Program[b]	3	(1.8)
Better Control of Food Quantity; Less Food Waste	2	(1.5)
Other	8	(2.7)
No Comments Given	2	(1.5)
Sample Size	**91**	**—**

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NOTE: The sample is restricted to sponsors that did not use vendors. Four of the 95 sponsors that prepared meals on site or at a central kitchen are omitted because they did not answer this question. Tabulations are weighted to be representative of sponsors nationally.

[a]Categories created by coding responses to an open-ended question on sponsor's reasons for self-preparing meals rather than contracting with a vendor. Multiple responses allowed.

[b]No additional detail or clarification given.

TABLE III.24

SPONSORS' VIEWS ON ADVANTAGES AND DISADVANTAGES OF VENDORS

	Percentage of Sponsors	Standard Error
Overall Satisfaction with Vendor		
Very satisfied	66	(13.2)
Somewhat satisfied	15	(6.9)
Not satisfied	19	(13.5)
Main Advantages[a]		
Easy, convenient; no "hassle" with meal preparation	36	(13.2)
Quality or variety of food	17	(8.6)
Cheaper	14	(7.1)
Vendors have staff, facilities, transportation; site does not	10	(4.6)
Vendors have experience buying and preparing food	10	(7.4)
Vendors are trained in sanitation and hygiene	10	(7.2)
Vendor can deliver meals on time; food ready to eat when delivered	6	(5.0)
Greater flexibility on participation levels allowed	3	(2.5)
Can deliver food efficiently	3	(2.4)
Location issues	2	(2.1)
Other	10	(6.1)
No comments given	6	(5.7)
Main Disadvantages (n = 28)[a]		
Food variety or quality	46	(13.5)
Logistical issues	22	(9.3)
Cost	10	(7.0)
None; no comments given	21	(8.7)
Sample Size	**31**	**—**

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NOTE: The sample is restricted to sponsors that used vendors. Tabulations are weighted to be representative of sponsors nationally.

[a]Categories created by coding responses to open-ended questions on the sponsor's perceived main advantages or disadvantages of vendor-provided meals. Multiple responses allowed.

frequent comment (reported by 36 percent of vended sponsors) was that vendors were easy or convenient to use. It is likely that giving the responsibility for meal preparation to vendors greatly simplified the sponsors' day-to-day operations, especially for sponsors whose primary focus was to offer activities rather than meals to children. Many sponsors also perceived other advantages to using vendors. They believed that vendors (1) were able to provide a higher quality or greater variety of food; (2) were cheaper; or (3) already had the necessary staff, equipment, and experience, which they (or their sites) would have to obtain.

When asked about disadvantages of using vendors, 46 percent of the sponsors that used vendors raised issues of food quality or variety (for example, lack of choice of foods, food temperature, or food quantity). Twenty-two percent reported concerns about logistics, including delivery problems, scheduling problems, difficulty adjusting the number of meals, or the need to consult with non-SFSP staff to resolve problems.

4. Selecting and Monitoring Vendors

Sponsors that wish to use private vendors must adhere to a competitive bidding process, unless they have a vendor contract in the amount of $10,000 or less (7 CFR 225.15[g][4]).[38] The bidding process includes public announcements of the proposed contract and public opening of the bids. The invitation to bid must include specifications of food and meal quality standards and a menu on which the bid is based. State agencies must be allowed to monitor the bidding process and must grant approval for bids above the lowest-cost bid before sponsors can accept them.[39]

Although competitive bidding is encouraged, 80 percent of sponsors that used vendors in 2001 reported receiving only one bid (Table III.25).[40,41] Thus, although most sponsors were satisfied with their vendors, they may have no alternative should they ever become dissatisfied.

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[38]Sponsors that use an SFA and schools that have an exclusive contract with a private vendor for year-round service are exempt from this regulation.

[39]States also must approve the acceptance of extremely large bids.

[40]Most of the sponsors that used private vendors received only one bid, as did most sponsors that used SFAs.

[41]Effective December 2000, a state agency no longer had to require that vendors operating within the state register with it (*Federal Register* 2000; 7 CFR 225.6[g]). Most administrators of state agencies that dropped the registration requirement reported that some aspects of the vendor process remained unchanged (such as the number of vendors interested in participating in the SFSP), or that they did not know whether dropping vendor registration had any effects (data not shown). Sponsors in these states also were generally unaware of any effects of this change in regulations. One possible explanation is that states that found vendor registration to be useful maintained the requirement.

TABLE III.25

VENDOR BIDS AND VENDOR MONITORING

	Percentage of Sponsors	Standard Error
Number of Vendors Submitting Bids		
1	80	(8.7)
2 or 3	18	(8.4)
≥4	2	(1.5)
Monitoring Strategies		
Talk to site personnel	95	(4.7)
Conduct SFSP site visits	84	(7.2)
Check contract specifications against delivered meals	80	(10.5)
Visit vendors' facilities	58	(12.4)
Other	11	(6.3)
Vendors Monitored:		
Daily[a]	11	(6.5)
Weekly	56	(12.4)
Monthly	8	(7.5)
When problems are suspected	16	(7.3)
At certain intervals and when needed or requested by sites[a]	7	(4.4)
Other[a]	3	(2.6)
Sample Size	**31**	**—**

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NOTE: The sample is restricted to sponsors that used vendors. Tabulations are weighted to be representative of sponsors nationally. Because of missing data, sample sizes for specific items range from 28 to 31.

[a]Categories constructed from "other (specify)" responses.

Sponsors used several strategies to monitor vendors (Table III.25). Almost all reported holding discussions with site staff, conducting site visits, and checking whether the delivered meals met contract specifications. About three-fifths of sponsors also reported that they visited the vendors' facilities. About two-thirds conducted these monitoring visits at least weekly.

IV. PROGRAM PARTICIPATION AND OUTREACH

The number of children served by the Summer Food Service Program (SFSP) is substantially lower than the number who receive free or reduced-price meals through the National School Lunch Program (NSLP) during the school year. Recently, the U.S. Department of Agriculture has expressed a renewed commitment to expanding the availability of summer meals to children from low-income families (Food and Nutrition Service 2002d). Thus, one key research focus of this study was an exploration of the factors that affect the participation of sponsors and children. The study (1) explored staffs' views on barriers to participation; (2) described the activities currently used to increase sponsors' and children's participation, referred to broadly as "outreach"; (3) considered the outcomes of sponsors' outreach efforts by analyzing the characteristics of new sponsors relative to continuing sponsors; and (4) examined issues of sponsor retention by obtaining state administrators' perspectives on sponsor retention, comparing the characteristics of current and former sponsors, and asking former sponsors why they left the SFSP.

The exploration produced the following key findings:

- ***It is important to place the SFSP's participation challenges in a realistic context.*** State administrators emphasized that comparisons with the NSLP must recognize that the SFSP is available primarily in low-income areas and does not always provide transportation, whereas the NSLP is available everywhere, provides meals to a "captive audience" of children who are required to attend school, and benefits from transportation of students to and from school.

- ***State administrators believed that lack of transportation, lack of activities, and lack of knowledge about the program were the major barriers to children's participation; they believed that low reimbursement rates and time-consuming paperwork discouraged potential sponsors from participating.***

- ***Many sponsors believed their local areas were well covered, and most site supervisors felt they could serve more children at their sites.*** Many site supervisors and sponsors felt they were meeting current demand in their communities; however, they also reported that lack of transportation and other barriers may have limited some children's participation at established sites.

- ***State administrators cited personal contact as the most successful approach to recruiting new sponsors.*** One-on-one meetings enable state agencies to respond to sponsors' concerns about the complexities of managing the SFSP, present the positive aspects of the program, and provide assurance of assistance from the state.

- ***Most sponsors conducted activities to increase participation at their sites, and most site supervisors believed that publicity about their sites was adequate.*** Typical outreach activities included publicity through media channels and neighborhood flyers, collaboration with schools, and direct mail or telephone recruitment of parents.

- ***Of the 10 percent of sponsors that were new, one-half were school districts and one-third were nonprofit organizations***. The proportion of new sponsors that were nonprofit organizations was twice as large as the proportion of continuing sponsors that were nonprofits. New sponsors were smaller than continuing sponsors, and fewer offered breakfast and supper.

- ***About 8 percent of sponsors left the SFSP between 2000 and 2001. Former sponsors disproportionately were small, new, or nonprofit organizations.*** Nearly all these sponsors left the program by choice, and their sites usually were not picked up by other sponsors. Inadequate reimbursement rates and time-consuming paperwork were the main reasons why sponsors left; each reason was cited by about 45 percent of former sponsors. Low participation levels were a contributing factor for about 40 percent of former sponsors.

A. STAFFS' VIEWS ON PARTICIPATION LEVELS

Staff at all levels of the SFSP, from state administrators to site supervisors, cited a substantial number of barriers they believed impeded children's participation. In addition, state and sponsor staff cited issues they believed discouraged sponsors' participation. Many sponsors, however, felt there was little unmet demand in the areas they served, and most site supervisors reported they had the capacity to serve more children. This seemingly contradictory pattern of findings may indicate that most unserved children live in areas that have no SFSP sponsors (and thus no SFSP sites), or it may indicate that current sponsors and sites are not addressing barriers faced by children in the areas they serve; it also is possible both factors are at work. Although other types of research are necessary to assess the relative importance of barriers to sponsors' participation versus children's participation, staffs' views provide important insights into the types of barriers that exist at each level.

1. State Administrators' Views on Participation

State administrators typically have detailed knowledge of both SFSP rules and day-to-day operations, as well as extensive experience in attempts to expand the program. These staff also must overcome diverse challenges, ranging from supporting large numbers of sponsors with varied needs to finding and assisting sponsors in heavily rural areas. To tap this range of experience about SFSP participation, state administrators were asked the following open-ended question: "In your opinion, what are the reasons that so few children participate in the Summer Food program as compared to the National School Lunch Program?" Because the wording of the question mentioned "children," some respondents focused on issues related to the family's decision to send their child to an existing SFSP site. Other respondents also discussed sponsors' barriers to participation, as sponsors are necessary if children are to have sites to which to go.

a. Limitations of Direct Comparisons of the SFSP and the NSLP

An important theme that several administrators mentioned in response to the open-ended question is that comparisons of the SFSP and the NSLP are not entirely appropriate. First, the

NSLP operates in almost every school district; by contrast, the function of the SFSP's area eligibility rules is to target areas with high concentrations of poverty, even though not all low-income children live in high-poverty areas. About one-fifth of state administrators noted that area eligibility rules limit the availability of sites to some children; five administrators (9 percent) commented that sites or sponsors were not always available where children lived (Table IV.1). Second, a few administrators reported that the SFSP cannot be expected to serve children who are served during the summer by other programs, such as the NSLP or the Child and Adult Care Food Program. Third, because the NSLP is offered while children are at school, it operates in a setting that children must attend (administrators referred to the children as "a captive audience"), and that offers transportation services. Five state administrators (9 percent) noted that SFSP attendance is voluntary, and nearly half of all administrators surveyed mentioned the lack of transportation as a barrier to participation, particularly in rural areas.

b. Factors that Limit Participation

More state administrators mentioned lack of transportation than any other factor as the factor limiting children's participation in the SFSP. Other frequently cited factors included a lack of activities at program sites and ignorance about the program's existence. Given that nearly all sites offer some activities (see Chapter II), it is interesting that about one-quarter of state administrators reported lack of activities as a problem. These administrators may have been thinking in terms of the need to ensure that new sponsors are able to offer activities, may have believed the range of activities to be too limited to attract children, or may have been concerned that some open sites offered activities only for some children. Other, less frequently mentioned factors included children's attitudes, particularly about attending school sites during the summer; stigma; a limited variety of foods ("always sandwiches"); and an operating schedule for many SFSP sites that did not cover the entire summer.

Many of the administrators who focused on factors limiting sponsors' participation cited low reimbursement rates ("it is not worth it for sponsors to run the program for 3 months"); a paperwork burden associated with running the SFSP that made it difficult to attract schools as sponsors; and other challenges to convincing schools to participate, such as the desire of school officials to leave buildings unoccupied, so staff could perform maintenance on the buildings or take time off. Some state administrators also mentioned security or liability issues as factors, including neighborhood safety, liability with respect to operating outdoor sites, and concerns that schools running open sites cannot monitor who enters the school. Only two state administrators mentioned lack of outreach to sponsors; state administrators focused on administrative requirements and reimbursement rates as making the program unattractive.[1]

[1]Some state administrators simply made such comments as, "It is a well-kept secret." These responses were categorized as families' lack of knowledge, but they might have referred to potential sponsors.

TABLE IV.1

STATE ADMINISTRATORS' VIEWS ON WHY PARTICIPATION IS LOW

Reasons for Low Participation (Relative to NSLP)[a]	Number of State Agencies	Percentage of State Agencies
Child Participation Issues		
Transportation problems	26	48.1
Need activities in conjunction with meals	14	25.9
Lack of knowledge about the program	12	22.2
Area eligibility rules limit availability	11	20.4
Children want to stay home/avoid school	6	11.1
Attendance is not required[b]	6	11.1
Lack of sponsors/sites where children live	5	9.3
Stigma	5	9.3
Lack of variety in foods offered	5	9.3
Programs not open long enough	4	7.4
Children attend alternate programs	3	5.6
Sponsor Participation Issues[c]		
Sponsors' difficulty breaking even due to reimbursement rates or rules	8	14.8
Schools do not want to participate due to paperwork, requirements	7	13.0
Schools have other priorities or do not want to participate for unspecified reasons	6	11.1
Security or liability concerns at sites	6	11.1
Sponsor application requirements are discouraging	4	7.4
Staffing problems	4	7.4
Insufficient outreach to potential sponsors	2	3.7
Too much paperwork	2	3.7
Other	7	13.0
Total	**54**	**—**

SOURCE: SFSP Implementation Study, State Administrator Census (2001).

NOTE: This table reflects coding of responses to an open-ended question.

[a]Multiple responses allowed.

[b]In comparison, children are required to attend school, where the NSLP is offered.

[c]Although the question was worded in such a way as to inquire why few *children* participate in the SFSP, many answers addressed the issue of why potential *sponsors* do not participate.

NSLP = National School Lunch Program.

2. Sponsors' and Former Sponsors' Views on Participation and Program Expansion

SFSP sponsors and former sponsors provided an additional level of understanding about the challenges to participation that the SFSP must overcome. Because they direct or closely monitor site operations, sponsors may learn about day-to-day barriers that limit children's participation. Some also responded in terms of barriers that sponsors face, perhaps drawing on their experiences in deciding whether to expand their sites, or their decisions to enter or leave the SFSP. Because barriers to both sponsors' and children's participation may affect program attrition, this section discusses the perceptions of current and former sponsors.

a. Barriers to Participation

As Table IV.2 shows, 93 percent of current sponsors and 91 percent of former sponsors identified specific barriers to participation in the SFSP. When asked about the "main barriers to increased participation," sponsors cited many of the same challenges that state administrators mentioned; also like state administrators, they identified barriers that affected children's participation directly and barriers that affected it indirectly, by first affecting the participation of sponsors.

About half the current and former sponsors mentioned resource and logistical constraints as key barriers to participation. As was the case with state administrators, the most commonly mentioned barrier was a lack of transportation (mentioned by 23 percent of current sponsors and 39 percent of former sponsors). One-tenth of current sponsors mentioned lack of capacity at current facilities and/or the need for additional site locations. Other resource and logistical barriers, cited by a smaller number of sponsors, included lack of support from schools or community groups, inadequate numbers of staff or volunteers, and inadequate funding.

About 1 in 3 current and former sponsors identified lack of outreach, interest, or demand as limiting participation. Sixteen percent of current sponsors considered insufficient or poorly targeted outreach an important barrier. Fourteen percent cited a lack of demand for the program, indicating that the community need is being met through the SFSP or through other programs, so that expansion is unwarranted. In addition, 9 percent of current sponsors and 12 percent of former sponsors mentioned low levels of parental motivation and the role of stigma as deterrents to children's participation.

b. Sponsors' Interest in Expanding the Number of Sites or the Length of the Summer Session

Most sponsors were not interested in increasing participation by expanding the number of sites or the length of their summer session (Table IV.3). About half the sponsors (59 percent of all sponsors and 47 percent of sponsors operating open sites) were "not too interested" or "not at

TABLE IV.2

SPONSORS' IDENTIFICATION OF THE MAIN BARRIERS TO INCREASED PARTICIPATION

Main Barriers to Increased Participation	Percentage of Current Sponsors	Standard Error	Percentage of Former Sponsors	Standard Error
Resource/Logistical Constraints	48	(5.6)	58	(5.2)
Transportation/distance of children from site(s)	23	(4.0)	39	(5.3)
Lack of capacity or additional locations for sites needed	10	(3.4)	7	(2.1)
Need more schools as sites, more support and coordination from schools and other community groups	8	(3.0)	1	(1.0)
Lack of staff or volunteers	6	(2.8)	1	(0.8)
Weather, heat, or lack of air-conditioning	5	(2.2)	1	(0.6)
Insufficient funding	5	(2.1)	10	(3.4)
Lack of activities or no funding for activities	3	(1.5)	3	(1.3)
Outreach/Interest/Demand Constraints	38	(5.3)	35	(5.1)
Need more or better-targeted outreach	16	(4.4)	18	(3.8)
Lack of interest or demand, competition from other programs, or need is being met	14	(4.2)	7	(2.7)
Parent/caregiver motivation; stigma/not wanting handouts	9	(3.0)	12	(3.8)
Program tied to summer school or participation falls after summer school ends	1	(1.1)	1	(0.8)
Program Rules	14	(4.1)	14	(3.6)
Enrolled program or eligibility requirements	8	(3.6)	1	(0.8)
Paperwork or program rules	6	(2.1)	13	(3.5)
Other[a]	9	(3.1)	10	(3.3)
No Barriers Reported	7	(3.2)	9	(2.7)
Sample Size	**124**	**—**	**130**	**—**

SOURCE: SFSP Implementation Study, Former Sponsor and Sponsor Surveys (2001).

NOTE: Tabulations are weighted to be representative of sponsors and former sponsors nationally. These tabulations represent coding of responses to an open-ended question. Multiple responses were allowed.

[a]Includes safety issues, illegal immigrants' fear of government programs, children's lack of interest or comfort at the site, lack of foods children like, and language or cultural barriers.

TABLE IV.3

SPONSORS' INTEREST IN EXPANDING THE NUMBER OF SITES

Interest Level in Expanding the Number of Sites	Percentage of Sponsors	Standard Error	Percentage of Open Sponsors[a]	Standard Error	Percentage of Enrolled Sponsors[b]	Standard Error
Very Interested	20	(3.7)	26	(4.7)	6	(4.1)
Somewhat Interested	22	(4.1)	27	(5.2)	11	(6.3)
Not too Interested	20	(4.9)	18	(5.0)	24	(10.4)
Not at All Interested	39	(6.0)	29	(6.9)	59	(11.3)
Sample Size	**126**	**—**	**95**	**—**	**31**	**—**

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NOTE: Tabulations are weighted to be representative of sponsors nationally.

[a]Sponsors that have only open sites or a combination of open and enrolled sites.

[b]Sponsors that have enrolled, camp, or National Youth Sports Program sites.

all interested" in expanding the number of their summer food sites.[2] Only 20 percent of all sponsors indicated that they were "very interested" in operating more sites; 26 percent of open sponsors were "very interested" in operating more sites. Fully 83 percent of sponsors operating enrolled or camp sites were "not too interested" or "not at all interested" in expanding.

Sponsors who did not wish to expand most commonly mentioned lack of demand as the explanation (Table IV.4). In this group, half of all sponsors (52 percent) and nearly three-quarters of open-site sponsors (72 percent) explained that their area already was well covered. Additional frequently mentioned reasons included lack of available locations for sites (mentioned by 41 percent of all sponsors), insufficient staff (mentioned by 33 percent), reluctance of schools to provide food service or staff during the summer (mentioned by 15 percent), and difficulty finding a partner to help with outreach (mentioned by 12 percent). Nineteen percent of all sponsors indicated that they did not wish to expand their food program to other locations because they were a camp or single-site program.

Twenty-seven percent of sponsors asked about their willingness to increase the length of their summer session reported that their program did run all summer; 51 percent were unwilling to do so, and 23 percent were willing (Table IV.5).[3,4] Many sponsors who did not want to extend their program calendar cited external constraints as factors (for example, school districts' plans to perform kitchen maintenance during the off-season or firmly established summer school schedules). Compared with sponsors whose main purpose is to feed children, many SFSP programs associated with structured activity programs (such as summer school, NYSP, or residential camp) have less flexibility in establishing operating dates. In addition to these reasons, some sponsors who did not want to extend the session also cited staffing constraints (in particular, staff's desire for vacation time), inadequate financial resources, and their belief that an extended program would not be cost-effective because participation usually dropped considerably during the late summer or after scheduled activities had ended.

At the same time, 27 percent of open sponsors and 13 percent of enrolled sponsors were willing to extend the summer session. Technical assistance targeted to sponsors willing to

[2]To illuminate some analyses, we divide sponsors into "open sponsors," which have at least one open site, and "enrolled sponsors," which have only enrolled, camp, or National Youth Sports Program (NYSP) sites. Enrolled and camp sponsors have structured activity programs that require more-extensive resources and thus are likely to face more capacity constraints; in addition, serving meals is generally not their primary mission. Thus, we would expect these sponsors to have less interest in outreach and expansion.

[3]The survey did not ask why those who were willing to extend their session had not done so.

[4]Based on weighted tabulations of the characteristics of sponsors who reported that they already operated all summer (n = 42), 25 percent actually were open for at least 70 days (10 weeks), 47 percent were open for 60 to 69 days, and 28 percent were open for fewer than 60 days. This finding suggests widely varying interpretations of "all summer."

TABLE IV.4

REASONS FOR SPONSORS' LACK OF INTEREST
IN EXPANDING THE NUMBER OF SITES

	Percentage of Sponsors	Standard Error	Percentage of Open Sponsors	Standard Error
Reasons				
Lack of demand, area is well covered	52	(8.0)	72	(8.2)
Lack of available site locations	41	(7.4)	46	(9.1)
Insufficient staff	33	(7.1)	24	(8.6)
Camp/single-site program[a] (n = 60)	19	(6.2)	7	(4.7)
School food services not interested or not able to provide summer staff	15	(5.1)	21	(8.2)
Cannot find partner to help with outreach	12	(4.4)	19	(7.3)
Schools offer NSLP or are open year-round	9	(3.4)	14	(5.7)
Funding too low[a] (n = 60)	7	(4.5)	1	(0.5)
Already operating at or near maximum capacity[a] (n = 60)	6	(5.1)	2	(1.2)
Too much paperwork[a] (n = 60)	2	(1.2)	3	(2.1)
Main Reason (n = 59)				
Lack of demand, area is well covered	39	(8.7)	54	(10.9)
Camp/single-site program[a]	19	(6.2)	7	(4.7)
Insufficient staff	11	(4.9)	15	(8.1)
Lack of available site locations	10	(3.7)	11	(4.5)
Funding too low[a]	7	(4.5)	1	(0.5)
Already operating at or near maximum capacity[a]	6	(5.1)	2	(1.2)
Schools offer NSLP or are open year-round	3	(2.3)	6	(4.2)
School food services not interested or not able to provide summer staff	3	(2.7)	0	(0.0)
Too much paperwork[a]	2	(1.2)	3	(2.1)
Cannot find partner to help with outreach	1	(1.3)	2	(2.3)
Sample Size	**61**	—	**37**	—

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NOTES: The sample is restricted to sponsors who reported that they were "not too interested" or "not at all interested" in expanding the number of their SFSP sites. Tabulations are weighted to be representative of sponsors nationally.

Open sponsors are sponsors that have only open sites or a combination of open and enrolled sites. Enrolled sponsors are not shown separately because of the small sample size.

[a]These answers were given in response to a question about "any other reason" why the sponsor was not interested in expanding the number of sites.

NSLP = National School Lunch Program.

TABLE IV.5

SPONSORS' VIEWS ON INCREASING THE LENGTH OF THE SUMMER SESSION

	Percentage of Sponsors	Standard Error	Percentage of Open Sponsors[a]	Standard Error	Percentage of Enrolled Sponsors[b]	Standard Error
Willingness to Increase Session Length						
Yes	23	(4.2)	27	(5.9)	13	(6.8)
No	51	(5.7)	40	(6.6)	73	(8.9)
Program already runs all summer	27	(4.9)	33	(6.1)	14	(6.2)
Sample Size	**125**	**—**	**95**	**—**	**30**	**—**
Reason for Unwillingness to Increase Session Length[c]						
School or summer school schedule, school district decision, need to clean kitchens during break time, or space constraints	32	(6.6)				
Grant funds regulate or require the number of weeks; schedule based on another program's length of operation	24	(7.9)				
Staff need vacation time, employees' other commitments, lack of staff	22	(7.0)				
Financial constraints, cannot afford it	20	(6.4)				
Decrease in participation (in late summer or after activities end)	7	(3.7)				
Already as long as can be	5	(2.7)				
Other	9	(4.4)				
Sample Size	**57**	**—**				

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NOTE: The bottom panel of the table is restricted to sponsors that were unwilling to increase the length of the summer session. Tabulations are weighted to be representative of sponsors nationally.

[a]Open sponsors are sponsors that have only open sites or a combination of open and enrolled sites.

[b]Enrolled sponsors are sponsors that have enrolled, camp, or National Youth Sports Program sites.

[c]These answers were constructed from responses to an open-ended question about why the sponsor would not be willing to increase the length of the summer session.

expand the number of sites or extend the length of the program may be an effective way to increase program participation.

3. Site Supervisors' Views on Capacity Constraints and Barriers to Participation

Eighty-five percent of site supervisors did not believe that program capacity constraints or enrollment limits prevented interested children who live near their site from receiving services (Table IV.6). According to the site supervisors, although 18 percent of sites were unable to serve additional children, about half estimated they could serve 1 to 50 additional children, and one-third estimated they could serve more than 50 additional children. Although most site supervisors did not see capacity constraints or enrollment limits as preventing children from receiving services, it is not clear whether they held this belief because all interested children were being served or because other barriers prevented local children from attending the site.

Supervisors of open sites and supervisors of enrolled sites (including camps) had different perceptions about capacity or enrollment constraints.[5] Open sites often can adjust their capacity to serve more children as necessary (for example, by ordering more meals). Not only are enrolled sites reimbursed only for meals served to enrolled children, but those sites generally provide structured activity programs in addition to feeding programs that may create capacity constraints preventing them from increasing enrollment. Only 8 percent of supervisors of open sites reported that capacity constraints or enrollment limits prevented children from being served (Table IV.6). By contrast, one-quarter of supervisors of enrolled sites believed that interested children were not being served.

Family barriers may prevent some children from participating in the SFSP, even at open sites with the capacity to serve them. Two-thirds of site supervisors identified at least one family barrier limiting participation at their site (Table IV.7). Lack of transportation, reported by 33 percent, was the most commonly cited barrier.[6] Twenty-six percent of site supervisors believed that insufficient program publicity prevented some children and parents from becoming aware of the program. Other barriers, mentioned by at least one-tenth of site supervisors, included limited hours of program operations (a problem for working parents who need all-day care for their children), unappetizing food, lack of activities, and site locations in unsafe neighborhoods. Fewer than 10 percent mentioned embarrassment or stigma, and fewer than 4 percent perceived low levels of parents' or children's motivation to be a significant barrier.

Supervisors of open sites mentioned more and somewhat different barriers than did supervisors of enrolled sites. (As with sponsors, enrolled sites are defined here to include camp and NYSP sites.) Supervisors at open sites were much more likely than those at enrolled sites to mention lack of transportation (36 percent versus 17 percent), lack of publicity (27 percent

[5]Camp and NYSP sites are included with enrolled sites.

[6]About half the supervisors of rural sites (49 percent), in particular, reported transportation as a barrier (n = 57). Rural sites were classified as rural based on interviewer observation.

TABLE IV.6

SITE CAPACITY CONSTRAINTS ON PARTICIPATION

	Percentage of Sites	Standard Error	Percentage of Open Sites	Standard Error	Percentage of Enrolled Sites[a]	Standard Error
Capacity Constraints or Enrollment Limits Prevent Participation						
Yes	11	(2.9)	8	(3.1)	25	(8.6)
No	85	(3.5)	88	(3.8)	73	(8.7)
Don't know	4	(1.5)	4	(1.7)	2	(1.6)
Number of Additional Children Site Could Serve in Existing Facility						
0	18	(3.9)	17	(4.6)	21	(6.6)
1 to 25	25	(4.8)	20	(5.3)	51	(11.9)
26 to 50	23	(3.6)	27	(4.0)	6	(4.1)
51 to 100	18	(4.0)	19	(4.5)	14	(8.1)
≥101	16	(3.4)	18	(4.0)	7	(4.4)
Don't know	1	(0.3)	0	(0.2)	2	(1.6)
Median	29.8	(6.8)	39.5	(8.4)	9.0	(5.1)
Mean	77.2	(11.5)	84.5	(13.8)	41.7	(15.8)
Sample Size	**162**	**—**	**120**	**—**	**42**	**—**

SOURCE: SFSP Implementation Study, Site Supervisor Interview (2001).

NOTE: Tabulations are weighted to be representative of sites nationally.

[a]Enrolled sites include camp and National Youth Sports Program sites.

TABLE IV.7

SITE SUPERVISORS' VIEWS ON BARRIERS TO CHILDRENS' PARTICIPATION AT SITE

Barriers	Percentage of Sites	Standard Error	Percentage of Open Sites	Standard Error	Percentage of Enrolled Sites[a]	Standard Error
Lack of Transportation	33	(6.0)	36	(7.0)	17	(8.3)
Lack of Publicity	26	(4.5)	27	(6.3)	17	(8.9)
Limited Hours	17	(3.9)	18	(4.5)	10	(5.4)
Children Do Not Like the Food	16	(3.2)	18	(3.5)	6	(5.8)
Lack of/Types of Activities	12	(3.8)	14	(4.5)	0	(0.3)
Unsafe Neighborhood	11	(3.6)	13	(4.2)	0	(0.0)
Embarrassment/Stigma	10	(2.5)	11	(6.8)	4	(4.1)
Limited Capacity/Enrolled Site[b,c]	8	(3.2)	6	(2.8)	17	(9.4)
Money[b]	8	(2.8)	6	(3.1)	16	(11.0)
Motivation (of Parents or Children)[b,d]	4	(2.2)	3	(2.2)	7	(6.9)
Other[b,e]	4	(1.8)	2	(1.5)	11	(7.3)
No Barriers[b]	33	(4.2)	31	(4.7)	39	(9.7)
Sample Size	**162**	**—**	**120**	**—**	**42**	**—**

SOURCE: SFSP Implementation Study, Site Supervisor Interview (2001).

NOTE: Multiple responses allowed; will not sum to 100 percent. Tabulations are weighted to be representative of sites nationally.

Sample sizes for specific items are slightly less than shown (ranging from 150 to 162 for the full site sample), because of missing data.

[a]Includes camp and National Youth Sports Program sites.

[b]These responses were volunteered.

[c]Includes enrolled sites, no activities for nonenrolled children, and limited capacity.

[d]Includes lack of parental motivation, home neglect, parents missing the registration deadline, and children staying home to watch television.

[e]Includes distance to the site, other time commitments (job/family), nonenrolled children's suspicions about religious groups, and smaller children's feelings of intimidation by high school students.

versus 17 percent), limited hours (18 percent versus 10 percent), children's dislike of the food (18 percent versus 6 percent), lack of activities (14 percent versus less than 1 percent), an unsafe neighborhood (13 percent versus 0 percent), and stigma (11 percent versus 4 percent). Not surprisingly, supervisors at enrolled sites were more likely to mention that children were prevented from attending because the site had limited capacity or was enrolled (17 percent versus 6 percent at open sites), or because of the cost of the program (16 percent versus 6 percent at open sites).

B. EFFORTS TO EXPAND THE PROGRAM

Because the SFSP always has served significantly fewer children than do the free and reduced-price components of the NSLP, efforts to expand the availability of summer meals are of particular interest. This section describes the outreach activities currently used to increase sponsors' and children's participation.

1. State Agency Outreach

Most state agencies conduct extensive outreach for the SFSP, very often in cooperation with partner organizations. All of them conduct some outreach to attract new sponsors ranging from one or two mailings to very extensive activities, depending on the size of the state and number of staff available. Many state agencies also provide general information about the SFSP to anyone interested (for example, through brochures or a Web site), publicize the program to potential sponsors and the public at large, and develop materials for sponsors' use in publicizing the program.

State administrators most frequently mentioned personal contacts as their most successful approach to recruiting new sponsors. Their belief in the usefulness of this method is consistent with the fact that they also believe the SFSP's complex paperwork and financial management requirements discourage sponsors from participating (see Section A.1 of this chapter). Personal contacts enable the state administrators to present the positive aspects of the program, and to reassure potential sponsors that help will be available.

a. Partner Organizations

About 9 out of 10 state administrators reported that their agencies work with other organizations on outreach (Table IV.8). More than half collaborated with nutrition or antihunger advocacy groups or food banks. Many of these groups are affiliated with the Food Research and Action Center (FRAC) and may have learned about the SFSP through FRAC's Campaign to End Childhood Hunger.[7]

[7]Several state administrators mentioned FRAC or the Campaign to End Childhood Hunger by name.

TABLE IV.8

STATE AGENCIES' WORK WITH PARTNER ORGANIZATIONS

	Number of State Agencies	Percentage of State Agencies
State Works with Other Organizations on Outreach		
Yes	49	90.7
No	5	9.3
Types of Partner Organizations[a]		
Nutrition or antihunger advocacy group or food bank	28	51.9
Community-based organization and coalition	18	33.3
Department of agriculture (federal or state level) or cooperative extension	9	16.7
Business organization or media	9	16.7
School and school district	7	13.0
WIC, Food Stamp Program, or other federal nutrition program	7	13.0
Department of education (includes Title 1 programs)[b]	6	11.1
Local government or local government groups (mayor's groups, others)	6	11.1
Religious organizations	4	7.4
State or local parks and recreation department	4	7.4
Local health department	3	5.6
Other state agencies	8	14.8
Other[c]	14	25.9
None	5	9.3
Total	**54**	—

SOURCE: SFSP Implementation Study, State Administrator Census (2001).

[a]Multiple responses allowed.

[b]Counted only if the state agency is not part of the State Department of Education.

[c]Includes migrant programs; statewide organizations of human services professionals, Upward Bound programs, and Housing Authorities; children's advocates; and foundations.

WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

Many state agencies (33 percent) work with community-based organizations or statewide coalitions of these groups; examples of community groups mentioned include Community Action Agencies, YMCAs, and Boys and Girls Clubs. Other common types of partners include state departments of agriculture or cooperative extension agents (mentioned by 17 percent) and business and media groups, such as Chambers of Commerce or radio stations that run public service announcements (mentioned by 17 percent). State agencies also work with other state agencies, particularly departments of education (when the state agency is not part of that department), school districts, local offices of the Special Supplemental Nutrition Program for Women, Infants, and Children or of the Food Stamp Program, local government groups, parks and recreation departments at the state or local level, local health departments, and religious organizations.

b. Approaches to Recruiting New Sponsors

State administrators reported using a wide range of approaches to recruit new sponsors (Table IV.9).[8] The four most commonly mentioned approaches were general mailings (mentioned by 43 percent); presentations about the SFSP at conferences of groups that may include potential sponsors (mentioned by 39 percent); publicity about the SFSP through press releases, public service announcements, or newspaper articles (37 percent); and one-on-one recruiting efforts (28 percent). In addition to the general mailings, 12 state administrators (22 percent) mentioned using targeted mailings, such as mailings to all school districts serving low-income areas, and 5 administrators (9 percent) mentioned sending letters signed by a prominent person, such as the governor or the head of the state's department of education, in order to attract attention.[9]

Other activities were mentioned by only a few state administrators but may be of interest to others. For example, six state administrators reported offering toll-free numbers to enable callers to obtain information about the SFSP. Four state agencies encouraged current sponsors to spread the word to potential sponsors, and the administrator of one state agency mentioned personalized invitations to potential sponsors to attend informational meetings and training. Four state agencies showed an outreach video (prepared by the Food and Nutrition Service [FNS]), and two had Web sites about their program.

[8]The question on recruitment methods was open-ended. Responses should therefore be seen as a lower bound on the number of agencies using a particular method, as state administrators may not have provided an inclusive list. (Many did mention a wide range of outreach activities.)

[9]It is possible that some of the state administrators who mentioned "mailings" used some of these approaches. The "general mailings" category includes only state administrators who did not mention mailings targeted to specific audiences or signed by a prominent individual.

TABLE IV.9

STATE AGENCIES' EFFORTS TO ATTRACT SPONSORS

	Number of State Agencies	Percentage of State Agencies
Types of Outreach to Attract New Sponsors[a]		
Mailings, Including Letters, Flyers, Brochures[b]	23	42.6
Presentations at Conferences or Meetings of Relevant Groups	21	38.9
General Publicity About Program in Public Service Announcements, Articles, Press Releases	20	37.0
One-on-One Contact with Potential Sponsors	15	27.8
Outreach to Partner Organizations or Groups of Potential Sponsors	13	24.1
Targeted Letters (to School Districts or Groups of Potential Sponsors)	12	22.2
Working with Advocates to Promote Program	9	16.7
Research/Development of Lists of Potential Sponsors	8	14.8
Meetings with Groups of Potential Sponsors	6	11.1
Toll-Free Number/Hotline	6	11.1
Letters Signed by a Prominent Person	5	9.3
Notices in School Food Service Organizations' Newsletters	4	7.4
Outreach Video	4	7.4
Word-of-Mouth from Other Sponsors	4	7.4
Web Site	2	3.7
Personal Invitations to Outreach Events and Training	1	1.9
Working with USDA or Other State Agencies	1	1.9
Other[c]	7	13.0
Most Successful Types of Outreach to Attract New Sponsors/Increase Participation[a]		
Focus on New Sponsors		
Personal contacts	18	33.3
Outreach to schools	13	24.1
Mailings (especially to schools)	7	13.0

TABLE IV.9 *(continued)*

	Number of State Agencies	Percentage of State Agencies
Presentations at conferences	4	7.4
Working with advocates, nutrition groups	4	7.4
Focus on New Participants		
Word-of-mouth[d]	6	11.1
Flyers, posters, banners	4	7.4
Public service announcements, television, radio, newspaper	4	7.4
Working with existing sponsors to find new sites	4	7.4
More/better activities with meals	2	3.7
Toll-free number/hotline	2	3.7
Publicity to community groups	2	3.7
Bookmarks, Frisbees	2	3.7
Door-to-door canvassing	1	1.9
Other	2	3.7
Don't Know	1	1.9
Total	**54**	**—**

SOURCE: SFSP Implementation Study, State Administrator Census (2001).

NOTE: Questions on outreach strategies were open-ended, and state administrators provided varying levels of detail in their responses. Thus, tabulations should be interpreted as representing lower bounds on the number of state agencies using each strategy.

[a]Multiple responses allowed.

[b]Does not include targeted letters or letters signed by a prominent person, which are listed separately.

[c]Includes billboards, advertisements on buses, and advertisements in movie theatres; outreach to mothers at WIC clinics; and outreach to camp programs for low-income children. Some of these approaches may be targeted to recruiting participants rather than potential new sponsors.

[d]Word-of-mouth could have been cited in the context of recruiting new sponsors but seemed most often to refer to recruiting participants for existing sponsors.

USDA = U.S. Department of Agriculture; WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

c. Most Successful Outreach Approaches

State administrators who were asked for their opinion on their most successful outreach approaches for attracting new sponsors or increasing participation emphasized one-on-one recruitment of sponsors and outreach to schools (Table IV.9).[10] One-third believed that personal contacts with potential sponsors was their most successful strategy. The emphasis on one-on-one recruitment is consistent with the belief that the SFSP is challenging to operate: sponsors must therefore be "sold" on participation; according to one state administrator, the key was to "identify and work with them and make them understand the program." In addition, state administrators wanted to ensure that new sponsors were aware of the frequent need for additional funding sources, on the one hand, and of the help available from the state, on the other. To quote another administrator, "You have to find the right person, at the right time, and get them the right funding in order to have a successful sponsorship." Another state agency hired a consultant well known in the school food service community to make personal recruitment visits to school districts in low-income areas.

About one-quarter of the state administrators believed that outreach to schools was the most successful strategy. This belief reflects the fact that many state agencies see School Food Authorities (SFAs) as ideal sponsors because these organizations are accustomed to operating child nutrition programs. Because most SFSP state agencies also administer the NSLP, they usually can easily obtain the information to determine which school districts that are not sponsors are likely to have schools that qualify as eligible SFSP sites.

No one method for encouraging children's participation was mentioned frequently as the most successful, but a few state administrators each mentioned a few approaches. This pattern probably reflects the fact that state agencies focus most of their energies on outreach to sponsors. In addition, the most effective outreach method may vary from place to place. Particularly interesting approaches included door-to-door canvassing in the community, with door-hangers (flyers shaped to fit over doorknobs) left for people who were not home, and placement of advertisements for the program on subways and buses.

2. Sponsors' Efforts to Increase Participation at Their Sites

Seventy-one percent of current sponsors reported that they had used one or more strategies to increase participation at their sites in 2001 or 2000 (Table IV.10). They used a wide variety of outreach activities, including partnering with other community organizations and agencies to

[10]Although asked to identify their most successful outreach activity, the question was open-ended, and many administrators provided multiple responses. Some mentioned only sponsor-focused activities or only participation-focused activities; others mentioned both types. Some of the activities mentioned, such as mailings, may appear here in part because the state agency did not conduct any other form of outreach; by definition, then, the cited activity also was the most successful.

TABLE IV.10

SPONSORS' STRATEGIES TO INCREASE PARTICIPATION

Strategies[a]	Percentage of All Sponsors	Standard Error	Percentage of Open Sponsors[b]	Standard Error	Percentage of Enrolled Sponsors[c]	Standard Error
Flyers, Posters, Signs, Outreach to Families	28	(4.8)	35	(6.4)	13	(6.9)
Advertisements Through Newspapers, Radio, Television	24	(4.5)	31	(5.9)	8	(4.9)
Work with Organizations Other than Schools	12	(3.1)	14	(3.8)	6	(5.2)
Unspecified Increased Publicity	12	(3.8)	14	(4.6)	8	(7.0)
Improve the Program[d]	9	(3.1)	12	(4.4)	3	(1.9)
Work with Schools	7	(2.8)	7	(2.4)	9	(7.2)
Recruit/Open More Sites	5	(2.1)	7	(2.8)	2	(2.4)
Word of Mouth	6	(2.9)	6	(3.8)	4	(4.0)
Door-to-Door/Home Visits	4	(1.7)	2	(1.7)	8	(5.7)
Other	5	(2.1)	6	(2.8)	4	(2.7)
No Strategies Reported	29	(5.1)	14	(4.1)	59	(11.8)
Sample Size	**124**	**—**	**95**	**—**	**29**	**—**

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NOTES: Tabulations are weighted to be representative of sponsors nationally.

[a]Categories constructed from open-ended responses to a question about what, if anything, the sponsor had done in 2000 or 2001 to increase program participation.

[b]Sponsors that have only open sites or a combination of open and enrolled sites.

[c]Sponsors that have enrolled, camp, or National Youth Sports Program sites.

[d]Includes such strategies as securing or providing transportation assistance, increasing staff/volunteers, improving meal quality, and offering more programs/activities.

promote the program. All sponsors are required to advertise the availability of free meals at their sites, but they may not have considered these announcements as efforts to increase participation.

a. Outreach Activities

Sponsors used many strategies to increase participation, ranging from flyers, posters, and signs targeted to parents and/or children (mentioned by 28 percent); to newspaper, radio, or television advertisements (mentioned by 24 percent); to improving the program to make it more attractive to their community's children (mentioned by 9 percent) (Table IV.10). More than 1 in 10 sponsors also mentioned collaborating with other organizations to increase participation, and more than 1 in 10 just generally "increased publicity." Five percent of sponsors attempted to recruit and open additional sites to increase the number of children served. As expected, sponsors with open sites reported more efforts to increase program coverage than did sponsors with enrolled sites.

Most former sponsors (81 percent) also attempted to increase participation at their sites during the last year they operated the program (Table IV.11). Half the former sponsors that did not attempt to bolster participation cited lack of need, and half cited a lack of resources or enrollment limits that limited their capacity to expand.

b. Partner Organizations

Many sponsors reported collaborating with other organizations to promote and support the SFSP (Table IV.12). About half of current sponsors and 62 percent of former sponsors indicated that they worked with other organizations.

About three-quarters of current sponsors and two-thirds of former sponsors that worked with partners worked with more than one organization. More than half of current sponsors collaborated with community-based organizations, and almost half reported working with schools; about 40 percent of former sponsors worked with each group. Other common types of partners were media groups (partners to 20 percent of current sponsors and 26 percent of former sponsors) and religious organizations (partners to 17 percent of current sponsors and 32 percent of former sponsors). A smaller share of sponsors also worked with business organizations, antihunger advocacy groups, local governments, parks and recreation departments, local health departments, and housing authorities or public housing complexes.

Sponsors reported that their partner organizations performed a range of functions. The most commonly reported functions were informing residents about specific SFSP sites (mentioned by 88 percent of sponsors and 77 percent of former sponsors), placing advertisements or making public service announcements (mentioned by 83 and 82 percent, respectively), and providing activities for children at the sites (51 and 55 percent, respectively). Partner organizations provided the following types of assistance to at least 20 percent of sponsors: providing flyers, posters, promotional materials, or gifts; helping to identify areas in need of sites; providing assistance with forms and application requirements; providing staff or volunteers to help at the sites; and arranging special media events, such as a kick-off event.

TABLE IV.11

FORMER SPONSORS' EFFORTS TO INCREASE PARTICIPATION

	Percentage of Former Sponsors	Standard Error
Attempted to Increase Participation at Their Site(s) in Their Last Year in Program	81	(4.1)
Sample Size	**130**	—
Reasons for No Attempt to Increase Participation		
No need	48	(12.2)
Lack of resources (including staff, space) or enrollment limits	49	(12.1)
Other[a]	3	(2.6)
Sample Size	**24**	—

SOURCE: SFSP Implementation Study, Former Sponsor Survey (2001).

NOTE: Tabulations are weighted to be representative of former sponsors nationally.

[a]Includes lack of interest by school, transportation limitations, and having joined program too late.

TABLE IV.12

SPONSORS' WORK WITH OTHER ORGANIZATIONS
TO PROMOTE AND SUPPORT THE SFSP

	Percentage of Current Sponsors	Standard Error	Percentage of Former Sponsors	Standard Error
All Current and Former Sponsors				
Percentage that Worked with Other Organizations	48	(6.0)	62	(5.1)
Sample Size	**126**	**—**	**131**	**—**
Current and Former Sponsors that Worked with Other Organizations				
Number of Other Organizations Worked with				
1	23	(5.6)	36	(6.8)
2	32	(6.7)	35	(6.2)
3 to 4	36	(7.3)	29	(7.1)
>5	10	(3.7)	1	(0.5)
Mean	2.5	(0.4)	2.0	(0.1)
Percentage that Worked with:				
Community-based organization	61	(6.7)	38	(6.4)
Schools or department of education	50	(7.3)	39	(6.6)
Media	20	(5.8)	26	(6.1)
Religious organization	17	(5.0)	32	(6.8)
Business organization	—	—	9	(5.9)
Nutrition or antihunger advocacy group	6	(2.9)	4	(2.9)
Other organizations[a]	44	(6.9)	29	(6.6)
Percentage Reporting that Partner Organizations:				
Informed residents about specific SFSP sites[b]	88	(5.1)	77	(6.9)
Placed advertisements or made public service announcements[c]	83	(5.3)	82	(5.2)
Provided activities for children at sites[c]	51	(7.5)	55	(7.1)
Provided flyers, posters, promotional materials, or gifts[c]	36	(6.7)	22	(5.7)
Helped to identify areas in need of sites[b]	35	(6.1)	31	(6.0)
Provided assistance with forms and application requirements[c]	25	(5.8)	17	(4.8)
Provided volunteer staff to help at the sites[c]	25	(6.0)	41	(6.8)
Provided special media events, such as a kick-off[c]	24	(5.9)	18	(5.1)
Provided additional funds[c]	14	(5.3)	13	(4.5)
Provided assistance in finding food service vendors[c]	7	(3.6)	10	(3.4)
Provided other support[c,d]	9	(4.1)	0	(0.0)
Sample Size	**71**	**—**	**79**	**—**

SOURCE: SFSP Implementation Study, Sponsor and Former Sponsor Surveys (2001).

TABLE IV.12 *(continued)*

NOTE: Tabulations are weighted to be representative of sponsors and former sponsors nationally.

[a]Includes other government or government agency, housing authority, public housing complex, recreation or parks department, job corps program, and national organizations (nonhunger).

[b]n = 69.

[c]n = 70.

[d]Includes food preparation, staffing, transportation, and providing the site or facilities.

3. Sites' Efforts to Increase Participation

Most site supervisors (85 percent) believed that publicity about their site was adequate (Table IV.13). Most often, sponsors are responsible for site publicity, although site staff also may be involved. Site supervisors reported that their sponsors had collaborated with schools (mentioned by 80 percent of supervisors); placed flyers, posters, and signs (mentioned by 75 percent); produced radio or television "spots" or newspaper advertisements (61 percent); and worked with other organizations (60 percent). Many supervisors at enrolled sites or camp sites also mentioned special events held to promote the program (mentioned by 36 percent of supervisors of enrolled sites, compared with 13 percent of supervisors of open sites).

C. NEW SPONSORS

When state agencies provided lists of sponsors for the Sponsor-Site Database, they indicated which sponsors were new in the sense that the sponsors had participated in the program in 2001 but not in 2000. Out of 4,372 sponsors on the combined lists, 440 were marked as new (10 percent). Examining the characteristics of new sponsors relative to continuing sponsors gives an indication of the types of sponsors that have recently been recruited through the types of outreach efforts described in the previous section. One caveat to keep in mind is that some of the sponsors counted as new in our definition may have been SFSP sponsors before 2000.

As with other sponsors, about half of all new sponsors were SFAs (Table IV.14). About one-third of new sponsors were nonprofit organizations, whereas just under one-sixth of continuing sponsors were nonprofits. By contrast, government and camp sponsors were less common among new sponsors than among continuing sponsors. These trends may indicate the effects of recent moves to reduce SFSP regulatory requirements for school and nonprofit sponsors discussed in Chapter I.

New sponsors were less likely than continuing sponsors to offer both breakfast and supper. This difference largely may reflect the smaller proportion of new sponsors that were camps. New sponsors also tended to be smaller than continuing sponsors. They operated an average of three sites, and 61 percent operated only one site. By contrast, continuing sponsors operated an average of nine sites, and 48 percent operated only one site. New sponsors also served fewer total meals; about 80 percent served 10,000 meals or fewer, compared with 57 percent of continuing sponsors. The average duration of new sponsors' programs was slightly shorter than that of continuing sponsors; in particular, new sponsors' programs were more likely to operate for fewer than 4 weeks (20 percent of new sponsors versus 13 percent of continuing sponsors).

New sponsors may run small programs because they are small organizations with limited capacity to administer many sites or because they want to acquire some experience with only modest financial risk by trying out the SFSP on a small scale initially. Given the data available, it is not possible to determine which explanation is the more likely; however, it seems plausible that both factors are at work. As discussed in Chapter III, state agencies recognized that new sponsors need special attention; most state agencies provided new sponsors with more-extensive training than that given to continuing sponsors, and they were aware that these sponsors had more difficulty with some issues. The next section discusses the states' effectiveness in retaining sponsors, and why some sponsors leave the SFSP.

TABLE IV.13

SITE SUPERVISORS' VIEWS ON PUBLICITY EFFORTS

	Percentage of Sites	Standard Error	Percentage of Open Sites	Standard Error	Percentage of Enrolled Sites	Standard Error
Site Supervisors Believed Publicity Was Adequate	85	(3.6)	87	(3.5)	74	(11.3)
Publicity Efforts Currently Used to Promote Site[a]						
Working with schools	80	(5.0)	82	(5.3)	73	(11.8)
Flyers, posters, signs	75	(4.3)	79	(4.9)	51	(11.4)
Radio or television "spots," newspaper advertisements	61	(5.3)	62	(5.9)	55	(11.9)
Working with other organizations	60	(4.6)	62	(4.7)	55	(10.5)
Special events[b]	17	(3.8)	13	(4.0)	36	(10.5)
Word-of-mouth[b]	9	(2.5)	8	(2.7)	11	(5.9)
Letters, telephone calls to parents and children[b]	3	(1.7)	2	(1.0)	12	(7.9)
Other[b,c]	4	(2.3)	4	(2.7)	1	(1.2)
Sample Size	**161**	**—**	**120**	**—**	**41**	**—**

SOURCE: SFSP Implementation Study, Site Supervisor Interview (2001).

NOTE: Tabulations are weighted to be representative of sites nationally. Enrolled sites include camp and National Youth Sports Program sites.

[a]Because of missing data, sample sizes for specific items range from 147 to 161. Multiple responses allowed; will not sum to 100 percent.

[b]Response was volunteered.

[c]Includes outreach via the Internet, bilingual publicity, offering more activities, incentives for children, and door-to-door canvassing.

TABLE IV.14

COMPARISON OF SELECTED CHARACTERISTICS
OF NEW AND CONTINUING SPONSORS

	Percentage of New Sponsors	Percentage of Continuing Sponsors
Type of Sponsor		
Government	8.6	14.8
School	47.7	48.5
Camp/Upward Bound	8.2	17.3
NYSP	2.5	3.6
Nonprofit organization	32.5	15.8
Missing	0.5	0.0
Meals Offered		
Breakfast	61.4	73.2
Lunch	96.8	98.4
Supper	11.6	21.6
Any snack	16.4	15.1
Number of Sites Sponsored		
1	60.5	48.4
2 to 5	29.8	26.8
6 to 10	4.3	9.6
11 to 50	5.2	12.3
51 to 100	0.2	1.6
>100	0.0	1.3
Median	1.0	2.0
Mean	2.9	8.7
Total Meals Served		
<1,000	12.7	4.8
1,000 to 10,000	67.1	52.1
10,001 to 20,000	11.6	18.0
20,001 to 100,000	7.1	19.7
≥100,001	0.9	4.9
Missing	0.7	0.6
Median	3,780	8,035
Mean	8,718	32,412

TABLE IV.14 *(continued)*

	Percentage of New Sponsors	Percentage of Continuing Sponsors
Program Duration (Calendar Weeks)		
<4	20.2	12.5
4 to <8	43.0	51.8
8 to <12	28.2	29.7
≥12	3.6	3.3
Missing	5.0	2.7
Median	6.7	6.9
Mean	7.1	7.6
Total	**440**	**3,932**

SOURCE: SFSP Implementation Study, Sponsor-Site Database (2001).

NYSP = National Youth Sports Program.

D. SPONSORS THAT LEAVE THE PROGRAM

Based on the sample frame compiled for the survey of former sponsors and the ineligibility rates found in the survey, an estimated 330 sponsors (about 8 percent of year 2000 sponsors) left the SFSP between 2000 and 2001. This section describes the actions state agencies take to retain sponsors, the differences between the characteristics of former sponsors and current sponsors, and the reasons why sponsors left the program.

1. State Agencies' Strategies to Promote Sponsor Retention

If the SFSP is to grow, it is important not just to recruit new sponsors but to keep existing sponsors in the program. To gain insight into how state agencies address this issue, state administrators were asked an open-ended question on what their agency was doing to retain sponsors. Although a few administrators noted they did not have the resources to focus on sponsor retention, the rest mentioned one or more strategies.

State administrators most frequently emphasized that their role as providers of technical assistance was key to retaining sponsors (Table IV.15). Nearly 40 percent emphasized the amount of assistance available, noting that they would provide one-on-one assistance to sponsors who needed it or were ready to provide assistance on a wide range of topics, and about 35 percent reported that their agency tried to provide high-quality customer service, with an emphasis on a warm, supportive relationship.[11]

About one-quarter of the state agencies recognized sponsors' efforts by giving out awards, hosting special dinners, hosting conferences, or using some combination of these approaches. FNS gives "Summer Sunshine" awards to outstanding sponsors, and some states have encouraged participation in this program or have their own system for providing recognition. The awards sometimes are given out at a conference or a dinner at which sponsors can share their experiences and ideas for improving the program. At these meetings, which generally are held at the end of the summer, some state agencies obtain feedback about sponsors' concerns or ways to improve their services. One state administrator mentioned that each sponsor was given an individualized report card recognizing its program's strengths and offering suggestions on how to improve.

About 10 to 20 percent of state administrators each reported that their agencies (1) provided ongoing encouragement and reminders about why the program is important, (2) attempted to reduce the paperwork burden, (3) strove to communicate effectively with sponsors, (4) conducted outreach, and (5) improved training and technical assistance in response to sponsors' feedback. Five state administrators also mentioned following up with sponsors that left the program to understand what had gone wrong.

[11]Many agencies emphasized both the quantity and quality of technical assistance available; 61 percent of agencies mentioned one or both of these responses.

TABLE IV.15

STATE AGENCIES' EFFORTS TO RETAIN SPONSORS

Strategies	Number of State Agencies	Percentage of State Agencies
Provide Technical Assistance, Including Individualized Help[a]	21	38.9
Provide Good Customer Service[a]	19	35.2
Motivate Sponsors with Conferences, Lunches, Awards Workshops	14	25.9
Attempt to Reduce/Simplify Paperwork, Including Application	9	16.7
Conduct Outreach (to the Community and Sponsors)	8	14.8
Provide Good Training/Improve Training	8	14.8
Encourage Sponsors/Remind Sponsors of Program's Good Points	7	13.0
Maintain Good Communication with Sponsors	7	13.0
Follow Up with Sponsors that Leave	5	9.3
Be Flexible About Application Deadlines	2	3.7
Have Sponsors Partner with Other Sponsor Organizations	2	3.7
Work with Special Sponsor Group and Related Professional Groups	2	3.7
Try to Make Monitoring Positive	1	1.9
Work Efficiently so Sponsors Are Reimbursed Quickly	1	1.9
Other	5	9.3
Nothing	2	3.7
Total	**54**	**—**

SOURCE: SFSP Implementation Study, State Administrator Census (2001).

NOTE: Responses to open-ended question. Multiple responses allowed.

[a]Sixty-one percent of state administrators had responses in one or both of these categories.

Some strategies mentioned by only one or two state administrators may be of interest. For example, two state agencies helped new sponsors learn by partnering them with more-experienced sponsors. One state administrator reported that the agency worked hard to make monitoring a positive experience for sponsors, with the emphasis on educating the sponsors about the program. Others mentioned flexibility with application deadlines as a useful strategy.

2. Characteristics of Former Sponsors and Current Sponsors

Despite the state agencies' efforts, some sponsors leave the SFSP each year. Understanding how former sponsors and current sponsors differ may help state and national officials to enrich retention strategies and provide more-targeted technical assistance. Sponsors that left the program between 2000 and 2001 were disproportionately nonprofit organizations (48 percent of former sponsors, but only 18 percent of current sponsors were nonprofit organizations), indicating that nonprofit organizations were more likely than schools, governments, or camps to leave (Table IV.16). However, one-third of former sponsors were schools; 13 percent were government sponsors; and 6 percent were camp, Upward Bound, or NYSP sponsors.

More than one-quarter (28 percent) of former sponsors left the program after operating for only 1 year. By comparison, new sponsors accounted for about 10 percent of the total sponsor population (see Section C), which suggests that new sponsors are at a relatively high risk of leaving the program. However, about one-third of former sponsors had been in the program for 6 years or longer.

Smaller sponsors were more likely than large sponsors to leave the program between 2000 and 2001. About half of both current and former sponsors operated a single site (59 percent of former sponsors and 50 percent of current sponsors), but relatively few former sponsors operated more than 10 sites (5 percent of former sponsors, compared with 14 percent of current sponsors). In addition, former sponsors had substantially lower average daily attendance relative to current sponsors (217 and 626 children, respectively); however, this difference was largely a function of the number of sites sponsored, as each group had a similar ratio of average daily attendance to average number of sites operated.

Former sponsors were more likely than current sponsors to have operated only open sites (74 percent versus 55 percent) or only enrolled sites (17 percent versus 11 percent). However, current sponsors were more likely to offer both open and enrolled sites (13 percent of current sponsors did so, versus 4 percent of former sponsors)—a reflection of their generally larger size.

Former sponsors were as likely as current sponsors to operate rural sites; sponsors with at least one rural site accounted for slightly more than half of both groups. In addition, similar proportions of both groups reported feeding migrant children. However, former sponsors disproportionately reported operating mobile sites (11 percent, compared with 3 percent of current sponsors). Operating mobile sites may pose unique challenges that increase the likelihood of a sponsor's leaving the program, but more information would be needed to confirm this explanation.

TABLE IV.16

COMPARISON OF SELECTED CHARACTERISTICS
OF FORMER SPONSORS AND CURRENT SPONSORS

	Percentage of Former Sponsors	Standard Error	Percentage of Current Sponsors	Standard Error
Type of Sponsor[a]				
Government	13	(4.1)	14	—
School	33	(4.8)	48	—
Camp/Upward Bound	5	(2.6)	16	—
NYSP	1	(0.7)	4	—
Nonprofit organization	48	(5.3)	18	—
Number of Years as Sponsor				
First year (new this year)	28	(5.1)	2[b]	(1.0)
2 to 5	38	(5.1)	41	(5.6)
≥6	34	(5.1)	57	(5.6)
Unknown (but >1)	0	—	0	(0.4)
Number of Sites Sponsored[a]				
1	59	(4.9)	50	—
2 to 5	30	(4.6)	27	—
6 to 10	6	(1.6)	9	—
11 to 50	5	(1.4)	12	—
51 to 100	0	(0.0)	2	—
101 to 200	>0	(0.3)	1	—
201 to 300	0	(0.0)	0	—
>300	0	(0.0)	0	—
Median	1.0	—[c]	2.0	—
Mean	3.5	(0.6)	8.1	—
Average Daily Attendance				
<100	60	(4.8)	32	(5.7)
100 to 500	33	(4.5)	53	(5.7)
501 to 1,000	3	(1.0)	7	(1.6)
1,001 to 5,000	3	(1.1)	7	(1.4)
>5,000	1	(0.4)	2	(0.5)
Median	72	(9)	145	(23)
Mean	217	(40)	626	(1,235)
Types of Sites				
All open	74	(4.5)	55	(5.2)
All enrolled	17	(3.9)	11	(3.9)
Combination of open and enrolled	3	(1.2)	13	(2.8)
Camp or Upward Bound sites	5	(2.6)	19	(5.0)
NYSP sites	1	(0.7)	2	(1.2)

TABLE IV.16 (*continued*)

	Percentage of Former Sponsors	Standard Error	Percentage of Current Sponsors	Standard Error
Location				
Any rural sites	57	(5.4)	56	(5.6)
Any migrant sites	7	(2.8)	9	(2.6)
Any mobile sites	11	(3.2)	3	(1.4)
Meals Offered[a]				
Breakfast	57	(5.0)	72	—
Lunch	95	(3.0)	98	—
Supper	18	(4.0)	21	—
Any snack	29	(4.8)	15	—
Type of Meal Preparation				
Self-preparation on site	46	(5.3)	63	(4.8)
Self-preparation at central kitchen	24	(4.0)	14	(3.1)
Self-preparation on site or at central kitchen	—	—	5	(1.7)
SFA as vendor	17	(4.0)	6	(1.9)
Private vendor	13	(3.5)	13	(3.8)
Sample Size—Surveys	**131**	**—**	**126**	**—**
Total—Sponsor-Site Database			**4,372**	

SOURCE: SFSP Implementation Study, Former Sponsor and Sponsor Surveys, and the Sponsor-Site Database (2001).

NOTE: Tabulations are weighted to be representative of former sponsors and sponsors nationally. Sponsor data are from the survey, except where noted.

[a]These sponsor data are from the Sponsor-Site Database, which is a census, so they have no standard errors.

[b]As discussed in Chapter II, the Sponsor-Site Database indicated that 10 percent of sponsors were new, but the survey found a smaller proportion.

[c]Standard error of median cannot be computed due to the skewness of the data.

NYSP = National Youth Sports Program; SFA = School Food Authority.

Former sponsors were less likely than current sponsors to serve breakfast but were more likely to serve snacks. These differences probably are related to the fact that former sponsors were less likely than current sponsors to be schools or camps and were more likely to be nonprofit organizations. Moreover, fewer former sponsors than current sponsors prepared meals themselves; they were more likely than current sponsors to employ SFAs to provide vended meals. Again, this difference probably reflects the relatively large proportion of former sponsors that were nonprofit organizations.

This study examined sponsors that left the SFSP in only one year, 2001. However, a previous study of sponsors that left in 1996 and 1997 also found that sponsors that left were more likely to be small sponsors and nonprofit organizations (U.S. General Accounting Office 1998).

3. Reasons Why Former Sponsors Left the Program

This section describes the perspectives of state administrators and of former sponsors on why sponsors leave the SFSP.

a. Perspectives of State Administrators

State administrators reported that, averaged across states, about 10 percent of sponsors left the SFSP between 2000 and 2001 (Table IV.17).[12] On average, seven sponsors per state did not return to the SFSP. Five state administrators indicated that no sponsors left during that period. Only three states lost more than 20 percent of their sponsors; these states were ones with relatively few sponsors, however, so a loss from the program of even one sponsor represented a large percentage of the state's sponsors.

According to the state administrators' reports, nearly all sponsors that left the program did so voluntarily and stopped participating completely. Although a few sponsors (fewer than 1 out of 10, on average) became sites themselves, thus operating for another sponsor, more than three-quarters of the state administrators did not report any sponsors making such a change.

Only a very small number of sponsors were asked by the state agency to leave. State administrators from only 11 states reported that any 2000 sponsors were asked not to reapply or were not approved for 2001; in general, there was only one "problem sponsor" per state. On average, fewer than one-half of 1 percent of a state's sponsors were dropped by the state (about 4 percent of sponsors that left). Five of the 11 state agencies that dropped at least 1 sponsor cited the result of administrative reviews of the sponsor, which found the sponsor to be seriously deficient. Other reasons cited by more than one state administrator included the failure of

[12]This average does not adjust for the different sizes of state programs. However, it is similar to the nationwide average of 8 percent (reported in the beginning of Section D).

TABLE IV.17

STATE ADMINISTRATORS' VIEWS ON WHY SPONSORS LEFT THE PROGRAM

	Number of State Agencies	Percentage of State Agencies
Number of Sponsors that Left Between 2000 and 2001		
0	5	9.3
1 to 2	10	18.5
3 to 5	10	18.5
6 to 10	17	31.5
11 to 20	11	20.4
≥21	1	20.4
Mean	7.3	1.8
Median	6.5	—
Range	0-31	—
Percentage of Sponsors that Left		
0	5	9.3
>0 to 5	8	14.8
>5 to 10	19	35.2
>10 to 15	14	25.9
>15 to 20	5	9.3
>20	3	5.6
Mean	9.7	—
Median	9.5	—
Range	0-22	—
Percentage of Sponsors in 2000 that Left by Choice[b]		
0	5	9.3
1 to 10	31	57.4
11 to 20	16	29.6
21 to 30	2	3.6
Mean	8.7	—
Median	9.0	—
Range	0-22	—

TABLE IV.17 (*continued*)

	Number of State Agencies	Percentage of State Agencies
Percentage of Sponsors in 2000 that Changed from Being a Sponsor to Being a Site[b]		
0	43	79.6
1 to 10	10	18.5
11 to 20	1	1.8
Mean	0.6	—
Median	0	—
Range	0-11	—
Percentage of Sponsors in 2000 that Were Not Approved or Were Asked Not to Reapply[b]		
0	43	79.6
1 to 5	10	18.5
6 to 10	1	1.8
Mean	0.35	—
Median	0.0	—
Range	0-6	—
Reasons Not Approved or Asked Not to Reapply (n = 11)[a]		
Seriously deficient in reviews in previous year	5	45.4
Did not meet eligibility requirements	3	27.3
Missed application deadline	2	18.2
Poor performance/management	2	18.2
Did not pass health inspection	1	9.1
Owed excess advance funds	1	9.1
Program experienced loss of its other funding for 2001	1	9.1
Total	**54**	**—**

SOURCE: SFSP Implementation Study, State Administrator Census (2001).

[a]Multiple answers allowed.

[b]The five states that did not lose any sponsors in 2001 are included in the 0-percent category for this question.

sponsors to meet eligibility requirements, missed application deadlines, and poor performance or management of the program.

b. Perspectives of Former Sponsors

About 13 percent of former sponsors indicated that they had been dropped by the state (4 percent) or were no longer eligible (9 percent) (Table IV.18). The percentage who mentioned being dropped by the state is consistent with state reports. Former sponsors cited the following reasons for their program being dropped by the state: failure to meet deadlines, problems with meal counts or claiming procedures, noncompliance with monitoring, and existence of competing sites. These explanations were similar to the ones provided by state administrators. Sponsors dropped between 2000 and 2001 were a diverse group, including schools, nonprofit organizations, and Upward Bound programs.

Reasons for Leaving the Program. Former sponsors' reasons for leaving the program varied extensively. Most sponsors provided multiple explanations for leaving; on average, about three reasons were provided.

Nearly half (47 percent) of all former sponsors mentioned funding issues—usually that reimbursement rates were too low to warrant continued participation, or that it was less expensive to operate a feeding program outside the SFSP. Others mentioned internal funding problems. More former sponsors (20 percent) cited the reimbursement rate structure as their main reason for leaving than any other reason.

About two-fifths (44 percent) of the former sponsors attributed their exit from SFSP partly to the paperwork involved. In particular, former sponsors reported that the required paperwork and daily accounting were too difficult or too time-consuming (40 percent), or that the application process was too difficult or too time-consuming (25 percent). Paperwork was the third most commonly cited main reason for leaving.

Participation issues were the third most commonly cited reason for leaving (and lack of participation was the second most common main reason); 40 percent of former sponsors cited participation issues. More than one-quarter indicated that their sites' participation levels were too low. One-fifth of former sponsors indicated that their target area had too few income-eligible children for the program to be worthwhile or cost-effective. A small number (5 percent) believed that other feeding programs in their area precluded their continued participation. Lack of participation may be an indicator of insufficient need for the program, or it may indicate that the former sponsor was not successful in conducting outreach or addressing other barriers that prevent interested families from participating.

Fourteen percent of former sponsors acknowledged difficulty with program regulations and policies. (This fraction does not include the 9 percent of sponsors that were no longer eligible, or the 4 percent dropped by the state.) About 9 percent indicated that they had problems with meal count procedures, or that too many of their meals had been disqualified. Some also mentioned difficulties in adequately separating the administration of various food programs or adhering to health care and sanitation regulations.

TABLE IV.18

REASONS FORMER SPONSORS CITED FOR LEAVING THE PROGRAM

Reason Cited	Percentage Citing Reason	Standard Error	Percentage Citing as Main Reason	Standard Error
Dropped by State[a]	4	(2.0)	2	(0.9)
No Longer Eligible (n = 130)	9	(2.6)	5	(7.0)
Funding Issues	47	(5.2)		
Inadequate reimbursement rates or cheaper to run program outside of SFSP	45	(5.2)	20	(4.3)
Not enough internal funding/financial problems	5	(1.9)	4	(1.7)
Paperwork	44	(5.3)		
Paperwork too difficult or too time-consuming	40	(5.2)	11	(3.0)
Application process too difficult or too time-consuming	25	(4.6)	1	(0.5)
Participation Issues	40	(5.1)		
Lack of participation	28	(5.1)	13	(4.6)
Not enough eligible children to be worthwhile	20	(4.1)	8	(3.1)
Competing programs, other local alternatives	5	(2.5)	5	(2.4)
Difficulty with Program Regulations or Policies	14	(3.2)		
Meals disqualified/problems with meal counts	9	(2.5)	4	(1.7)
Difficulty separating various food programs	5	(1.9)	—	—
Health and sanitation requirements	3	(1.6)	—	—
Other Administrative Issues	13	(3.1)		
Insufficient staff	13	(3.1)	4	(1.8)
Other administrative or operational issues[b]	9	(2.2)	5	(1.7)
State-Related Issues	13	(3.4)		
Inadequate technical assistance or training	11	(3.2)	2	(1.4)
Poor relationship with state office	6	(1.9)	3	(1.4)
Change in Sponsor or Site Designation	12	(3.5)		
Prefer to feed children through NSLP/other program	10	(2.7)	4	(1.8)
Sponsor became a site	8	(2.9)	1	(0.9)
Site, vendor, or school district became sponsor	4	(2.0)	4	(1.9)
Site Issues	9	(2.8)		
Construction or remodeling of site facility	6	(2.5)	6	(2.6)
Summer school or program calendar changes	4	(2.0)	2	(0.9)
Other[c]	3	(1.8)	—	—
Sample Size	**131**	**—**	**128**	**—**

SOURCE: SFSP Implementation Study, Former Sponsor Survey (2001).

TABLE IV.18 *(continued)*

NOTE: Tabulations are weighted to be representative of former sponsors nationally. Multiple responses allowed in column 1; will not sum to 100 percent.

[a]Reasons include failure to meet deadlines, problems with meal counts/claiming procedures, noncompliance with monitoring, and competing sites.

[b]Frequently mentioned responses include program manager having left, organization dissolved, problems with deadlines, vendors, poor relationships with other organizations, and internal or personal problems with organization or staff.

[c]Frequently mentioned responses include difficulty with security, children, and food quality or selection.

NSLP = National School Lunch Program.

Some former sponsors (13 percent) reported that they left for administrative reasons, most often because they had insufficient staff to operate the SFSP. Thirteen percent of former sponsors attributed their exit at least in part to issues with their state program administrators. Eleven percent stated that their training or technical assistance was insufficient, and 6 percent expressed dissatisfaction with their relationship with the state office.

Slightly more than 12 percent of former sponsors reported changes in status as the reason for leaving. One-tenth switched to feeding children through the NSLP or another non-SFSP feeding program. Eight percent became sites, preferring the daily feeding operations to the sponsor-level paperwork and program coordination. An additional 4 percent reported that a site or school district in their area had assumed sponsorship for the program.

Nine percent of sponsors dropped out of the program, perhaps temporarily, at least in part because of site or facility issues. For example, 6 percent of former sponsors reported that their departure was due to site construction or facility remodeling. Most of these sponsors indicated an intention to return to the program after construction was completed. Changes to the summer school or other program calendar adversely affected program viability for some sponsors (4 percent); cancellation of summer school or other activities may have forced them to close the feeding program.

Changes to Encourage Former Sponsors to Return to the Program. About 4 percent of former sponsors reported no desire whatsoever to serve as an SFSP sponsor in the future; 3 percent indicated they would definitely reapply regardless of changes made or not made to the program (Table IV.19). The remaining 92 percent would consider becoming a sponsor again if specific program changes were instituted. Almost one-third of this group believed that reimbursement rates should be raised to make the program more attractive. Nineteen percent reported that they would return if demand increased, and 26 percent indicated that operational changes or a reduction in the program's administrative burden would encourage them to return. For example, some former sponsors mentioned reduced paperwork, streamlined reporting, electronic filing of forms, or more realistic deadlines as administrative changes that could result in their return to the SFSP.

Some sponsors suggested changes to program regulations and policies that might facilitate their return. Sixteen percent suggested that meal service requirements be reduced. In particular, the sponsors were interested in more-flexible meal pattern requirements, reimbursements for meals that were prepared but not served, or permission for participants to take meals off site. A small fraction of sponsors mentioned the need for easing income restrictions on participants or creating a "severe needs" classification to increase the cost-effectiveness of the program.[13]

[13]Congress authorized higher federal payments for schools determined to be in "severe need" in order to encourage schools in especially needy areas to participate in the School Breakfast Program. Schools may qualify for higher severe need reimbursements if a specified percentage of their NSLP meals are served free or at a reduced price.

TABLE IV.19

CHANGES THAT COULD INDUCE FORMER SPONSORS TO RETURN TO THE PROGRAM

	Percentage of Former Sponsors	Standard Error
Interest in Returning to the Program		
No Interest or Wants to Be a Site Only	4	(1.7)
Interested or Plans to Reapply; No Program Changes Necessary	3	(1.6)
Would Consider Returning if One or More Changes Made	92	(2.3)
Sample Size	**118**	**—**
Changes that Could Induce Return[a,b]		
Higher Reimbursement Rates	32	(5.3)
Increased Participation/Need or Closing of an Alternative Program	19	(4.4)
Administrative or Operational Changes	26	(5.2)
Less paperwork, streamlined reporting, or easier deadlines	20	(4.9)
Additional staff	5	(2.3)
Other administrative or operational issues[c]	1	(0.8)
Changes to Program Regulations or Policies	20	(4.4)
Ease meal count restrictions, reimburse for food prepared but not served, allow meals off site, increase meal flexibility	16	(4.2)
Ease income restrictions or allow severe-needs classification	4	(1.7)
Improved Technical Assistance, Training, Responsiveness of State	9	(3.5)
Site or Facility Issues	24	(5.6)
Improved or additional transportation for children	9	(5.0)
Add or reschedule summer school or other activities	8	(2.5)
Completed construction or remodeling of site facility	5	(2.6)
Other site or facility issues[d]	5	(1.9)
Other (unspecified)	1	(0.5)
Sample Size	**106**	**—**

SOURCE: SFSP Implementation Study, Former Sponsor Survey (2001).

NOTE: Multiple responses allowed; will not sum to 100 percent. Tabulations are weighted to be representative of former sponsors nationally.

[a]Asked of former sponsors who reported they would consider returning to the program if one or more changes were made.

TABLE IV.19 *(continued)*

[b]Categories constructed in response to an open-ended question about what would have to happen or what would have to be changed for the organization to again become a sponsor.

[c]Includes attaining nonprofit organization status and making internal organizational improvements.

[d]Includes obtaining a central kitchen, obtaining refrigerated trucks, improving vended food, improving security, and being able to maintain longer operating hours.

Nine percent of former sponsors suggested changes in state-sponsor interactions. They reported that they would consider returning to the program if the state agency improved its technical assistance, enhanced training, or improved responsiveness.

About one-quarter (24 percent) of sponsors indicated that local changes to their facility or site would have to be made before they would consider serving as sponsors again. Concurrent with perceptions of state, sponsor, and site staff, availability of transportation was cited as critical to resumed sponsorship for 9 percent of former sponsors. Other site-related issues, such as reintroducing or rescheduling summer school (8 percent), completing construction or remodeling (5 percent), and acquiring a central kitchen (an example of "other site or facility issues" cited by 5 percent), are largely out of the hands of national and state program administrators. Annual attrition for these reasons is probably unavoidable.

Status of Sites Run by Former Sponsors. The majority of sites operated by former sponsors were not picked up by another sponsor in 2001 (Table IV.20). This finding illustrates the importance of sponsor retention. Overall, 70 percent of former sponsors reported that none of their sites had been assumed by another sponsor, and an additional 7 percent indicated that only some of their sites had been picked up. Single-site former sponsors and rural sponsors were particularly likely to report that no other sponsor picked up their sites. Sites operated by nonprofit organizations were most likely to have coverage within 1 year after their exit; fully 41 percent of these sponsors had some or all of their sites picked up.

TABLE IV.20

FORMER SPONSOR SITES PICKED UP BY ANOTHER SPONSOR

Share Picked Up	Percentage of All Former Sponsors	Standard Error	Percentage of Single-Site Former Sponsors	Standard Error	Percentage of Rural Former Sponsors	Standard Error	Percentage of Nonprofit Former Sponsors	Standard Error
All	22	(4.2)	14	(5.5)	15	(4.0)	34	(7.2)
Some	7	(2.1)	n.a.	—	10	(3.4)	7	(2.9)
None	70	(4.6)	86	(5.5)	76	(5.1)	59	(7.4)
Sample Size	**129**	**—**	**57**	**—**	**72**	**—**	**59**	**—**

SOURCE: SFSP Implementation Study, Former Sponsor Survey (2001).

NOTE: Tabulations are weighted to be representative of former sponsors nationally.

n.a. = not applicable.

V. MEAL SERVICE

Several factors affect how well the Summer Food Service Program (SFSP) meets its primary goal of providing nutritious meals to children in low-income areas during the summer. Among these factors are whether sponsors follow meal pattern requirements, the types of foods they serve to meet these requirements, the settings in which meals are served, whether children like or dislike the foods, and the amount of food wasted. The on-site observations of SFSP meal service were designed to examine two research issues: (1) the quality, safety, and food and nutrient content of SFSP meals; and (2) the extent of plate waste.

The meal service findings usually are presented for all sponsor types combined. However, selected meal service characteristics and the SFSP meals' food and nutrient content also are presented separately for school sponsors and for nonschool sponsors, as different menu planning regulations apply for school sponsors (sponsors that are school food authorities [SFAs]). School sponsors may use offer-versus-serve (OVS)—a system used in school meal programs that permits children to refuse some meal components—in the SFSP. They also may choose to use either the SFSP meal pattern or the menu planning system they use for the school meal programs. Other types of sponsors must use the SFSP meal pattern and may not use OVS.

The key findings are:

- ***Most sites served meals indoors and distributed from a serving or pick-up line.*** Three-fourths of the sites (76 percent) served meals indoors; the rest served meals at outdoor locations, such as parks and playgrounds. More than 80 percent of sites had access to refrigeration.

- ***A range of foods was observed across sites in SFSP meals, with more different menus observed at lunch than at breakfast.*** SFSP breakfasts typically consisted of milk, cereal, and 100-percent fruit juice; some breakfasts included a hot main entree, such as scrambled eggs or a breakfast sandwich. A typical SFSP lunch contained milk, a sandwich or mixed dish, and a fruit and/or a vegetable. Fifty-four percent of lunches provided a cold main entree, 43 percent provided a hot entree, and 3 percent offered both options.

- ***On average, SFSP meals provided at least one-quarter of the Recommended Dietary Allowances (RDAs) for most key nutrients at breakfast, and at least one-third of the RDAs for energy and key nutrients at lunch and supper.***[1,2] Breakfasts

[1]The school meal regulations are based on the 1989 RDAs and the 1990 Dietary Guidelines (7CFR 210.10 and 7CFR 220.8). This study used the updated Dietary Reference Intakes (DRIs) RDAs for iron and vitamins A and C and the DRI Adequate Intake (AI) for calcium (Institute of Medicine 1997, 2001, and 2000b).

[2]Energy refers to food energy, a macronutrient, which is measured in calories (abbreviated kcal, as the technical term is kilocalories).

fell slightly below the standard for energy, providing an average of 21 percent of the RDA. Suppers fell below the standard for calcium for the older age group, providing an average of 27 percent of the Adequate Intake (AI).

- ***On average, SFSP meals did not meet nutrition standards for the percentage of calories from total fat or from saturated fat, except for total fat at breakfast.*** Neither lunch nor supper met the standards for sodium or for the percentage of energy from carbohydrate. The fat and saturated fat contents of SFSP meals were similar to those reported for school breakfasts and school lunches in 1998-1999 in the second School Nutrition Dietary Assessment Study (SNDA-II) (Fox et al. 2001).

- ***About half (55 percent) of breakfasts served by nonschool sponsors met all the SFSP meal pattern requirements, and 71 percent of lunches served by nonschool sponsors met all the requirements. The most frequent cause of noncompliance was inadequate portion sizes.*** About 22 percent of breakfasts served by nonschool sponsors included a fruit or a vegetable, but not in the required serving size. Breakfasts sometimes did not contain all the components: 14 percent of breakfasts were missing a bread/bread alternate, 6 percent were missing milk, and 5 percent were missing the fruit/vegetable component. At lunch, meals that fell short typically served all the components but did not meet the minimum serving size for some of them. For example, the meat/meat alternate was nearly always served, but 20 percent of lunches did not serve it in the required serving size.

- ***A substantial majority of sites (80 percent) served more than 90 percent of their available meals.*** When sites had leftover meals, they discarded all meals at 29 percent of sites; stored all meals at 22 percent of sites; and discarded some and stored some at 35 percent of sites. About 22 percent of sites reported that they had run out of food or meals at some point during the summer.

- ***Children wasted an average of about one-third of the calories and nutrients they were served.*** However, this fraction varied across sites and by foods. About 11 percent of meals were eaten completely, with no plate waste. At more than two-thirds of the sites (68 percent), site staff reported that the children's dislike of the food was the most common reason for waste. About 44 percent of sites provided a "share box" to encourage children to share unwanted food and to reduce food waste.[3]

These key findings are discussed in greater detail in the rest of this chapter. Section A presents general characteristics of SFSP meal service. Section B examines the food and nutrient content of SFSP meals, including the food items and food groups most commonly served and site staffs' opinions about the least popular and most popular food items. Section C presents information on the extent of plate waste and nutrients wasted.

[3]Plate waste estimates do not include leftover full meals or food items left in the share box at the end of the meal service.

A. CHARACTERISTICS OF MEAL SERVICE

Sponsors are expected to provide nutritious meals that meet SFSP regulations while controlling costs and minimizing waste. At the same time, meals must be prepared and served in an environment that promotes safe food handling practices. The way that meals are prepared, transported, served, and stored are important characteristics affecting meal quality and safety.

The data presented in this section are based on site supervisors' reports and interviewers' observations of meal operations before, during, and after meals. Almost half the sites served breakfast, and nearly all of them served lunch; about 5 percent served supper.[4] The site data presented in this section have been weighted two ways. Data weighted with the "site weight" show the percentage of all SFSP sites with a particular characteristic (reported in the tables in the "Percentage of Sites" column); data weighted with the "site-meal weight" show the percentage of all SFSP meals served at sites with a particular characteristic (reported in the "Percentage of Meals Served" column).

1. Meal Service Characteristics

More than two-thirds of the sites (70 percent) distributed food for at least one of the observed meals from a serving line or a food pick-up line; one-third served food to seated children (Table V.1). These findings are similar to findings in the previous national study, which showed that about 80 percent of sites distributed meals to children in a serving line or food pick-up line (Ohls et al. 1988).

Eighty-five percent of sites run by school sponsors offered food in a serving line or food pick-up line; by contrast, sites run by nonschool sponsors were only slightly more likely to offer food in this way as opposed to serving meals to seated children (56 percent and 42 percent, respectively; Appendix F, Table F.1). Interviewers observed a very small percentage of sites (5 percent) in which site staff distributed meals to children dispersed throughout the site (for example, in individual classrooms, on different floors of a recreation building, or both indoors and outdoors). The majority of sites (76 percent) served their meals indoors. Most of the ones that fed children outdoors were located in playgrounds or parks.

Only 7 percent of the sites had participants assist with meal preparation or meal service. These sites generally were not school-sponsored sites (nonschool sites, 12 percent, compared with school sites, 3 percent; Table F.1).

The interviewers were not always able to observe the sites' drinking water facilities. When they could not do so, they asked site staff whether drinking water was available. Five percent of

[4]All sites in the sample served lunch, but data from the Sponsor-Site Database suggest that a few sites nationally did not serve this meal. Snacks were not observed for content, although approximately 19 percent of sites served snacks.

TABLE V.1

SELECTED MEAL CHARACTERISTICS

	Percentage of Sites	Standard Error	Percentage of Meals Served	Standard Error
Meal Service Arrangement[a] (n = 161)				
Meals Served in Serving Line/Food Pick-Up Line				
Variety of food	13	(3.3)	21	(5.8)
Unitized meal	57	(5.6)	50	(5.7)
Meals Served to Seated Children				
Variety of food	2	(1.1)	8	(4.0)
Unitized meal	31	(5.2)	31	(5.7)
Meals Served to Children as They Arrive	20	(4.9)	15	(4.4)
Meals Served to Children Dispersed Throughout the Site	5	(2.2)	6	(2.3)
Sites Serving Meals				
Indoors	76	(4.3)	83	(3.6)
Outdoors	22	(4.3)	14	(3.2)
Indoors and Outdoors	3	(1.5)	4	(1.9)
Sites Where Children Assist with Meal Preparation or Serving	7	(2.7)	6	(1.9)
Sites with On-Site Drinking Water Available	53	(6.8)	63	(6.3)
Sites Serving Water with Meals	5	(2.0)	6	(2.3)
Sites with a Share Box Present at Any Meal	44	(4.9)	38	(5.1)
Sites Where These Meals or Meal Components Are Carried Off Site (n = 157):				
None	87	(3.7)	91	(2.4)
Whole Meals	3	(1.8)	3	(1.8)
Fruits and/or Vegetables Only	6	(3.4)	2	(1.2)
Other Components	4	(2.1)	4	(1.8)
Sample Size	**162**	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of sites and meals served nationally.

[a]Multiple answers were possible, so total of percentages may exceed 100 percent.

the observed sites offered water to program participants as part of the meal. Only slightly more than half the sites had on-site drinking water.

To minimize waste and unusable leftovers, the SFSP encourages sites to designate "share tables" or "share boxes," where children may return whole items that they choose not to eat. Site staff made these items available to children who wanted additional helpings ("seconds"), stored them for future use, and/or discarded them. About 44 percent of sites provided share boxes during meals (Table V.1). Most of the foods placed in the share boxes during site visits were cold items, such as unopened cartons of milk, fruit juices, fruit, and packaged sandwiches. Some hot items, such as breakfast sandwiches, burritos, scrambled eggs, and chicken nuggets, also were placed in the share boxes.

Full meals or parts of meals generally may not be taken off site, but state agencies have the option of permitting sponsors to allow certain fruit and vegetable components to be taken off site. At the majority of sites (87 percent, serving 91 percent of all meals), no meals or meal components were observed to be carried off site.[5] At 14 percent of the sites (serving 9 percent of all meals), interviewers observed that complete meals, fruits and/or vegetables, or other meal components were carried off site (Table V.1). It was not possible to determine whether the state agencies had given permission for the fruits and vegetables to be taken. At about 3 percent of sites, entire meals were taken off site. However, one such site was located outdoors, and the temperature was over 100 degrees on the day of the site visit.

2. Disposition of Available Meals

Almost 80 percent of site supervisors reported that their sites always had sufficient meals available to serve all of the children who came to their site; however, 22 percent of the sites did run out of food or meals at some point (Table V.2). Because attendance at any given site often varied from day to day, sponsors could not always predict the number of meals they had to have available. To control costs, sponsors had to both have enough meals for the expected number of children and minimize the amount of leftovers and unusable food items. Eighty percent of sites served more than 90 percent of their available meals on a typical day, based on interviewer observations on the day of the site visit. Some site supervisors (at sites that did not serve all their meals or food) believed that hot weather explained their site's low attendance, and therefore, their leftovers.

According to site supervisors' reports, two-thirds of the sites served 100 percent of their available meals as firsts, or "initial" meals. Fewer than 40 percent served "seconds," which are leftover meals served to children as a second complete meal. About one-fifth of the sites that

[5]Interviewers were instructed to code instances in which even one child took food off site. At the same time, at large, busy sites, they may have missed isolated instances of small food items being put in pockets or backpacks. Entire meals being taken off site generally would be more difficult to miss.

TABLE V.2

DISPOSITION OF AVAILABLE MEALS

	Percentage of Sites	Standard Error
Sites that Had Ever Run Out of Food or Had Insufficient Meals for Everyone[a,b]	22	(4.7)
Percentage of Available Meals Served on a Typical Day[c]		
<70	7	(2.7)
70 to 79	4	(1.9)
80 to 89	9	(2.8)
90 to 99	37	(5.9)
All available meals served	44	(5.3)
Median	99.0	—
Sites Serving All Meals as Firsts[a,b]	64	(5.1)
At Sites Serving Seconds, Percentage of All Meals Served as Firsts[a,b] (n = 61)		
90 to 99	88	(3.4)
80 to 89	9	(3.0)
70 to 79	3	(1.9)
At Sites Serving Seconds, Percentage of All Meals Served as Seconds (n = 61)		
≤3	21	(5.5)
>3 to 6	18	(5.9)
>6 to 10	27	(6.6)
>10	35	(8.8)
At Sites with Leftover Meals, Excess Meals [a,b,d] (n = 155)		
Discarded	29	(5.1)
Stored	22	(5.1)
Some discarded, some stored	39	(5.8)
Returned to sponsor or central kitchen	15	(4.3)
Donated	4	(2.4)
Fruit given to children to take home	3	(1.7)
Sites Serving Meals Left Over from Previous Day[b] (n = 111)	75	(5.9)
Sample Size	**162**	**—**

TABLE V.2 *(continued)*

SOURCE: SFSP Implementation Study, Site Observations, and Site Supervisor Interviews (2001).

NOTE: Tabulations are weighted to be representative of sites and meals served nationally.

[a]Because site visits occurred throughout the summer, sites could be visited during the early, middle, or late part of their operations. Site supervisors' responses to this question reflected their experiences as of the date of the visit, not experiences over the full summer.

[b]As reported by the site supervisor.

[c]As observed by the interviewer on the day of the site visit.

[d]Multiple responses allowed.

served seconds served fewer than 3 percent of all available meals as seconds; more than one-third served more than 10 percent of all available meals as seconds.[6]

The interviewers asked the site supervisors what site staff did with leftover meals. About 29 percent of sites with leftover meals or meal components discarded all their leftovers, whereas slightly more than 20 percent saved all their leftovers.[7] Almost 40 percent discarded some of the meals or meal components while saving others. About 15 percent of the sites returned the leftovers to the sponsor or to a central kitchen. Only about 4 percent of the sites donated the food, and only 3 percent allowed program participants to take leftover fruit home. Three-fourths of the sites that stored meals served them the next day. Some site supervisors reported that they saved some whole items (for example, unopened juice containers from breakfast) and served them later in the day, as a snack.

3. Handling and Storage of Food

Approximately 79 percent of the sites had on-site facilities for hand washing, including such methods as a hand sanitizer or cleansing wipes (Table V.3). More indoor sites than outdoor sites had these facilities (83 percent versus 65 percent, respectively; Table F.2).

Roughly half the sites provided gloves for staff who handled food; however, gloves were worn by all of a site's food-handling staff at only 38 percent of sites. Indoor sites were more likely than outdoor sites both to provide gloves and to require all food handlers to wear gloves while preparing and serving food. However, many sites, particularly outdoor ones, served prepackaged, unitized meals, and glove-wearing is less important in these circumstances.

Most sites served food within 30 minutes after it was set out and ready to eat. Fewer than 4 percent of sites left meals sitting out for longer than 60 minutes.[8] At outdoor sites, almost 75 percent of the meals were served within 30 minutes of being set out.

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[6]SFSP regulations permit sponsors to claim a limited number of second meals served to children for reimbursement, specifically, as much as 2 percent of the number of first meals served at the sites during the claiming period. However, the study staff did not collect data on how many of the seconds that the sites served were claimed.

[7]The question on disposition of leftover meals permitted multiple responses, so that the percentages choosing the different options adds up to more than 100 percent. However, the first three options (discard all, save all, and discard some/save some) were mutually exclusive.

[8]According to SFSP regulations, meals that are prepared off site must be delivered within 1 hour of the beginning of the meal service (unless the site has adequate facilities for holding hot or cold meals within the temperature range required by state or local health regulations) and no later than the beginning of the meal service.

TABLE V.3

HANDLING AND STORAGE OF FOOD

	Percentage of Sites	Standard Error	Percentage of Meals Served	Standard Error
Food Safety and Handling				
Sites with On-Site Facilities for Hand-Washing (n = 155)	79	(4.5)	81	(3.5)
Sites Where Gloves Are Available for Staff Who Handle Food	47	(5.6)	67	(6.0)
Sites Where All Staff Who Handle and Serve Food Wear Gloves (n = 158)	38	(5.0)	48	(6.5)
Number of Minutes Food Sat Out Before It Was Served (n = 159)				
0	4	(1.9)	3	(1.6)
1 to 15	62	(5.7)	65	(6.3)
16 to 30	17	(4.0)	18	(5.1)
31 to 60	4	(2.3)	3	(1.8)
>60	4	(2.3)	1	(0.8)
Unable to observe[a]	9	(2.7)	10	(2.9)
Food Storage				
Sites with On-Site Refrigerator	80	(4.7)	88	(3.4)
Sites with On-Site Cooler	65	(5.9)	67	(4.4)
Sites with On-Site Freezer	64	(5.4)	80	(3.8)
Sample Size	**162**	—	—	—

SOURCE: SPSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of sites and meals served nationally.

[a]As described in Appendix A, interviewers were instructed to arrive at least 30 minutes before breakfast, and 1 hour to 1 hour 30 minutes before lunch. For 9 percent of the meal observations, however, interviewers arrived late because they had difficulty finding the SFSP meal location, or because the meal service had started earlier than scheduled.

Nearly 80 percent of the sites had access to refrigerators; somewhat smaller fractions had access to coolers or freezers. Not surprisingly, indoor sites were more likely than outdoor sites to have both on-site refrigerators and freezers. Approximately 69 percent of outdoor sites had access to coolers for temporary food storage, but fewer than one-third had access to refrigerators (32 percent) or to freezers (29 percent) (Table F.2). However, none of the site supervisors cited lack of food storage facilities as the main reason why food was wasted. About two-thirds (68 percent) reported that food was wasted mainly because the children did not like it. (This issue is discussed in more detail in Section C.3 of this chapter.)

4. Meal Order Adjustment and Transport of Food Prepared Off Site

Sponsors could either prepare their own meals or contract with a vendor—a local school food authority (SFA) or a private vendor. Approximately 82 percent of sponsors prepared their meals, and 18 percent used a vendor (see Chapter II). Some sponsors prepared meals at central kitchens and then delivered them to the sites.[9] This section examines site supervisors' experiences with order adjustment and delivery of meals at sites where meals were prepared off site.

Sponsors may have to adjust the number of meals prepared or ordered based on fluctuations in participation, with the objective of providing only one meal per child per meal service while allowing for a small percentage of seconds. Site supervisors at about 15 percent of sites that had meals delivered reported that they never adjusted their meal orders. Approximately 34 percent adjusted their meal orders daily, 21 percent did so a couple of times per week, and 31 percent did so a couple of times per month (Table V.4).

Because different arrangements could be used to transport cold food from day to day or for different meal components, site supervisors could report multiple methods for transporting to the site food items that had to be kept cold. For example, milk could arrive in a refrigerated vehicle, and cold sandwiches could arrive in coolers. Forty-eight percent of sites that had cold food delivered had at least some food delivered by a refrigerated vehicle, 50 percent had some food delivered in coolers transported in a nonrefrigerated vehicle, and about 5 percent had cold food transported in a nonrefrigerated vehicle without coolers. Another 5 percent used some other means, such as ice chests or insulated bags.

About 74 percent of the site supervisors reported that food arrived on time all the time. Most of the remaining site supervisors reported that it arrived on time most of the time.

[9]The level of on-site meal preparation varied from complete preparation of meals on site to warming of foods or assembling of meals that were delivered to the site. Because interviewers did not observe or record the level of food preparation that occurred at the sites, the information on meal preparation is based on interviews with sponsors and site supervisors (see Appendix A for further details).

TABLE V.4

MEAL ORDER ADJUSTMENT AND TRANSPORT OF FOOD PREPARED OFF SITE

	Percentage of Sites	Standard Error	Percentage of Meals Served	Standard Error
Meal Order Adjustment Frequency (n = 71)				
Daily	34	(6.5)	36	(6.5)
A Couple of Times per Week	21	(5.7)	29	(7.6)
A Couple of Times per Month	31	(5.6)	23	(5.3)
Never	15	(5.2)	12	(4.9)
Food Transport				
Mode of Transport of Cold Food[a] (n = 70)				
Refrigerated vehicle	48	(9.5)	48	(9.4)
Cooler transported in a nonrefrigerated vehicle	50	(9.7)	47	(9.6)
Nonrefrigerated vehicle	5	(2.2)	6	(3.2)
Other	5	(3.2)	5	(2.9)
Timely Arrival of Food[b]				
All the time	74	(6.6)	75	(8.0)
Most of the time	25	(6.4)	20	(6.2)
Some of the time	1	(1.3)	5	(4.4)
Sample Size	**72**	—	—	—

SOURCE: SPSP Implementation Study, Site Supervisor Survey (2001).

NOTE: Tabulations are weighted to be representative of sites and meals served nationally. The sample is restricted to sites with off-site preparation of meals.

[a]Multiple responses allowed.

[b]Because site visits occurred throughout the summer, sites could be visited during the early, middle, or late part of their operations. Site supervisors' responses to these questions reflected their experiences as of the date of the visit, not over the full summer.

B. CONTENT OF MEALS SERVED

Many factors contribute to providing nutritious meals to SFSP participants. Sponsors must ensure that meals follow menu planning guidelines, as specified by the U.S. Department of Agriculture (USDA). To contribute to healthy growth, meals should meet dietary guidelines for moderation in fat, sodium, and cholesterol while providing adequate calories, vitamins, minerals, and fiber. Ideally, in addition to being nutritious, the food would be liked by its recipients—the children—and waste would be minimized. At the same time, the goal of serving foods that the children will eat rather than waste may conflict with the goal of providing healthy, nutritious meals. Planning and serving meals that balance all these goals within available budgets can be challenging to sponsors.

To assess how well SFSP sponsors and sites met these goals, detailed information on SFSP meals was collected for a random sample of meals served and plate wastes at selected breakfasts, lunches, and suppers (see Appendix A). Nutritionists then used a dietary software program to enter and code information from the meal observation and plate waste forms.[10] The meal analyses are based on a single day's observation at each site: 556 breakfast meals (or plates) at 85 sites, 989 lunch meals at 161 sites, and 75 suppers meals at 12 sites. Plate waste analyses are discussed in Section C of this chapter.

1. Most Frequently Served Foods

Analysis of what foods the SFSP serves frequently provides insight into SFSP meal planning practices and background for interpreting the nutrient data discussed in Section B.4 of this chapter. Tables V.5 and V.6 list the foods that were observed on at least 5 percent of plates at breakfast and lunch, respectively. After the observed foods were coded, the codes were grouped into one of the following food categories: milk, dairy (other than milk), fruit, vegetable, bread/bread alternate, meat/meat alternate (other than dairy), mixed dish, and other beverage.[11] (Appendix E provides additional details about how foods were categorized and analyzed for the food group analysis.) Because many of the foods at supper were observed at only one site, and only a small number of supper plates were observed, it is not possible to draw reliable conclusions about what foods were served most frequently at SFSP suppers. Therefore, foods served at supper are discussed only in general terms.

[10]The nutritionists used the Food Intake Analysis System© 3.99 (FIAS). The FIAS database includes the Survey Nutrient Data Base, developed by the USDA's Agricultural Research Service and used in the 1998 Continuing Survey of Food Intakes by Individuals. Appendix E provides additional details on nutrient coding.

[11]Mixed dishes are dishes containing a meat/meat alternate, a bread/bread alternate, and/or a vegetable.

TABLE V.5

FOODS MOST COMMONLY SERVED AT BREAKFAST,
BY FOOD CATEGORY

Food Category	Number of Times Item Observed (Unweighted)[a]	Mean Serving Size (Grams)	Standard Error	Percentage of All Plates Containing Food Item	Standard Error	Percentage of All Plates Containing Food Category	Standard Error
Milk	536					96.6	(1.25)
2-percent white milk	170	246	(1.4)	31.8	(10.93)		
Whole white milk	155	250	(3.6)	28.8	(7.98)		
1-percent white milk	114	245	(1.3)	16.8	(4.48)		
1-percent chocolate milk	54	250	(0.0)	14.2	(6.21)		
Dairy[b]	69					17.5	(6.92)
Yogurt	23	119	(6.1)	7.4	(5.61)		
Processed cheese	21	26	(1.4)	6.9	(4.30)		
Fruit	516					86.7	(5.68)
Orange juice	191	134	(4.3)	39.8	(9.28)		
Apple juice	87	148	(15.8)	20.4	(7.16)		
100-percent fruit juice blend	40	128	(3.8)	8.1	(3.74)		
Nectarine	5	136	(0.0)	5.6[c]	(5.40)[c]		
Applesauce, apples (cooked or canned)	46	109	(11.5)	5.3	(2.56)		
Vegetable	56					6.1	(3.24)
Bread/Bread Alternate	728					93.8	(5.39)
Cereal	294	27	(1.8)	54.8	(9.18)		
White bread	71	29	(1.2)	11.7	(5.38)		
Dark bread (whole wheat, rye, bran)	40	44	(7.9)	9.1	(7.58)		
Sweet roll, breakfast tart, coffee cake, funnel cake, churro	26	59	(13.0)	8.0	(5.87)		

TABLE V.5 (*continued*)

Food Category	Number of Times Item Observed (Unweighted)[a]	Mean Serving Size (Grams)	Standard Error	Percentage of All Plates Containing Food Item	Standard Error	Percentage of All Plates Containing Food Category	Standard Error
Doughnut	29	64	(4.7)	5.7	(3.21)		
Crackers (animal, graham)	18	18	(3.3)	5.1	(3.40)		
Meat/Meat Alternate[d]	169					14.0	(4.45)
Eggs	58	91	(15.4)	7.7	(3.26)		
Mixed Dish[e]	8					0.3	(0.24)
Other Beverage[f]	23					1.9	(1.32)
Sample Size[g]	**556**	—	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of all breakfasts served nationally. Only those items served on 5 percent of plates or more are listed. Numbers may not agree with figures in Tables V.5 and V.6, on meal compliance, because items in the "Mixed Dish" category may contain food items from other food categories.

[a]If the same food item appeared on a plate more than once, it was counted only once (for example, if a plate had two containers of 1-percent chocolate milk). If two different food items from the same food category were observed on a plate, they were counted separately (for example, if a plate had one container of 1-percent chocolate milk and one container of 2-percent white milk). Thus, the number of items in a category may exceed the number of plates.

[b]Excludes milk. Dairy foods are considered meat alternates.

[c]Estimates may be unreliable due to the small sample size.

[d]Meat/meat alternate is not a requirement for breakfast.

[e]May include combinations of meat, dairy, bread, and vegetable items. Items counted as part of mixed dishes are not counted in these separate categories.

[f]Other beverages include soft drinks, iced tea, and fruit-juice drinks, which contain less than 100-percent fruit juice.

[g]Represents the total number of plates observed at breakfast at 85 sites.

TABLE V.6

FOODS MOST COMMONLY SERVED AT LUNCH,
BY FOOD CATEGORY

Food Category	Number of Times Item Observed (Unweighted)[a]	Mean Serving Size (Grams)	Standard Error	Percentage of All Plates Containing Food Item	Standard Error	Percentage of All Plates Containing Food Category	Standard Error
Milk	910					95.0	(1.49)
1-percent chocolate milk	322	252	(1.9)	37.2	(5.88)		
2-percent white milk	156	244	(0.8)	14.5	(4.36)		
Whole white milk	124	244	(0.0)	14.2	(2.87)		
2-percent chocolate milk	128	251	(1.1)	12.8	(5.25)		
1-percent white milk	95	244	(0.0)	9.3	(2.49)		
Skim chocolate milk	62	250	(0.0)	5.9	(3.49)		
Dairy[b]	344					28.3	(4.86)
Processed cheese	224	26	(1.9)	18.7	(4.21)		
Natural cheese	71	19	(3.5)	8.0	(3.08)		
Fruit	1,050					91.8	(2.07)
Peaches (cooked or canned)	110	101	(8.7)	13.4	(4.20)		
Apple juice	75	124	(0.0)	10.2	(3.39)		
Cantaloupe, honeydew, watermelon	83	177	(19.5)	10.0	(4.51)		
Orange (raw)	66	114	(9.2)	9.7	(4.02)		
Applesauce, apples (cooked or canned)	77	117	(6.1)	8.5	(2.45)		
Apple (raw)	108	132	(3.0)	8.2	(3.59)		
Banana (raw)	65	109	(4.1)	7.8	(3.37)		
100-percent fruit juice blend	47	128	(5.1)	7.7	(3.10)		
Pineapples (canned)	53	109	(8.6)	7.0	(2.66)		
Fruit cocktail	75	95	(9.9)	6.9	(2.81)		
Grape juice	49	164	(27.8)	5.9	(2.39)		
Pears (cooked or canned)	66	109	(8.0)	5.7	(2.09)		
Vegetable	949					60.9	(4.83)
French fries	148	56	(4.5)	10.3	(4.24)		
Carrots (raw)	76	48	(5.2)	9.6	(3.25)		
Corn	91	77	(6.0)	9.5	(3.30)		

TABLE V.6 (*continued*)

Food Category	Number of Times Item Observed (Unweighted)[a]	Mean Serving Size (Grams)	Standard Error	Percentage of All Plates Containing Food Item	Standard Error	Percentage of All Plates Containing Food Category	Standard Error
Lettuce (raw)	119	11	(2.3)	8.1	(2.46)		
Tomatoes (raw)	94	30	(6.0)	7.4	(2.35)		
Salad with assorted vegetables	65	34	(3.5)	5.7	(3.18)		
Pickles	53	46	(13.0)	5.7	(2.11)		
Bread/Bread Alternate	995					76.1	(5.88)
Rolls (white, egg, hoagie)	324	49	(2.8)	28.6	(4.57)		
White bread	155	44	(4.9)	20.7	(5.93)		
Dark bread (whole wheat, rye, bran)	97	47	(9.3)	11.8	(3.56)		
Crackers (animal, graham)	45	26	(3.0)	11.3	(3.95)		
Cookies	107	36	(5.5)	9.8	(2.65)		
Salty snacks	87	24	(2.5)	6.2	(2.94)		
Meat/Meat Alternate	705					61.1	(6.03)
Luncheon meat	170	45	(4.3)	18.6	(4.01)		
Bologna	75	35	(4.2)	8.6	(2.86)		
Peanut butter	44	75	(19.8)	6.3	(1.93)		
Ground beef	62	54	(7.2)	5.5	(2.22)		
Mixed Dish[c]	345					37.6	(6.15)
Pizza	110	95	(13.0)	15.7	(4.49)		
Other Beverage[d]	90					4.3	(1.83)
Sample Size[e]	**989**	—	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of all lunches served nationally. Only those items served on 5 percent of plates or more are listed. Numbers may not agree with figures in Tables V.5 and V.6, on meal compliance, because items in the "Mixed Dish" category may contain food items from other food categories.

[a]If the same food item appeared on a plate more than once, it was counted only once (for example, if a plate had two containers of 1-percent chocolate milk). If two different food items from the same food category were observed on a plate, they were counted separately (for example, if a plate had one container of 1-percent chocolate milk and one container of 2-percent white milk). Thus, the number of items in a category may exceed the number of plates.

TABLE V.6 (*continued*)

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[b]Excludes milk. Dairy foods are considered meat alternates.

[c]May include combinations of meat, dairy, bread, and vegetable items. Items counted as part of mixed dishes are not counted in these separate categories.

[d]Other beverages include soft drinks, iced tea, and fruit-juice drinks, which contain less than 100-percent fruit juice.

[e]Represents the total number of plates observed at lunch at 161 sites.

a. Breakfast

A "typical" SFSP breakfast consisted of a ready-to-eat cereal, milk, and 100-percent fruit juice. Most breakfast sites provided a cold main item, such as cereal, rather than a hot entree (60 and 27 percent, respectively; not shown in Table V.5). At 13 percent of sites, however, children were given a choice between a hot or cold main entree. A small proportion of meals (18 percent) contained a dairy item other than milk, such as yogurt or processed cheese, which counts as a meat alternate; even smaller proportions contained a meat or nondairy meat alternate (14 percent) or a vegetable (6 percent). This observation is not surprising, as SFSP breakfasts are not required to provide a meat/meat alternate. Breakfasts fulfilled the fruit/vegetable requirement most often by serving 100-percent fruit juice.

Milk is reported in Tables V.5 and V.6 separately from other dairy products, which are served as meat alternates. Almost 97 percent of breakfast meals contained some type of milk. Slightly more than three-fourths of all breakfasts (77 percent) contained white milk. About 29 percent included whole milk, 32 percent included 2-percent or reduced fat milk, and 31 percent included 1-percent or low-fat milk. After milk, the most frequently served dairy items were yogurt and processed cheese. Cheese usually was served as part of a breakfast sandwich or breakfast burrito.

Almost 87 percent of breakfasts included a fruit or fruit juice, most often 100-percent fruit juice. Orange juice was the most commonly served juice, followed by apple juice and 100-percent fruit juice blends. Only about 6 percent of breakfasts included a vegetable. Vegetables served in breakfasts included red peppers, green peppers, and onions (not shown in Table V.5).

Cereal was the most common bread/bread alternate, followed first by white bread and then by dark bread (whole wheat, rye, or bran). About 8 percent of plates contained a breakfast-type pastry (sweet roll, tart, coffee cake, churro, or funnel cake), and 6 percent contained a doughnut.

Scrambled eggs were the most common item served in breakfast meals that included the optional meat or meat alternate at breakfast (14 percent of all breakfast plates). Fewer than 5 percent of breakfast meals contained such foods as sausage, bacon, beef steak, or pork patties.

Approximately 2 percent of breakfast meals contained beverages other than milk or fruit juice. These beverages usually were fruit-flavored drinks, such as fruit punch with less than 100-percent juice, which do not satisfy the fruit/vegetable requirement.

b. Lunch

Although more difficult to define than a typical breakfast, a "typical" lunch would contain milk, a sandwich or "mixed dish," and a fruit and/or a vegetable (Table V.6). More lunch sites included cold main entrees than hot ones (54 and 43 percent, respectively); 3 percent included both hot and cold entrees. Hot entrees usually were mixed dishes, such as pizza, whereas cold entrees usually were sandwiches.

Ninety-five percent of lunches contained milk. Chocolate milk was served 56 percent of the time at lunch. Unlike at breakfast, 1-percent chocolate milk was the most common milk served; it was served 37 percent of the time, whereas 2-percent white milk and whole white milk each were served 14 percent of the time. Other milks served included 2-percent chocolate milk (13 percent of lunches), 1-percent white milk (9 percent of lunches), and skim chocolate milk (6 percent of lunches). Fewer than one-third of all lunches included a non-milk dairy item. Natural or processed cheese was the most commonly served dairy item other than milk.

More than 90 percent of the lunches included fruit. The most commonly served fruit was cooked or canned peaches (on 13 percent of plates). However, many other types of fruit were served almost as frequently as peaches. The interviewers observed each of the following fruits on about 8 to 10 percent of lunch plates: apple juice, melons, oranges, applesauce, apples, bananas, and fruit juice blend.

Vegetables may be represented in both the vegetable category and the mixed dish category. Table V.6 shows that 61 percent of lunches contained vegetables served as a single dish or item (that is, in the vegetable category, rather than in the mixed dish category). French fries, carrots, and corn were the most commonly served vegetables (each observed on about 10 percent of lunch meals).

A bread/bread alternate was observed in slightly more than three-quarters of all lunches. (Mixed dishes also could include bread/bread alternate items.) More than 60 percent of all lunches contained a roll or bread—the most commonly served foods in the bread/bread alternate category. Rolls and bread reflected the high percentage of sites that served sandwiches. White bread was more commonly served than was dark bread.

Meats or meat alternates (other than those included in mixed dishes) were served on 61 percent of plates. The most common ones—luncheon meat, bologna, and peanut butter—reflect the popularity of sandwiches. Ground beef was served on 6 percent of plates on its own (that is, not counting when it was served as part of a mixed dish).

Pizza, the most commonly served mixed dish, was observed in approximately 16 percent of lunches.[12] Other mixed dishes included corn dogs, hamburgers, cheeseburgers, beef barbecue sandwiches, soup, and nachos and cheese; however, each of these was observed on fewer than 5 percent of the lunch plates.

[12]Mixed dishes may contain one or more food components. The analysis in this section is based largely on categorization of foods as they are commonly eaten in SFSP meals, rather than by their components. For example, pizza is listed under the mixed dish category, rather than under one or more of the other food components (cheese pizza would contribute to the dairy, vegetable, and bread components; pepperoni pizza would also contribute to the meat component.) However, some mixed dishes were categorized into and coded as their components, so the data on mixed dishes underestimate the total mixed dishes. (See Appendix E for details.)

Some lunches contained fruit-flavored drinks and soft drinks, but neither of these "other" beverages count toward achieving the meal pattern. Fewer than 5 percent of lunches contained one of these beverages.

c. Supper

Because only 12 sites in the sample served supper, foods served at supper are described for qualitative purposes but are not shown in a data table (due to small sample sizes). Suppers provided a variety of foods, so no supper meal can be considered "typical." All the main supper entrees the interviewers observed were hot items; very few main entrees were sandwiches. Nearly three-fourths (71 percent) of suppers contained a nondairy meat/meat alternate, usually a food other than luncheon meat. About one-fourth (24 percent) of suppers contained a mixed dish, such as chili con carne, spaghetti with sauce, chicken parmigiana, soup, or a calzone.[13]

Approximately two-thirds (67 percent) of all suppers contained milk. About 10 percent of the sites visited at supper were kosher sites, which may partly explain this low percentage. About one-fifth (21 percent) of suppers contained another dairy item, usually cheese. As at breakfast and lunch, the majority of suppers included a fruit and a bread/bread alternate (95 percent and 99 percent, respectively), and two-thirds (67 percent) included a vegetable, such as french fries or string beans.

2. Food Preferences of Participants

To help assess what can be done to make SFSP meals appealing to children, the interviewers asked site supervisors to indicate, on the basis of their perceptions, program participants' most liked food and least liked food in each of five categories: (1) meat/meat alternate, (2) vegetable, (3) fruit, (4) bread/bread alternate, and (5) milk. The supervisors were instructed to report only one item in each category. When multiple responses were given, the first response was used in the analyses.

Supervisors at 18 percent of the sites reported that pizza was the children's most liked meat/meat alternate (Table V.7). Pizza was also the mixed dish most frequently served at lunch. Ham was nearly as well liked as was pizza; almost 17 percent of site supervisors reported that ham was the children's favorite meat/meat alternate. Other popular meat/meat alternates were chicken nuggets or chicken strips, hamburgers or cheeseburgers, and bologna. Bologna also was the meat/meat alternate most commonly reported to be the children's least favorite, reported by 18 percent of site supervisors. However, bologna was the second most commonly served meat/meat alternate, appearing on almost 9 percent of plates. Children at some sites disliked tacos or other Mexican-type dishes, roast beef, fish (baked, fried), and tuna sandwiches or tuna casserole.

[13]The data in this paragraph should be interpreted with caution, as many of these foods were observed on only a few plates.

TABLE V.7

FOOD PREFERENCES OF PARTICIPANTS, REPORTED BY SITE SUPERVISORS

Food Liked Most	Percentage of Sites	Standard Error	Food Liked Least	Percentage of Sites	Standard Error
Meat/Meat Alternate			**Meat/Meat Alternate**		
Pizza	18	(3.7)	Bologna	18	(5.3)
Ham	17	(4.6)	Tacos, enchiladas, quesadillas, fajitas, nachos, burritos	12	(3.8)
Chicken nuggets, chicken strips	12	(3.1)	Roast beef	10	(4.4)
Hamburgers, cheeseburgers	9	(2.5)	Fish (baked, fried)	9	(3.2)
Bologna	7	(2.7)	Tuna sandwich or casserole	8	(2.8)
Vegetable			**Vegetable**		
Carrots	30	(7.0)	Peas	19	(5.3)
Corn	28	(5.3)	Carrots	15	(5.0)
Potatoes (French fries, potato puffs)	12	(3.0)	Celery	13	(4.3)
Salad (tossed, chef)	9	(3.7)	Green beans or string beans	11	(3.4)
Green beans, string beans	4	(2.0)	Broccoli	11	(3.6)
Fruit			**Fruit**		
Oranges	17	(4.6)	Apples or apple sauce	25	(5.3)
Peaches	17	(3.4)	Oranges	14	(4.4)
Apples or apple sauce	16	(4.2)	Pears	12	(3.3)
Mixed fruit cup	9	(2.7)	Bananas	10	(3.1)
Bananas	8	(3.0)	Mixed fruit cup	10	(3.2)
Bread/Bread Alternate			**Bread/Bread Alternate**		
White bread	54	(4.8)	Dark bread (rye, whole wheat)	37	(6.2)
Buns (hotdog, hamburger, hoagie)	13	(3.3)	White bread	22	(5.0)
Rolls (all types)	12	(2.7)	Rolls (all types)	18	(5.7)
Breadsticks	4	(1.5)	Buns (hotdog, hamburger, hoagie)	9	(3.0)
Dark bread (rye, whole wheat)	3	(2.3)	Corn bread	5	(1.9)

TABLE V.7 (*continued*)

Food Liked Most	Percentage of Sites	Standard Error	Food Liked Least	Percentage of Sites	Standard Error
Milk[a]			**Milk[a]**		
Chocolate	93	(3.0)	White	96	(1.9)
White	7	(3.0)	Chocolate	4	(1.9)
Sample Size	**161**	—		—	—

SOURCE: SFSP Implementation Study, Site Supervisor Interviews (2001).

NOTE: Tabulations are weighted to be representative of sites nationally. Except for milk, the five most frequently mentioned foods in each category are listed.

[a]Because many site supervisors did not specify the fat content of the milk (whole, 2 percent, 1 percent, or skim), data are reported only by flavor.

The most liked and least liked foods in each of the three other categories (vegetables, fruits, and bread/bread alternates) overlapped substantially. Possible explanations for this finding include different tastes and preferences of program participants in different areas of the country and lack of food variety within sites. Nearly equal percentages of site supervisors reported that corn and carrots were the most liked vegetable. Although corn does not appear on the "liked the least" list, carrots ranked as the second most disliked vegetable. Similarly, supervisors most frequently listed oranges, apples, fruit cup, and bananas as fruits that children "liked the most," and as fruits they "liked the least," albeit in a different rank order.

As in the national study by Ohls et al. (1988), children preferred various forms of white bread, including standard loaf white bread or hotdog, hamburger, or hoagie buns, to other breads/bread alternates. They liked dark bread (rye, whole wheat, or bran) the least. Likewise, the children's preference for chocolate milk over white milk has withstood the test of time.

The data presented in Table V.7 are based on site supervisors' reports of specific food likes and food dislikes. In some cases, however, the supervisors also gave such responses as "no other [food item] is served," "no [food item] is served at all," "the children haven't had any other," and "the children like none." Site supervisors at 16 percent of the sites gave one of those responses, rather than reporting a least-liked vegetable. The comments represent 13 percent of responses about least-liked fruits and 8 percent of responses about least-liked bread/bread alternates. These relatively high percentages suggest that some sites offered only a limited variety of fruits, vegetables, and bread/bread alternates.

3. Nonschool Sponsors' Compliance with SFSP Meal Pattern

All SFSP sponsors must meet USDA menu planning requirements. The menu planning requirements for the SFSP program are designed to provide nutritious, well-balanced meals to each child. Sponsors other than SFAs must serve meals that follow the SFSP meal pattern. Each meal has specific requirements for both the types of food served and serving sizes. Under the SFSP meal pattern, breakfasts must include three components: (1) milk, (2) bread or a bread alternate, and (3) fruit and/or a vegetable. Meat or a meat alternate is optional. The SFSP lunch/supper meal pattern requires four components: (1) milk, (2) bread or a bread alternate, (3) two fruits and/or vegetables, and (4) meat or a meat alternate. USDA also has regulations for the minimum serving sizes of each food component. Sponsors are encouraged by USDA to serve larger portions to children age 12 or older, as these children have greater food needs than do younger ones. In addition, sponsors may receive permission from their state agency to serve smaller portions to preschool children, using the Child and Adult Care Food Program (CACFP) meal pattern. (See Table E.2 for details on the SFSP meal pattern requirements.)

School sponsors may use either the SFSP meal pattern or the same menu planning approach they use for the school meal programs (7CFR 225.16, 7CFR 220.8, and 7CFR 210.10). There are two main approaches used in the school meal programs, and each has two variants:

1. ***Food-Based Menu Planning.*** Under the traditional food-based meal pattern, school sponsors must offer specific food components and food quantities based on age and grade groups. The enhanced approach uses the same meal pattern and age groups as does the traditional approach, but it has an additional optional age/grade group for grades 7 through 12.

2. ***Nutrient Standard Menu Planning.*** Nutrient standard menu planning is designed to meet the goal of providing one-fourth of the RDAs for key nutrients (energy, protein, vitamins A and C, calcium, and iron) at breakfast, and one-third of the RDAs for these key nutrients at lunch. Menus are planned using approved computer software so that these RDA standards are met, on average, over the course of a week. SFAs may do the menu planning themselves (NuMenus), or they may have it done by a third party (Assisted NuMenus).

SFAs also may use OVS in the SFSP, a system which is used in most schools for the school meal programs. Nonschool sponsors may not use OVS. Under OVS, a child may refuse one or more items that he or she does not intend to eat, but the meal still counts as a reimbursable meal. The rules for OVS differ slightly according to which menu planning approach is used. At sites at which OVS is used, the observations of foods selected by children do not necessarily reflect what was offered; thus, it is not possible to use these observations to assess whether meals being offered meet the menu planning requirements.

For both school and nonschool sponsors that use food-based meal patterns, a few exceptions apply. One exception applies to sponsors that request and obtain an exemption for religious reasons. For example, sponsors that adhere to kosher dietary laws may request a milk exemption for lunch and supper, replace the milk with juice, and serve milk at breakfast and, if possible, at snacks (U.S. Department of Agriculture 2002b).[14,15] Other exceptions to the SFSP meal pattern include (1) state authorizations to serve smaller food quantities for sponsors that serve children younger than age 6, as noted; and (2) food substitutions for individuals with medical or special dietary needs (7CFR 225.16).

Because school sponsors may use any one of a number of methods to plan meals (food-based or nutrient standard menu planning), and because they may use OVS, meal pattern compliance

[14]Kosher dietary laws allow meat alternates, such as fish, cheese, eggs, nut and seed butter, and nuts and seeds, to be consumed with milk at the same meal.

[15]Fewer than 2 percent of the visited sites were kosher ones. Some sponsors of the kosher sites served peanut butter or dairy items for meat and thus were able to serve milk during lunch or supper. The analysis therefore includes kosher meals, with any findings on milk discussed with the kosher exception in mind.

could be assessed only for nonschool-sponsored meals.[16] Tables V.8 and V.9 show the percentage of meals containing the required components in the minimum serving sizes, as defined by SFSP regulations, for nonschool sponsors at breakfast and lunch, respectively. The tables also show, for each component, the percentage of meals meeting the minimum serving size, the percentage of meals falling short of the required serving size, and the percentage of meals missing a component altogether. A similar data table for school-sponsored meals is provided for descriptive purposes to describe the food components typically served at breakfasts and lunches by SFAs and their amounts relative to meal pattern standards (Appendix Table F.3); however, these data should not be interpreted as reflecting compliance with regulations. Sites sponsored by SFAs may have been using the OVS option. Appendix Table F.4 presents data on food components served separately for OVS and non-OVS sites, based on the sponsors' reports of the use of OVS at any of their sites.[17]

a. Nonschool Sponsors' Meal Pattern Compliance at Breakfast

About 55 percent of breakfasts at nonschool-sponsored sites complied with all SFSP meal pattern requirements for both the type and quantity of required foods. About half of all noncompliant breakfasts had an inadequate serving size for the fruit/vegetable component (Table V.8). Of the required components, the milk and bread/bread alternate requirements were met most often, followed by the fruit/vegetable component. Ninety-three percent of nonschool sponsors' breakfasts met the milk requirement, 84 percent met the bread/bread alternate requirement, and 73 percent met the fruit/vegetable requirement.[18]

SFSP meal pattern regulations require that each program participant receive 8 fluid ounces of milk at each meal served. This amount is equivalent to a one-half pint carton, which was the way that most milk was served. Milk served at breakfast usually was a beverage or was poured over cereal. Interviewers observed that 93 percent of breakfasts at nonschool sites contained at least 8 fluid ounces of milk (Table V.8). (Fewer than 1 percent of breakfasts served milk in insufficient amounts.) Approximately 6 percent of breakfast meals at nonschool sites had no milk.

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[16]Data on menu planning methods used by school-sponsored sites were not collected in this study. Furthermore, use of OVS was assessed only at the sponsor level.

[17]It was difficult to determine solely on the basis of observations whether sites were in fact using OVS. Furthermore, many site staff were unfamiliar with the term and therefore could not reliably report whether they used OVS. The definition for OVS is based on the school sponsor's report that OVS was used at one or more of its sites.

[18]To determine the extent of variability in meal compliance within sites, we also assessed whether all, some, or none of the meals met all the required food components. All sampled breakfast meals served by nonschool sponsors met all the requirements at 38 percent of sites, some meals met all the requirements at 38 percent of sites, and no meals met all the requirements at 24 percent of sites (based on weighted tabulations of data for 31 sites).

TABLE V.8

MEAL COMPLIANCE AT BREAKFAST FOR NONSCHOOL SPONSORS
(Percentage of Breakfasts Observed)

	Component Present in Required Amounts[a]	Standard Error	Component Present, Not in Required Amounts[a]	Standard Error	Component Not Present	Standard Error
All Required Components	54.6	(11.43)	n.a.	n.a.	n.a.	n.a.
Milk requirement	93.4	(2.42)	0.8	(0.70)	5.8	(2.56)
Fruit and/or vegetable requirement	73.4	(8.55)	21.8	(8.20)	4.8	(2.53)
Bread/bread alternate requirement	83.8	(12.24)	1.9	(1.90)	14.4	(12.25)
Meat/meat alternate option[b]	30.7	(12.67)	n.a.	n.a.	69.3	(12.67)
Sample Size[c]	**187**	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of meals served nationally.

[a]As defined by SFSP meal pattern guidelines.

[b]At breakfast, the meat/meat alternate component is optional. This table reflects whether a meat or a meat alternate component was present, but not whether it was present in the suggested amount.

[c]Total number of meals observed at breakfast at 31 sites.

n.a. = not applicable.

TABLE V.9

MEAL COMPLIANCE AT LUNCH FOR NONSCHOOL SPONSORS
(Percentage of Lunches Observed)

	Component Present in Required Amounts[a]	Standard Error	Component Present, Not in Required Amounts[a]	Standard Error	Component Not Present	Standard Error
All Required Components	70.6	(7.33)	n.a.	n.a.	n.a.	n.a.
Milk requirement[b]	96.9	(1.61)	0.1	(0.07)	3.1	(1.61)
Fruit and/or vegetable requirement	96.2	(2.78)	3.7	(2.76)	0.1	(0.09)
Bread/bread alternate requirement	95.8	(1.90)	3.9	(1.88)	0.3	(0.25)
Meat/meat alternate requirement	79.9	(5.82)	20.1	(5.81)	0.1	(0.01)
Sample Size[c]	**449**	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of meals served nationally.

[a]As defined by SFSP meal pattern guidelines.

[b]Includes kosher meals, where sites may have been exempt from serving milk. Fewer than 1 percent of nonschool sites and fewer than 2 percent of school sites visited at lunch were considered kosher sites, where a milk exemption was likely.

[c]Total number of meals observed at lunch at 83 sites.

n.a. = not applicable.

To meet the bread/bread alternate requirement, an SFSP breakfast must contain one serving[19] of the following: one slice of bread; 1 ounce of dry cereal; one-half cup cooked cereal; one serving of a roll, muffin, or biscuit; or one-half cup cooked pasta. About 84 percent of the breakfasts at nonschool sites satisfied the bread or bread alternate component. Approximately 14 percent of nonschool breakfasts did not contain any bread or a bread alternate.

To meet the fruit/vegetable requirement, an SFSP breakfast must contain any of the following: a minimum of one-half of a cup of fruits and/or vegetables or 4 fluid ounces of full-strength fruit or vegetable juice. Seventy-three percent of breakfasts observed at nonschool-sponsored sites contained a fruit and/or vegetable in the minimum serving size; 22 percent contained the component, but in inadequate amounts. About 5 percent of breakfasts at nonschool sites did not contain any fruit or vegetable. At these breakfast meals, a fruit-juice drink that was less than 100-percent fruit juice sometimes was served instead.[20]

Although the meat/meat alternate component is optional at breakfast, about 30 percent of breakfast meals at nonschool-sponsored sites included it as part of the meal.[21] Typical meats served at breakfast were sausage or bacon; the most typical meat alternates were scrambled eggs, yogurt, and processed cheese.

b. Nonschool Sponsors' Meal Pattern Compliance at Lunch

Lunch has four required components and, in some cases, the components' serving size requirements are higher than at breakfast.[22] Seventy-one percent of lunches served by nonschool sponsors met or exceeded the minimum serving sizes of all the required components (Table V.9).[23] Meal compliance at lunch was thus higher than at breakfast for nonschool-sponsored sites. The most frequent cause of noncompliance was an inadequate portion size for

[19]SFAs using food-based menu planning may serve (1) two servings of a meat or meat alternate; or (2) one serving of a bread or bread alternate, and one serving of a meat or meat alternate at breakfast.

[20]In general, juice drinks contain between 10-percent and 99-percent juice and added sweeteners, flavors, and, sometimes, fortifiers, such as vitamin C or calcium.

[21]USDA has established guidelines for the minimum serving sizes of meat/meat alternates; however, because that component is optional, Tables V.8 and V.9 show only whether plates contained the component.

[22]SFSP meal requirements for supper are the same as those for lunch. Due to small sample sizes (50 suppers observed at nonschool sites), the study does not report meal pattern findings at supper.

[23]All sampled lunch meals met all the requirements at 65 percent of nonschool sites, some meals met all the requirements at 10 percent, and no meals met all the requirements at 24 percent. (Figures do not add to 100 due to rounding.)

the meat/meat alternate component. Data from the previous national study indicate that 94 percent of lunch plates contained all the required components, but the adequacy of quantities was not assessed (Ohls et al. 1988).[24]

Milk usually was served as a beverage at lunch. Because milk almost always was served in a carton, milk service usually was an "all or none" situation (that is, when it was served, it was served in an adequate amount). About 97 percent of all lunches served at nonschool sites contained at least 8 fluid ounces of milk. Fewer than 1 percent of nonschool lunches included milk in insufficient amounts to meet the minimum requirement. Taken together, about 97 percent of lunches included milk, which is similar to the 98 percent observed by Ohls et al. (1988). The fact that 3 percent of the lunches at nonschool sites did not contain milk might partly reflect the observation of sites serving meat in kosher meals.[25] Ohls et al. did not visit residential camps for the 1986 study, and camps are the source of most kosher meals.

Lunch must provide at least two kinds of vegetables or fruits, or a combination of both. The minimum quantity required—three-quarters of a cup—is larger than the breakfast requirement. Full-strength vegetable or fruit juice may be counted to meet no more than one-half of this requirement. Interviewers observed an array of fresh and canned fruits and vegetables and fruit juice at lunch. About 96 percent of the lunches at nonschool sites complied with the fruit/vegetable requirement. The remaining 4 percent of lunches contained at least some fruit and/or vegetable, although not in the required amounts. Together, fruits or vegetables were present in nearly 100 percent of lunches at nonschool sites, a slightly higher proportion than the 95 percent reported by Ohls et al. (1988).

The bread/bread alternate requirement at lunch is identical to that at breakfast. Many lunches that the interviewers observed contained a sandwich, and the sandwich's bread, roll, or bun therefore fulfilled the bread/bread alternate requirement. Such bread alternates as pizza crust, crackers, and pasta also can meet the requirement. Roughly 96 percent of lunches at nonschool sites complied with the bread or bread alternate requirement. An additional 4 percent came close but did not provide the minimum serving size.

Unlike at breakfast, the meat/meat alternate component is required at lunch for sponsors following the SFSP meal pattern. The nonschool-sponsored lunches met the requirement by including such items as pizza with meat, cheese pizza, chicken nuggets, hamburgers, hot dogs, or luncheon meat in sandwiches. Peanut butter, yogurt, nuts, cheese, and similar foods also are included in this category. Approximately 80 percent of lunches at nonschool sites met the minimum serving requirements for the meat/meat alternate component. Most of the remaining lunches contained at least some meat or meat alternate component, but not in the required minimum amount. The interviewers observed serving sizes of meat or a meat alternate ranging from 1.2 to 1.9 ounces, whereas USDA requires that at least 2.0 ounces be served.

[24]The study by Ohls et al. examined all types of sites, as all sponsors were using the SFSP meal pattern at that time.

[25]For lunch meals, 1 percent of nonschool sites were kosher.

The discrepancy in serving sizes for meats or meat alternates suggests that some food preparation or food service staff were not aware of the minimum serving requirements, or that they did not know how much to serve to meet the requirement. Other discrepancies could have been due to measurement error by cooks or to shrinkage during cooking. In addition, the results for lunch meat/meat alternate compliance should be interpreted with caution. Interviewers were trained to record and visualize amounts for all ingredients for mixed dishes, such as pizza (for example, with cheese, extra cheese, or pepperoni) and burritos (with or without meat or cheese). In these cases, the closest Food Intake Analysis System (FIAS) recipe was coded; the amount of meat or cheese in a FIAS recipe could differ from the actual amount contained in the recipe or food item served at an SFSP meal.

4. Nutrient Content of Meals Served

Although SFSP menu planning approaches are not always explicitly based on nutrient levels, all the approaches to menu planning described in Section B.3 are intended to meet children's daily needs, which are based on the RDAs for energy and nutrients. The RDA is the average daily nutrient intake level sufficient to meet the nutrient requirements of nearly all healthy individuals in a particular life stage and gender group (Institute of Medicine, National Academy of Sciences 2000a).[26]

The SFSP nutrient analyses in this section are presented as follows:

- Means and 1-day distributions of energy and key nutrients compared with the RDA and other nutrition standards. Key nutrients are those included in the School Breakfast Program (SBP) and the National School Lunch Program (NSLP) regulations.
- Means and 1-day distributions for other nutrients compared with the RDA
- Means for energy and key nutrients compared with recent findings for school breakfasts and school lunches

These comparisons determine how well SFSP meals served met the RDA or other nutrition standards for most children participating in the program in 2001. In each analysis, data are presented for breakfast, lunch, and supper consecutively. Separate analyses for school- and nonschool-sponsored meals are shown in Appendix F and are discussed briefly in the following sections.

[26]Beginning in 1997, the Institute of Medicine gradually has been releasing updated RDAs for specific nutrients based on the DRIs. The DRIs include nutrient standards for RDAs and for AIs, to be used when the available scientific evidence is insufficient to establish an RDA. In this study, the AI was used as the nutrition standard for calcium, as an RDA is not available.

a. Key Nutrients in SFSP Meals

School meals are expected to provide one-fourth of the RDA at breakfast and one-third of the RDA at lunch for key nutrients. Key nutrients in the SBP and NSLP regulations are energy, protein, vitamin A, vitamin C, calcium, and iron. In this analysis, standards similar to those applied in the school meals programs were used to assess the percentage of the RDA provided by SFSP breakfasts and lunches served.[27,28]

On average over a week, school meals also must meet the following dietary guidelines: provide 30 percent of calories or less from total fat, provide less than 10 percent of calories from saturated fat, reduce sodium and cholesterol levels, and increase the level of dietary fiber (7CFR 210.10 and 7CFR 220.8). Again, this study's goal was to use similar standards to assess SFSP meals. Because the last two guidelines do not include quantitative standards, the following standards were used to assess SFSP meals:

- The National Research Council's recommendations in *Diet and Health* for sodium (600 mg or less at breakfast and 800 mg or less at lunch and supper) and for cholesterol (75 mg or less at breakfast and 100 mg or less at lunch and supper) (National Academy of Sciences, National Research Council 1989b)
- The American Health Foundation's recommendations for fiber (Williams 1995)[29]

To provide a complete view of macronutrients (protein, fat, and carbohydrate), the data tables also present the percentage of calories from carbohydrate. School meal regulations do not specify a carbohydrate standard, but carbohydrate content is related to the recommended dietary guideline to "choose a diet with plenty of grain products, fruits, and vegetables" (7CFR 210.10 and 7CFR 220.8). The National Research Council's recommendation for the percentage of calories from carbohydrate (more than 55 percent) was used as the nutrition standard (National Academy of Sciences, National Research Council 1989b).

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[27]The school meal regulations are based on the 1989 RDAs and the 1990 Dietary Guidelines (7CFR 210.10 and 7CFR 220.8). This study used the updated DRI RDAs for iron and vitamins A and C and the AI for calcium in order to provide the most scientifically up-to-date assessment possible of the nutritional quality of SFSP meals (Institute of Medicine 1997, 2001, and 2000b).

[28]To evaluate whether SFSP meals met the RDA standard, the mean energy and key nutrient content of meals served were compared with the RDA standard for the two age groups that most closely correspond to the age range of most children in the SFSP (4 to 8 years and 9 to 13 years).

[29]The daily standard for grams of fiber is "age plus 5." To calculate the standard used in this study, this number was multiplied by one-fourth for breakfast and by one-third for lunch or supper. For example, the daily standard for an 8-year-old child is 8 + 5 = 13 grams, corresponding to standards of 3.25 grams for breakfast and 4.3 grams for lunch or supper.

This analysis begins by comparing the mean energy and key nutrient content of SFSP meals served with the most up-to-date RDA standard available. A comparison of the mean nutrient value relative to the RDA standard is useful for assessing the meals served overall. To provide additional information for interpreting the overall pattern of energy and nutrients served across SFSP sites, the analysis then presents the distributions of key nutrients in SFSP meals.[30,31] The distributions may be useful in planning SFSP menus, and in assessing the variability of SFSP meals across the program; note, however, that they are based on only a single day's observation per site. Because sites serve a variety of foods over time, the distribution of nutrients served over time is likely to be less dispersed than is the distribution for a single day. Meals that are low in one nutrient on one day may be balanced by meals that are high in that nutrient on other days.

Breakfasts. SFSP breakfasts provided close to the standard (one-fourth of the RDA) for energy, and exceeded the standard for key nutrients (Table V.10). The breakfasts provided an average of 424 calories, or 21 percent of the RDA for energy and 54 percent of the RDA for protein. They provided both the younger age group and the older age group with more than one-fourth of the RDA for key nutrients. The mean vitamin C content of the breakfasts corresponds to 152 percent of the RDA for children aged 4 to 8 years, and to 84 percent of the RDA for children aged 9 to 13 years. The mean iron intake corresponds to 42 percent and 53 percent of the RDA for younger children and older children, respectively. These two findings are important because the bioavailability of iron is increased if a food containing iron is served with a vitamin C source, and because the iron status of low-income children is an important health issue (U.S. Department of Health and Human Services 2000).

The nutrient patterns of SFSP breakfasts reflect the fact that many of the observed meals consisted of ready-to-eat cereals, milk, and juice. These foods provided children with both key nutrients and energy: fortified cereals and grains contributed iron; milk contributed protein and calcium; and 100-percent fruit juice contributed vitamin C.

On average, as shown in Table V.11, SFSP breakfasts met the standards for both age groups for the percentage of calories from total fat (mean of 25 percent) and the percentage of calories from carbohydrate (mean of 61 percent). The percentage of calories from saturated fat (mean of 11 percent) did not meet current dietary recommendations to reduce saturated fat to less than 10 percent of calories. Food sources of saturated fat at breakfast included breakfast sandwiches; meats, such as bacon and sausage; and whole and 2-percent milk.

[30]For ease of presentation, the mean, the nutrition standard, and the distribution of nutrients related to the dietary standards are shown in the same data table.

[31]Tables of distributions of energy and nutrients include the values for the 10th, 25th, 50th, 75th, and 90th percentiles of meal plates observed on a single day at SFSP sites. If the value of the nutrition standard approximates the median, or 50th percentile, then, on any given day, 50 percent of the meals fall below the standard and 50 percent fall at or above the standard.

TABLE V.10

MEAN ENERGY AND KEY NUTRIENTS SERVED AT SFSP BREAKFASTS AND COMPARISON WITH RDAs[a]

	Mean	Standard Error	Mean as Percentage of Total RDA for 4 to 8 Year Olds	Mean as Percentage of Total RDA for 9 to 13 Year Olds
Macronutrients				
Energy (kcal)	424	(28.3)	21[b]	21[b]
Protein (g)	15.2	(1.02)	54[b]	54[b]
Vitamins and Minerals				
Vitamin A (RE)	328	(26.8)	82[c]	55[c]
Vitamin C (mg)	38	(5.0)	152	84
Calcium (mg)	378	(13.1)	47[d]	29[d]
Iron (mg)	4.2	(0.40)	42	53
Sample Size[e]	**556**	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfast meals served nationally.

[a]School meal regulations are based on the 1989 RDAs and 1990 Dietary Guidelines. For purposes of this study, the updated Dietary Reference Intake RDAs for iron, vitamin A, and vitamin C and the Adequate Intake (AI) for calcium were used. The AI is used as the recommended standard for calcium because an RDA is not available.

[b]Value represents the comparison of the mean relative to the 1989 RDA for children aged 7 to 10 years.

[c]Value represents the upper bound, as the mean is expressed as Retinol Equivalents (REs), and the RDA is expressed as Retinol Activity Equivalents. See Appendix E for a detailed discussion.

[d]Values represents the percentage of the AI.

[e]Total number of breakfasts observed at 85 sites.

RDA = Recommended Dietary Allowance.

TABLE V.11

MEAN AND DISTRIBUTION OF ENERGY AND KEY NUTRIENTS
SERVED ON A SINGLE DAY AT BREAKFAST

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th	25th	50th	75th	90th
Energy (kcal)	424	(28.3)	500[b]	500[b]	251	286	407	507	600
Protein (g)	15.2	(1.02)	7[b]	7[b]	9.6	10.3	13.2	16.4	25.4
Total Fat (% kcal)	25.1	(1.55)	≤30	≤30	13.5	18.7	23.0	32.0	39.1
Saturated Fat (% kcal)	10.9	(0.40)	<10	<10	5.3	8.6	10.8	13.4	15.7
Carbohydrate (% kcal)	60.7	(1.56)	>55	>55	45.4	54.0	62.9	67.2	74.0
Vitamin A (RE)	328	(26.8)	100	150	142	206	307	391	580
Vitamin C (mg)	38	(5.0)	6.25	11.25	5	12	40	53	77
Calcium (mg)	378	(13.1)	200[c]	325[c]	307	324	346	440	502
Iron (mg)	4.2	(0.40)	2.5	2.0	1.6	1.9	3.8	5.8	7.9
Sodium (mg)	537	(59.3)	≤600	≤600	211	281	412	729	1,054
Cholesterol (mg)	53	(8.8)	≤75	≤75	14	18	29	44	96
Dietary Fiber (g)	2.4	(0.30)	2-3	3.5-4.5	0.7	1.3	2.0	3.0	4.1

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfasts served nationally. Based on 556 plates observed at 85 sites.

[a]One-fourth of the Recommended Dietary Allowance (RDA) for energy and nutrients; Dietary Guidelines for fat and saturated fat densities; National Research Council recommendation for carbohydrate density, sodium, and cholesterol; and American Health Foundation for fiber. School meal regulations are based on the 1989 RDAs and 1990 Dietary Guidelines. For purposes of this study, we used the updated Dietary Reference Intake RDAs for iron, vitamin A, and vitamin C, and the Adequate Intake (AI) for calcium. The AI is used as the recommended standard for calcium because an RDA is not available.

[b]Value represents one-fourth the 1989 RDA for children aged 7 to 10 years.

[c]Value represents one-fourth of the AI.

SE = standard error.

On average, breakfasts met the standard for cholesterol (mean of 53 mg) for younger and older ages, but not the standard for dietary fiber for the older age group. Fiber content (mean, 2.4 grams) met the recommendations only for the younger age group. Fiber sources included breakfast cereals, other grain products, and fruit. The mean sodium content (537 mg) met the standard of providing 600 mg of sodium or less. Breakfast foods containing high levels of sodium (and saturated fat) included prepackaged breakfast sandwiches and meats, such as bacon and sausage.

In general, the nutrition standards for energy and for many of the nutrients analyzed were close to the median for breakfast meals (Table V.11). A high percentage of meals met the standard for some key nutrients, such as protein and vitamin C. For example, the protein standard for breakfast is 7 grams, which falls below the 10th percentile, indicating that more than 90 percent of breakfasts met the protein standard (based on 1-day observations at each site). More than 90 percent of breakfasts met the calcium standard for children aged 4 to 8 years, and 75 percent met the standard for those aged 9 to 13 years. This finding on calcium is consistent with the milk findings reported previously in this chapter. However, more than half of all breakfasts did not meet the saturated fat standard of less than 10 percent of calories. In addition, more than half did not meet the standard for dietary fiber.

School- and Nonschool-Sponsored Breakfasts. Because school sponsors can use food-based menu planning or nutrient standard menu planning and can use OVS, this study compares, for school- and nonschool-sponsored sites, the mean energy and key nutrients at breakfast relative to the RDAs. The comparison, presented in Table F.5 in Appendix F, shows that nutrient patterns generally were similar for school- and nonschool-sponsored breakfasts. Mean energy at breakfast was below the RDA standard of 25 percent for energy for both groups (21 percent of the RDA for school-sponsored breakfasts, and 22 percent for nonschool-sponsored ones). Tables F.6 and F.7 show the means and distributions of energy, the key nutrients cited in school meal regulations, and other nutrients. On average, both school sponsors and nonschool sponsors served breakfasts that met the standard for the percentage of calories from total fat; however, nonschool-sponsored sites served a higher proportion of breakfasts that met the standard for 30 percent of calories or less from total fat than did school-sponsored sites (more than half compared with fewer than one-fourth of all breakfasts).

Vended Breakfasts. A comparison of the mean nutrients in vended and nonvended breakfasts showed that vended breakfasts provided an average of 359 calories, 18 percent of calories from total fat, 9 percent calories from saturated fat, and 286 mg of sodium, and that nonvended breakfasts provided 440 calories, 27 percent of calories from total fat, 11 percent of calories from saturated fat, and 597 mg of sodium (Table F.8; sample sizes are 98 vended meals and 458 nonvended meals). The profiles for saturated fat and sodium are significantly closer to the guidelines in vended breakfasts than in nonvended ones. Vended and nonvended breakfasts both fell short of the energy standard. Vended breakfasts provided 18 percent of the RDA for energy, and nonvended breakfasts provided 22 percent; the difference was not statistically significant.

Lunches. SFSP lunches provided an average of 663 calories, or 33 percent of the RDA for energy (Table V.12). Means for key nutrients exceeded the RDA standard for younger and older children. Lunches provided an average of 108 percent of the RDA for vitamin C for children

TABLE V.12

MEAN ENERGY AND KEY NUTRIENTS SERVED AT SFSP LUNCHES AND COMPARISON WITH RDAs[a]

	Mean	Standard Error	Mean as Percentage of Total RDA for 4 to 8 Year Olds	Mean as Percentage of Total RDA for 9 to 13 Year Olds
Macronutrients				
Energy (kcal)	663	(15.5)	33[b]	33[b]
Protein (g)	26.5	(0.74)	95[b]	95[b]
Vitamins and Minerals				
Vitamin A (RE)	379	(55.3)	95[c]	63[c]
Vitamin C (mg)	27	(2.8)	108	60
Calcium (mg)	448	(11.8)	56[d]	34[d]
Iron (mg)	4.0	(0.12)	40	50
Sample Size[e]	**989**	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of lunch meals served nationally.

[a]School meal regulations are based on the 1989 RDAs and 1990 Dietary Guidelines. For purposes of this study, the updated Dietary Reference Intake RDAs for iron, vitamin A, and vitamin C and the Adequate Intake (AI) for calcium were used. The AI is used as the recommended standard for calcium because an RDA is not available.

[b]Value represents the comparison of the mean relative to the 1989 RDA for children aged 7 to 10 years.

[c]Value represents the upper bound, as the mean is expressed as Retinol Equivalents (REs), and the RDA is expressed as Retinol Activity Equivalents. See Appendix E for a detailed discussion.

[d]Values represents the percentage of the AI.

[e]Total number of lunches observed at 161 sites.

RDA = Recommended Dietary Allowance.

aged 4 to 8 years. Given that more than 90 percent of lunch plates included fruit, it is not surprising that the vitamin C contributions are high. For example, a single orange would provide both age groups with more than 100 percent of the RDA for vitamin C. Fortified breads and rolls provided significant amounts of iron, and milk and dairy products helped the lunches meet the AI standard for calcium for children in both age groups.

Table V.13 provides the means and distributions for energy, key nutrients, and nutrients related to the dietary guidelines for a single day at lunch. More than 90 percent of lunches met the protein and vitamin C standards. More than 90 percent met the calcium standard for children aged 4 to 8 years, and about half met the standard for children aged 9 to 13 years.

On average, SFSP lunches did not meet the standards for the percentage of calories from total fat or saturated fat. Lunches provided a mean of 32 percent of calories from total fat, and a mean of 12 percent of calories from saturated fat. About half the lunches met the standards for energy and the percentage of calories from total fat; however, fewer than half met the standard for the percentage of calories from saturated fat. Sources of fat and saturated fat at lunch included luncheon meats, hamburgers, pizza, cheeses, whole milk, and 2-percent milk.

On average, SFSP lunches met the dietary cholesterol and fiber standards for both age groups, but not the standards for the percentage of calories from carbohydrate (a mean of 52 percent of calories from carbohydrate). The mean sodium content (1,147 mg) was much higher than the recommended 800 mg or less of sodium at lunch.

School- and Nonschool-Sponsored Lunches. Comparisons of the lunch meals provided by school and nonschool sponsors are found in Tables F.9, F.10, and F.11. Both school- and nonschool-sponsored lunches met the RDA standards for energy and for key nutrients (Table F.9). The lunches had similar distributions for energy and key nutrients (Table F.10 and Table F.11 for school and nonschool sponsors, respectively). About half the lunches served by both school sponsors and nonschool sponsors did not meet the energy standard, and about one-fourth did not meet the saturated fat standard.

Vended Lunches. A comparison of vended lunches (289 plates) and nonvended lunches (700 plates) showed that they had similar mean energy and nutrient profiles. Thus, separate data tables are not shown for vended and nonvended lunches.

Supper. SFSP suppers provided an average of 783 calories, or 39 percent of the RDA for energy (Table V.14). The mean vitamin and mineral content of the foods exceeded the standard (one-third of the RDA) for all the key nutrients with the exception of calcium for the older age group (27 percent of its AI). It is likely that the finding on calcium reflects both a higher calcium standard for older children and beverage options in addition to or instead of milk in suppers provided by many residential camps in the sample. More than 75 percent of suppers met the RDA standard for energy. About 90 percent met the standards for protein, vitamins A and C, and iron.[32]

[32]Sample sizes for supper were too small to report findings broken down by school- and nonschool-sponsored suppers.

TABLE V.13

MEAN AND DISTRIBUTION OF ENERGY AND KEY NUTRIENTS SERVED ON A SINGLE DAY AT LUNCH

	Mean	SE	Nutrition Standard[a]		Percentile				
			4 to 8 Years	9 to 13 Years	10th	25th	50th	75th	90th
Energy (kcal)	663	(15.5)	667[b]	667[b]	467	546	648	749	856
Protein (g)	26.5	(0.74)	9[b]	9[b]	18.4	21.6	24.8	30.3	37.8
Total Fat (% kcal)	32.1	(0.65)	≤30	≤30	23.0	26.9	30.9	37.0	42.3
Saturated Fat (% kcal)	11.9	(0.40)	<10	<10	7.3	9.3	11.6	14.1	16.9
Carbohydrate (% kcal)	52.1	(0.74)	>55	>55	41.8	47.9	53.1	57.2	61.2
Vitamin A (RE)	379	(55.3)	133	200	134	169	224	307	1,003
Vitamin C (mg)	27	(2.8)	8	15	8	11	18	32	67
Calcium (mg)	448	(11.8)	267[c]	433[c]	343	369	436	517	598
Iron (mg)	4.0	(0.12)	3.3	2.7	2.5	3.2	3.7	4.8	5.4
Sodium (mg)	1,147	(55.5)	≤800	≤800	637	806	1,086	1,415	1,800
Cholesterol (mg)	57	(3.4)	≤100	≤100	22	37	50	73	95
Dietary Fiber (g)	5.5	(0.26)	3-4	4.5-6	2.8	4.0	5.1	6.8	8.6

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of lunches served nationally. Based on 989 plates observed at 161 sites.

[a]One-third of the Recommended Dietary Allowance (RDA) for energy and nutrients; Dietary Guidelines for fat and saturated fat densities; National Research Council recommendation for carbohydrate density, sodium, and cholesterol; and American Health Foundation for fiber. School meal regulations are based on the 1989 RDAs and 1990 Dietary Guidelines. For purposes of this study, we used the updated Dietary Reference Intake RDAs for iron and vitamins A and C and the Adequate Intake (AI) for calcium. The AI is used as the recommended standard for calcium because an RDA is not available.

[b]Value represents one-third of the 1989 RDA for children aged 7 to 10 years.

[c]Value represents one-third of the AI.

SE = standard error.

TABLE V.14

MEAN ENERGY AND KEY NUTRIENTS SERVED AT SFSP SUPPERS AND COMPARISON WITH RDAs[a]

	Mean	Standard Error	Mean as Percentage of Total RDA for 4 to 8 Year Olds	Mean as Percentage of Total RDA for 9 to 13 Year Olds
Macronutrients				
Energy (kcal)	783	(62.1)	39[b]	39[b]
Protein (g)	39.8	(4.63)	142[b]	142[b]
Vitamins and Minerals				
Vitamin A (RE)	500	(171.5)	125[c]	83[c]
Vitamin C (mg)	37	(12.8)	148	82
Calcium (mg)	357	(55.5)	45[d]	27[d]
Iron (mg)	5.1	(0.70)	51	64
Sample Size[e]	**75**	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of supper meals served nationally.

[a]School meal regulations are based on the 1989 RDAs and 1990 Dietary Guidelines. For purposes of this study, the updated Dietary Reference Intake RDAs for iron, vitamin A, and vitamin C and the Adequate Intake (AI) for calcium were used. The AI is used as the recommended standard for calcium because an RDA is not available.

[b]Value represents the comparison of the mean relative to the 1989 RDA for children aged 7 to 10 years.

[c]Value represents the upper bound, as the mean is expressed as Retinol Equivalents (REs), and the RDA is expressed as Retinol Activity Equivalents. See Appendix E for a detailed discussion.

[d]Value represents the percentage of the AI.

[e]Total number of suppers observed at 12 sites.

RDA = Recommended Dietary Allowance.

Means at supper did not meet the standards for fat, saturated fat, sodium, or dietary cholesterol and were higher than respective lunch means (Table V.15). Suppers provided a mean of 37 percent of calories from total fat, 13 percent of calories from saturated fat, and 1,394 mg of sodium. As with lunch, a higher percentage of calories from fat corresponded to a lower percentage of calories from carbohydrate, with the result that suppers did not meet the standard for carbohydrate density. The single-day distributions show that more than three-fourths of the suppers did not meet the standard for the percentage of calories from total fat. In addition, more than 90 percent of suppers did not meet the standard for sodium. On average, suppers did meet the nutrition standard for fiber.

b. Other Nutrient Content of Meals Relative to the RDA Standards

The nutrient analysis in this study included a comparison of the content of SFSP meals relative to the RDAs for other nutrients not considered "key nutrients" under NSLP or SBP regulations. Although not mandated by USDA, the RDA standards are commonly used to assess the overall healthfulness of diets. Tables V.16, V.17, and V.18 show, for SFSP breakfasts, lunches, and suppers, respectively, the mean values for other vitamins and minerals relative to the RDAs. These nutrients include the B vitamins, vitamin E, phosphorus, magnesium, zinc, copper, potassium, and selenium. All the nutrients except potassium have established RDAs.

Breakfasts provided more than one-fourth of the RDA for all other vitamins and minerals shown with the exception of vitamin E. These meals provided 17 percent of the RDA for vitamin E for the younger age group, and 11 percent for the older age group. Lunches and suppers provided more than one-third of the RDA for all the nutrients shown with the exception of vitamin E for the older age group; vitamin E for that age group approached the standard (mean of 32 percent of the RDA). One-day distributions of these other vitamins and minerals are shown in Tables F.12, F.13, and F.14 for breakfast, lunch, and supper, respectively.

c. Comparison with School Meals

Key nutrient profiles for SFSP breakfasts and lunches were compared with those reported in the SNDA-II study for SBP and NSLP meals served during the 1998-1999 school year (Fox et al. 2001). Table V.19 compares the SFSP data and the SNDA-II results for elementary schools. In general, breakfast profiles are similar for energy, protein, vitamin C, calcium, and iron. On average, SFSP breakfasts and SBP breakfasts provided 21 percent and 23 percent of the RDA for energy, respectively; both were slightly below the RDA standard of 25 percent. SFSP breakfasts had a higher mean vitamin A content than did SBP breakfasts; the reverse is true for lunches. On average, both SFSP breakfasts and SBP breakfasts met the recommendations for cholesterol and sodium.

Nutrient profiles for SFSP lunches and school lunches are similar for energy and selected key nutrients. SFSP lunches provided 33 percent of the RDA for energy; NSLP lunches provided 35 percent. Notably, SFSP and NSLP lunches provided similar mean percentages of calories from fat (32 percent and 33 percent, respectively). Both types of lunches failed to meet

TABLE V.15

MEAN AND DISTRIBUTION OF ENERGY AND KEY NUTRIENTS
SERVED ON A SINGLE DAY AT SUPPER

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th[b]	25th	50th	75th	90th[b]
Energy (kcal)	783	(62.1)	667[c]	667[c]	611	663	712	934	1,058
Protein (g)	39.8	(4.63)	9[c]	9[c]	26.3	31.1	34.7	42.9	61.2
Total Fat (% kcal)	36.8	(2.74)	≤30	≤30	27.4	31.2	37.1	43.5	46.0
Saturated Fat (% kcal)	12.8	(1.64)	<10	<10	7.3	8.7	13.7	16.7	17.1
Carbohydrate (% kcal)	43.2	(2.39)	>55	>55	35.2	36.9	41.7	49.3	53.3
Vitamin A (RE)	500	(171.5)	133	200	138	210	339	493	620
Vitamin C (mg)	37	(12.8)	8	15	6	16	22	47	120
Calcium (mg)	357	(55.5)	267[d]	433[d]	88	171	348	489	633
Iron (mg)	5.1	(0.70)	3.3	2.7	3.3	3.5	4.6	7.2	7.7
Sodium (mg)	1,394	(103.8)	≤800	≤800	969	1,073	1,283	1,686	1,828
Cholesterol (mg)	128	(17.1)	≤100	≤100	64	92	119	139	195
Dietary Fiber (g)	5.9	(1.02)	3-4	4.5-6	2.8	3.2	5.3	8.1	9.2

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of suppers served nationally. Based on 75 plates observed at 12 sites.

[a]One-third of the Recommended Dietary Allowance (RDA) for energy and nutrients; Dietary Guidelines for fat and saturated fat densities; National Research Council recommendation for carbohydrate density, sodium, and cholesterol; and American Health Foundation for fiber. School meal regulations are based on the 1989 RDAs and 1990 Dietary Guidelines. For purposes of this study, we used the updated Dietary Reference Intake RDAs for iron, vitamin A, and vitamin C, and the Adequate Intake (AI) for calcium. The AI is used as the recommended standard for calcium because an RDA is not available.

[b]May be unreliable due to small sample size.

[c]Value represents one-third of the 1989 RDA for children aged 7 to 10 years.

[d]Value represents one-third of the AI.

SE = standard error.

TABLE V.16

MEANS FOR OTHER NUTRIENTS SERVED AT SFSP BREAKFASTS AND COMPARISON WITH RDAs[a]

Vitamins and Minerals	Mean	Standard Error	Mean as Percentage of Total RDA for 4 to 8 Year Olds	Mean as Percentage of Total RDA for 9 to 13 Year Olds
B Vitamins				
Thiamin (mg)	0.47	(0.042)	78	52
Riboflavin (mg)	0.80	(0.042)	133	89
Niacin (mg)	4.18	(0.462)	52	35
Vitamin B_6 (mg)	0.48	(0.044)	80	48
Folate (mcg)	100	(9.7)	50[b]	33[b]
Vitamin B_{12} (mcg)	1.26	(0.074)	105	70
Vitamin E (AE)	1.24	(0.173)	17	11
Phosphorus (mg)	376	(14.6)	75	30
Magnesium (mg)	68	(3.0)	52	28
Zinc (mg)	2.79	(0.177)	56	35
Copper (mg)	0.21	(0.022)	48	30
Potassium (mg)	729	(36.5)	n.a.	n.a.
Selenium (mcg)	19	(2.1)	63	48
Sample Size[c]	**556**	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfast plates served nationally.

[a]For the nutrients shown, the updated Dietary Reference Intake RDAs were used.

[b]Value represents the lower bound, as the mean is expressed as mcg of total folate, and the RDA is expressed as mcg of Dietary Folate Equivalents. See Appendix E for a detailed discussion.

[c]Total number of breakfast plates observed at 85 sites.

n.a. = not applicable; RDA = Recommended Dietary Allowance.

TABLE V.17

MEANS FOR OTHER NUTRIENTS SERVED AT SFSP LUNCHES AND COMPARISON WITH RDAs[a]

Vitamins and Minerals	Mean	Standard Error	Mean as Percentage of Total RDA for 4 to 8 Year Olds	Mean as Percentage of Total RDA for 9 to 13 Year Olds
B Vitamins				
Thiamin (mg)	0.52	(0.021)	87	58
Riboflavin (mg)	0.77	(0.018)	128	86
Niacin (mg)	6.29	(0.302)	79	52
Vitamin B_6 (mg)	0.50	(0.025)	83	50
Folate (mcg)	100	(3.7)	50[b]	33[b]
Vitamin B_{12} (mcg)	1.55	(0.057)	129	86
Vitamin E (AE)	2.80	(0.166)	40	25
Phosphorus (mg)	499	(13.2)	100	40
Magnesium (mg)	98	(3.0)	75	41
Zinc (mg)	3.23	(0.097)	65	40
Copper (mg)	0.39	(0.014)	89	56
Potassium (mg)	1,008	(23.9)	n.a.	n.a.
Selenium (mcg)	33	(1.6)	110	83
Sample Size[c]	**989**	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of lunch plates served nationally.

[a]For the nutrients shown, the updated Dietary Reference Intake RDAs were used.

[b]Value represents the lower bound, as the mean is expressed as mcg of total folate, and the RDA is expressed as mcg of Dietary Folate Equivalents. See Appendix E for a detailed discussion.

[c]Total number of lunch plates observed at 161 sites.

n.a. = not applicable; RDA = Recommended Dietary Allowance.

TABLE V.18

MEANS FOR OTHER NUTRIENTS SERVED AT SFSP SUPPERS AND COMPARISON WITH RDAs[a]

Vitamins and Minerals	Mean	Standard Error	Mean as Percentage of Total RDA for 4 to 8 Year Olds	Mean as Percentage of Total RDA for 9 to 13 Year Olds
B Vitamins				
Thiamin (mg)	0.51	(0.042)	85	57
Riboflavin (mg)	0.80	(0.017)	133	89
Niacin (mg)	10.53	(1.415)	132	88
Vitamin B_6 (mg)	0.72	(0.083)	120	72
Folate (mcg)	117	(11.8)	59[b]	39[b]
Vitamin B_{12} (mcg)	1.63	(0.271)	136	91
Vitamin E (AE)	3.54	(0.344)	51	32
Phosphorus (mg)	535	(16.6)	107	43
Magnesium (mg)	101	(11.2)	78	42
Zinc (mg)	4.70	(0.651)	94	59
Copper (mg)	0.44	(0.074)	100	63
Potassium (mg)	1,115	(118.6)	n.a.	n.a.
Selenium (mcg)	45	(6.0)	150	113
Sample Size[c]	**75**	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of supper plates served nationally.

[a]For the nutrients shown, the updated Dietary Reference Intake RDAs were used.

[b]Value represents the lower bound, as the mean is expressed as mcg of total folate, and the RDA is expressed as mcg of Dietary Folate Equivalents. See Appendix E for a detailed discussion.

[c]Total number of supper plates observed at 12 sites.

n.a. = not applicable; RDA = Recommended Dietary Allowance.

TABLE V.19

COMPARISON OF MEAN NUTRIENT PROFILES
FOR SFSP MEALS AND SCHOOL MEALS

	Breakfast				Lunch			
Nutrient	SFSP	Standard Error	SNDA-II[a]	Standard Error	SFSP	Standard Error	SNDA-II[a]	Standard Error
Mean Amount								
Energy (kcal)	424	(28.3)	447	(5.7)	663	(15.5)	695	(6.9)
Protein (g)	15	(1.0)	15	(0.2)	27	(0.7)	29	(0.2)
Vitamin A (RE)	328	(26.8)	254	(4.4)	379	(55.3)	437	(15.7)
Vitamin C (mg)	38	(5.0)	37	(1.1)	27	(2.8)	27	(1.3)
Calcium (mg)	378	(13.1)	354	(4.5)	448	(11.8)	478	(4.0)
Iron (mg)	4.2	(0.4)	3.8	(0.1)	4.0	(0.1)	4.4	(0.1)
Cholesterol (mg)	53	(8.8)	43	(2.9)	57	(3.4)	65	(0.9)
Sodium (mg)	537	(59.3)	574	(10.5)	1,147	(55.5)	1,259	(15.3)
Mean Percentage of Calories from:								
Total fat	25.1	(1.5)	26.5	(0.4)	32.1	(0.6)	33.1	(0.3)
Saturated fat	10.9	(0.4)	10.1	(0.2)	11.9	(0.4)	11.9	(0.1)
Carbohydrate	60.7	(1.6)	61.5	(0.5)	52.1	(0.7)	51.4	(0.3)

SOURCE: SFSP Implementation Study, Site Observations (2001); and Fox et al. (2001).

NOTE: SFSP tabulations are weighted to be representative of breakfast and lunch meals served nationally.

[a]Data are for elementary schools in school year 1998-1999.

SFSP = Summer Food Service Program; SNDA-II = School Nutrition Dietary Assessment Study II.

dietary recommendations of 30 percent of calories or less from fat and 55 percent of calories or more from carbohydrate.

C. EXTENT OF PLATE WASTE

Plate waste is defined as foods selected by or served to children and left on the plate at the end of the meal. It does not include leftover meals that were not served to children or food wasted during meal preparation. It also does not include food items that children may have left in a specially designated area, known as a share box. The extent of plate waste in the SFSP is important because (1) it affects the nutritional benefit that children obtain from SFSP meals, and (2) it affects sponsors' costs and thus their ability to operate the SFSP cost-effectively.

Although some wasted food on children's plates is to be expected, many factors contribute to the amount of waste. Understanding the potential contributing factors can help menu planners to develop methods to reduce plate waste. Children's preferences, as well as the texture, flavor, and serving temperature of the food can affect waste. In addition to leaving foods they dislike, children may refuse to eat unfamiliar foods. Specific forms of preparation or presentation, such as whether fresh fruits are cut up, may influence acceptability. Children also may be less likely to eat hot foods that have been allowed to become cold or cold foods that are too warm. The amount of time children have to eat, how hungry they are at meal time, the environment (including cleanliness, comfort, and air or room temperature), and the site staff's interactions with the children are other factors that may influence plate waste. For example, interviewers reported that hot lunches were popular when served in air-conditioned rooms, but not when served outside on a hot day. Likewise, some cold items were too cold to eat. At some sites, for example, the milk and juice were frozen, and the turkey sandwiches were too cold to be eaten. Some fresh fruits were wasted because the fruit was unripe.

The way in which the meal is served also affects plate waste. Specifically, whether children can choose to refuse one or two items (as in OVS schools), whether they can choose from a selection of foods (such as between two types of sandwiches), and whether they can ask for a particular portion size (as opposed to receiving prepackaged foods in fixed portions) affect plate waste.

1. Nutrients Wasted on Plates

Plate waste has been shown to vary by age, sex, race/ethnicity, socioeconomic group, and meal environment (Reger et al. 1996; Dillon and Lane 1989; Devaney et al. 1995; and Ohls et al. 1988). In a study by Jansen and Harper (1978), high school students consistently wasted less food than did elementary school students. In a more recent study, by Reger et al. (1996), older elementary school students wasted more than did younger elementary school students.

Tables V.20, V.21, and V.22 show, for breakfast, lunch, and supper, respectively, the mean energy and nutrients wasted, the mean energy and nutrients served (for comparison purposes), and the percentage of nutrients wasted. Plate waste includes only food items that were left on plates—it does not include food items that children may have placed in a share box; thus, actual plate waste may have been underestimated.

TABLE V.20

MEAN AND PERCENTAGE OF NUTRIENTS WASTED AT BREAKFAST, BASED ON PLATE WASTE OBSERVATIONS[a]

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Macronutrients					
Energy (kcal)	141	(13.8)	424	(28.3)	33
Protein (g)	5.3	(0.58)	15.2	(1.02)	35
Total Fat (g)	4.4	(0.62)	12.8	(1.36)	34
Saturated fat (g)	1.9	(0.24)	5.3	(0.42)	36
Monounsaturated fat (g)	1.5	(0.21)	4.5	(0.53)	33
Polyunsaturated fat (g)	0.7	(0.15)	2.1	(0.42)	33
Carbohydrate (g)	20.8	(2.01)	63.8	(4.10)	33
Vitamins and Minerals					
Vitamin A (RE)	101	(10.4)	328	(26.8)	31
B Vitamins					
Thiamin (mg)	0.13	(0.016)	0.47	(0.042)	28
Riboflavin (mg)	0.26	(0.024)	0.80	(0.042)	33
Niacin (mg)	1.07	(0.172)	4.18	(0.462)	26
Vitamin B_6 (mg)	0.13	(0.017)	0.48	(0.044)	27
Folate (mcg)	26	(3.9)	100	(9.7)	26
Vitamin B_{12} (mcg)	0.45	(0.042)	1.26	(0.074)	36
Vitamin C (mg)	11	(1.9)	38	(5.0)	29
Vitamin E (AE)	0.45	(0.079)	1.24	(0.173)	36
Calcium (mg)	141	(13.5)	378	(13.1)	37
Phosphorus (mg)	134	(12.8)	376	(14.6)	36
Magnesium (mg)	24	(2.2)	68	(3.0)	35
Iron (mg)	1.1	(0.18)	4.2	(0.40)	26

TABLE V.20 (*continued*)

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Zinc (mg)	0.79	(0.084)	2.79	(0.177)	28
Copper (mg)	0.07	(0.011)	0.21	(0.022)	33
Potassium (mg)	266	(22.8)	729	(36.5)	36
Selenium (mcg)	6	(0.9)	19	(2.1)	32
Other Dietary Components					
Sodium (mg)	162	(23.7)	537	(59.3)	30
Cholesterol (mg)	19	(4.3)	53	(8.8)	36
Dietary Fiber (g)	0.8	(0.16)	2.4	(0.30)	33
Sample Size[c]	**815**	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfast meals nationally.

[a]Does not include waste from the share box items or discarded meals.

[b]Calculated as mean nutrient wasted divided by the mean nutrient served times 100.

[c]Total number of plates observed at 85 sites.

TABLE V.21

MEAN AND PERCENTAGE OF NUTRIENTS WASTED AT LUNCH, BASED ON PLATE WASTE OBSERVATIONS[a]

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Macronutrients					
Energy (kcal)	210	(11.4)	663	(15.5)	32
Protein (g)	8.0	(0.47)	26.5	(0.74)	30
Total Fat (g)	7.7	(0.52)	24.8	(0.79)	31
Saturated fat (g)	2.6	(0.16)	9.0	(0.34)	29
Monounsaturated fat (g)	2.8	(0.20)	9.3	(0.36)	30
Polyunsaturated fat (g)	1.6	(0.18)	4.7	(0.27)	34
Carbohydrate (g)	28.6	(1.65)	87.3	(2.63)	33
Vitamins and Minerals					
Vitamin A (RE)	200	(56.8)	379	(55.3)	53
B Vitamins					
Thiamin (mg)	0.17	(0.010)	0.52	(0.021)	33
Riboflavin (mg)	0.23	(0.014)	0.77	(0.018)	30
Niacin (mg)	1.97	(0.180)	6.29	(0.302)	31
Vitamin B_6 (mg)	0.15	(0.012)	0.50	(0.025)	30
Folate (mcg)	34	(2.2)	100	(3.7)	34
Vitamin B_{12} (mcg)	0.44	(0.034)	1.55	(0.057)	28
Vitamin C (mg)	9	(1.0)	27	(2.8)	33
Vitamin E (AE)	0.96	(0.089)	2.80	(0.166)	34
Calcium (mg)	131	(8.8)	448	(11.8)	29
Phosphorus (mg)	149	(8.3)	499	(13.2)	30
Magnesium (mg)	30	(2.0)	98	(3.0)	31
Iron (mg)	1.3	(0.08)	4.0	(0.12)	33

TABLE V.21 (*continued*)

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Zinc (mg)	1.01	(0.063)	3.23	(0.097)	31
Copper (mg)	0.13	(0.009)	0.39	(0.014)	33
Potassium (mg)	316	(16.2)	1,008	(23.9)	31
Selenium (mcg)	11	(0.8)	33	(1.6)	33
Other Dietary Components					
Sodium (mg)	372	(25.7)	1,147	(55.5)	32
Cholesterol (mg)	16	(1.5)	57	(3.4)	28
Dietary Fiber (g)	2.1	(0.15)	5.5	(0.26)	38
Sample Size[c]	**1,570**	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of lunch meals nationally.

[a]Does not include waste from the share box items or discarded meals.

[b]Calculated as mean nutrient wasted divided by the mean nutrient served times 100.

[c]Total number of plates observed at 161 sites.

TABLE V.22

MEAN AND PERCENTAGE OF NUTRIENTS WASTED AT SUPPER, BASED ON PLATE WASTE OBSERVATIONS[a]

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Macronutrients					
Energy (kcal)	165	(31.6)	783	(62.1)	21
Protein (g)	8.4	(1.76)	39.8	(4.63)	21
Total Fat (g)	7.2	(1.47)	31.7	(1.70)	23
Saturated fat (g)	2.8	(0.63)	10.8	(0.78)	26
Monounsaturated fat (g)	2.5	(0.47)	12.2	(1.07)	20
Polyunsaturated fat (g)	1.3	(0.32)	6.0	(0.99)	22
Carbohydrate (g)	17.2	(3.03)	86.1	(10.55)	20
Vitamins and Minerals					
Vitamin A (RE)	123	(22.7)	500	(171.5)	25
B Vitamins					
Thiamin (mg)	0.11	(0.019)	0.51	(0.042)	22
Riboflavin (mg)	0.21	(0.044)	0.80	(0.017)	26
Niacin (mg)	1.92	(0.440)	10.53	(1.415)	18
Vitamin B_6 (mg)	0.16	(0.030)	0.72	(0.083)	22
Folate (mcg)	24	(5.1)	117	(11.8)	21
Vitamin B_{12} (mcg)	0.50	(0.155)	1.63	(0.271)	31
Vitamin C (mg)	9	(2.1)	37	(12.8)	24
Vitamin E (AE)	0.87	(0.180)	3.54	(0.344)	25
Calcium (mg)	119	(39.7)	357	(55.5)	33
Phosphorus (mg)	133	(29.3)	535	(16.6)	25
Magnesium (mg)	25	(3.9)	101	(11.2)	25
Iron (mg)	1.1	(0.22)	5.1	(0.70)	22

TABLE V.22 (*continued*)

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Zinc (mg)	1.17	(0.272)	4.70	(0.651)	25
Copper (mg)	0.10	(0.022)	0.44	(0.074)	23
Potassium (mg)	294	(44.3)	1,115	(118.6)	26
Selenium (mcg)	9	(1.8)	45	(6.0)	20
Other Dietary Components					
Sodium (mg)	336	(69.2)	1,394	(103.8)	24
Cholesterol (mg)	25	(4.0)	128	(17.1)	20
Dietary Fiber (g)	1.4	(0.33)	5.9	(1.02)	24
Sample Size[c]	**119**	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of supper meals nationally.

[a]Does not include waste from the share box items or discarded meals.

[b]Calculated as mean nutrient wasted divided by the mean nutrient served times 100.

[c]Total number of plates observed at 12 sites.

SFSP = Summer Food Service Program.

On average, children wasted about one-third of energy and nutrients at breakfast and at lunch, with the percentage of waste for most nutrients falling in the range of 30 to 36 percent. Mean nutrients wasted at breakfast ranged from 26 percent for niacin, folate, and iron to 37 percent for calcium. Mean nutrients wasted at lunch ranged from 28 percent for vitamin B_{12} and cholesterol to 53 percent for vitamin A.

On average, children wasted fewer nutrients at supper than at breakfast or lunch, probably because suppers were served primarily at residential camps attended by older, active children. An average of about 20 percent of energy was wasted at supper; the mean percentage of nutrients wasted ranged from 18 percent (for niacin) to 33 percent (for calcium), with most waste falling in the range of 20 to 26 percent.

Compared with these findings, two studies of plate waste in the NSLP found that lower levels of nutrients were wasted; however, the setting and methods in those studies and in the current study differed. The 1992 School Nutrition Dietary Assessment Study (SNDA-I) estimated that about 12 percent of the calories students selected as part of school lunches were wasted, with waste of individual nutrients ranging from 10 to 15 percent (Devaney et al. 1995). However, waste was assessed in a very different manner than in the current study; it was based on students' answers to questions about incompletely consumed foods at school, rather than on direct observation or measurement, as in the current study.

At breakfast, average waste of energy and nutrients generally was lower at nonschool-sponsored sites than at school-sponsored sites (Table F.15 and Table F.16, respectively). At lunch, however, similar patterns of average nutrient waste were observed at school- and nonschool-sponsored sites (Table F.17 and Table F.18, respectively).

Sites sponsored by schools may use the OVS option. The intent of this option is to reduce plate waste; however, we did not observe significantly less plate waste at OVS sites than at non-OVS school-sponsored sites. Several factors may explain why the interviewers did not observe less plate waste at school-sponsored OVS sites than at non-OVS school-sponsored sites:

- Only 42 of 78 SFA-sponsored sites visited had sponsors that claimed to use OVS. It often was difficult to ascertain whether a site was using OVS. Many site staff were unfamiliar with the terms "OVS" and "offer versus serve," so interviewers could not ask whether OVS was used. The method for identifying an OVS site used here is based on whether the sponsor was an SFA, and whether the sponsor reported using OVS. However, sponsors may not have used OVS at some of their sites.

- The presence of interviewers on site may have affected normal procedures; some site staff who normally allowed children to refuse one or two food items at an OVS lunch may have insisted that children take all the items.[33]

[33]Interviewers at several sites reported their impressions that staff had urged the children to take more than their normal amount of food.

2. Foods Wasted on Plates

Expressing plate waste as a percentage of energy or other nutrients provides a measure of the overall extent of waste. To determine which foods contributed to the waste of nutrients, the study calculated the percentage of the most commonly served foods wasted (based on weight, in grams) and the percentage of foods in each major food category wasted; these calculations were made for breakfast and for lunch. (Sample sizes at supper were too small to produce reliable estimates.)

Eleven percent of breakfast plates had no waste (Table V.23). The percentage of waste in the different food categories varied somewhat but generally was less than one-third. Waste ranged from approximately 27 percent for the meat/meat alternate and mixed dish categories to 38 percent for the milk category. With the exception of 1-percent chocolate milk, children wasted about one-third of milk, regardless of type, which explains the 37 percent of calcium wasted at breakfast. Table V.23 also highlights some foods that were popular with children, and some that were less popular. For example, children wasted only 18 percent of their cereal, and only 21 percent of their doughnuts. However, they wasted 57 percent of graham or animal crackers and 53 percent of applesauce.

At lunch, as at breakfast, 11 percent of plates contained no waste (Table V.24). The percentage of foods wasted, by food category, ranged from about 30 percent (milk) to about 48 percent (vegetables), indicating higher waste among some food categories at lunch than at breakfast. (The "other beverage" category had only 10 percent waste.) On average, children wasted about 30 percent of their milk at lunch, and they wasted less chocolate milk than white milk. In the dairy category, they wasted more processed cheese than natural cheese. More than 40 percent of the following commonly served fruits were wasted: cooked or canned peaches; cooked, canned, or fresh apples; applesauce; canned pineapple; and grape juice. Possible explanations for fruit waste include serving fruit that was unripe, or that would have been more appealing if it had been peeled or sliced first. Commonly served vegetables with more than 40 percent waste were raw carrots, lettuce, tomatoes, and salad with assorted vegetables. Among commonly served breads, about 40 percent of white bread and rolls were wasted. Within the meat/meat alternate category, luncheon meat and bologna had the highest mean waste (43 percent and 39 percent, respectively).

Other studies provide some context on foods wasted by children in the SFSP and the NSLP. The previous national study of the SFSP, by Ohls et al. (1988), measured plate waste at lunch and found that 20 to 36 percent of food was wasted in the four key food groups (milk, meat, bread, and fruits/vegetables). Milk was wasted most often, followed by fruits/vegetables, meat, and bread. In the study of plate waste in the NSLP by Reger et al. (1996), salad accounted for the highest mean percentage of plate waste (63 percent), followed by vegetables other than potatoes (54 percent), and by 1-percent chocolate milk (48 percent) and whole white milk (48 percent). The mean percentage of plate waste of the remaining items ranged from 17 percent (dessert) to 37 percent (potatoes). An important difference between the current study and the NSLP study was that the latter was conducted at a school using OVS.

The range of plate waste among specific foods or food groups presented here is similar to the ranges found in the studies by Ohls et al. and Reger et al. For example, children wasted

TABLE V.23

PERCENTAGE OF MOST COMMONLY SERVED BREAKFAST FOODS WASTED, BY FOOD CATEGORY

Food Category	Percentage of All Plates Containing Food	Standard Error	Percentage of Each Food Wasted	Standard Error	Percentage of Each Food Category Wasted	Standard Error
Milk					37.6	(2.55)
2-percent white milk	31.8	(10.93)	35.1	(4.34)		
Whole white milk	28.8	(7.98)	37.2	(3.59)		
1-percent white milk	16.8	(4.48)	31.1	(5.02)		
1-percent chocolate milk	14.2	(6.21)	53.6	(11.96)		
Dairy[a]					30.1	(4.52)
Yogurt	7.4	(5.61)	26.9	(4.03)		
Processed cheese	6.9	(4.30)	35.2	(7.53)		
Fruit					31.0	(2.92)
Orange juice	39.8	(9.28)	22.8	(4.12)		
Apple juice	20.4	(7.16)	25.3	(6.99)		
100-percent fruit juice blend	8.1	(3.74)	28.2	(5.33)		
Nectarine	5.6[b]	(5.40[b])	88.8[b]	(0.00[b])		
Applesauce, apples (cooked or canned)	5.3	(2.56)	52.6	(12.16)		
Vegetable					30.2	(3.97)
Bread/Bread Alternate					29.9	(3.26)
Cereal	54.8	(9.18)	18.2	(3.44)		
White bread	11.7	(5.38)	31.1	(2.65)		
Dark bread (whole wheat, rye, bran)	9.1	(7.58)	25.1	(4.65)		
Sweet roll, breakfast tart, coffee cake, funnel cake, churro	8.0	(5.87)	22.9	(6.97)		
Doughnut	5.7	(3.21)	20.9	(3.09)		
Crackers (animal, graham)	5.1	(3.40)	57.4	(8.06)		
Meat/Meat Alternate[c]					26.6	(4.10)
Eggs	7.7	(3.26)	30.4	(5.53)		
Mixed Dish[d]					27.2	(7.75)
Other Beverage[e]					28.9	(2.55)
Plates with No Waste	11.2	(2.18)				
Sample Size[f]	**556**	—	**815**	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

TABLE V.23 (*continued*)

NOTE: Tabulations are weighted to be representative of breakfast meals nationally.

[a]Excludes milk. Dairy items are considered meat alternates.

[b]Estimates may be unreliable due to small sample size.

[c]The meat/meat alternate is not a requirement at breakfast.

[d]May include combinations of meat, dairy, bread, and vegetable items. Items counted as part of mixed dishes are not counted in these separate categories.

[e]Other beverages include soft drinks, iced tea, and fruit-juice drinks, which contain less than 100-percent fruit juice.

[f]Represents total number of plates observed at breakfast.

TABLE V.24

PERCENTAGE OF MOST COMMONLY SERVED LUNCH FOODS WASTED, BY FOOD CATEGORY

Food Category	Percentage of All Plates Containing Food	Standard Error	Percentage of Each Food Wasted	Standard Error	Percentage of Each Food Category Wasted	Standard Error
Milk					29.6	(3.19)
1-percent chocolate milk	37.2	(5.88)	29.5	(3.07)		
2-percent white milk	14.5	(4.36)	34.6	(9.36)		
Whole white milk	14.2	(2.87)	22.0	(6.57)		
2-percent chocolate milk	12.8	(5.25)	19.4	(2.85)		
1-percent white milk	9.3	(2.49)	24.7	(5.28)		
Skim chocolate milk	5.9	(3.49)	23.3	(2.68)		
Dairy[a]					45.4	(7.38)
Processed cheese	18.7	(4.21)	36.8	(3.23)		
Natural cheese	8.0	(3.08)	24.8	(6.86)		
Fruit					37.2	(3.63)
Peaches (cooked or canned)	13.4	(4.20)	55.5	(13.27)		
Apple juice	10.2	(3.39)	32.6	(9.74)		
Cantaloupe, honeydew, watermelon	10.0	(4.51)	28.9	(6.45)		
Orange (raw)	9.7	(4.02)	33.8	(5.38)		
Applesauce, apples (cooked or canned)	8.5	(2.45)	42.2	(4.38)		
Apple (raw)	8.2	(3.59)	47.6	(12.57)		
Banana (raw)	7.8	(3.37)	35.5	(9.82)		
100-percent fruit juice blend	7.7	(3.10)	20.1	(8.21)		
Pineapples (canned)	7.0	(2.66)	44.9	(8.79)		
Fruit cocktail	6.9	(2.81)	32.2	(5.75)		
Grape juice	5.9	(2.39)	61.7	(30.0)		
Pears (cooked or canned)	5.7	(2.09)	34.4	(7.30)		
Vegetable					48.3	(4.49)
French fries	10.3	(4.24)	18.9	(2.31)		
Carrots (raw)	9.6	(3.25)	73.1	(14.39)		
Corn	9.5	(3.30)	36.1	(5.07)		
Lettuce (raw)	8.1	(2.46)	47.9	(5.45)		
Tomatoes (raw)	7.4	(2.35)	57.0	(5.32)		
Salad with assorted vegetables	5.7	(3.18)	65.8	(10.83)		
Pickles	5.7	(2.11)	33.0	(6.93)		
Bread/Bread Alternate					38.6	(2.99)
Rolls (white, egg, hoagie)	28.6	(4.57)	41.4	(4.62)		
White bread	20.7	(5.93)	40.0	(4.89)		

TABLE V.24 (*continued*)

Food Category	Percentage of All Plates Containing Food	Standard Error	Percentage of Each Food Wasted	Standard Error	Percentage of Each Food Category Wasted	Standard Error
Dark bread (whole wheat, rye, bran)	11.8	(3.56)	30.3	(7.24)		
Crackers (animal, graham)	11.3	(3.95)	36.7	(8.36)		
Cookies	9.8	(2.65)	18.7	(4.10)		
Salty snacks	6.2	(2.94)	20.8	(7.35)		
Meat/Meat Alternate					35.7	(5.87)
Luncheon meat	18.6	(4.01)	42.5	(6.07)		
Bologna	8.6	(2.86)	39.3	(6.54)		
Peanut butter	6.3	(1.93)	15.6	(11.11)		
Ground beef	5.5	(2.22)	24.2	(4.62)		
Mixed Dish[b]					31.6	(2.75)
Pizza	15.7	(4.49)	32.8	(7.15)		
Other Beverage[c]					10.0	(4.58)
Plates with No Waste	10.6	(1.45)				
Sample Size[d]	**989**	**—**	**1,570**	**—**	**—**	**—**

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of lunches nationally.

[a]Excludes milk. Dairy items are considered meat alternates.

[b]May include combinations of meat, dairy, bread, and vegetable items. Items counted as part of mixed dishes are not counted in these separate categories.

[c]Other beverages include soft drinks, iced tea, and fruit-juice drinks, which contain less than 100-percent fruit juice.

[d]Represents total number of plates observed at lunch.

about 66 percent of the salad served in SFSP lunches, compared with 63 percent of salad in NSLP lunches. When vegetables (including potatoes) were served in SFSP lunches, about 48 percent remained on the plate as waste. Although children wasted less than 30 percent of the 1-percent chocolate milk served at SFSP lunches, nearly 54 percent of it was wasted at breakfast, which was slightly higher than the percentage of waste reported by Reger et al. In addition, the amount of SFSP whole white milk wasted at breakfast and at lunch (22 percent and 37 percent, respectively) was less than the amount reported by Reger et al. (48 percent).

The extent of plate waste for specific foods generally is not what would be expected based on site supervisors' views about the children's most liked and least liked foods. Based on site supervisors' reports, one would expect children to waste more dark bread (whole wheat, rye, or bran) than white bread, yet the converse was true (31 versus 25 percent at breakfast). However, almost 40 percent of bologna was wasted, which is consistent with the staff's ranking of bologna as the meat "liked the least." Although the staff ranked canned peaches second among the most-liked fruits, children wasted an above-average amount (almost 56 percent). Conversely, fruit juice blend, with a below-average waste (20 percent) was not on the staff's list of popular fruits. Raw carrots, with a plate waste of 73 percent, ranked first among the vegetables with higher-than-average waste and ranked first on the list of most-liked vegetables. One explanation for these discrepancies is that serving sizes may provide more food than some children are able to eat during a meal. It is also possible that the distribution of waste provides a different picture of plate waste than does an examination of mean waste across sites; foods that are well-liked in some places, but disliked in others, may have average levels of waste overall.

Food waste and, therefore, nutrient waste generally was lower at supper than at breakfast or lunch. Suppers were served primarily at camps, and children attending camps generally were older and more active throughout the day than were children attending other types of sites. Twelve percent of supper plates had no waste. With the category "other beverages" excluded, waste among food categories ranged from 12 percent for fruit to 44 percent for milk. The meat/meat alternate category had mean waste of 21 percent, and the vegetable category had mean waste of 30 percent.

3. Reasons for Food Waste

During their interview, site supervisors were asked to provide explanations for waste in general at their sites, including plate waste and other types of waste. Only about 3 percent of site supervisors stated that food was never wasted. The main explanation for food waste was that children did not like the food (68 percent). Approximately 17 percent of site supervisors reported that fluctuations in attendance was the main reason that their site had food waste; 6 percent reported that bad weather (leading some children to stay home) was the main reason. Both of these responses suggest that most of these sites' waste was in the form of leftover meals, rather than plate waste. A small percentage of site supervisors (fewer than 5 percent) reported other reasons, such as children being served more food than they could eat (plate waste), and insufficient on-site storage space (other waste). In addition, interviewers observed that young children did not always have enough time to finish their meals, which might explain some of the plate waste among this group of program participants.

VI. SUMMARY AND CONCLUSIONS

The Summer Food Service Program (SFSP) provided approximately 130 million meals to children in 2001 through more than 4,000 local sponsors and more than 35,000 sites. The program almost always operates in conjunction with other activities. Therefore, in addition to providing meals, it helps to sustain summer programs that promote physical activity and foster children's social and educational development. The last major study described the 1986 SFSP (Ohls et al. 1988). Since then, the number of sponsors, number of sites, and average daily attendance have grown considerably. SFSP sites also are now more likely to serve breakfast as well as lunch, and to stay open for longer than 6 weeks.[1] As shown in Chapter I, however, SFSP participation (as measured by average daily attendance in July) has leveled off since 1994; in 2001, the number of children receiving SFSP meals in July was 14 percent of the number of children receiving free or reduced-price school meals during the school year.

This study has considered three research questions concerning the SFSP:

1. ***How does the SFSP operate at the state, sponsor, and site levels?*** Is the program operating as intended by current policy and regulations? What areas do staff believe are in need of improvement?

2. ***What factors affect the participation of sponsors and children?*** What barriers to participation do program staff believe are the most important? What are program staff doing to expand participation? What is the level of entry and exit of program sponsors? Why do some sponsors leave the program, and how do their characteristics compare with those of sponsors overall?

3. ***What is the nutritional quality of meals served, and what is the extent of plate waste?*** How are SFSP meals prepared and served? What are the foods served and portion sizes? How does the nutritional content of SFSP meals compare with standards for good nutrition? What factors are associated with more-nutritious meals and less waste?

This chapter considers, for each of the three research questions, key findings and issues for future research and policy development.

A. PROGRAM ADMINISTRATION

To safeguard program integrity and meal quality, SFSP regulations require careful documentation for sponsor applications and claims, extensive monitoring of site operations by state agencies and sponsors, and adherence to highly detailed operating procedures. However,

[1] See Tables II.5 and II.9.

the state and sponsor staff interviewed for this study often perceived the detailed program rules and the complex reimbursement procedures as burdensome; some of these staff felt that the rules might discourage program growth.

1. Key Findings

- ***State administrators and some sponsors consider the application process for SFSP sponsorship to be demanding.*** Some state administrators (about 40 percent) reported that they did not have sufficient staff to process applications; more than 80 percent of state administrators reported that they often assisted sponsors with the process (as opposed to sometimes or rarely assisting sponsors). Sponsors who had suggestions for improving the application process (about 25 percent of all sponsors) most often suggested reducing the overall level of paperwork required; others suggested dropping specific requirements.[2] Forty-six percent of state administrators reported that, of all the topics covered in training and thereafter, new sponsors had the greatest difficulty with preparation of the budgets that are required as part of applications; 28 percent mentioned the application process overall as most difficult for sponsors.[3] Most state administrators felt that recent changes in application procedures had not helped.

- ***State administrators and sponsors reported undertaking monitoring activities that largely are consistent with the monitoring required by SFSP regulations.*** The state agencies reported reviewing more than 90 percent of new sponsors in 2001 (somewhat less than the required 100 percent), and about 60 percent of experienced sponsors (monitoring of at least one-third is required); they visited an average of 30 percent of the sites. More than 80 percent of sponsors reported that they monitored all sites at least twice, and nearly three-quarters reported that their visits always were unannounced.

- ***About 70 percent of sponsors expected that SFSP reimbursements would not cover all their costs.*** Most reported that reimbursements would cover at least 75 percent of their costs, however. Those who did not expect all costs to be covered most often expected to use their own funds to fill the gap; some expected to use funding from their parent organizations or other state or federal programs. About 75 percent of sponsors who had operated in previous years reported that they had instituted program changes in the past few years to control costs, such as reducing staff hours or meal costs.

[2]Although only 25 percent of sponsors provided comments on the application process, the comments were in response to an open-ended question on a mail survey. Respondents to such questions tend to be those with a relatively high level of concern.

[3]As multiple responses were allowed, these groups may overlap (see Table III.15).

- ***Eighteen percent of sponsors (serving 30 percent of meals) obtained meals from a vendor.*** Although sponsors using vendors had some concerns about the quality of food the vendors provided and monitored them closely, about 80 percent were satisfied with the vendors' performance. About one-third of vended sponsors used School Food Authorities (SFAs) as their vendors.

2. Issues for the Future

Many state administrators and sponsors suggested that changes in paperwork or other requirements and/or in the reimbursement process could improve the SFSP and help the program to attract sponsors.[4] At the same time, requirements for the SFSP have specific functions. (For example, requirements to specify serving times and the dates of field trips at each site, which are time- and paperwork-intensive for sponsor and state staff, are intended to ensure that state monitors know when to arrive and what to verify when visiting sites.) It may be possible to develop creative approaches to simplifying these procedures while maintaining their basic role in ensuring program integrity. In some instances, it may be worth reviewing whether the costs of the provisions outweigh their benefits. If detailed requirements are reduced, strong monitoring programs may increase in importance.

In recent years, the U.S. Department of Agriculture (USDA) has introduced changes to simplify the application process and has reduced monitoring requirements. In 2001, the agency began experimenting with several approaches to simplifying the program. Specifically, the 14-state pilot project, discussed in detail in Chapter I, allows sponsors to combine administrative and operating costs, and to be reimbursed at the maximum rate. The "Seamless Summer" waivers allow SFAs to run open sites under National School Lunch Program (NSLP) rules, while receiving the lower NSLP free meal reimbursement rate. Studies of these initiatives will help to assess whether the approaches should be adopted more widely.

One possible way to further simplify the SFSP sponsor application process (and, possibly, other types of paperwork, such as claims) would be to make better use of technology. For example, some state agencies and sponsors suggested making more use of electronic application forms that could be updated easily from year to year, or as items change during the year. Improving technology requires an upfront investment of resources, but in the long term, it may make the program simpler to operate without reducing accountability.

Dropping the requirement to prepare detailed administrative and operating budgets, particularly in the context of the 14-state pilot project, in which sponsors are paid fixed rates per meal, would simplify the application process further. However, state agencies use review of sponsors' budgets to assess the administrative capacity of the sponsors. This year, USDA is

[4]For example, in response to an open-ended question asking for comments about the program, 26 percent of state administrators commented in general terms that paperwork or requirements should be reduced; others suggested simplifying specific rules or procedures.

allowing school sponsors that are part of the 14-state pilot program to drop the budget from their applications.

Some states have adopted other approaches to help new or smaller organizations (particularly nonprofit organizations) feed children during the summer, while reducing their administrative responsibilities. For example, they may encourage these organizations to become sites for school sponsors in their areas (rather than serve as sponsors themselves), or, if local SFAs are not willing to become sponsors, encourage them to use SFAs as vendors.

B. PARTICIPATION

Despite the efforts of USDA, state agencies, and advocates to expand SFSP participation, the program has not grown in recent years. This study sought to understand the factors affecting participation of sponsors and children.

1. Key Findings

- ***All state agencies reported conducting outreach to attract new sponsors, and most sponsors (71 percent) reported making efforts to increase participation.*** Despite these efforts, about 40 percent of state agencies reported having inadequate staff time for outreach. However, state agencies worked closely with partner organizations, particularly nutrition or antihunger advocates, to recruit sponsors. Sponsors also worked extensively with partners.

- ***More state administrators (33 percent) mentioned one-on-one meetings than any other approach as the most successful approach for recruiting new sponsors.*** State administrators believed the complexities of administering the SFSP and sponsors' difficulty covering their costs are major reasons why recruiting is challenging; one-on-one meetings are useful in addressing these issues. Outreach to schools was the second most commonly mentioned successful approach (mentioned by 24 percent of state administrators).

- ***Staff at all levels most frequently cited lack of transportation as a barrier to children's participation.*** About one-third of programs offered transportation to at least some children.

- ***Sponsors generally were not interested in opening more sites, either because they felt their area was well-covered or because they were single-site programs; most site supervisors reported that they had the capacity to serve additional children at their sites.*** It is not possible to determine whether the excess capacity existed because sites were meeting demand, or because inadequate publicity or family barriers prevented some children from attending.

- ***New sponsors were more likely than continuing sponsors to be private nonprofit organizations; about half of all new sponsors were school sponsors and one-third were nonprofit organizations.*** New sponsors also were smaller than continuing sponsors.[5]

- ***Sponsors that left the program were diverse, but they were more likely than continuing sponsors to be small, to be new, and to be private nonprofit sponsors.*** Sponsors that left most often cited paperwork and inadequate reimbursements as reasons, with about 45 percent mentioning each reason. Forty percent found that demand was insufficient to sustain the program.

2. Issues for the Future

Free or reduced-price participation in the NSLP has been used as a benchmark for what SFSP participation should be. Under the current eligibility rules for the two programs, however, it is not reasonable to expect the SFSP to serve as many children as are served by the free and reduced-price components of the NSLP. In particular, the following differences between the SFSP and the NSLP affect children's participation: (1) the SFSP is available primarily in areas with high concentrations of low-income children, which qualify for open sites, whereas the NSLP is available in schools nationwide; (2) participation in programs associated with the SFSP is voluntary, whereas children generally must attend school and thus are on the site at which the NSLP is offered; and (3) schools must offer transportation to children who do not live within walking distance, whereas only one-third of SFSP sites offer transportation. The Economic Research Service (ERS) is building a Web site based on sponsor and site data collected during this study (described in Section B.3) that may help to determine a more realistic goal for SFSP participation levels by permitting an assessment of the number of children living in areas eligible for open sites.

Nonetheless, the Food and Nutrition Service has expressed its commitment to expanding the SFSP by recruiting more sponsors and sites and by expanding participation at existing sites. Because lack of staff or funding sometimes constrains SFSP outreach, some state administrators suggested awarding grants to states and/or sponsors targeted specifically to outreach activities or funding a national media campaign. These programs could then be evaluated in order to determine which approaches are most promising.

At the same time, the feedback received from state agencies and sponsors during this study suggests that outreach is not enough to recruit more new sponsors. Simplifying administrative rules also may be very important to achieving this goal. The recent initiatives to simplify the SFSP, discussed in Section A, also are intended to increase children's access to summer meals, and evaluations will consider the programs' effects on participation. Meals served in the "Seamless Summer" initiative are counted as NSLP meals, rather than as SFSP meals; thus, effects on the number of meals served by both programs during the summer must be assessed.

[5]New sponsors are defined as sponsors that operated in 2001 but not in 2000. Some new sponsors may have participated before 2000.

In considering how to improve outreach activities, it is important to determine where to focus on recruiting new sponsors in uncovered areas, and where to focus when seeking to increase participation at sites operated by existing sponsors. Many state agencies already target outreach to school districts that would qualify for open sites, but that do not currently participate. As discussed in Section B.3, the Web site tools that ERS is developing will enable users to link site locations and participation data to census poverty data, thereby identifying areas eligible for open sites that lack sponsors or sites. The Web site also will enable users to assess whether areas served by current sponsors are well covered, and whether sponsors have failed to reach large proportions of children in their areas. This information can serve as feedback to sponsors on the success of their outreach efforts. As a way of removing some of the barriers to participation at current sites, some state administrators suggested providing targeted grants to sponsors, to help the sponsors offer transportation.

Finally, information from this study suggests that new sponsors are at higher risk of leaving the program than are more experienced ones. Thus, even though states already focus much of their training, technical assistance, and monitoring on new sponsors, it may be worthwhile to review these procedures.

3. Future Research

As a follow-up to this study, ERS is developing an interactive Web site, which will allow states, sponsors, and advocacy groups to use geographic information systems (GIS) software and data to analyze SFSP accessibility and coverage. This user-friendly tool will be based in part on the 2001 SFSP Sponsor-Site Database prepared during this study.[6] In this database, addresses for all 2001 SFSP sponsors and sites have been coded with geographic information, such as latitude, longitude, and census tract number. The database will be linked to Census 2000 data on small geographic areas, and to school census data from the Common Core of school data. This information, combined with special GIS software, will allow SFSP sponsor and site addresses to be placed on maps, and to be linked to census data on their surrounding neighborhoods.

The goals for the Web site are to:

- Visually display SFSP sponsors and sites in geographic relation to concentrated areas of child poverty
- Provide information in tabular format to permit methodical examination of results
- Profile SFSP sites by detailing demographic characteristics of the census tract in which they are located

[6]This database is discussed in detail in Appendix A and was the source for some of the tabulations in Chapter II.

Analysis using these tools could answer such key questions as:

- What proportion of local areas that are qualified to have an SFSP site do not have any sites?
- How many children from low-income families live in areas that are not eligible for SFSP sites?

States, sponsors, and advocacy groups could use this type of information to identify eligible areas and underserved areas. It also might be used to assess the effects of the current area-eligibility cutoff, and the possible implications of changes in the cutoff. If changing the cutoff is not of interest, the information could help to set a realistic target for the number of children that the program potentially could reach.

C. MEAL SERVICE

SFSP sponsors have a responsibility to provide nutritious meals to low-income children during the summer. Overall, this study's findings suggest that sponsors serve a wide range of foods across sites in meals that, on average, meet current Recommended Dietary Allowance (RDA) standards for most nutrients. However, there is room for improvement in (1) nonschool sponsors' compliance with meal pattern requirements;[7] (2) meeting nutrition standards for health promotion and disease prevention (for example, by providing lower-saturated-fat and lower-sodium food options); and (3) reducing plate waste. The SFSP faces significant opportunities and challenges in helping sponsors and site staff to address these issues. Possible approaches include additional training, better guidance materials, and incorporation of additional nutrition education into staff training and guidance materials. The SFSP also offers an environment for providing nutrition education messages about healthy eating behaviors to participating children.

1. Key Findings

- ***On average, SFSP meals provided at least one-quarter of the RDAs for most key nutrients at breakfast, and at least one-third of the RDAs for energy and key nutrients at lunch and supper.***[8] Breakfasts fell slightly below the standard for energy, providing an average of 21 percent of the RDA.
- ***On average, SFSP meals did not meet nutrition standards for the percentage of calories from total fat or from saturated fat, with the exception of total fat at breakfast.*** Breakfast and lunch provided 27 percent and 30 percent of calories from

[7]This study did not assess school sponsors' compliance with menu planning requirements. See Chapter V for further discussion of this issue.

[8]Key nutrients besides energy are vitamin A, vitamin C, iron, and calcium.

total fat, respectively; the standard is no more than 30 percent of calories from total fat. Breakfast provided 11 percent of calories from saturated fat, and lunch provided 12 percent; the standard is less than 10 percent of calories from saturated fat. The average fat content and the average saturated fat content of SFSP meals were similar to those reported for school breakfasts and school lunches in 1998-1999 in the School Nutrition Dietary Assessment Study II (Fox et al. 2001).

- ***A range of foods was observed across sites in SFSP meals, with a greater variety of menus observed at lunch than at breakfast.*** Breakfast typically consisted of milk, cereal, and 100-percent fruit juice; some breakfasts included a hot main entree, such as scrambled eggs or a breakfast sandwich. A typical SFSP lunch contained milk, a sandwich or mixed dish, a fruit or juice, and a vegetable. Fifty-four percent of lunches provided a cold main entree, 43 percent provided a hot entree, and 3 percent offered both options.

- ***Because nonschool sponsors must follow the SFSP meal pattern, whereas school sponsors may use other meal planning approaches, compliance with the SFSP meal pattern was assessed only for nonschool sponsors. Fifty-five percent of breakfasts and 71 percent of lunches served by nonschool sponsors met all the SFSP meal pattern requirements.*** Breakfasts sometimes did not contain all the components, and sometimes fell short of the required amounts (particularly for the fruit/vegetable component). At lunch, meals that fell short typically served all the components but did not meet the minimum serving size for some of them, particularly the meat/meat alternate component.

- ***Children wasted an average of about one-third of the calories and nutrients they were served.*** This amount varied across sites and by foods. About 11 percent of meals were eaten completely, with no plate waste. At more than two-thirds (68 percent) of the sites, site staff reported that the children's dislike of the food was the most common reason for waste. About 44 percent of sites provided a "share box" to encourage children to share unwanted food, and to reduce food waste.[9]

2. Issues for the Future

The findings on the nutrient content of SFSP meals suggest meal pattern and menu planning issues for consideration. The findings on meal service may be useful in developing topics that sponsors might emphasize during training of site staff who prepare or handle meals, or that could be incorporated into menu planning materials for sponsors. These findings also suggest that nutrition education for sponsors' staff, site staff, and SFSP participants may be a useful strategy for improving menu planning, promoting healthy eating behaviors, and reducing plate waste.

[9]Plate waste estimates do not include leftover meals that were not served or items left in the share box at the end of the meal service.

a. Meal Patterns and Menu Planning

As noted, some meals served by nonschool sponsors did not meet meal pattern requirements, usually because the serving size of a component (most often, the meat or meat alternate component at lunch and the fruit/vegetable component at breakfast) fell short by a modest amount. Training site food-handling staff about the required serving sizes (particularly at self-preparation sites), and having sponsors work with vendors to ensure that the required serving sizes are served may improve this area. In some cases, meals did not meet the meal pattern requirements because commercial packaging of some foods dictated the serving size. For example, some brands of single-serve boxes of ready-to-eat cereals and juices were smaller than the required serving sizes. Additional guidelines and training could assist sponsors in purchasing and preparing foods to meet the minimum portion sizes in the context of such factors as commercial packaging.

On average, SFSP meals met standards for key nutrients but exceeded recommended levels of sodium, fat, and saturated fat. In the future, the SFSP will be challenged to continue to provide meals offering adequate energy and nutrients while striving to meet dietary guidelines for saturated fat, total fat, and sodium. The foods analysis and nutrient distributions may be useful to the program's future need to consider Dietary Reference Intakes (DRIs) while reviewing meal pattern requirements and while helping sponsors plan menus (Institute of Medicine 2000a).

Overweight and poor dietary habits among American children are issues of increasing policy concern (U.S. Department of Health and Human Services 2000; and Food and Nutrition Service 2002g). To address these concerns and meet nutritional goals, SFSP sponsors and sites must take steps to (1) ensure that SFSP meals contain a variety of nutrient-dense foods, such as fruits, vegetables, whole-grain breads and cereals, and low-fat dairy products and meats; and (2) reduce the total fat, saturated fat, and sodium content of the meals. Additional nutrition education for sponsors and site staff may help them to plan menus that achieve these goals.

Although it was not possible to directly assess food variety within sites, the site supervisors' reports of children's least favorite foods and most favorite foods suggest that providing a variety of foods to children is important. Some site supervisors reported that they had little opportunity to request or change foods served at their sites, and little communication with sponsors about which foods would be served. Sponsors could be encouraged to develop a mechanism to obtain feedback and input from site staff (and from participating children) about children's foods preferences. A dialogue of this type could lead sponsors to serve meals that are more appealing to children, thereby reducing plate waste.

b. Meal Presentation

The way that meals are served may influence children's food consumption. Observation showed that site staff used a variety of creative methods to serve meals, and to engage children in the meal service. For example, site staff took prepackaged bag meals apart to increase their appeal, gave children a choice of fresh fruits, encouraged children to take a second fruit or milk from the "share box," asked children to help distribute bag lunches or set the table, and served

meals "family style." Children also need ample time to eat and finish meals, as suggested in one interviewer's note: "The bus was leaving before the children finished lunch. More than one child was still eating as they raced to garbage cans and the bus."

Because school meals and SFSP meals have similar requirements for nutrient content, materials from USDA's School Meals Initiative for Healthy Children (SMI) may be applicable to the needs of the SFSP. The SMI provides schools with educational materials and technical assistance to assist food service personnel in preparing healthy, appealing meals for children (Food and Nutrition Service 2002g). Both SMI resources and SFSP Best Practices, promoted on the FNS Web site, may help state agencies train sponsors, and help sponsors train site staff, about ways to improve meal service and make healthy foods more appealing to children.

c. Reducing Plate Waste

Efforts to reduce plate waste must take into consideration children's food preferences while ensuring that the variety of appealing foods served meets nutrition standards. Improving meal planning and presentation, as discussed in the preceding sections, may help to achieve this goal. Another strategy that may be worthy of further study is offering more options at the meals (for example, choices of different types of milk, of fruits or vegetables, and of entrees); in some cases, however, offering more choices may be infeasible because of such factors as cost or storage constraints. Other strategies, such as nutrition education for children and increased use of share boxes, may also help.

Calcium is an important nutrient for growing children, as indicated by its inclusion in the U.S. Dietary Guidelines and as a key nutrient cited in school meal regulations. This study found that mean calcium levels in SFSP meals served were roughly equal to recommended standards for older children. On average, however, 38 percent of milk served at breakfast and 30 percent of milk served at lunch was wasted. This level of milk waste suggests that the mean amount of calcium from SFSP meals actually consumed may be below recommended levels. Some children may waste milk because they prefer white milk but are served only chocolate milk, or vice versa. Some children may waste milk because they are lactose intolerant or because of cultural preference, and some may choose another beverage (for example, fruit juice or a drink from another source) rather than drinking the milk served as a beverage, if these choices are available. However, not all sites offered a choice among types and flavors of milk. Providing a choice of low-fat white and chocolate milks and serving other foods containing calcium, such as calcium-fortified orange juice, low-fat yogurt, and low-fat cheese, are possible strategies to reduce milk waste and meet calcium recommendations.

Increasing consumption of fruits and vegetables is an important strategy in improving the nutritional quality of children's diets. The composition of SFSP lunches in 2001 reflects an increased focus on meeting the fruit/vegetable component requirement by serving both fruits and vegetables—most SFSP lunches in 2001 included both fruits and vegetables, whereas most sites in 1986 served two fruits (Ohls et al. 1988). However, children wasted about half the vegetables and 40 percent of the fruits served at lunch, suggesting the importance of strategies to reduce fruit and vegetable waste. One site supervisor stated, "The kids were so small that it was hard to bite on a hard apple and a hard peach." Preparing fruit differently for smaller children (for

example, paring and slicing the fruit) and purchasing ripe fruit are two strategies that may reduce this waste. Serving low-fat dressings or dips may encourage children to eat raw vegetables. Involving children in meal preparation more often may also encourage them to eat healthy foods.

Fewer than half the sites were observed to have share boxes to encourage children to share unwanted food. This finding suggests that more sponsors should be encouraged to provide their sites with share boxes, and to train site staff in the appropriate use of the share box. However, sponsors must offer share boxes in accordance with local health code requirements, which may require disposal of unclaimed share box items at the end of the meal.

3. Future Research

The SFSP study provides a rich database for additional research on the content of SFSP meals and on factors that affect the extent of plate waste in the program. The study also points to other areas of research that were not feasible given the sample sizes of the subgroups, and to areas that the site observations did not cover in depth. For example, future research might explore the content of training offered to site staff in more detail and the relationship between sponsor and site staff training in nutrition, use of a share box, and plate waste. A more in-depth study of school-sponsored sites that did and did not use OVS might provide more insight into the effects of this approach on nutrients consumed and on the extent of plate waste.

Additional research could be conducted with the SFSP data to identify the major food sources of nutrients at breakfast, lunch, and supper. This research could suggest foods to serve in SFSP meals to meet nutrition standards that were not met in meals observed for this study. Additional food and nutrient analysis combined with analysis of children's food preferences and plate waste could help to explain the factors that affect plate waste. Related factors that were not included in this study, but that a focused study could address, are the effects on plate waste of whether competing foods and beverages are available on site, the time available for children to eat, and the time between serving snacks and serving meals.

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APPENDIX A

DATA COLLECTION METHODS

This appendix presents the data collection methods used to conduct interviews with state administrators, current sponsors, and former sponsors, and interviews and observations at the sites. In each case, the universe or sample for the interviews is discussed, as are the materials sent to respondents, the training of staff, the conduct of the interview and observations, the data processing, and the results of the interviews. Then, key data cleaning decisions that involved consistency checks across several data sources are discussed. Finally, this appendix discusses the development of the 2001 Summer Food Service Program (SFSP) Sponsor-Site Database.

A. STATE DATA COLLECTION

1. Interview Universe

The state administrator interviews are a census of administrators at agencies responsible for the SFSP in each state or territory in which the program operated in 2001. Interviews were conducted with administrators in all 50 states, Washington, DC, Puerto Rico, and the Virgin Islands. In New York, two agencies administer the SFSP: (1) the state education agency administers the program for school and government sponsors; and (2) the Food and Nutrition Service (FNS) regional office administers it for nonprofit sponsors, residential camps, and National Youth Sports Programs. A separate interview was completed with each agency, thereby essentially treating the agencies as two separate "states." The FNS regional office administers the program in Michigan and in Virginia, so the FNS staff member with major responsibility for the program in each of those states was interviewed.[1] As Guam did not operate the SFSP in 2001, no one from Guam was interviewed.

2. Preinterview Activities

In spring 2001, Mathematica Policy Research, Inc. (MPR) mailed a letter to the state SFSP contact designated by FNS. A contact person, generally the main person responsible for the SFSP at the agency, was then chosen by each state agency. MPR contacted these people several times in the spring to obtain sample frame information for the sponsor and site samples.

On August 28, 2001, MPR mailed a second letter to all the state contacts. The letter thanked them for their help during the spring and summer months and informed them about the requests to be made of them during the next few months. The letter outlined the additional sponsor and site lists required to build a sample for the former sponsor data collection effort, and to complete the sponsor and site database. It also requested final meal counts, by sponsor, which would become part of the sponsor database. In addition, the letter informed the state administrators that MPR staff would be calling to set up appointments to conduct telephone interviews with them. The letter included a sheet that listed some of the questions that would be covered during the

[1]The terms "state agency" and "state administrator" are used in this appendix for convenience, but they always include regional-office administered programs.

interview. Its primary purpose was to list questions that might require state administrators to look up information in their records prior to the interview.

Because of the importance of the relationships with state administrators and the qualitative nature of the interviews, MPR decided that professional staff working on the study would conduct all the state administrator interviews. The survey director and project director conducted a 3-hour training session. Four professionals received training in conducting the interviews from the project director and survey director. During the training, each question was reviewed individually, with particular focus on those related to the pilot program to simplify reimbursement rules. In addition, the training covered the qualitative nature of the survey, and staff were encouraged to write margin notes to fully explain answers or comments provided during the interview.

The states were divided among the staff. Whenever possible, states were assigned to staff who had had contact with the states' administrators during previous phases of the study.

3. The Interview

The first interview was conducted on September 26, 2001, and the last one, on October 29. Interviews were conducted with administrators from all 54 state agencies, for a final response rate of 100 percent. The interview with the state administrator in Puerto Rico was conducted in Spanish by a bilingual member of the project team, with help from another MPR staff member experienced in translation. State administrators were encouraged to elaborate on their responses during the interview. The average length of the interview was 60 minutes, with the interviews ranging from 25 minutes to nearly 2 hours (1 hour and 55 minutes).

In most cases, interviews were conducted with one respondent. However, 13 state administrators invited others on their staff to participate. In some states, for example, multiple respondents completed the interview because the administrator was new to the program; in some states in which other departments or other staff handled funding, these staff participated because the administrator did not feel able to answer questions about funding.

The MPR project director encouraged research staff who would later be analyzing the data to listen to one or more state interviews (with the respondent's permission). This participation was designed to help the researchers better understand how the program works at the state level. Six state interviews had more than one MPR staff member on the call.

4. Postinterview Activities

Because of the qualitative nature of the interview and the many open-ended questions asked, the interviewer inputted onto a computer the state administrator's verbatim statements and any additional comments made during the interview. This information was then coded and edited by senior research staff responsible for analyzing the data. Each staff member kept track of his or her own interviews and followed up with state administrators to obtain any information that had not been provided during the interview (for example, because the state administrator had to consult records). Most followup occurred by electronic mail. All questionnaires were reviewed

and edited by the survey director or her assistant prior to data entry. They were then data entered and 100-percent verified. The data were reviewed and cleaned prior to analysis.

Because the interviews were a census of all state SFSP administrators in 2001, it was not necessary to construct weights to represent the universe of state agencies. The responses also have no sampling error. (They may have recall or reporting error.)

MPR merged the interview data and data on the type of state agency, which was obtained from the state Management and Administrative Plans (MAPs). MPR also compared the state interview data with data on the sponsor and site lists received from the states. In the many cases in which small discrepancies between the interview data and the lists were identified, MPR followed up with the state agency. Most of the discrepancies (usually involving only one or two sponsors) were resolved. The sponsor and site list data provided the following variables: (1) number of sponsors; (2) number of sponsors, by type; and (3) number of new sponsors. The list database also was the source of a variable for the number of sites per state. The data reported in the state administrator interview was used for all data missing from the lists. The final state interview data file reflects the best estimates of these quantities.

B. SPONSOR SURVEY

1. Sample Selection

The sample for the sponsor survey was selected from lists of SFSP sponsors from summer 2000 and lists of expected new sponsors that had completed applications or attended training to be SFSP sponsors in 2001. Of the 138 sponsors in the primary sample, 130 were continuing sponsors; the other 8 were new. Three sponsors were selected from the replacement sample to replace 3 eligible sponsors who refused to participate in the survey at the outset, bringing the total primary and replacement sample released to 141.

Eligibility criteria required that the organization serve as a sponsor of the SFSP in the summer of 2001. In recognition of the fact that the lists would include some ineligible programs, calls were made to screen selected programs for eligibility. These calls identified 10 ineligible sponsors—8 year 2000 sponsors that did not participate in 2001, and 2 new sponsors that never opened their SFSP sites. The total eligible sample therefore consisted of 131 sponsors ([138 primary sample members + 3 replacement sample members = 141 total sample] – 10 ineligible members = total eligible sample of 131).

2. Initial Contacts

Sponsors were first contacted by telephone to obtain the site lists to be used in sampling for the site visits. During these initial calls, sponsors were notified about the sponsor survey and site visits and were screened for eligibility. At that time, three sponsors refused to participate in the study.

The SFSP sponsor survey was designed to be a self-administered mail survey with telephone followup. Two versions of the questionnaire were developed: (1) a version that sponsors would complete on their own, and (2) a version that would be administered by a telephone interviewer.

Because different sponsors began and ended their operations at different times, the selected sponsors were sorted by opening date. (For follow-up purposes, careful attention also was given to program closing dates.) Shortly after the opening date for each program, a packet was mailed to each sponsor that contained a letter providing information about the study; the study brochure; the self-administered questionnaire; and a preaddressed, postage-paid envelope. Prior to mailing these materials, survey staff extracted information about each program from the sponsor's application and recorded it on the sponsor questionnaire. Respondents were instructed to review the extracted information; update it, if necessary; and add any missing information.

3. Mail Survey and Telephone Followup

The advance letter asked the sponsors to complete the survey as soon as possible. The preaddressed, postage-paid envelope included in the mailed packet of survey materials made it easy for the sponsors to return the self-administered survey. MPR staff carefully monitored both incoming and outstanding surveys. As new information was received, the survey status for each case was updated in the tracking database.

Sponsors who had not returned a completed survey within a reasonable period were contacted by telephone. Before doing so, however, MPR project staff reviewed the contact sheet for each case to make sure there were no special issues with the sponsor, and to determine whether a site visit with that sponsor had been scheduled soon. If so, followup was delayed until after the site visit. If there were no unusual circumstances surrounding the case, followup proceeded. MPR staff developed a telephone script to determine whether the sponsor had received the survey materials. A sponsor who had received them was asked when he or she would be able to return the completed survey to MPR. This date was recorded on the sponsor's contact sheet. If the survey was not received by that date, MPR staff again called the sponsor. A sponsor who had not received the survey materials was mailed a new survey packet, with later followup, if necessary. Ten sponsors required a second mailing of survey materials.

The mailing of survey materials and follow-up reminder calls proved to be a highly efficient method of collecting data for the sponsor survey. MPR's pretest experience led it to expect only 20 percent of surveys to be completed by mail. However, 94 out of 126 total completed surveys (75 percent) were completed by mail. Possible facilitating factors include the well-received study brochure and efforts by U.S. Department of Agriculture (USDA) staff, state agency staff, and some advocacy groups to make sponsors aware of the study and of its importance.

4. Telephone Survey and Telephone Followup

Three telephone interviewers participated in a 4-hour training session on July 13, 2001. They received background information about the SFSP Implementation Study and were trained in administering the sponsor survey over the telephone. They then received a total of 53 contact

sheets for sponsors who were delinquent in returning their completed surveys, to be used for additional followup.

Professional staff at MPR, including the project director, the survey director, and a survey associate who had worked on previous rounds of sponsor contacts, received the remaining 33 outstanding cases for telephone followup. The sponsors in these cases were large and complex or had some special issue. This intensive followup produced more mail completes than telephone completes, because many sponsors preferred to complete the survey on their own, rather than have it administered to them over the telephone. MPR survey staff notified the telephone center staff whenever completed surveys were mailed back. Telephone center staff, in turn, removed that sponsor's contact sheet from the sample designated for telephone followup.

Telephone center staff received an August cut-off date to complete their work. After that date, telephone center staff returned the few remaining incomplete cases to senior MPR staff for more intensive followup. Most of these cases mailed completed surveys to MPR after additional telephone reminders; only three were completed over the telephone. In all, 32 interviews were completed by telephone—29 by telephone center staff, and 3 by senior survey staff. The telephone interviews took an average of 45 minutes to complete.

All but 2 of the 126 surveys were completed by mail or telephone by September 15. Senior staff required 2 more weeks to obtain the last two self-administered completes, which were surveys of large sponsors; these sponsors had to gather information from multiple sources to complete the survey.

5. Editing, Coding, and Data Entry

A survey associate edited and coded each questionnaire that was returned to MPR. The associate called the sponsors, if necessary, to obtain missing data or to clarify responses. Because the majority of the completed surveys had been self-administered, 73 cases required call backs. Although time-consuming, this process was successful; all but five respondents were contacted in this way.

The edited and coded surveys were delivered to the data entry department, where numeric data were entered into a specially created data entry program. In addition, open-ended responses were entered into an Excel spreadsheet and were coded by the research staff who were conducting the analysis. Data files were then produced, and the data were cleaned.

6. Sponsor Survey Results

Overall, the sponsor survey ran smoothly and successfully. The response rate for the self-administered mail survey was much higher than expected. As a result, the telephone center staff's effort was lower than expected. The final results are shown in Table A.1.

Surveys were completed with 126 of the 131 eligible sponsor cases, for a 96-percent response rate. Only five sponsors in the sample refused. Three refused during the initial screening calls, and two "passively" refused by failing to complete the survey even after repeated

TABLE A.1

RESULTS OF THE SPONSOR SURVEY

Final Status	Primary Sample	Replacement Sample	Total Sample
Completed—Self-Administered	92	2	94
Completed—Telephone	31[a]	1	32
Final Refusal	5		5
Ineligible—Former Sponsor	8		8
Ineligible—New Sponsor that Did Not Open Sites	2		2
Final Status Total	**138**	**3**	**141**
Total Records			**141**

[a]One interview completed in person during a site visit was counted as a completed telephone interview.

contact attempts. The cooperation level among the sponsors was very high, contributing significantly to the high response rate. Follow-up efforts by survey staff also were important in bringing the survey to a successful conclusion.

C. SITE DATA COLLECTION

This section discusses the methods used to conduct the site-level data collection effort. It covers the hiring and training of interviewers, the selection of sites for visits, preparations for the site visits, the procedures used by the interviewers on site, the processing and coding of the documents, and the results of the site visits.

1. Hiring and Training of Interviewers

MPR hired 15 experienced field interviewers to conduct the site visits. The interviewers came from geographically dispersed parts of the country (four from the East Coast, four from the Midwest, five from the South, and two from the West Coast). Many had previous experience in food and nutrition data collection. MPR also subcontracted with Garcia Research Associates, a California-based research firm, to conduct all the California site visits. All five Garcia

interviewers were bilingual in Spanish, as were two of MPR's interviewers, and these interviewers were prepared to conduct interviews in Spanish, if necessary.

Three-day interviewer training was conducted in Philadelphia on May 31, June 1, and June 2, 2001. Laura Kalb, the survey director, Ronette Briefel, one of the principal investigators, Anne Gordon, the project director and principal investigator, and Barbara Schiff, the training coordinator, conducted the training. During the first day, the interviewers learned about the research questions and design of the study, reviewed general interviewing techniques and recording conventions, and reviewed the site supervisor questionnaire and site observation forms in detail. The first day also covered the importance of establishing rapport and gaining cooperation.

The second and third days focused on the meal and plate waste observations. The second day began with a discussion of administrative and travel issues, which was followed by a general discussion of SFSP meal observations and plate waste observations. Interviewers were taught the procedures for these observations, including procedures for describing foods in detail and for visually and manually estimating food quantities. The interviewers (1) were taught to read food labels; (2) learned to observe and record the details about the food, such as the brand name, form, and preparation method; (3) practiced visually estimating portion sizes of foods served; (4) practiced measuring and recording the portion sizes of foods left on the plate (plate waste); and (5) learned how to randomly sample meals and plate wastes. On the third day of training, the interviewers had additional practice in meal observations. They also discussed and practiced plate waste observations. During this training session, each interviewer received direct feedback.

All attendees received a written training manual that covered the information presented during the training. They also received a bag containing measurement and visual aids to be used in the field to facilitate and standardize the meal and plate waste observations. These aids included measuring cups and spoons, a ruler, paper towels, bottled water, laminated guides listing common abbreviations and probes to use in describing common foods, and visual aids to help with portion measurement. In addition, each interviewer was given a photo identification badge showing the study logo, a brochure about the study, and a letter from USDA about the study, which they could show to program staff. All interviewers were given a toll-free help-line number at MPR for use if they encountered problems.

2. Selecting Sites

Because the goal was to produce a dataset linking the sites to their sponsors, the first step in selecting sites was to select a national probability sample of sponsors. One or more sites was randomly selected from each selected sponsor. At least one of each sampled sponsor's sites was selected for a visit. For larger sponsors, as many as four sites were selected. Samples of "replacement" sites also were created, in which as many as two "replacement" sites were matched to each "primary" site. A replacement site could therefore substitute for a primary site that refused to allow a site visit, or that closed before a visit could be scheduled.

To be eligible for the study, an eligible sponsor had to operate the site. Eligible sponsors were those approved for the 2001 Summer Food Program in the 48 contiguous states and the

District of Columbia that operated at least 1 site for at least 1 week between June 9, 2001, and August 31, 2001. Because 9 of the original 138 sponsors sampled were found to be ineligible for the survey before the site sample was selected, 9 sites were excluded from the 178 initially allocated to the sponsor sample. Thus, 169 sites were released for interviews. In addition, 3 replacement sponsors (and 3 corresponding sites) were added to the samples due to early sponsor refusals, yielding a total of 172 sites released.

Four sites were ineligible. (In one case, the sponsor also was ineligible; in the other cases, the sponsor was eligible but the site never opened.) These sites represented a proportion of the population that was ineligible for the study, so they were not replaced. Two eligible sites that could not be visited were replaced. However, each of the initial replacements was found to be ineligible or unavailable for interview and was subsequently replaced with a second replacement. Thus, 176 sites (172 sites plus 2 sets of replacements) were released for interview; 5 of these sites (4 sites plus 1 replacement) were ineligible.

The data collection plan was to observe the lunch meal at each site, and to observe one other meal at sites that served additional meals. Some sites served all three meals, so random selection was used to choose between breakfast and supper. Some sites also provided snacks. If interviewers were aware that sites served snacks, they recorded that snacks were provided, but they did not observe meals served or plate wastes during snacks.

One goal of the data collection plan was to capture the variety of foods provided to children. Interviewers were instructed to observe 10 plates at sites that permitted children to select from a variety of food items (which typically occurred when food was served in a cafeteria setting).[2] They also were instructed to observe 10 plates in schools that used "offer versus serve (OVS)," an option carried over from the National School Lunch Program, which permits children to refuse some of the required meal components. If children were not offered choices but, rather, received a "standardized" or unitized meal, interviewers were asked to observe five plates.

To ensure that the visits represented the range of program operations at a site, the day of the week for the site observation was selected at random from the days that the site was open. The selected day of the week served as a target date for scheduling the interviewers. Table A.2 compares the distribution of the days scheduled for visits with the actual days of the visits.

[2]The observed food and portion sizes for the randomly selected sample of 5 to 10 children are referred to as "plates" for short. However, the foods often were served in a bag, in a box, or on a tray.

TABLE A.2

PREFERRED AND ACTUAL SITE VISIT DAYS

	Preferred Visits Scheduled		Actual Visits	
Preferred Day of Visit	Number	Percent	Number	Percent
Monday	31	19.0	22	16.7
Tuesday	34	21.0	41	25.3
Wednesday	28	17.3	32	19.8
Thursday	40	24.7	40	24.7
Friday	28	17.3	21	12.9
Saturday	1	0.6	1	0.6
Sunday	0	0.0	0	0.0
Total	**162**	**100.0**	**162**	**100.0**

To capture variations in site operations among the early, middle, and late stages of operation, visits were scheduled on the basis of the sites' actual dates of operation such that interviewers conducted one-third of the visits during the first days of the operation, one-third during the middle, and one-third near the end. The actual visits came close to achieving this result, as shown in Table A.3.

TABLE A.3

STAGE OF SITE OPERATIONS WHEN VISIT OCCURRED

Stage of Operations	Number of Sites	Percentage of Sites
Early	55	34.0
Middle	57	35.2
Late	50	30.8
Total Visits	**162**	**100.0**

3. Pre-Visit Activities

After the site sample was selected, MPR staff created a spreadsheet that included the site ID; the site's name; the meal service to be observed; the preferred day of the week for the visit; the dates of operation; and the estimated attendance, by meal. This information became the basis for the interviewer assignment tracking spreadsheet. To determine the date of the visit and the interviewer or interviewers to assign, the MPR field director reviewed the sampled sites according to the following criteria (in order of importance):

1. Dates of operation, particularly closing dates
2. Geographic proximity of a site to other sampled sites
3. Geographic proximity of sites to interviewers
4. Size of the site (to determine whether one or two interviewers were necessary)

Scheduling occurred on an ongoing basis throughout the summer. After a tentative interviewer assignment had been made, field supervisors telephoned interviewers to confirm their availability and willingness to travel to the assigned site on the preferred date. After interviewers accepted the assignment, they were asked to make their travel plans. Whenever possible, MPR gave interviewers 7 to 14 days' notice, so that it could economize on airfare. The first sites were visited on June 11, 2001; the last site was visited on August 16, 2001.

Concurrent with the assignment of sites to interviewers, MPR staff telephoned the sponsoring organizations to inform them that one of their sites would be visited at some point during the next 2 weeks. These calls were used to:

1. Confirm that the site had opened and would be open during the scheduled visit time
2. Confirm that the site served the meals selected for observation, and confirm the hours of meal service
3. More accurately estimate the number of participants, to determine whether more than one interviewer was necessary
4. Determine how food usually was distributed to children, to determine whether more than one interviewer was necessary
5. Determine whether any special activities were scheduled on the proposed day of the visit, such as off-site field trips
6. Confirm the site's address and the contact person's name

During calls to sponsors that ran multiple sites, MPR staff asked about several sites, so that the sponsors would not know which site had been selected. The sponsors also usually did not know which day had been selected. Calls to the sponsors were made up until the day before the

visit. Sponsors who could not be reached by the third day before the scheduled visit were faxed a brief letter informing them that a site would be visited during the next few days. The letter asked that they call MPR to confirm the status of the site. MPR staff faxed letters to 13 sponsors, in some cases the day before the visit, and subsequently spoke with staff in all 13 offices before sending interviewers to the selected sites.

MPR staff used information obtained during the telephone calls to create "site information sheets." A site information sheet, which was given to the interviewer(s) assigned to visit that site, listed the site's address, contact person's name, meal(s) to be observed, meal service hours, sponsor's name and telephone number, and number of plates to observe (5 or 10 meals). The site information sheets also contained a comments section, for notes about information obtained during the telephone call to the sponsor's contact.

Interviewers were informed whether MPR had confirmed the information on the site information sheet. In addition, interviewers received directions to the sites, obtained from on-line sources.

4. On-Site Procedures

a. Arrival

Interviewers were instructed to arrive at the site 1 to 1.5 hours before the scheduled start of lunch. If breakfast was to be observed, interviewers were asked to arrive about 30 minutes before the start of breakfast. Interviewers at sites that only served lunch spent an average of 4 to 5 hours on site. Interviewers observing two meals were on site for an average of 7 to 8 hours.

On arrival, interviewers asked to speak with the site supervisor, to explain the purpose of the visit, and to inform them about their plans for the day. They presented the SFSP Implementation Study brochure to site personnel and, if necessary, showed the supervisor the letter from USDA. MPR usually did not contact a site before the visit. Sites that were the only ones run by their sponsor knew that a visit was to take place. However, they were not told the specific date of the visit, unless necessary (for example, staff of a camp site on an island had to inform the interviewer about the boat schedule). At a few sites (nine sites, or 5.6 percent of visits), a representative of the sponsor came to the site during the visit to observe data collection and to offer assistance. Although the interviewers had no trouble obtaining access to sites, they sometimes had difficulty convincing site staff that they were not state or USDA monitors, despite their training on how to introduce themselves.

Interviewers then located the kitchen (or food preparation area) to determine how meals were distributed to children. They also observed the general surroundings and any other indoor and outdoor site activities throughout the visit.

b. Site Observations

Interviewers completed several site observation forms during the course of the visit. One module collected general information about the site setting and operations, including information on the site's location and other activities at the site; interviewers were instructed to add detailed comments to the form or in an attachment to the form containing additional comments. Interviewers completed a separate participation module for each meal observed; while the children came in for their meal, they counted the children and observed their characteristics. The module asked primarily for quantitative information (numbers or percentages), so interviewers were instructed to obtain the most accurate numbers possible by estimating from observation, consulting staff, or referring to sign-in sheets. Interviewers did not ask children any questions. For the module on meal service, interviewers observed and recorded how, when, and where the children were served meals; for example, this form included observations on whether seconds were served and on whether meal components were carried off site. Only one of these forms was completed per visit. For all the observations, interviewers remained in an unobtrusive spot in the dining area, where they were able to see the children and food handlers without interfering with the meal service.

c. Site Supervisor Interview

The site supervisor questionnaire was administered in person with the site supervisor or other knowledgeable site staff. Interviewers were encouraged to speak with the most knowledgeable people available during the visit; they were not limited to one respondent only. In about one in five visits (18.5 percent), the site supervisor survey questions were asked of multiple respondents. Interviewers conducted all but two of the site supervisor interviews during the visit. In the two other cases, the interviewer conducted the interview with the site supervisor by telephone, on another day.

The site supervisor interview could be conducted at any time at the site supervisor's convenience, except while meals were being served. If the interviewer was on site to observe lunch or lunch and dinner, the interview usually was conducted just before lunch. If the interviewer was observing breakfast, it usually took place between breakfast and lunch.

The interview took about 30 minutes. The questionnaire began with a series of questions and their answers precoded by MPR staff who obtained the information from the state. During the interview, interviewers confirmed the information and obtained answers to questions with missing information. Site supervisors were then asked questions about the number of meals usually served, activities available at the site, site staffing, relations with the sponsor, training received, characteristics of participants, and whether they perceived a need for more outreach for the site.

d. Meal Observations

Interviewers began the meal observation portion of the visit before the children arrived, by talking with kitchen staff or other knowledgeable staff about the meal to be served. They looked

at the kitchen facility or area where meals were being prepared or assembled. Whenever possible, they examined packages or food labels in order to obtain accurate measurement information. If the meal included mixed dishes, such as lasagna, the interviewers tried to obtain the recipes, to aid in coding for nutritional analysis. They also asked food service personnel to tell them the food items and portion sizes to be served, but they did not touch any food prior to the plate waste segment of the study. They also listed all the foods served at the meal (and described the foods in detail) and recorded (from labels) or estimated portion sizes. Based on the number of choices available and on whether OVS was used, they determined whether they should observe 5 or 10 plates. They were instructed to make this decision at every site, regardless of the information contained on the site information sheet.

After the interviewers determined the number of plates to observe, they asked the staff for an estimate of the number of children participating. They also asked the staff how the children received their meals. They could then calculate the sampling interval for selecting plates for observation. If two interviewers were on site, one usually identified the child/plate to observe and continued to do the sampling while the second observed and recorded the food served to or selected by the child. Interviewers observed the food served by casually strolling behind the selected child and looking at the plate. They had been instructed not to ask children what they were served, touch a child's food, or ask a child to delay eating so they could observe the food. Interviewers relied on visual estimates and the information obtained from food servers or package labels for portion size measurements. Interviewers often recorded additional information or details about the food in the comment section of the form.

e. Plate Waste Observations

Regardless of the number of meals observed, interviewers were instructed to randomly select 10 plates at the end of each site's meal observation period, to observe the types and amounts of uneaten food (plate waste). Interviewers generally stood next to the area where children deposited their plates after eating and randomly selected every n^{th} plate for plate waste observation. After selecting a plate, the interviewers put it aside and continued to count and select the other plates.

To accurately observe plate waste, interviewers at some sites had to ask site staff to change the usual arrangements for discarding food, or to help gather plates. Requests to site personnel to alter their usual routine most often were at locations at which site staff normally cleared plates or portions of meals as the children finished eating. For example, staff sometimes threw away the milk cartons and cleared plates separately. In these cases, staff were asked to leave the milk cartons with the plates. Interviewers often had to ask site staff to help gather plates at sites at which all children left the meal area at the same time. Interviewers who needed assistance informed the staff member which plate to remove for observation.

A plate waste form was filled out for each meal observed (with one exception, discussed below). After the plates had been collected and, in most cases, after the children had left the eating area, the interviewers measured and recorded the types and amounts of plate waste. They listed the foods in the same order on the plate waste form as they did on the meal observation

form. Any foods observed during the plate waste portion that had not been recorded during the meal observation were added to and described on the plate waste form.

The interviewers measured food volume by pouring or scraping the leftover foods into a beaker or measuring cups or spoons. In some cases, they used rulers or two-dimensional visual aids to measure the length, height, and width of food. They also visually estimated the proportion of the original serving of each food that was uneaten (half eaten, only a quarter of the food left, and so on). Combining actual measurements with visual estimates sometimes enabled the interviewers to more accurately determine the original portion size served to children. In these cases, the interviewers would revise the meal observation form to reflect the newly estimated portion size.

Children at many sites placed unwanted food in a "share box," where it could be taken by other children. The interviewers also recorded the uneaten foods placed in the share box that had not been taken by other children by the end of the meal service. Because this food had been served at the meal, the interviewers merely recorded the name of the food item, without a detailed description, and the numbers of each item placed in the box.

5. Processing and Coding of Documents

The interviewers were instructed to send all site materials to MPR once per week, via overnight delivery service. A transmittal form on the front of each site envelope listed the names and numbers of each form in the packet. MPR field coordinators reviewed their interviewers' work for accuracy and completeness. They contacted interviewers by telephone to obtain clarification or more detail, if necessary. In five cases, the field coordinator called the site supervisor directly to obtain information missing from supervisor surveys. MPR tracked the receipt of every document in a receipt control database.

a. Editing and Checking of Documents

Field coordinators received training in quality control specifications and editing procedures for all site materials.[3] Field coordinators checked and edited the site materials they received from the interviewers they supervised. Answers to open-ended questions and interviewers' comments were entered into a database. The field coordinators gave the interviewers feedback about the quality of their work. After the forms (other than the meal-related forms) were edited, they were sent to the data entry department for a second round of quality control editing and for data entry.[4] The site supervisor questionnaire and observation forms were data-entered and 100-percent verified. The data were then cleaned and edited by research staff.

[3]The training did not cover meal observation, plate waste, share box, or recipe forms.

[4]Appendix E discusses quality review and coding procedures for the meal and plate waste forms.

6. Results of Site Data Collection

a. Overall Response Rates and Completion Status

Of the 176 sites released, 168 were eligible for the study, 5 were ineligible, and 3 did not have their eligibility determined. MPR staff visited 162 sites between June 11, 2001, and August 16, 2001, for a completion rate of 95 percent.[5] No refusals occurred during a site visit. Sponsors refusing to participate were replaced, as were their sites. One sponsor, who had two sites in the sample, agreed to the sponsor interview but refused to allow site visits. That sponsor was not replaced; the sites were coded as refusals. A total of 160 of the 165 eligible primary sites sampled were visited, resulting in a 95-percent response rate (based on the primary sample only). Two replacement sites also were visited. Site supervisor interviews were completed at all sites visited; sites labeled as "partial completes" had less than the desired number of meal observations or plate wastes. Table A.4 shows the final disposition of the sample, by primary sample and by total sample.

b. Use of Multiple Visitors

To monitor quality and to continually improve operations, MPR professional staff visited 10 percent of the sites (17 sites) during the data collection phase. These professionals observed 10 of the 15 interviewers working for MPR and staff from the subcontractor, Garcia Research Associates. Interviewers were given immediate feedback on their work. USDA staff accompanied MPR staff and field interviewers on four site visits. Overall, one-quarter of the sites were visited by multiple interviewers or by interviewers accompanied by MPR professional staff (40 sites). In general, sites were visited by more than 1 interviewer if they were large (serving meals to 200 or more children) or if they permitted children to choose the types of foods they wanted, such as sites operating on college campuses, in large cafeterias.

[5]Response rate calculations assumed that the eligibility rate for sites with undetermined eligibility status and the eligibility rate for sites with known status were the same.

TABLE A.4

SITE STATUS SUMMARY

	Primary Sample	Total Sample
Eligibility Determined		
Eligible		
Complete	155	156
Partial complete: some meals not observed	4	5
Partial complete: some meals not served and/or could not observe	1	1
Final site refusal: sponsor refused site visit	2	2
Unavailable for visit before closing	1	1
Unavailable for visit: other reason	2	2
Total	165	168
Ineligible		
Site never opened	4	4
Site open less than 1 week in June, July, and August	0	1
Total	4	5
Total	**169**	**173**
Eligibility Not Determined		
Refusal by Sponsor: Site Eligibility Could Not Be Determined	3	3
Total	3	3
Total	**172**	**176**

c. Meals Observed

MPR instructed the interviewers which mealtimes to observe at each selected site. As noted, the interviewers were told to observe lunch and either breakfast or supper, based on a random selection, at sites that served three meals per day. Table A.5 shows the number of sites where MPR planned to observe each grouping of mealtimes and the actual number of sites where interviewers observed the mealtimes, based on the 162 sites visited.

Selected meals differed from observed meals for several reasons. MPR staff was informed during the telephone calls to the sponsors or after arrival on site that six sites did not serve the meal scheduled for observation. Five of the six sites did not serve breakfast; the sixth did not serve supper. In most cases, the meal was dropped because of low participation.

TABLE A.5

MEALS SELECTED AND MEALS OBSERVED

Meal Selected for Observation	Number of Sites		
	Selected	Observed	Difference
Breakfast Only	0	1	+1
Lunch Only	56	65	+9
Breakfast and Lunch	94	84	-10
Lunch and Supper	12	12	0
Total	**162**	**162**	

At three of the sites that served all three meals, interviewers substituted a different meal for one of the meals scheduled for observation. Supper was substituted for breakfast at two of the sites; breakfast was substituted for supper at the third site. MPR staff added a breakfast observation at a fourth site after learning that the site served more than just lunch.

Interviewers were unable to observe breakfast at four sites or lunch at one site, even though the meal was served on the day of the visit. The interviewers in these cases ran into logistical problems, such as road construction, a change in the time meals were served, or additional travel time to a replacement site after first having attempted to visit the primary site (which caused them to arrive too late to observe breakfast).

d. Completion Rates for Meal and Plate Waste Observations

Interviewers were instructed to observe foods served for either 5 plates or 10 plates at each meal, depending the variety of food available to participants. They were able to observe all the plates requested at more than 9 out of 10 mealtimes (Table A.6). In the other cases, the interviewers were able to gather information on some plates, but not the full number desired.

Logistical difficulties associated with collecting plate waste prevented interviewers from always collecting all 10 plate wastes at the completion of the meal (Table A.7). The interviewers conducted fewer than 10 plate waste measurements at 19 out of 162 sites, or 12 percent of all sites. The number of plate waste measurements ranged from 3 to 10 across sites. In one case, an interviewer was unable to conduct any plate waste measurement at lunch because the site staff accidentally threw away the 10 plates set aside for plate waste measurements.

TABLE A.6

PERCENTAGE OF MEALS WITH COMPLETE MEAL OBSERVATIONS

Meal	5 Plates Observed		10 Plates Observed	
	Number of Attempts	Actual (Percentage of Attempts)	Number of Attempts	Actual (Percentage of Attempts)
Breakfast	58	54 (93)	27	27 (100)
Lunch	124	124 (100)	37	36 (97)
Supper	9	9 (100)	3	3 (100)
Total	**191**	**187 (98)**	**67**	**66 (99)**

TABLE A.7

PERCENTAGE OF MEALS WITH 10 COMPLETED PLATE WASTE OBSERVATIONS

Meal	10 Plate Wastes Collected	
	Number of Attempts	Actual (Percentage of Attempts)
Breakfast	85	77 (91)
Lunch	161	150 (93)
Supper	12	11 (92)
Total	**258**	**238 (92)**

Table A.8 shows the actual numbers of plates served and "plate wastes" for which data were entered into the FIAS system for nutrient analysis.

D. FORMER SPONSORS

For the purposes of this study, former sponsors are defined as sponsors that participated in the SFSP in 2000 but not in 2001. The survey of former sponsors collected information about sponsors that left the program and about the factors that led them to withdraw.

TABLE A.8

SAMPLE SIZES FOR MEAL AND PLATE WASTE OBSERVATIONS
(Number)

Meal	Plates Entered into FIAS	Plate Wastes Entered into FIAS
Breakfast	556	815
Lunch	989	1,570
Supper	75	119
Total	**1,620**	**2,504**

1. Sample Selection

The target population for the survey of former sponsors included all sponsors that participated in the SFSP in 2000 (in the 48 contiguous states and the District of Columbia) but not in 2001. In August 2001, MPR requested that all state agencies provide a list of their former sponsors. By October, each one had complied with this request. The sample frame was compiled from the state-provided lists. There were a total of 367 former sponsors in the sample frame. MPR then selected a representative sample from the sponsors in this frame, with the goal of obtaining 100 completed interviews with former sponsors. MPR expected that some sponsors on the list would be ineligible for the survey because of errors in state records (that is, they may not have participated in the SFSP in 2000, or they may have participated in 2001). A sample of 160 former sponsors was selected based on the assumption that 90 percent of the selected former sponsors would be eligible, and that 70 percent of eligible former sponsors would complete the survey.

2. Initial Contacts

During the second week of October, the selected former sponsors were sent a letter and the study brochure via overnight delivery. The letter informed the former sponsors that they would be contacted by telephone for an interview about their experiences in sponsoring the SFSP, and about their reasons for leaving the program. Within days of receiving the letter, three organizations contacted MPR with the information that they did not fit the eligibility requirements because they had not been sponsors in 2000. During the next several days, approximately six letters were returned to MPR because of incorrect addresses. MPR locators were able to obtain a correct address or telephone number for all six letters.

3. Telephone Survey and Followup

On October 15, 2001, three MPR executive interviewers (interviewers experienced in talking with program staff) and their supervisor participated in a 3-hour training session on administering the interview of former sponsors. All three interviewers had conducted interviews for the sponsor survey and therefore were familiar with the SFSP. A substantial amount of training time was devoted to determining the eligibility status of the program, and to identifying the most knowledgeable respondent. The interviewers were coached on asking additional questions to obtain this information.[6]

Interviewing began on October 16, 2001, and concluded on November 16, 2001, with 131 completed interviews. The average interview length was 20 minutes.

MPR obtained an 89 percent response rate (131 interviews of former sponsors out of 148 eligible). Only one respondent no longer was on the staff of the selected former sponsor. During the interviews, 12 sponsors were deemed ineligible because they had been sponsors in 2001, had not been sponsors in 2000, or no longer were in operation. Most of the former sponsors were cooperative and did not find the interview burdensome; however, there were three refusals. In three cases, the interviewers successfully reached the program (and thus knew that the respondents were eligible) but were unable to reach the most knowledgeable person. The interviewers were unable to complete interviews in 11 cases mainly because no one was knowledgeable enough to answer any of the survey questions.

Two factors may explain the higher-than-expected response rate. It probably helped that the interview was brief. It is also possible that the fall was a better time to attempt this type of interview than was the summer, when the pretest was attempted.

Completed surveys were edited and coded by professional survey staff before being sent to the quality control and data entry departments. In data entry, the numeric data were entered into a specially created program and were 100-percent verified. In addition, all open-ended responses were entered into an Excel spreadsheet, to be coded by research staff. The data were then cleaned, and a data file was produced. The final results are shown in Table A.9.

E. DATA CLEANING FOR KEY SPONSOR AND SITE VARIABLES

In the process of analyzing the various datasets, additional data cleaning occurred. In particular, consistency between the sponsor interviews and applications and between the sponsor and site interviews was checked (for key variables). This section documents the procedures used

[6]If the interviewer was informed that the most knowledgeable person had left to take another job, the case was referred to MPR senior project staff, who decided whether to allow the interviewer to interview the person who had left. Only one interview was completed with someone no longer employed by the former sponsor.

TABLE A.9

RESULTS OF SURVEY OF FORMER SPONSORS

Final Status	Total Sample
Complete	
Telephone	130
Telephone—respondent not currently on staff	1
Ineligible	
Sponsor in 2001	4
Not a sponsor in 2000	7
Organization no longer in existence	1
Final Refusal	2
Final Refusal—Unknown Eligibility	1
Unable to Reach Respondent	
Known eligible	3
No knowledgeable person on staff	11
Final Status Total	**160**
Total Completes	**131**

in the data cleaning of the following key variables in the sponsor and site data: (1) sponsor type, (2) open or enrolled status of sites, and (3) type of meal preparation.

Sponsor type is a key variable in this analysis. Although Chapter II focuses on this variable as measured in the Sponsor-Site Database, the variable as measured in the sponsor survey also is used in many analyses. However, respondents to the sponsor interview did not always know the category to which their program belonged. The study adhered to the following rules for cleaning the data from the sponsor survey: (1) sponsors who said their type was not any of the specified options or who gave multiple answers were coded on the basis of data from sponsor application or sponsor lists provided by the states, the organization name, or a review of their hard-copy instrument, as needed; (2) senior staff reviewed each instance in which sponsors' responses differed from their applications (in all but one instance, the application category was determined to be correct); and (3) all Upward Bound programs were classified as residential camps, as that classification is most consistent with FNS policies. Two sponsors for which application forms were missing were found to have been incorrectly classified both in the sponsor and site interviews; they were residential camps but had reported themselves as nonprofit organizations.

The sponsor interview asked sponsors ***how many of their sites are open, and how many are enrolled sites*** (that is, sites serving only children enrolled in a program). All the sites of sponsors that were camps or National Youth Sports Programs (NYSPs) were classified as camp sites or NYSP sites, respectively, regardless of how the sponsors answered those questions. For other sponsors, the responses to questions about open/enrolled status in the sponsor and site interviews were compared. The data were inconsistent for about 10 percent of sites. In general, the site data were recoded to match the sponsor interview.[7] In a few cases, however, the sponsor data were revised because both the sponsor application and the site interview suggested that the sponsor interview data were incorrect.

Data on ***type of meal preparation*** (on-site preparation, central kitchen preparation, school food authority vendor, or private vendor) were reported by sponsors and by site supervisors. The instructions on the self-administered sponsor instrument were not specific as to whether sponsors could indicate multiple answers or only one response, but in the telephone interviews, only one response was permitted. The category of "both on-site preparation and central kitchen" was added for the sponsor data, because it was sometimes marked on the self-administered surveys; it should be interpreted as meaning that some of the sponsor's sites prepared meals on site, and that other sites received meals from a central kitchen.[8] Because this response was not permitted in the telephone interviews, these data may understate the proportion of sponsors who used both central kitchens and on-site preparation and may overstate the proportions who use *only* on-site preparation *or* central kitchens.

One edit made to sponsor data on meal preparation was to recode six single-site sponsors who reported using a central kitchen to on-site preparation. In addition, one sponsor who coded both "school food authority vendor" and "private vendor" was recoded as just "school food authority vendor."[9] One large sponsor reported using self-preparation but also had reported elsewhere using central kitchens for a subset of sites; this sponsor was recoded as "both on-site preparation and central kitchen."

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[7]In all cases in which the site data were recoded, the sponsor reported that all its sites were open, but the site supervisor reported that the site was enrolled. We suspect that these sites may have served an enrolled program, such as a summer school, but also were open to the community. However, the misperception of the site supervisors does create some concern about how "open" the sites truly were. It is also possible that a site was a "restricted open" site, which is a new category and thus likely to lead to some confusion.

[8]For the purposes of this study, meals that were delivered from a central kitchen but were warmed on site were considered to have been prepared by a central kitchen. The meals were categorized in this way because, at the site level, only one type of meal preparation could be coded.

[9]In rare instances (with state approval), sponsors may use multiple vendors or even serve vended meals at some sites and prepare meals at other sites. In the few instances of this in the sample, sponsors appear to have reported the most common type of meal preparation method.

After their initial cleaning, the sponsors' responses were compared with the site supervisors' responses; if the two did not match, both instruments and the sponsor applications were reviewed. As with open/enrolled status, about 10 percent of sites provided information that conflicted with the sponsor data. Often, it appeared that the site supervisor accurately reported that the food came from elsewhere but misreported the source; in such cases, the sponsor information seemed likely to be more accurate, particularly when it also was confirmed by the sponsor application. In a few cases, however, the sponsor data were revised; in these cases, the site and application information indicated a different response, or the hard-copy instrument provided conflicting information. At three school-sponsored sites, there was clear evidence that meals were prepared on site by a private vendor; in these cases, the site supervisors reported "on-site preparation," whereas the sponsors reported using a "private vendor." This apparent discrepancy was left as is, because of the way that skip patterns in the instruments follow from these questions.

F. DEVELOPMENT OF THE SFSP 2001 SPONSOR-SITE DATABASE

As part of the SFSP Implementation Study, MPR created a database with information on all SFSP sponsors and their food service sites in 2001. Creating this database required extensive interaction with SFSP state agencies to obtain lists of sponsors and sites with the types of information required for the database, and to resolve discrepancies in the lists received. MPR would like to acknowledge the very high level of cooperation on this endeavor. After the lists were received, MPR staff extensively checked and edited the lists, and then data-entered the information into a standard format.

This discussion begins with a description of procedures for collecting and editing the data for the SFSP 2001 Sponsor-Site Database. The second section describes the database, which is in Access format. Data from the database provided control totals for development of survey weights.

1. Data Collection and Editing Procedures

a. Request for Administrative Data from State Contacts

As noted, on August 28, 2001, MPR mailed a letter to all SFSP state administrators to inform them of the forthcoming request for various lists of administrative data.[10] The list requests were outlined in a one-page form, "2001 Information From States," that asked the state administrators for the date on which they would have final 2001 site information, sponsor information, and meal counts. In addition to the mailing, all 54 state administrators were contacted by telephone in September. Although the main purpose of the calls was to schedule interviews with the state administrators, MPR also followed up on its requests to receive lists by

[10]In the case of states in which the FNS regional offices run the program, we contacted the appropriate regional office.

November, and to receive final meal counts by December. Most of the state administrators reported that their site and sponsor lists would be available between late September and early November, and that their final meal counts would be available in early December.

MPR requested the following information:

- Final 2001 site list that included site name (linked to a sponsor), address, and telephone number; starting and ending dates of operation; average daily attendance for each meal served; types of meals served; and, if available, information on whether the site was an open, enrolled, or camp site
- Final 2001 sponsor list that included sponsor name, address, and telephone number; starting and ending dates of operation, sponsor type (school, government, nonprofit, NYSP, or residential camp); meals served; and number of sites
- Final 2001 meal counts, by type of meal served, for each sponsor

Later that fall, MPR also asked the state administrators to identify their "new" sponsors, defined as sponsors that participated in the SFSP in fiscal year 2001 but had not participated in fiscal year 2000.

b. Receipt of Lists

MPR received site and sponsor lists from all 54 state agencies during the fall or early winter (Table A.10). All the state agencies also provided final meal counts, with the first received in October 2001, and the last on January 30, 2002. Professional survey staff used a tracking system to track submitted and outstanding lists on an ongoing basis. Any state agencies that did not provide lists by November 1, 2001, received E-mails, with follow-up calls and faxes, as needed. MPR project staff held daily meetings to receive updates of the lists. MPR recognized how much it was asking of the state agency staff, especially staff in agencies that maintained records in a format that made it difficult to send the requested information. MPR communicated its appreciation to the agency staff.

c. Format and Quality of the Lists

Lists were received in many different formats. Some were sent electronically, in Excel, Word, or Access; others were hard-copy versions sent by fax or through the mail. Although some states' site lists were embedded in their sponsor lists, most states maintained separate site and sponsor lists.

After receiving the site lists, MPR staff examined them to determine whether they contained, at minimum, a site name, address, and indication of its sponsor. If this information was missing, MPR called the state agency to obtain it. At the end of November, MPR compiled a report assessing the overall quality of site lists received to date; the assessment was based on a preliminary review of the lists. All but three states' lists had street and town information; two of

the three had information for some of the sites. Eight lists did not include zip code information, and five had zip codes only (no address) for some sites. Nearly half (21 lists) had no telephone numbers, and 5 provided telephone numbers for only some sites.

TABLE A.10

NUMBER OF SPONSOR AND SITE LISTS RECEIVED, BY MONTH

Month	Sponsor Lists	Site Lists
September[a]	34	27
October	11	14
November	8	10
December	1	2
January	0	1

[a]Includes one sponsor list that was received in August.

d. Reconciling Discrepancies in the Lists

To obtain complete, accurate information, MPR staff conducted several checks after receiving the lists. The process began with a count of the number of sponsors on the site list, and a comparison of that number with the number of sponsors on the state's sponsor list. In the case of about 35 states, the 2 numbers did not match because sponsors listed on the site list were not included on the sponsor list, or because sponsors on the sponsor list had no sites on the site list (or both). In addition, for about 25 states, the number of sites on the sponsor list and the actual number of sites obtained from the site list differed.

MPR telephoned or E-mailed the state agency to resolve these discrepancies. When nearly all the data had been provided, MPR used the number of sites on the site list as the final site count to resolve remaining discrepancies. Examples of issues encountered include the following:

- To obtain complete site-level address information for some state agencies' lists, MPR had to search a database constructed from application information and which therefore included sites that never opened during the 2001 season.
- One state agency listed site and sponsor names differently on different lists, thereby making it extremely difficult to link sites with sponsors.
- One state agency indicated that it does not clean out previous years' data from its lists, so the lists would include sites that did not operate in 2001.

In the second check, MPR staff compared the number of sponsors that the state contact person had provided during the state administrator interview with the number of sponsors listed on the 2001 sponsor list. MPR staff called the state contact to resolve any discrepancies between the two numbers. The sponsor lists or state interview data were then adjusted, as needed, so that the number of sponsors from the two sources was the same. Discrepancies may have arisen for a number of reasons. For example:

- Sponsors that had both vended and self-preparation sites were counted twice on one state's sponsor list, but had been reported as one sponsor during the interview.
- One sponsor in another state was listed twice on the lists (once for its rural sites and once for its urban sites), but was reported in the interview as a single sponsor.
- Some state administrators had difficulty categorizing sponsors that participated for a short time and then stopped participating or closed early. Some state administrators included these sponsors on their lists but did not think of them as "current sponsors" during the interview.
- Some lists included sponsors that applied but never opened, were subsequently determined to be ineligible, or were not approved. These sponsors usually were not included in the count reported during the interview but might appear on the lists. Many state administrators reported that their sponsor lists were created early in the summer and did not reflect actual sponsor participation.
- In some cases, the information from multiple lists had to be combined (for example, one list included the type and number of sites, whereas another included address and contact information). Occasionally, two lists differed in the number of sponsors.

The state contacts were very helpful and cooperative in resolving these discrepancies. They informed MPR staff that they benefited from the process, as MPR identified computer errors in their report specifications, and errors in list-keeping practices.

e. Data Entry Specifications

After assessing the quality and completeness of the lists, MPR professional staff established specifications for data entry. Because site lists and sponsor lists were data entered separately, MPR created a "Sponsor Link ID number" that it assigned to each sponsor, with the same number assigned to all the sponsor's sites.

The following information was data entered for all sites:

- State ID number
- Sponsor link ID number
- Site name

- Site address
- Site telephone number
- Dates of operation—start and end dates for the site's program
- Meals served (breakfast, lunch, dinner, snack)
- Average daily attendance for each meal served
- Type of site—whether an open site, enrolled site, or camp (residential)

The following variables were data entered for all sponsors:

- State ID number
- Sponsor link ID number
- Sponsor name
- Sponsor address
- Sponsor telephone number
- Type of sponsor: defined as government = G, school = S, nonprofit = N, NYSP = Y, residential camp/Upward Bound = R. Multiple types (as many as three) could be entered in this field.
- Number of sites
- Dates of operation
- Meals served—indicators for breakfast, lunch, dinner, snack
- Meal count: total meal count, by meal, for all months of operation. If provided, total meals served was entered.
- New sponsor

f. Editing of Lists

Because each state's lists came in a different format, they had to be edited, and the location on the lists for the information discussed in the preceding section had to be marked by hand so that data entry clerks could enter the information into a standardized format. Survey staff assigned sponsor link numbers to each sponsor in each state and then marked the lists to indicate where each variable appeared on the list, to facilitate data entry. If a state's list was missing a variable (such as telephone number), that fact was noted at the top of the list. The following general rules were applied when editing site lists:

- If two addresses were given (P.O. box and street address), the actual address was entered.
- If missing area codes could be determined from other sites or outside information, the area code was added.
- If only one average daily attendance number was given, it was applied only to lunch; the list indicated whether other meals were served but did not include the average daily attendance number missing for those meals.
- Any sites that were not approved or that never opened were excluded from both the sponsor list and the site list.
- Site type (open, enrolled, or camp) was determined from the information on the state agency's list. If it was missing, the type was left blank. For consistency, the following types of sites were coded as follows (if no other information was given):

(Site type listed)	(Coded as)
Migrant =	missing type
NYSP =	enrolled
Nonresidential day camp =	missing type
College/university =	missing type
Upward Bound =	camp

- If the site list showed two snacks, the average daily attendance numbers for the two were added and divided by two for an average daily attendance, so that only one average daily attendance number was entered for snacks.
- If a sponsor's only site had no information on meals, dates of operation, or telephone number (but had the same address as the sponsor), the sponsor's meals served, dates of operation, and telephone number were used.
- If differences in the number of sites could not be reconciled even after multiple discussions with the state administrator, the number of sites entered was based on the site sheets or information provided by the state agency, rather than on the counts given on the sponsor list.

In addition to these guidelines, special circumstances were dealt with on a state-by-state basis.

As with the site lists, the sponsor lists had to be reviewed and edited before data entry. Complete sponsor lists included information about the sponsors (name, address, dates of operation, number of sites, and so on) and meal count information, which usually came from a different office and often was provided on a separate list. The meal count information was

appended to the sponsor lists prior to data entry. During preparation of the sponsor lists for data entry, some sponsors were seen to have missing meal counts. In about 25 states, at least 1 sponsor was not listed on the meal count list, was listed but had a meal count of 0, or had meal counts but was not on the sponsor list.

To resolve these discrepancies, MPR telephoned or E-mailed the state contact to obtain more information. MPR staff were instructed to ask specifically whether the sponsor had operated sites in summer 2001, had served children but never filed a meal claim, or had a meal claim pending. Sponsors that had never opened or that did not serve any children SFSP meals were removed from the sponsor database. More generally, after discussions with ERS, MPR decided that meal count data would be the final determinant of sponsorship. For example, a sponsor with two agreement numbers, separate meal claims, but the same name in both cases was counted as two sponsors. Conversely, if the state agency counted an organization as two sponsors (for example, City of XX Self-prep and City of XX Vended), but the organization filed only one claim, then the number of meals was combined, and the sponsor was counted only once.[11]

In addition to these cases, the following rules were used for editing sponsor lists:

- Most sponsors had a single designation of sponsor type (government, school, nonprofit, NYSP, residential camp). However, some states allowed a single sponsor to be assigned multiple type codes (most often, government and NYSP when the program was run at a public university). After checking with FNS, MPR decided to allow multiple-type listing, with as many as three types per sponsor, but to count the sponsor only once. This situation occurred in only one state and affected only five sponsors.

- If a sponsor had only one site, the state agency did not provide specific information on the sponsor, and MPR had more detailed site-level information, the information from the site list was applied to the sponsor.

- If a sponsor's list did not contain dates of operation, MPR took the earliest site opening date and the latest site closing date from that sponsor's site information and used those dates for the sponsor's dates of operation.

- If a sponsor listed morning and afternoon snacks on its meal counts, the two snacks were added and one number was entered.

- "Seconds" on a sponsor's list were added to the original meal count.

[11]Out of more than 4,000 sponsors nationwide, 25 had applied to the SFSP program, operated as part of SFSP for the summer, but did not file meal claims for various reasons. These sponsors were included in the database with a special code, but they and their sites are omitted from all tabulations in this report.

- MPR entered a total meal count number, if the state agency provided the number. If it did not, MPR entered the meal counts for the specific meals but did not total them. If the state agency provided the meal counts by month (which often occurred), the meal counts were added to obtain summer totals.
- Year-round schools' meal counts for all months of operation were added to produce a total count.
- A sponsor that had operated under a different organization name and that operated in 2001 as a new entity/organization was considered a "new" sponsor. A sponsor that operated in previous years but not in 2000 and that operated in 2001 was considered "new."

In addition to these guidelines, special situations were dealt with on a state-by-state or sponsor-by-sponsor basis.

g. Tracking Systems and Data Checks

Due to the size of the lists and the extensive alphabetical character fields (name and address fields), MPR did not verify data entry of the lists. Instead, MPR staff visually spot-checked each state's site and sponsor lists while conducting SAS checks for out-of-range and questionable data. Staff used spot-checking to determine whether any systematic problems were occurring. If a systematic mistake was identified, the list was returned to data entry, and the entire list was reentered. Automatic SAS checks were then run and corrections made, as needed. A tracking system was established to ensure that all site and sponsor lists were spot-checked and corrected, and that SAS checks were reviewed and corrections made, if necessary.

2. The Linked Sponsor-Site Database

After the data files were checked and cleaned, they were loaded into the Access database. All sponsor and site data are contained in a single linked database. There are a total of 4,397 sponsors in the Access database. Twenty-five sponsors did not file meal claims but did participate in the SFSP. (Their applications were approved, and state staff monitored them in 2001.) These sponsors are included in the Access database, with a flag indicating that they did not file claims. The database lists a total of 35,530 sites (including those from sponsors that did not claim any meals).

APPENDIX B

SAMPLING AND SAMPLE WEIGHTS

A. SAMPLE DESIGN AND ESTIMATION

This section documents the sampling and weighting procedures for the Summer Food Service Program (SFSP) Implementation Study. The sample design for the study was intended to achieve the following goals:

- The use of a two-stage sample design that produces a linkable analytic dataset of sponsors and sites. This design first selects a national probability sample of sponsors and then follows with the selection of one or more sites from each sponsor.
- Probability-proportional-to-size (PPS) sampling procedures to increase the precision of estimates involving total meals served. Sponsors, former sponsors, and sites were selected based on a measure of size relative to the estimated number of total meals served during their period of operation.
- Designing the sample so that accurate statements can be made for both the "percentage of meals served" and "percentage of programs" (sponsors, former sponsors, or sites).
- Obtaining a total of 120 new and continuing completed sponsor interviews to yield an average coefficient of variation (CV) of 10 percent across the survey characteristics for estimates of "percent of meals served" by sponsors with particular characteristics.
- Obtaining a total of 150 completed site visits to yield an average CV of 10 percent across the survey characteristics for estimates of "percentage of meals served" by sites with particular characteristics.
- Obtaining a total of 100 completed former sponsor interviews to yield an average CV of 10 percent across the survey characteristics.

B. SPONSOR SAMPLE SELECTION

The target population included all sponsors approved for the 2001 SFSP in the 48 states and the District of Columbia that had at least one site operating for a minimum of one week between June 9 and August 31, 2001.

The sampling frame of sponsors included (1) a list of sponsors approved for the 2000 SFSP in the 48 states and the District of Columbia that were open at least one week between June 9 and August 31, and (2) a list of expected new sponsors that had completed applications or attended training to be SFSP sponsors in 2001.

The sponsors were stratified into seven primary strata based on FNS region and average daily attendance. Next, each of the seven primary strata were further divided into substrata. A substratum was defined by (1) the state of the sponsor, and (2) whether the sponsor had one site or more than one site. This yielded a total of 98 substrata (48 states and the District of Columbia times 2 site categories), or 2 substrata per state. Sponsors were allocated to each substratum in proportion to the size of that substratum.

The sample of sponsors was chosen using Chromy's (1979) sequential PPS sampling procedure to obtain a representative sample of 138 sponsors. The use of a PPS sampling procedure gives larger sponsors a higher chance of selection to improve the statistical precision in the survey data by producing survey weights that are inversely proportional to the reported quantities. In developing the sample sizes needed to obtain the 138 completed sponsor interviews, Mathematica Policy Research, Inc. (MPR) accounted for (1) an estimated 92 percent response rate among selected sponsors, (2) approximately 10 percent of prior-year sponsors dropping out of the program, and (3) an expected 10 percent of the sampling frame being new sponsors. Of the 138 sponsors in the sample, 130 were continuing sponsors and 8 were new sponsors.

Sponsors were selected with probability proportional to the square root of the estimated number of meals served.[1] The square root is the preferred method when estimating both the percentage of entities (such as sponsors) with a certain characteristic, as well as the percentage of participants or services provided (in this case, meals served) by entities with a certain characteristic. Sponsors were ordered within substratum by zip code and meal counts before sampling to ensure a representative sample of sponsors.

After sample selection, the primary sample cases were removed from the frame and a second set of replacement sample was selected from each of the substrata in the same way as the first. The second sample was paired with the first such that each sample case had a replacement in the same geographic area with a similar number of sites and meal counts. This replacement was used for sponsors who refused to participate in the study during their initial contact.

C. SITE SAMPLE SELECTION

For the second stage of selection, the sponsors selected in the first stage were asked to provide a list of their member sites. Because of the tight timing of the study, MPR could not wait until complete lists of sites from all 138 prior-year and new sponsors were available to conduct the sampling and begin the site visits. Instead, sampling of sites was conducted on a batch basis. Soon after a site list was obtained from a sampled sponsor, the site (or sites) was selected and a site visit was scheduled.

The sample selection procedure again used Chromy's sequential PPS sampling procedure to obtain a representative sample of 178 sites from the 138 sponsors selected for the study. For sponsors with only one site, that one site was automatically selected for sample. For all other sponsors, Chromy's PPS procedure was used to designate one to four primary sites per sponsor (based on the size of the sponsor). The results of the allocation were as shown in Table B.1.

[1]Because the sample was selected before the total number of meals served in 2001 could be known, size was estimated using total meals served in 2000 for sponsors that operated in 2000, and using the sponsor's estimate of the number of meals that would be served in 2001 for new sponsors.

The sample size of 178 sites was chosen to account for (1) an estimated 92 percent response rate from selected sites (some were expected to refuse a visit or close before the visit); (2) approximately 10 percent of sponsors dropping out of the program, with the result that their site(s) would become ineligible for interview; and (3) approximately 3 percent of sponsors would not open the selected site.

TABLE B.1

SITE ALLOCATION TO SPONSORS

Number of Sites Allocated per Sponsor	Number of Sponsors	Number of Sites
1	115	115
2	13	26
3	3	9
4	7	28
Total	**138**	**178**

Sites were selected with probability proportional to the square root of the estimated number of meals served. As was used in the first stage of selection, the square root of the total number of meals the sponsor expected to serve at the site was chosen as a size measure. Similarly, sites were ordered by zip code and meal counts before sampling to ensure that the sampled sites were representative.

At the time of sampling, two replacements were selected for each site to prepare for sites that MPR would not be able to visit in time. Thus, sponsors with two sites allocated had a total of six sites selected (one primary and two replacements for each site allocated). If a sponsor did not have enough sites to cover the replacements, the number of replacements was reduced to the number that the sponsor had available.

To ensure that the visits represented the range of program operations, MPR selected a random day of the week within the days that the operation was open for the site observation to take place. The day of week served as a "target" date for scheduling the interviewers. In addition, field visits were scheduled such that approximately 34 percent of programs were observed in the early stage (that is, the first third of the program), 33 percent in the middle stage, and 33 percent in the ending stage.

D. MEALTIME SELECTION

A decision was made to observe two meals at each site that served two or more meals: (1) lunch, and (2) one other meal. Thus, the lunch meal at each site was selected with certainty.

If the site served two meals, then the other meal was selected with certainty. For sites that served all three meals, we randomly selected either breakfast or supper for observation in addition to lunch. After sample selection of meals, 35.5 percent of the sites had only the lunch meal selected, 56.4 percent had the breakfast and lunch meals selected, and 8.1 percent had the lunch and supper meals selected.

E. FORMER SPONSOR SAMPLE SELECTION

The target population included all sponsors approved for and operating the SFSP in 2000 in the 48 contiguous states and the District of Columbia that *did not operate* the SFSP in 2001. To compile the sample frame, each SFSP state agency was asked in fall 2001 to provide a list of sponsors who participated in the SFSP in 2000 but did not do so in 2001. States were instructed to include sponsors that changed status from a sponsor to a site under a different sponsor. Sponsors that continued to feed children but did not participate in the program were also included. The states were instructed to include the sponsor's name, address, contact person's name, phone number, and sponsor type on the list. This information was matched to last year's sponsor list (2000) to obtain additional information such as the operation starting and ending date, number of sites, and total meals served during the dates of operation. There were a total of 367 former sponsors on the sampling frame. Only three states reported that they had no sponsors from the previous year that had left the program.

The former sponsors were stratified into seven primary strata based on FNS region and average daily attendance. Next, each of the seven primary strata were further divided into "substrata." A substratum was defined by (1) the state of the sponsor and (2) whether the sponsor had one site or more than one site. This yielded a total of 98 substrata (48 states and the District of Columbia times 2 site categories), or 2 substrata per state. Given the small size of the sampling frame, this level of substratification may seem excessive. However, substratification variables should be thought of as more like "sort" variables, not specified strata. The substratification within strata allows for additional controls on selecting a random sample across different domains. The randomized allocation and rounding technique enables us to obtain the same results as we would by sorting the data and then selecting a systematic sample of cases. At the same time, greater control is obtained since a pre-selected sample size is selected for the domain before sampling.

The sample was chosen using Chromy's (1979) sequential probability-proportional-to-size (PPS) sampling procedure to obtain a representative sample of 160 former sponsors. The use of a PPS sampling procedure gave larger former sponsors a higher chance of selection to improve the statistical precision in the survey data by producing survey weights that are inversely proportional to the reported quantities. In developing the sample size needed to obtain 100 completed former sponsor interviews, MPR accounted for (1) an estimated 90 percent eligibility rate among sponsors in the sampling frame (former sponsors are ineligible if they were not sponsors in the summer of 2000 or, conversely, are actual sponsors in the summer of 2001) and (2) an estimated 70 percent response rate among eligible former sponsors. Thus, the sample size selected was 160, since 160 x 0.90 = 144 eligible sponsors, and 144 x 0.70 = 100 completes.

Former sponsors were selected with probability proportional to the square root of the number of SFSP meals they served in 2000, as reported by the state agencies. The square root is the preferred method when estimating both the percentage of entities (such as former sponsors) with a certain characteristic as well as the percentage of participants or services provided (in this case, meals served) by entities with a certain characteristic. Out of the 367 sponsors in the sample frame, 27 were sufficiently large that they would have probability of selection greater than 1. These former sponsors were selected with certainty and removed from the frame. The remaining former sponsors were ordered within substratum by zip code and meal counts before sampling to ensure a representative sample of former sponsors. Then, 133 additional former sponsors were selected.

F. ESTIMATION

Because of the different levels of analysis for this study, there are six different sets of weights. These include sponsor, site, mealtime, plate, and plate waste weights, as well as former sponsor weights.

1. Sponsor Weighting

a. Sponsor Base Weight

The first step in weighting the sponsor sample was to calculate the sponsor sampling weight. The sponsor sampling weight $BW_{spon}(i)$ for the ith sampled sponsor was calculated as the inverse of the probability of selection or:

$$BW_{spon}(i) = \frac{S(+)}{n_{total} S(i)} ,$$

where:

- $S(+)$ is the sum of the square root of total meals for all eligible sponsors on the sampling frame
- $S(i)$ is the square root of total meals for sponsor i
- n_{total} is the total number of sponsors selected, or 138

b. Sponsor Nonresponse-Adjusted Weight

The next step in the sponsor weighting was to adjust for nonresponse occurring during the survey interview. Complete response for a sponsor means that MPR (1) determined whether the sponsor was eligible for interview (that is, whether it was in operation for at least one week during June, July, or August of 2001); and (2) obtained interview data from the eligible sponsor. The nonresponse adjustments were conducted within two classes defined by whether the sponsor had one site or more than one site.

The nonresponse adjustment adjusted the base weight to account for data loss from sponsors who did not complete an interview. The nonresponse adjustment was defined as follows:

- For ***records where the sponsor completed a questionnaire,*** the questionnaire completion nonresponse adjustment $ADJ_{quest}(ci)$ for record i in class c is defined as:

$$ADJ_{quest}(ci) = \frac{\sum_{i=1}^{n_c} \delta_{eligspon}(ci) BW_{spon}(ci)}{\sum_{i=1}^{n_c} \delta_{questresp}(ci) BW_{spon}(ci)} ,$$

  where $BW_{spon}(ci)$ is the sponsor base weight for record i in class c, $\delta_{eligspon}(ci)$ is equal to 1 for eligible sponsors and 0 otherwise, and $\delta_{questresp}(ci)$ is equal to 1 for sponsors who responded to the questionnaire and 0 otherwise.

- For records ***where the sponsor did not complete the questionnaire,*** the questionnaire completion nonresponse adjustment $ADJ_{quest}(ci)$ is equal to 0.

- For ***ineligible sponsors,*** the questionnaire completion nonresponse adjustment factor $ADJ_{quest}(ci)$ is equal to 1.

The nonresponse-adjusted weight $W_1(i)$ was then calculated as the product of the base weight and the questionnaire completion nonresponse adjustment factor as follows:

$$W_1(i) = BW_{spon}(i) \times ADJ_{quest}(ci) .$$

c. Final Sponsor Weights

Because two types of estimates were computed for this survey—the percentage of sponsors with a certain characteristic and the percentage of total meals served by sponsors with a certain characteristic—*two different* final weights were computed using the nonresponse-adjusted weight computed above. For the first type of tabulation, a poststratification adjustment was done to ensure that the survey-weighted count of sponsors equals the population count of sponsors approved for the 2001 SFSP. For the second type of tabulation, the poststratification adjustment was made to ensure that the survey-weighted count of the total number of meals served equals the total number of meals served by all sponsors approved for the 2001 SFSP.[2]

[2]Poststratification totals were derived from the 2001 SFSP Sponsor-Site Database, which is described in Appendix A.

Final Sponsor Weight. The sponsor-adjusted final weight reflects the total number of sponsors approved for the 2001 SFSP. The poststratification cells consist of the types of sponsor—school, government, nonprofit, and camp/NYSP. (Camp and NYSP cells were collapsed together because of small cell size.)

If C_k was the poststratification total number of sponsors for collapsed sponsor type k, then the poststratification adjustment $ADJ_{sp}(i)$ for sponsors in that collapsed sponsor type is:

$$ADJ_{sp}(i) = \frac{C_k}{\sum_{i=1}^{n_k} W_1(i)},$$

where n_k is the number of sampled sponsors in sponsor type k, and $W_1(i)$ is the nonresponse-adjusted sponsor weight.

The final sponsor weight $FSPW(i)$ was then calculated as the product of the nonresponse weight $W_1(i)$ and the sponsor poststratification adjustment factor as follows:

$$FSPW(i) = W_1(i) \times ADJ_{sp}(i).$$

This weight is used to analyze sponsor level data.

Final Quantity-Adjusted Sponsor Weight. The quantity-adjusted final weight reflects the total number of meals served by sponsors approved for the 2001 FSP. The poststratification cells consist of the type of sponsor.

If T_k is the poststratification total for the total number of meals served by sponsor type k, then the total meal poststratification adjustment $ADJ_{tl\_ml}(i)$ for sponsors in that sponsor type is:

$$ADJ_{tl\_ml}(i) = \frac{T_k}{\sum_{i=1}^{n_k} W_1(i) T_{ki}},$$

where T_{ki} is the total count of meals served for sponsor i in sponsor type k, n_k is the number of sampled sponsors in sponsor type k, and $W_1(i)$ is the nonresponse-adjusted sponsor weight.

The final quantity-adjusted sponsor meal weight $FMLW(i)$ was then calculated as the product of the nonresponse weight $W_1(i)$ and the total meal poststratification adjustment factor as follows:

$$FMLW(i) = W_1(i) \times ADJ_{tl\_ml}(i).$$

This weight is then multiplied by the estimated number of meals served by each sponsor, and this product is used to weight the sponsor-level data by total meals served.

2. Site Weighting

a. Site Base Weight

The first step in weighting the site sample was to calculate the sampling weight of each site. Since this was the second stage of selection, the sampling weight of each site depends on the probability of selection of the sponsor at the first stage. The base weight of the sponsor was used in calculating the site weight (as opposed to the final weight), because a sponsor could refuse to be interviewed but could allow a site visit.

Each site has a unique sampling weight. The site sampling weight $BW_{site}(ij)$ was calculated differently for sites where the sponsors were automatically assigned a particular number of sites or randomly allocated a particular number of sites.

For the sites that belonged to sponsors that were automatically assigned a number of sites, (129 sites total), the site sampling weight $BW_{site}(ij)$ for the jth sampled site from the ith sampled sponsor was calculated as the inverse of the probability of selection or:

$$BW_{site}(ij) = BW_{spon}(i) \times \frac{S(i)_2}{m_i S(ij)},$$

where:

- $BW_{spon}(i)$ is the sponsor base weight for sponsor i calculated in the first stage of sample selection
- $S(i)_2$ is calculated by summing the square root of total meals for all eligible sites for a particular sponsor
- $S(ij)$ is the square root of total meals for site j in sponsor i
- $m_i = 1$ for sites where the number of sites equals 1, and $m_i = 4$ for the sites where the sponsor was "capped" at a maximum of 4 sites each

For the remaining sites, the site sampling weight $BW_{site}(ij)$ for the jth sampled site from the ith sampled sponsor was calculated as the inverse of the probability of selection or:

$$BW_{site}(ij) = BW_{spon} \times \frac{S_{rem}(++)}{m_{rem} S(ij)},$$

where:

- BW_{spon} *(i)* is the sponsor base weight for sponsor *i* calculated in the first stage of sample selection
- S_{rem}*(++)* is the sum of the square root of total meals for all eligible sites on the sampling frame where the sponsor's number of sites was randomly allocated
- *S(ij)* is the square root of total meals for site *j* in sponsor *i*
- m_{rem} is the total number of sites allocated to sponsors remaining after the sites in the first step were removed (49, or 178 - 129)

b. Site Nonresponse-Adjusted Weight

The next step was to adjust for nonresponse occurring during the site visit. Complete response for a site means that MPR (1) determined whether the site was eligible for interview (that is, whether it was in operation for at least 1 week during June, July, or August of 2001); and (2) obtained interview data from site managers for eligible sites. The nonresponse adjustments were conducted within two classes defined by whether the sponsor had one site or more than one site.

The nonresponse adjustment adjusted the base weight to account for data loss from sites that did not allow a visit. The nonresponse adjustment was defined as follows:

- For ***records where the site completed an interview,*** the questionnaire completion nonresponse adjustment $ADJ_{quest}(ci)$ for record *i* in class *c* is defined as:

$$ADJ_{quest}(ci) = \frac{\sum_{i=1}^{n_c} \delta_{eligsite}(ci) BW_{site}(ci)}{\sum_{i=1}^{n_c} \delta_{questresp}(ci) BW_{site}(ci)},$$

  where $BW_{site}(ci)$ is the baseweight for record *i* in class *c*, $\delta_{eligsite}(ci)$ is equal to 1 for eligible sites and 0 otherwise, and $\delta_{questresp}(ci)$ is equal to 1 for sites that responded to the interview and 0 otherwise.

- For ***records where the site did not complete the questionnaire,*** the questionnaire completion nonresponse adjustment ADJ_{quest} *(ci)* is equal to 0.
- For ***ineligible records,*** the questionnaire completion nonresponse adjustment factor ADJ_{quest} *(ci)* is equal to 1.

The nonresponse-adjusted weight W_1 (ij) was then calculated as the product of the base weight and the questionnaire completion nonresponse adjustment factor as follows:

$$W_1(ij) = BW_{site}(ij) \times ADJ_{quest}(ci) .$$

c. Final Site Weights

Because two types of estimates were to be computed for this survey—the percentage of sites with a certain characteristic and the percentage of total meals served by sites with a certain characteristic—MPR computed *two different* final weights using the nonresponse-adjusted weight computed above. For the first type of tabulation, a poststratification adjustment was done to ensure that the survey-weighted count of sites equals the population count of sites in the 2001 SFSP. For the second type of tabulation, the poststratification adjustment was made to ensure that the survey-weighted count of the number of meals served equals the total number of meals served by all sites. This number was equal to the total number of meals served by all sponsors approved for the 2001 SFSP, which was used in the sponsor-level final quantity-adjusted weight.[3]

Final Site Weight. The site-adjusted final weight reflects the total number of sites approved for the 2001 SFSP. The poststratification cells consist of the type of sponsor.

If C_k is the poststratification total of sites operated by sponsor type k, then the poststratification adjustment $ADJ_{st}(i)$ for sites in that sponsor type is:

$$ADJ_{st}(i) = \frac{C_k}{\sum_{i=1}^{n_k} W_1(ij)} ,$$

where n_k is the number of sampled sites in sponsor type k, and W_1 (ij) is the nonresponse-adjusted weight.

The final site weight $FSTW(i)$ was then calculated as the product of the nonresponse-adjusted site weight $W_1(ij)$ and the site poststratification adjustment factor as follows:

$$FSTW(ij) = W_1(ij) \times ADJ_{st}(i) .$$

This weight is used to analyze site-level data.

[3]As with the sponsor weights, poststratification totals were from the 2001 Sponsor-Site Database.

Final Quantity-Adjusted Site Weight. The quantity-adjusted final weight reflects the total number of meals served by sponsors approved for the 2001 SFSP. The poststratification cells consist of the type of sponsor.

If T_k is the poststratification total for meals served at sites operated by sponsor type *k*, then the total meal poststratification adjustment $ADJ_{tl\_ml}(i)$ for sites in that sponsor type is:

$$ADJ_{tl\_ml}(i) = \frac{T_k}{\sum_{i=1}^{n_k} W_1(ij)T_{kij}},$$

where T_{kij} is the total count of meals served for sponsor *i*, site *j* in sponsor type *k*, n_k is the number of sampled sites in sponsor type *k*, and $W_1(ij)$ is the nonresponse-adjusted weight.

The final quantity-adjusted meal weight $FSTMLW(ij)$ is then calculated as the product of the nonresponse-adjusted site weight $W_1(ij)$ and the total meal poststratification adjustment factor as follows:

$$FSTMLW(ij) = W_1(ij) \times ADJ_{tl\_ml}(i).$$

This weight is then multiplied by the estimated number of meals served at that site, and the product is used to weight the site-level data by total meals served.

3. Meal Weighting

The purpose of this section is to document how meal-level analysis weights were created. There were two levels of meal sampling. First, specific mealtimes (such as breakfast, lunch, or supper) were selected for visit at the site. Second, individual plates and "plate wastes" were independently randomly selected at the site for observation. To begin weighting the data for meals, the dataset of sites was expanded into a dataset containing one record per mealtime visit.

a. Mealtime Visit Weight

The first step in meal weighting was to calculate the mealtime visit weight. This weight was calculated differently for lunch meals than for breakfast and supper meals because lunch meals were selected with certainty.

For lunch meals, the mealtime visit weight $W_{meal}(v)$ for the *v*th sampled mealtime visit is equal to the final site weight (not quantity adjusted):

$$W_{meal}(v) = FSTW(ij).$$

For breakfast meals *or* supper meals, the mealtime visit weight $W_{meal}(v)$ for the vth sampled mealtime visit was calculated as the product of the site weight and the inverse of the probability of selection of the meal, or:

$$W_{meal}(v) = FSTW(ij) \times \frac{I_B(i) + I_D(i)}{1},$$

where $FSTW(ij)$ is the final site weight, $I_B(i)$ equals 1 if the site served breakfast and 0 otherwise, and $I_D(i)$ equals 1 if the site served supper and 0 otherwise.

b. Mealtime Visit-Adjusted Weight

The next step was to adjust for nonresponse to the mealtime. Interviewers missed five mealtimes due to inability to locate the site or the meal. Six mealtimes were considered ineligible because the sponsor had planned to serve the meal, but the site did not serve the meal at the time of the visit.

The nonresponse adjustment adjusted the mealtime visit weights $W_{meal}(v)$ to account for data loss from mealtimes that were not visited. The adjustment was calculated within class c defined by the type of meal—breakfast, lunch, or supper. The mealtime nonresponse adjustment was then defined as follows:

- For ***visited mealtimes,*** the mealtime nonresponse adjustment $ADJ_{meal}(cv)$ for record v in class c is defined as:

$$ADJ_{meal}(cv) = \frac{\sum_{i=1}^{n_c} \delta_{eligmeal} W_{meal}(cv)}{\sum_{i=1}^{n_c} \delta_{respmeal}(cv) W_{meal}(cv)},$$

  where $W_{meal}(cv)$ is the mealtime visit weight for record v in class c, $\delta_{eligmeal}(cv)$ is equal to 1 for eligible mealtimes and 0 otherwise, and $\delta_{respmeal}(cv)$ is equal to 1 for "responding" mealtimes and 0 otherwise.

- For records ***where the mealtime was not visited,*** the mealtime nonresponse adjustment $ADJ_{meal}(cv)$ is equal to 0.

- For ***ineligible meals,*** the mealtime nonresponse adjustment factor $ADJ_{mealt}(cv)$ is equal to 1.

The mealtime-visit-adjusted weight $W_{mealtime}(v)$ was then calculated as the product of the mealtime visit weight and the mealtime nonresponse adjustment factor as follows:

$$W_{mealtime}(v) = W_{meal}(v) \times ADJ_{meal}(cv).$$

4. Plate Weighting

a. Initial Plate Weight

The mealtime-visit-adjusted weight calculated above was used to calculate the plate observation weights. If sites served a standard meal, interviewers were instructed to randomly observe five meals. Otherwise, approximately 10 meals were observed at each site. To begin weighting plates, the dataset of meal times was expanded into a dataset containing one record per plate observed.

For all plate observations within a site and mealtime, the plate observation weight was calculated as the inverse of the probability of selection of a particular plate during that visit at that site at that mealtime, or:

$$PLTW_{obs}(vjk) = \frac{N(vj)}{n_{obs}(vj)} \times dayserv \times wkserv,$$

where $N(vj)$ is the total number of plates (children) served at that meal visit at that site, *dayserv* is the number of days per week this meal was served, *wkserv* is the number of weeks that meals were served at the site, and $n_{obs}(vj)$ is the total number of plates sampled for observation at that meal visit at that site.

The initial plate-observed weight $IPLTW_{obs}(vjk)$ for all k plate records sampled at the jth sampled site and vth mealtime visit was calculated as the product of the mealtime visit weight and the initial plate observation weight, or:

$$IPLTW_{obs}(vjk) = W_{mealtime}(v) \times PLTW_{obs}(vjk),$$

where $W_{mealtime}(v)$ is the mealtime-visit-adjusted weight and $PLTW_{obs}(vjk)$ is the plate observation weight.

b. Final Plate Weight

The final plate observation weight reflects the total number of meals served by sponsors approved for the 2001 SFSP in each state. These numbers are the same ones used in the poststratification of sponsors and sites to total meals served. The poststratification cells consist breakfast, lunch, and supper meals, by sponsor type.

If T_k is the poststratification total for meals served by poststratification cell *k*, then the total meal poststratification adjustment $ADJ_{\text{tl\_meal}}$ *(k)* for records in that cell is:

$$ADJ_{tl\_meal}(k) = \frac{T_k}{\sum_{i=1}^{n_k} IPLTW_{obs}(vkj)},$$

where n_k is the number of sampled plates in poststratification cell *k*, and $IPLTW_{obs}(vjk)$ is the initial plate observation weight.

The final plate-observed weight $FW_{obs}(vjk)$ was then calculated as the product of the initial plate-observed weight $IPLTW_{obs}(vkj)$ and the total meal poststratification adjustment factor as follows:

$$FW_{obs}(vjk) = IPLTW_{obs}(vjk) \times ADJ_{tl\_meal}(k).$$

This weight is used to analyze plate observations at each site.

5. Plate Waste Weighting

a. Initial Plate Waste Weight

The mealtime-visit-adjusted weight was also used to calculate the plate waste weights. Interviewers were instructed to randomly observe a total of 10 plates as they were discarded, and to examine the types and amounts of food uneaten (plate waste). The dataset of meal times was expanded into a dataset containing one record per plate waste observed. At one site, the interviewer missed the plate waste observation for lunch, so a nonresponse adjustment was used to adjust the weights of the other lunchtime plate waste observations for this missing data.

For all plate waste records within a site and mealtime, the plate waste observation weight was calculated as the inverse of the probability of selection of a particular plate for waste observation during that visit at that site at that mealtime, or:

$$PLTW_{waste}(vjk) = \frac{N(vj)}{n_w(vj)} \times dayserv \times wkserv,$$

where $N(vj)$ is the total number of plates (children) served at that meal visit at that site, *dayserv* is the number of days per week this meal was served, *wkserv* is the number of weeks that meals were served at the site, and $n_w(vj)$ is the total number of plates sampled for waste observation at that meal visit at that site.

The initial plate waste weight $IPLTW_{waste}(vjk)$ for all k plate waste records sampled at the jth sampled site and the vth mealtime visit was calculated as the product of the meal visit weight and the plate waste weight, or:

$$IPLTW_{waste}(vjk) = W_{mealtime}(v) \times PLTW_{waste}(vkj),$$

where $W_{mealtime}(v)$ is the mealtime-visit-adjusted weight and $PLTW_{waste}(vkj)$ is the plate waste observation weight.

b. Final Plate Waste Weight

The final plate waste observation weight reflects the total number of meals served by sponsors approved for the 2001 SFSP in each state. These numbers are the same ones used in the poststratification of sponsors and sites to total meals served. The poststratification cells consist of breakfast, lunch, and supper meals, by sponsor type.

If T_k is the total for poststratification cell k, then the total meal waste poststratification adjustment, $ADJ_{wst}(k)$ for records in that cell is:

$$ADJ_{wst}(k) = \frac{T_k}{\sum_{i=1}^{n_k} IPLTW_{waste}(vjk)},$$

where n_k is the number of sampled plates observed for waste in poststratification cell k, and $IPLTW_{waste}(vkj)$ is the initial plate waste weight.

The final plate waste observation weight $FW_{waste}(vkj)$ was then calculated as the product of the initial plate waste weight $IPLTW_{waste}(vjk)$ and the total meal waste poststratification adjustment factor as follows:

$$FW_{waste}(vjk) = IPLTW(vkj) \times ADJ_{wst}(k).$$

This weight is used to analyze plate waste observations at each site.

6. Former Sponsor Weighting

a. Former Sponsor Base Weight

The first step in weighting the former sponsor sample was to calculate the former sponsor sampling weight. Since the sample frame was small (367 sponsors), some former sponsors who had served a large number of meals in 2000 had a probability greater than one of being selected

in the sample. These 27 former sponsors were labeled "certainty sponsors," automatically selected for the sample, and assigned a former sponsor base weight $BW_{spon}(i)$ equal to one. For the remaining 133 noncertainty former sponsors, the former sponsor base weight $BW_{spon}(i)$ for the *i*th sampled sponsor was calculated as the inverse of the probability of selection or:

$$BW_{spon}(i) = \frac{S(+)}{n_{ncert} S(i)} ,$$

where:

- $S(+)$ is the sum of the square root of total meals for all eligible *noncertainty* sponsors on the sampling frame
- $S(i)$ is the square root of total meals for noncertainty sponsor *i*
- n_{ncert} is the total number of noncertainty sponsors selected, or 133

b. Former Sponsor Nonresponse-Adjusted Weight

The next step in former sponsor weighting was to adjust for nonresponse to the survey. Complete response for a sponsor means that MPR (1) determined whether the sponsor was eligible for interview (that is, whether they were, in fact, in operation in 2000 and not 2001); and (2) obtained interview data from the eligible sponsor. The nonresponse adjustments were conducted within two classes defined by whether the sponsor had one site or more than one site.

The first nonresponse adjustment adjusted the base weight to account for data loss from former sponsors when MPR could not determine whether the sponsor was eligible. (For the weighting of current sponsors, this step was not necessary since MPR determined eligibility for all sponsors.) This nonresponse adjustment was defined as follows:

- For ***records where the sponsor's eligibility was determined,*** the screener completion nonresponse adjustment $ADJ_{screent}(ci)$ for record *i* in class *c* is defined as:

$$ADJ_{screen}(ci) = \frac{\sum_{i=1}^{n_c} BW_{spon}(ci)}{\sum_{i=1}^{n_c} \delta_{screenresp}(ci) BW_{spon}(ci)} ,$$

  where $BW_{spon}(ci)$ is the former sponsor base weight for record *i* in class *c*, $\delta_{screenresp}(ci)$ is equal to 1 for sponsors who responded to the questionnaire and 0 otherwise.

- For records ***where the sponsor's eligibility was not determined,*** the screener completion nonresponse adjustment $ADJ_{screen}(ci)$ is equal to 0.

The screener-adjusted weight NR_{screen} (i) was then calculated as the product of the base weight and the screener completion nonresponse adjustment factor as follows:

$$NR_{screen}(i) = BW_{spon}(i) \times ADJ_{screen}(ci).$$

The second nonresponse adjustment adjusted the weight to account for data loss from eligible former sponsors who did not complete an interview. This nonresponse adjustment was defined as follows:

- For ***records where the sponsor completed a questionnaire,*** the questionnaire completion nonresponse adjustment $ADJ_{quest}(ci)$ for record i in class c is defined as:

$$ADJ_{quest}(ci) = \frac{\sum_{i=1}^{n_c} \delta_{eligspon}(ci) NR_{screen}(ci)}{\sum_{i=1}^{n_c} \delta_{questresp}(ci) NR_{screen}(ci)},$$

  where $NR_{screen}(ci)$ is the screener-adjusted weight for record i in class c, $\delta_{eligspon}(ci)$ is equal to 1 for eligible sponsors and 0 otherwise, and $\delta_{questresp}(ci)$ is equal to 1 for sponsors who responded to the questionnaire and 0 otherwise.

- For records ***where the sponsor did not complete the questionnaire,*** the questionnaire completion nonresponse adjustment $ADJ_{quest}(ci)$ is equal to 0.

- For ***ineligible sponsors,*** the questionnaire completion nonresponse adjustment factor $ADJ_{quest}(ci)$ is equal to 1.

The nonresponse-adjusted weight W_1 (i) was then calculated as the product of the screener-adjusted weight and the questionnaire completion nonresponse adjustment factor as follows:

$$W_1(i) = NR_{screen}(i) \times ADJ_{quest}(ci).$$

c. Final Former Sponsor Weights

A poststratification adjustment was done to ensure that the survey-weighted count of former sponsors equals the estimated population count of former sponsors. The former sponsor adjusted final weight reflects the total number of former sponsors that participated in the SFSP in 2000 but not in 2001, based on the lists provided by states, adjusted for ineligible sponsors, based on

the proportion of sponsors identified as ineligible in the survey.[4] The poststratification cells are defined by the former sponsor's region.

If C_k was the poststratification total number of former sponsors for region k, then the poststratification adjustment $ADJ_{sp}(i)$ for former sponsors in that region is:

$$ADJ_{sp}(i) = \frac{C_k}{\sum_{i=1}^{n_k} W_1(i)},$$

where n_k is the number of sampled sponsors in region k, and $W_1(i)$ is the nonresponse-adjusted former sponsor weight.

The final former sponsor weight $FFSPW(i)$ was then calculated as the product of the nonresponse weight $W_1(i)$ and the former sponsor poststratification adjustment factor as follows:

$$FFSPW(i) = W_1(i) \times ADJ_{sp}(i).$$

This weight is used to analyze the former sponsor data.

[4]Although there were 367 former sponsors in the original sample frame, we estimate there were 330 eligible former sponsors nationally, using the eligibility rate from the survey.

APPENDIX C

PROFILES OF SFSP SITES

The Summer Food Service Program (SFSP) is remarkably diverse. It feeds children through age 18 in many different settings in low-income neighborhoods or in enrolled or camp programs targeted to low-income children. To provide a sense of how the program works, this appendix presents portraits of a range of SFSP sites. The nine sites described here are not intended to be representative or "typical" SFSP sites; rather, they have been selected to illustrate the program's range. Although the portraits include some background information on each site's sponsor, the details are limited to protect confidentiality.

The nine sites are highly diverse. Despite their differences, however, they all shared some characteristics. In general, the sites served equal numbers of boys and girls, and they did not serve seconds. They served 80 percent or more of the meals that had been prepared or delivered. Meals were not observed being taken off site. Site supervisors at most of the sites did not report any capacity constraints that prevented children from being served. The site supervisors also reported that the sites had never run out of food. Exceptions to these findings are noted in the portraits.

A. SCHOOL-SPONSORED SITES

Three school-sponsored sites are described. One is a small rural site, one is a large suburban site run by a medium-sized school district, and one is a large urban site run by a large school district.

1. Open School Site, Small School Sponsor

A small school sponsor on a Native American reservation in a remote rural area ran one open site. The sponsor had run the program for several years at the site, using a single staff member. The program was publicized in the school at the end of the year and by driving around the area in a car that carried a sign advertising the program.

The site offered lunch at the single elementary school in the area and served about 30 children per day. Meals were prepared and served in the cafeteria. No activities were available. The program was open 5 days per week for 8 weeks. In the sponsor survey, the woman who ran the program (and who also was the site supervisor) commented that the program could not increase the number of days of operation because she was "… the only staff person. I need a break and interest begins to wane by August."

Of the children attending the program at this site, one-sixth were preschool age, one-half were elementary-age, and one-third were middle-school age. The site supervisor estimated that about 90 percent were Native American, and that the remaining 10 percent were white. She reported that lack of parental motivation was a problem in getting children to the site; all the children walked to the school by themselves, although older children sometimes brought their younger siblings with them.

On the visit day, 35 children were fed lunch. The meal consisted of an all-beef hotdog on a bun (mustard and ketchup packets were available); choice of canned pears, fresh apple slices, or fresh orange slices; nacho cheese tortilla chips; and choice of chocolate or white milk (both

2 percent fat). Little plate waste was observed: 1 child out of 10 left the hotdog and tortilla chips untouched, but on all the other plates, only 1 or 2 bites of food were uneaten. Although the sponsor's application listed the site as using offer versus serve (OVS), a policy that permits children to refuse parts of the meal in order to reduce waste, all the observed children received full meals. The supervisor reported that leftovers were stored but were not served the following day (for reasons unknown).

2. Enrolled School Site, Medium-Sized School Sponsor

A public school sponsor ran about 20 enrolled sites in 2001, including this suburban site in an elementary school cafeteria. Both the site and the sponsor have offered the SFSP for a few years. However, the sponsor operated fewer sites in 2001 than in 2000.

The site was open from Monday through Friday for about 4½ weeks. In addition to meals, it offered educational activities and supervised free play. Meals were prepared by the sponsor at a central kitchen and were transported to the school in a refrigerated vehicle. Once at the school, they were heated (if necessary), served, and eaten in the cafeteria. According to the site supervisor, the school worked with other organizations to publicize the program. She considered the publicity to be adequate but believed that sending out flyers also might be useful. She estimated that about 220 breakfasts and 230 lunches were served to children on a typical day. She reported that all leftover meals were discarded.

The children who attended the meals were almost evenly split between preschool and elementary-school ages. Sixty percent were Hispanic; the others were African American. According to the site supervisor, almost all children receiving meals attended the program 5 days per week. More than half were transported to the school by school bus. Others walked, rode their bicycles, or were driven to the site.

The day of the site visit was sunny and humid, and the temperature was 73 degrees. Ten staff members served and supervised breakfast, which was served early to 199 children. Breakfast was a standardized meal served in a food pick-up line and consisted of sweetened, ready-to-eat cereal; 100 percent fruit juice punch; apple juice; a package of two apple-cinnamon graham crackers; and a choice of 1 percent white milk or 1 percent chocolate milk. Five out of 10 meals observed for plate waste contained uneaten cereal, and 6 out of 10 had leftover fruit punch. In addition, on six plates, all the graham crackers remained uneaten. Some portions of milk and apple juice were left as well.

Lunch was served early; it began at 10:55 a.m. and ended at 11:45 a.m. Fourteen staff served and supervised the meal, which 204 children attended. The standardized lunch consisted of a hamburger on a white bun, accompanied by ketchup and mustard packets and a half teaspoon of mayonnaise; roasted potatoes; pickle spears; a choice of 1 percent white milk or 1 percent chocolate milk; and a jello-fruit salad served in cups. Five out of the 10 plates observed contained some discarded hamburger, and 4 out of the 10 contained about half the potatoes; almost all the plates contained uneaten pickles. Some milk and jello-fruit cups were uneaten.

3. Open School Site, Large Urban School Sponsor

A public school district in a large urban area operated more than 100 open sites in the summer of 2001. Most of the sites served food prepared on site, but some smaller sites that were not at schools received food from a local school. The sponsor has run the program for many years. The site that the interviewer visited had been open for longer than 5 years.

The site was located in the cafeteria of an elementary school in a densely populated urban area. It was open 5 days per week for 6 weeks. The SFSP meals consisted of breakfast and lunch. Most of the children whom the site served were elementary-age students attending summer school in the building. The site also served small numbers of preschoolers and older children from the community who came only for meals. Some of these children were accompanied by a parent or older sibling. Most of the children were African American; some were Hispanic. All the children arrived on foot or by bicycle from the surrounding neighborhood. The supervisor estimated that the site typically served about 75 children at breakfast, and about 185 at lunch.

On the day that the interviewer visited, the afternoon temperature was over 100 degrees. The cafeteria was not air-conditioned, but it had large fans. Food was prepared on site by a staff of four. Two custodial staff and a security guard also were present during the meals. According to the supervisor, if some of the meals were not served, some parts were discarded, and some were stored and then served the following day.

On the visit day, 79 children were served breakfast. The staff asked children arriving for summer school who did not stop to get food, "Have you had breakfast?" They then encouraged those who had not had a meal to eat the breakfast provided. Children who were not in summer school sat on the opposite side of the cafeteria from the summer school students.

Children were offered a choice of boxed, ready-to-eat cereals; orange juice or apple juice; a choice of four flavors of low-fat yogurt; and a small, individually wrapped banana loaf. Although several types of milk were available, all children observed who took milk chose whole white milk. The sponsor indicated on its application that it would use OVS for sites located in schools; 1 out of 10 observed plates lacked juice, and 3 lacked milk. Little cereal, juice, or yogurt were wasted. About half the milk remained in most cartons. (The children typically poured half their milk on the cereal but did not drink the rest.) The banana loaf was left untouched on about half the plates but was completely eaten on others.

The site served lunch to 109 children. This number may have been lower than usual, as the heat was oppressive, and some classes held parties that day, with food, to celebrate the last day of summer school. As at breakfast, children attending summer school sat together at one end of the cafeteria, with their teachers offering some supervision, while those from the community sat on the other side of the cafeteria.

Lunch was more standardized than breakfast; milk was the only part of the meal for which several choices were available. The lunch consisted of a chicken patty with honey mustard flavoring on a roll, canned corn, a watermelon wedge, a bag of chocolate chip cookies, and a choice of milk. All children observed had whole white milk or 1 percent chocolate milk,

although lower-fat white milk was available. All the children observed took all the lunch components. On about half of the 10 plates observed for waste, most of the sandwich remained uneaten; however, little other waste was observed. A few bags of cookies were slipped into backpacks when staff were not looking.

B. GOVERNMENT-SPONSORED SITES

Most government sponsors are municipal parks and recreation programs, but they also include public housing authorities and social service agencies. This section describes sites run by each of these types of agencies.

1. Open Outdoor Site at Housing Project, Small Government Sponsor

The public housing authority in a small city operated three open SFSP sites at its housing projects. The sites served only lunch, which was provided by a local school food program, under contract. The sponsor had operated for longer than 5 years but reported operating fewer sites in 2001 than in the past. The sites received funding for staff and some activities from a drug prevention program.

The site that the interviewer visited was outside, in the courtyard of a housing project. All the children attending the program lived in the housing project. All were Hispanic, and, although they ranged in age, most were elementary-school age. The site supervisor and the two other site staff were teenagers. Limited recreational activities (sports and arts and crafts) were available at the site. If it rained, the children would sit on the porches of their buildings to eat. The site was open 5 days per week, for 8 weeks. The supervisor reported that the site advertised by handing out flyers and by having recruiters walk around the housing project to explain the program.

Meals were delivered in a cooler brought by a nonrefrigerated vehicle, and leftover meals were picked up after lunch. About 35 children were served on the day of the visit, but the supervisor reported that usual attendance was twice that number; the data available do not explain the discrepancy. The temperature was 75 degrees. The standardized lunch was a turkey sandwich, which consisted of processed turkey roll on toasted wheat bread with lettuce and tomato; a bag of nacho cheese tortilla chips; and a pint of 2 percent chocolate milk. Ten plates were observed for waste; 6 children were observed to eat only 1 or 2 bites of their sandwich, and 6 did not eat their chips. Nearly all the chocolate milk was consumed.

2. Open Recreation Program in Park, Medium-Sized Government Sponsor

The recreation department of a small city (part of a large, urban area) sponsored more than 30 sites in 2001. The sponsor contracted with the local school food service for food preparation and served only lunch at its sites. The sponsor reported being “somewhat satisfied” with the vendor.

The visited site was an open site located at an urban park; it generally served lunch outside to roughly 80 children. It was open 5 days per week, for 9 weeks. A range of recreation

programs was offered at the site on a drop-in basis, including educational activities, arts and crafts, sports, swimming, and field trips. Staff included paid recreation workers and several volunteers. Most children walked or rode bicycles to the site. About half the children attended every day; the rest came a few days per week. Most were of elementary-school age, but some were younger, and some were older. About 90 percent were Hispanic. The site supervisor believed that the program reached all who were interested. She stated that "kids know about the program and tell others." She also informed the interviewer that the site advertised through flyers, banners, and efforts to speak to parents about the program.

On the 90-degree day of the visit, 75 children were fed at lunch. Many were brought early by their parents to ensure they received the meal. Parents were asked to wait outside the serving area. The food was delivered in coolers in a nonrefrigerated truck. The site supervisor reported that food rarely was left over. She also reported that she placed any leftovers in the share box, and that "kids take it." The supervisor reported a few seconds occasionally were served, but none were observed on the day of the visit.

The standardized lunch consisted of a turkey ham sandwich on a whole wheat bun, accompanied by a mustard packet; 1 percent chocolate milk; a small nectarine; a sealed packet of baby carrots; apple juice; and graham crackers. The baby carrots generally remained unopened (and were placed in the share box), and a few children did not eat part of their sandwiches, but there was little other food left on the plates.

3. Open Recreation Program at Playground, Large Government Sponsor

Another recreation program site was run by a city social service agency in a large city that has sponsored more than 100 open sites for longer than 5 years. Meals were provided by a private vendor.

The observed site was a playground. Lunch (the only meal offered) was served inside a small building on the playground. The site, which had offered the SFSP at that location for longer than 5 years, was open 5 days per week, for 12 weeks. A range of recreational activities was offered in a day camp program; after lunch, the children were taken to a nearby swimming pool. All the children walked or rode bicycles to the site from the surrounding neighborhood. The supervisor identified the quality of the food and the lack of safety in the neighborhood as factors that limited participation. He mentioned that the site had run out of food at some point, which is not surprising in a setting with fluctuating attendance.

Food was delivered in a refrigerated vehicle, and the number of meals ordered was adjusted daily. Any leftover meals were picked up by the sponsor. According to the site supervisor, about 22 children usually attended. On the day of the visit, however, the interviewer observed only 10 children eating lunch. The temperature that day was over 90 degrees, and the supervisor ascribed the low attendance to the heat. Two staff served the meals and ran the activities. All the children were African American. Although the site supervisor reported that all the children who attended were of elementary-school age, the interviewer observed that 3 of the 10 children served were preschoolers who were brought to the site solely in order to eat. When reporting on

the age of the attending children, it is likely that the supervisor had been thinking only of the children who came for the activities.

The site supervisor reported that the sponsor never asked for his opinion about menus; he believed the sponsor should provide food that would be more appealing to the children. He thought that children should be served more juice, instead of fruit, and more hotdogs or tacos, instead of cold sandwiches.

The box lunches consisted of a bologna and American cheese sandwich on white bread, served with a packet of salad dressing; a fresh nectarine; 2 percent white milk; and a fruit juice drink in a pouch.[1] The juice was consumed completely, but half the milk was untouched. Some plates contained small unconsumed amounts of the other items.

C. NONPROFIT AND CAMP SITES

Almost all nonprofit sponsors, National Youth Sports Programs (NYSPs), and residential camps are small programs. Nonprofit agencies are generally limited to 25 sites, and most NYSP and residential camp sponsors operate only 1 site. Because these types of sponsors represent small, but distinctive parts of the SFSP, we describe one example of each type.

1. Enrolled Day Camp Site, Nonprofit Sponsor, Small City

A private nonprofit social service agency in a small city ran two open sites and one enrolled site. The visited site was the enrolled site, a day camp program that was run out of the sponsor's headquarters. The sponsor has been operating for longer than 5 years and, because no vendors were located in the area, prepared food on site.

The sponsor contact, who was the nutrition director for the three sites, also completed the site supervisor interview. She believed that the main barriers to participation were parents' lack of awareness about the program, transportation difficulties, and parents' reluctance to accept a "handout." She has worked aggressively to spread the word about the sites by sending out flyers through the schools, erecting signs about the program in front of the social service agency's building, giving interviews on the radio and on television, and creating a short radio "spot" inviting children to attend the program. The sponsor also worked with a local youth program that provides volunteers to help with activities and food service.

[1]The fruit juice drink was described by the interviewer as "unknown percent juice." It was coded as "fruit drink," which is about 10 percent fruit juice. See Appendix E for further discussion of coding rules.

The day camp ran from 6:30 a.m. to 6 p.m., 5 days per week, for longer than 12 weeks. It served breakfast, lunch, and an afternoon snack not covered by the SFSP.[2] The interviewer found the kitchen and dining area to be clean and nicely decorated. The visit was on a cool day (50 degrees). The nutrition director reported that about half the children attended the program every day, with the rest attending 3 or 4 days per week. Activities included arts and crafts, games, sports, swimming, field trips, and cooking instruction. Four staff planned and prepared the meals; two of the four worked part-time hours. All four worked for the program year-round, as the agency also is a Child and Adult Care Food Program sponsor. Six other staff, who worked as part-time help during the summer, supervised the children during the meals. On the day of the visit, 45 children ate breakfast and 56 ate lunch; these numbers were typical. The interviewer noted that seven other children were present at breakfast but did not eat, presumably because they had eaten at home.

The children attending the program were largely of elementary-school age, but a few middle-school children also attended. Most were white, but about 20 percent were Native American. Most were dropped off by car; about 10 percent were transported to the site by the program.

Both breakfast and lunch were standardized. Breakfast included a ready-to-eat cereal, a muffin made from scratch on site, canned applesauce, and 1 percent white milk. About half the children left some milk, and about half left a few bites of other food. Lunch was a sloppy Joe (ground beef in tomato sauce) on a bun, canned corn, canned fruit cocktail, and 1 percent white milk. About half the children did not eat any of the fruit cocktail, and a few did not drink the milk. The sandwich and corn generally were eaten.

2. Residential Camp, Rural Location

As is usual for camps, this Jewish residential camp, which follows kosher dietary laws, was the sponsor's only site. The camp is in a rural location, and the sponsor transported the children to it from a large, urban area for the 8-week session. The camp has participated in the SFSP for longer than 5 years. It offers a wide range of activities, including religious activities. Children attending the camp ranged in age from preschool-age to high-school age. The preschool children present on the day of the visit were children of the staff. Almost all the children were boys. The camp has a staff of 18 professionals, 35 counselors, 15 junior counselors, and 12 kitchen workers. The camp director reported that an average of 350 children attend. Meals were served indoors. According to the director, about 5 to 10 percent of meals served are seconds; on the visit day, a few seconds were observed.[3] The director also reported that there never were any leftover meals.

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[2]The SFSP provides reimbursements for only two meals or snacks. (Migrant sites and residential camp sites are the exception to this regulation.) Some sites served snacks without requesting reimbursement.

[3]The number of seconds claimed on the reimbursement form is unknown.

The interviewer observed only supper at this site, which was served to 312 children. Older children stood in a line to receive their food; the younger children were served family style. All the observed suppers included baked chicken (leg and thigh), brown rice, steamed carrots, two slices of rye bread, and lemonade. A few children also received coleslaw or canned fruit cocktail. No milk was served because of kosher dietary laws; kosher sites are permitted to omit milk when meat is served as long as they serve juice (U.S. Department of Agriculture 2002b). Overall, most food was eaten. About half the 10 plates observed contained a small amount of uneaten rice. Two or three children left small amounts of chicken, carrots, or juice, and one child left the bread untouched.

3. NYSP Site on College Campus, Large Urban Area

A public college in an urban area sponsors the SFSP in conjunction with the NYSP at one site. The program operates for 5 weeks and serves a morning snack and lunch. Food was provided by the local school food service. The program had been operating as an SFSP sponsor for longer than 10 years, and the number of children participating each year had remained about the same. The serving site was located in a campus church building, but program activities took place elsewhere on campus. Children arrived for the day on a bus provided by the program. The site supervisor believed that there was additional demand for summer meals in the area but commented that, as an enrolled program with a limited capacity, the program was unable to meet that demand.

Although the site supervisor reported average daily participation of about 250, only slightly more than 200 children were observed eating lunch on the day of the interviewer's visit. On that day, a group of children was late in returning from an activity. A few staff ate lunch as well. The children were of older elementary and middle-school age. Nearly all were African American.

The food was delivered in coolers brought by a nonrefrigerated vehicle. The site had a kitchen, with a refrigerator, and the supervisor reported that leftover food sometimes was stored there, to be served the next day, and sometimes was discarded. The largely standardized meal included chicken nuggets served with ketchup, fruit cocktail, choice of orange juice or grape juice, and choice of whole white milk or 1 percent chocolate milk. All the chicken nuggets on the 10 plates observed for waste were eaten. About three plates contained untouched milk, three had untouched fruit cocktail, and a few had a little juice left.

APPENDIX D

DETAILED TABULATIONS FROM THE 2001 SPONSOR-SITE DATABASE

This appendix presents detailed tabulations from the 2001 Sponsor-Site Database by state and by Food and Nutrition Service (FNS) region. It then compares the results from the Sponsor-Site Database with results from the Sponsor Survey and with FNS administrative data.

A. STATE AND REGIONAL DATA FROM THE SPONSOR-SITE DATABASE

The tables in this appendix show the following variables from the Sponsor-Site Database by state and FNS region:

- Sites per sponsor (Table D.1)
- Total meals served per sponsor (Table D.2)
- Number of new and continuing sponsors (Table D.3)
- Number of sponsors that served each type of meal (breakfast, lunch, supper, snacks) (Table D.4)
- Duration of sponsors' programs (Table D.5)
- Number of sponsors, by sponsor type (Table D.6)

B. COMPARISON OF SPONSOR-SITE DATABASE AND SPONSOR SURVEY

The sample for the 2001 Sponsor Survey was selected to be nationally representative. Although the sample was not stratified by sponsor type, the weights for the sample were poststratified to match the total number of sponsors overall and by type in the Sponsor-Site Database. Unfortunately, after the final weights were prepared, two sponsors that were residential camps were found to have been classified incorrectly as nonprofit organizations. As a result of that misclassification, the weights in the Sponsor Survey slightly overestimate the proportion of camp sponsors and slightly underestimate the proportion of nonprofit sponsors.[1] Other differences between the Sponsor Survey and the Sponsor-Site Database may reflect sampling variability, as no sample would be expected to capture precisely the characteristics of the population.

Overall, the tabulations from the Sponsor Survey and the Sponsor-Site Database correspond well on the few variables that can be compared directly. As expected, the weighted tabulations from the Sponsor Survey show slightly more camp sponsors (18.7 percent, versus 16.4 percent in the Sponsor-Site Database) and slightly fewer nonprofit sponsors (16.8 percent versus 17.5 percent) (Table D.7). According to the Sponsor Survey, somewhat more sponsors have only one site (54.7 percent versus 49.6 percent). In addition, there are fewer large sponsors than the Sponsor-Site Database indicates; this differences reflects sampling variability, rather than the weighting adjustment. Furthermore, the Sponsor-Site Database indicates that only 98 percent of

[1]Some testing indicated that this weighting issue generally would not affect other variables by more than 1 percentage point.

sponsors served lunch, although all sponsors in the sample served lunch. More sponsors reported offering snacks in the Sponsor Survey than in the Sponsor-Site Database (20.5 percent versus 15.2 percent). None of these differences is statistically significant; all of the differences are less than twice the standard error of the survey estimate.

C. COMPARISON OF SPONSOR-SITE DATABASE AND FNS ADMINISTRATIVE DATA

The Sponsor Survey and the Sponsor-Site Database correspond fairly closely, but, at first glance, the data from the Sponsor-Site Database and FNS administrative data appear to be quite different. To understand these differences, it is important to understand how the FNS data are collected. As part of the July claims for reimbursement, FNS requires the state agencies to report the number of sponsors and sites, by the five major sponsor types (school, government, nonprofit, residential camp, and National Youth Sports Program [NYSP]); the reports are made on so-called FNS-418 forms. The instructions for these forms do not specify in detail how the counts of sponsors and sites are to be computed, but discussions with FNS staff and state agency staff suggest that most, but not all, states report the numbers of sponsors and sites that operate in July, rather than the number that operate at any time during the year. Another explanation for these discrepancies is the fact that some states count certain organizations as two sponsors (for example, because they run both an NYSP and an Upward Bound program), whereas the Sponsor-Site Database counted the organizations as a single sponsor (see Appendix A for additional discussion of this issue). Furthermore, in compiling the state data for the Sponsor-Site Database, study staff found that many states had several different counts of their sponsors, depending on which list was consulted.

Table D.8 compares the FNS administrative data (also presented in Table II.5 in the report) with similar data from the Sponsor-Site Database. The FNS data show substantially fewer sponsors (3,747 versus 4,370 in the Sponsor-Site Database), and somewhat fewer sites (31,304 versus 35,490). The percentage distributions of sponsors by type also differ slightly. For example, the FNS data show 1,646 school sponsors (43.9 percent), but the Sponsor-Site Database lists 2,118 sponsors of this type (48.5 percent). Differences in the number of sites are concentrated among school sponsors (14,023 sites in FNS data versus 17,321 in the Database) but also are found for other sponsor types; thus, the percentage distribution of sites by sponsor type differs as well.

On the hypothesis that the FNS data may include primarily sponsors that operated in July 2001, the study prepared counts of sponsors and sites from the Sponsor-Site Database that were restricted to sponsors operating in July 2001; these counts were based on start and end dates for sponsors' programs (Table D.9). This restriction accounts for almost all (95 percent) of the original difference in the total number of sponsors, and 39 percent of the difference in the total number of sites. The largest remaining difference in the number of sponsors is rather small—145 NYSP sponsors in the Sponsor-Site Database versus 131 in the FNS data. Furthermore, the percentage distribution by sponsor type is almost identical, suggesting the FNS data have a fairly accurate count of July sponsors by sponsor type.

The FNS data are not as close to the Sponsor-Site Database with respect to the number of sites. The FNS data list 2,564 fewer sites run by July sponsors than does the Database. It is possible that the FNS data may only list sites that operate in July, whereas the database tabulations were not restricted in this way. (Sponsors that operate in July may have sites that do not operate in July, but the analysis counts all their sites.) However, 79 percent of the difference in July sites is concentrated among school sponsors. The Database lists 16,050 sites run by school sponsors that operated in July (47.4 percent of all sites); by comparison, the FNS data list 14,023 of these sites (44.8 percent). The numbers are more similar for other sponsor types. (The number of camp sites is almost identical—876 in the Database and 872 in FNS data.)

Most of the differences in the number of sites are concentrated in the Southeast region and in Texas (Table D.10). Sites in Texas and in some Southeast states run primarily in June. Some sponsors in these areas may operate in July but have sites that end in June; those June sites may be left out of the states' reports to FNS.

A few other states appear to report all sponsors and sites for the entire summer to FNS; for example, Missouri appears to report all sponsors (compare the FNS sponsor count in Table D.10 for Missouri and the Sponsor-Site Database counts shown in Tables D.6 and D.10). In the Sponsor-Site Database, start and end dates are missing for all sponsors in Indiana and Utah and for selected other sponsors—these sponsors are excluded from the Database numbers in Tables D.9 and D.10. These factors explain some of the differences between the datasets.

Overall, these results suggest that FNS needs to find out more about how states count the numbers of sponsors and sites they report on the July 418 forms. Obtaining this information is particularly important because the FNS data provide the only currently available trend data on the numbers of sponsors and sites in the SFSP.

TABLE D.1

NUMBER OF SITES PER SPONSOR,
BY STATE AND REGION
(Distribution and Mean)

State Name	Number of Sites per Sponsor: 1 Number	1 Row Percent	2-50 Number	2-50 Row Percent	51+ Number	51+ Row Percent	Total Sponsors Number	Total Sponsors Row Percent	Mean Number of Sites per Sponsor
Mid-Atlantic									
Delaware	5	33.3	9	60.0	1	6.7	15	100.0	15
District of Columbia	13	76.5	2	11.8	2	11.8	17	100.0	10
Maryland	19	41.3	23	50.0	4	8.7	46	100.0	14
New Jersey	45	46.4	46	47.4	6	6.2	97	100.0	12
Pennsylvania	83	50.9	74	45.4	6	3.7	163	100.0	14
Puerto Rico	12	80.0	2	13.3	1	6.7	15	100.0	59
Virgin Islands	1	33.3	0	—	2	66.7	3	100.0	60
Virginia	36	36.4	62	62.6	1	1.0	99	100.0	7
West Virginia	35	38.0	57	62.0	0	—	92	100.0	5
Mid-Atlantic Subtotal	**249**	**45.5**	**275**	**50.3**	**23**	**4.2**	**547**	**100.0**	**12**
Midwest									
Illinois	51	50.0	47	46.1	4	3.9	102	100.0	13
Indiana	52	66.7	25	32.1	1	1.3	78	100.0	5
Michigan	70	63.6	38	34.5	2	1.8	110	100.0	8
Minnesota	29	58.0	19	38.0	2	4.0	50	100.0	8
Ohio	67	51.5	58	44.6	5	3.8	130	100.0	8
Wisconsin	35	50.7	32	46.4	2	2.9	69	100.0	6
Midwest Subtotal	**304**	**56.4**	**219**	**40.6**	**16**	**3.0**	**539**	**100.0**	**8**
Mountain/Plains									
Colorado	28	57.1	21	42.9	0	—	49	100.0	3
Iowa	22	68.8	10	31.3	0	—	32	100.0	3
Kansas	34	64.2	19	35.8	0	—	53	100.0	3
Missouri	111	69.4	47	29.4	2	1.3	160	100.0	4
Montana	27	56.3	21	43.8	0	—	48	100.0	2
Nebraska	29	82.9	6	17.1	0	—	35	100.0	3
North Dakota	25	92.6	2	7.4	0	—	27	100.0	1
South Dakota	36	69.2	16	30.8	0	—	52	100.0	2
Utah	10	40.0	15	60.0	0	—	25	100.0	6
Wyoming	4	66.7	2	33.3	0	—	6	100.0	2
Mountain/Plains Subtotal	**326**	**66.9**	**159**	**32.6**	**2**	**0.4**	**487**	**100.0**	**3**

TABLE D.1 *(continued)*

State Name	Number of Sites per Sponsor: 1 Number	1 Row Percent	2-50 Number	2-50 Row Percent	51+ Number	51+ Row Percent	Total Sponsors Number	Total Sponsors Row Percent	Mean Number of Sites per Sponsor
Northeast									
Connecticut	10	31.3	20	62.5	2	6.3	32	100.0	11
Maine	33	62.3	20	37.7	0	—	53	100.0	2
Massachusetts	36	42.4	48	56.5	1	1.2	85	100.0	9
New Hampshire	21	80.8	5	19.2	0	—	26	100.0	2
New York—ROAP	151	68.9	68	31.1	0	—	219	100.0	2
New York—State	22	23.9	65	70.7	5	5.4	92	100.0	27
Rhode Island	7	43.8	8	50.0	1	6.3	16	100.0	12
Vermont	30	61.2	19	38.8	0	—	49	100.0	3
Northeast Subtotal	**310**	**54.2**	**253**	**44.2**	**9**	**1.6**	**572**	**100.0**	**8**
Southeast									
Alabama	29	42.0	38	55.1	2	2.9	69	100.0	10
Florida	33	24.4	91	67.4	11	8.1	135	100.0	19
Georgia	44	31.9	88	63.8	6	4.3	138	100.0	15
Kentucky	53	35.1	96	63.6	2	1.3	151	100.0	6
Mississippi	23	28.8	57	71.3	0	—	80	100.0	4
North Carolina	50	40.0	71	56.8	4	3.2	125	100.0	8
South Carolina	8	15.1	36	67.9	9	17.0	53	100.0	27
Tennessee	17	37.0	22	47.8	7	15.2	46	100.0	27
Southeast Subtotal	**257**	**32.2**	**499**	**62.6**	**41**	**5.1**	**797**	**100.0**	**13**
Southwest									
Arkansas	66	73.3	24	26.7	0	—	90	100.0	2
Louisiana	35	46.7	37	49.3	3	4.0	75	100.0	7
New Mexico	19	27.1	49	70.0	2	2.9	70	100.0	11
Oklahoma	77	74.8	24	23.3	2	1.9	103	100.0	3
Texas	205	52.6	179	45.9	6	1.5	390	100.0	6
Southwest Subtotal	**402**	**55.2**	**313**	**43.0**	**13**	**1.8**	**728**	**100.0**	**6**
West									
Alaska	6	60.0	4	40.0	0	—	10	100.0	3
Arizona	48	44.4	59	54.6	1	0.9	108	100.0	5
California	115	41.1	159	56.8	6	2.1	280	100.0	7
Hawaii	10	58.8	7	41.2	0	—	17	100.0	5
Idaho	41	70.7	17	29.3	0	—	58	100.0	2
Nevada	20	58.8	14	41.2	0	—	34	100.0	3
Oregon	25	32.1	52	66.7	1	1.3	78	100.0	5
Washington	56	47.9	59	50.4	2	1.7	117	100.0	5
West Subtotal	**321**	**45.7**	**371**	**52.8**	**10**	**1.4**	**702**	**100.0**	**5**
U.S. Total	**2,169**	**49.6**	**2,089**	**47.8**	**114**	**2.6**	**4,372**	**100.0**	**8**

SOURCE: SFSP Implementation Study, Sponsor-Site Database (2001).

ROAP = FNS regional office-administered program.

TABLE D.2

TOTAL MEALS SERVED PER SPONSOR,
BY STATE AND REGION
(Distribution and Mean)

State Name	Number of Meals per Sponsor <2,500	2,500 to <10,000	≥10,000	Total Sponsors	Mean Number of Meals per Sponsor
Mid-Atlantic					
Delaware	1	4	10	15	33,871
District of Columbia	5	7	5	17	62,978
Maryland	10	20	16	46	32,446
New Jersey	11	37	49	97	34,457
Pennsylvania	44	57	62	163	48,988
Puerto Rico	5	5	5	15	166,879
Virgin Islands	1	0	2	3	120,470
Virginia	19	36	41	96	20,038
West Virginia	30	36	26	92	8,372
Mid-Atlantic Subtotal	**126**	**202**	**216**	**544**	**36,686**
Midwest					
Illinois	17	60	25	102	55,571
Indiana	20	32	26	78	17,255
Michigan	27	37	46	110	18,427
Minnesota	13	20	17	50	30,813
Ohio	32	52	46	130	17,812
Wisconsin	13	35	21	69	16,854
Midwest Subtotal	**122**	**236**	**181**	**539**	**26,086**
Mountain/Plains					
Colorado	9	23	17	49	11,580
Iowa	13	11	8	32	9,297
Kansas	22	19	12	53	9,669
Missouri	34	88	38	160	17,290
Montana	17	26	5	48	4,999
Nebraska	7	17	11	35	10,582
North Dakota	11	15	1	27	5,191
South Dakota	10	28	14	52	8,609
Utah	3	5	17	25	33,968
Wyoming	1	4	1	6	4,916
Mountain/Plains Subtotal	**127**	**236**	**124**	**487**	**12,773**

TABLE D.2 *(continued)*

State Name	Number of Meals per Sponsor <2,500	2,500 to <10,000	≥10,000	Total Sponsors	Mean Number of Meals per Sponsor
Northeast					
Connecticut	3	8	21	32	44,759
Maine	14	27	12	53	6,774
Massachusetts	12	31	42	85	29,422
New Hampshire	12	9	5	26	7,468
New York—ROAP	28	61	117	206	34,468
New York—State	13	27	52	92	146,018
Rhode Island	4	6	6	16	31,255
Vermont	29	16	4	49	3,589
Northeast Subtotal	**115**	**185**	**259**	**559**	**45,969**
Southeast					
Alabama	8	25	35	68	27,051
Florida	14	34	87	135	90,321
Georgia	15	47	75	137	31,763
Kentucky	27	75	49	151	12,380
Mississippi	2	28	50	80	19,767
North Carolina	16	43	61	120	19,208
South Carolina	2	8	43	53	60,305
Tennessee	10	9	27	46	69,906
Southeast Subtotal	**94**	**269**	**427**	**790**	**38,673**
Southwest					
Arkansas	18	50	22	90	8,724
Louisiana	5	25	45	75	38,081
New Mexico	6	23	41	70	37,347
Oklahoma	34	50	19	103	9,485
Texas	79	169	141	389	27,910
Southwest Subtotal	**142**	**317**	**268**	**727**	**24,883**
West					
Alaska	3	6	1	10	5,835
Arizona	19	42	47	108	20,655
California	37	100	142	279	32,874
Hawaii	2	8	6	16	15,932
Idaho	18	26	14	58	9,387
Nevada	6	12	16	34	29,623
Oregon	16	33	29	78	13,382
Washington	31	55	31	117	13,862
West Subtotal	**132**	**282**	**286**	**700**	**22,762**
U.S. Total	**858**	**1,727**	**1,761**	**4,346**	**30,030**

SOURCE: SFSP Implementation Study, Sponsor-Site Database (2001).

ROAP = FNS regional office-administered program.

TABLE D.3

NUMBER OF CONTINUING AND NEW SPONSORS,
BY STATE AND REGION

State Name	Continuing Sponsors	New Sponsors	Total Sponsors
Mid-Atlantic			
Delaware	13	2	15
District of Columbia	9	8	17
Maryland	41	5	46
New Jersey	92	5	97
Pennsylvania	151	12	163
Puerto Rico	12	3	15
Virgin Islands	2	1	3
Virginia	93	6	99
West Virginia	84	8	92
Mid-Atlantic Subtotal	**497**	**50**	**547**
Midwest			
Illinois	92	10	102
Indiana	59	19	78
Michigan	95	15	110
Minnesota	46	4	50
Ohio	120	10	130
Wisconsin	62	7	69
Midwest Subtotal	**474**	**65**	**539**
Mountain/Plains			
Colorado	44	5	49
Iowa	30	2	32
Kansas	47	6	53
Missouri	136	24	160
Montana	39	9	48
Nebraska	31	4	35
North Dakota	26	1	27
South Dakota	45	7	52
Utah	25	0	25
Wyoming	6	0	6
Mountain/Plains Subtotal	**429**	**58**	**487**

TABLE D.3 *(continued)*

State Name	Continuing Sponsors	New Sponsors	Total Sponsors
Northeast			
Connecticut	32	0	32
Maine	49	4	53
Massachusetts	83	2	85
New Hampshire	21	5	26
New York—ROAP	206	13	219
New York—State	86	6	92
Rhode Island	14	2	16
Vermont	37	12	49
Northeast Subtotal	**528**	**44**	**572**
Southeast			
Alabama	66	3	69
Florida	119	16	135
Georgia	114	24	138
Kentucky	151	0	151
Mississippi	67	13	80
North Carolina	108	17	125
South Carolina	46	7	53
Tennessee	43	3	46
Southeast Subtotal	**714**	**83**	**797**
Southwest			
Arkansas	86	4	90
Louisiana	68	7	75
New Mexico	60	10	70
Oklahoma	92	11	103
Texas	365	25	390
Southwest Subtotal	**671**	**57**	**728**
West			
Alaska	7	3	10
Arizona	95	13	108
California	257	23	280
Hawaii	15	2	17
Idaho	50	8	58
Nevada	27	7	34
Oregon	71	7	78
Washington	97	20	117
West Subtotal	**619**	**83**	**702**
U.S. Total	**3,932**	**440**	**4,372**

SOURCE: SFSP Implementation Study, Sponsor-Site Database (2001).

ROAP = FNS regional office-administered program.

TABLE D.4

MEALS OFFERED BY SPONSORS,
BY STATE AND REGION
(Number of Sponsors Offering Each Meal)

State Name	Number of Sponsors Serving Meal				Total Sponsors
	Breakfast	Lunch	Supper	Any Snack	
Mid-Atlantic					
Delaware	15	15	3	1	15
District of Columbia	14	16	2	6	17
Maryland	43	42	14	9	46
New Jersey	76	96	24	15	97
Pennsylvania	115	160	73	32	163
Puerto Rico	15	15	2	4	15
Virgin Islands	1	3	0	3	3
Virginia	76	95	21	17	99
West Virginia	76	91	24	13	92
Mid-Atlantic Subtotal	**431**	**533**	**163**	**100**	**547**
Midwest					
Illinois	58	102	15	13	102
Indiana	62	78	16	10	78
Michigan	85	108	37	44	110
Minnesota	39	50	18	4	50
Ohio	76	128	34	15	130
Wisconsin	50	69	27	22	69
Midwest Subtotal	**370**	**535**	**147**	**108**	**539**
Mountain/Plains					
Colorado	38	49	6	8	49
Iowa	24	31	15	4	32
Kansas	38	49	11	4	53
Missouri	130	157	14	12	160
Montana	32	45	9	8	48
Nebraska	19	34	2	3	35
North Dakota	21	26	10	2	27
South Dakota	41	52	4	8	52
Utah	17	24	4	3	24
Wyoming	1	6	1	1	6
Mountain/Plains Subtotal	**361**	**473**	**76**	**53**	**486**

TABLE D.4 *(continued)*

State Name	Number of Sponsors Serving Meal				Total Sponsors
	Breakfast	Lunch	Supper	Any Snack	
Northeast					
Connecticut	27	32	5	0	32
Maine	49	51	17	4	53
Massachusetts	60	83	24	17	85
New Hampshire	22	24	12	2	26
New York—ROAP	186	217	140	37	217
New York—State	58	90	1	29	92
Rhode Island	11	16	4	1	16
Vermont	32	48	14	5	49
Northeast Subtotal	**445**	**561**	**217**	**95**	**570**
Southeast					
Alabama	29	65	8	11	68
Florida	79	135	21	57	135
Georgia	92	136	16	16	137
Kentucky	125	146	41	20	151
Mississippi	49	80	9	7	80
North Carolina	93	119	16	17	123
South Carolina	20	52	7	13	53
Tennessee	34	46	6	10	46
Southeast Subtotal	**521**	**779**	**124**	**151**	**793**
Southwest					
Arkansas	82	87	10	1	90
Louisiana	55	75	13	1	75
New Mexico	48	70	6	12	70
Oklahoma	68	103	12	6	103
Texas	272	382	17	32	389
Southwest Subtotal	**525**	**717**	**58**	**52**	**727**
West					
Alaska	8	10	4	4	10
Arizona	86	106	6	12	108
California	179	276	72	41	279
Hawaii	6	16	3	3	16
Idaho	53	57	6	6	58
Nevada	28	33	3	3	34
Oregon	60	78	13	16	78
Washington	73	117	10	20	117
West Subtotal	**493**	**693**	**117**	**105**	**700**
U.S. Total	**3,146**	**4,291**	**902**	**664**	**4,362**

SOURCE: SFSP Implementation Study, Sponsor-Site Database (2001).

ROAP = FNS regional office-administered program.

TABLE D.5

DURATION OF SPONSORS' PROGRAMS, BY STATE AND REGION
(Distribution)

State Name	Program Duration <4 Weeks	4 to <8 Weeks	8 to <12 Weeks	≥12 Weeks	Total Sponsors
Mid-Atlantic					
Delaware	1	5	9	0	15
District of Columbia	2	11	4	0	17
Maryland	2	34	10	0	46
New Jersey	2	68	24	3	97
Pennsylvania	13	78	69	3	163
Puerto Rico	3	5	7	0	15
Virgin Islands	0	0	2	0	2
Virginia	14	48	36	1	99
West Virginia	17	45	27	2	91
Mid-Atlantic Subtotal	**54**	**294**	**188**	**9**	**545**
Midwest					
Illinois	2	58	41	1	102
Michigan	8	74	27	1	110
Minnesota	2	21	20	7	50
Ohio	7	68	51	0	126
Wisconsin	8	28	30	2	68
Midwest Subtotal	**27**	**249**	**169**	**11**	**456**
Mountain/Plains					
Colorado	4	36	7	0	47
Iowa	3	19	10	0	32
Kansas	17	22	12	2	53
Missouri	80	41	29	10	160
Montana	7	18	18	5	48
Nebraska	5	18	12	0	35
North Dakota	3	16	7	1	27
South Dakota	2	8	23	19	52
Wyoming	1	1	4	0	6
Mountain/Plains Subtotal	**122**	**179**	**122**	**37**	**460**

TABLE D.5 *(continued)*

State Name	Program Duration <4 Weeks	4 to <8 Weeks	8 to <12 Weeks	≥12 Weeks	Total Sponsors
Northeast					
Connecticut	0	27	5	0	32
Maine	8	32	13	0	53
Massachusetts	0	57	28	0	85
New Hampshire	3	13	7	0	23
New York—ROAP	10	104	105	0	219
New York—State	4	66	22	0	92
Rhode Island	0	14	2	0	16
Vermont	9	26	9	1	45
Northeast Subtotal	**34**	**339**	**191**	**1**	**565**
Southeast					
Alabama	0	43	23	2	68
Florida	8	60	64	2	134
Georgia	9	76	50	2	137
Kentucky	26	75	34	16	151
Mississippi	14	61	5	0	80
North Carolina	14	80	30	1	125
South Carolina	4	36	13	0	53
Tennessee	2	23	21	0	46
Southeast Subtotal	**77**	**411**	**217**	**21**	**726**
Southwest					
Arkansas	19	43	27	1	90
Louisiana	0	67	8	0	75
New Mexico	2	29	38	1	70
Oklahoma	31	48	24	0	103
Texas	132	178	75	3	388
Southwest Subtotal	**184**	**365**	**172**	**5**	**726**
West					
Alaska	1	4	3	2	10
Arizona	16	52	23	17	108
California	21	146	83	29	279
Hawaii	1	11	4	0	16
Idaho	21	17	17	1	56
Nevada	2	8	13	11	34
Oregon	12	38	28	0	78
Washington	8	70	39	0	117
West Subtotal	**82**	**346**	**210**	**60**	**698**
U.S. Total	**580**	**2,226**	**1,292**	**146**	**4,244**

TABLE D.5 *(continued)*

SOURCE: SFSP Implementation Study, Sponsor-Site Database (2001).

NOTE: The Sponsor-Site Database has missing dates of operation for Indiana and Utah.

ROAP = FNS regional office-administered program.

TABLE D.6

NUMBER OF SPONSORS BY TYPE,
BY STATE AND REGION

State Name	Number of Sponsors					Total Sponsors
	Government	Nonprofit	Residential Camp	School	NYSP	
Mid-Atlantic						
Delaware	1	7	3	2	2	15
District of Columbia	1	8	2	4	2	17
Maryland	16	4	11	13	2	46
New Jersey	37	17	24	18	1	97
Pennsylvania	9	39	53	56	6	163
Puerto Rico	0	2	1	12	0	15
Virgin Islands	0	1	0	2	0	3
Virginia	21	25	13	33	7	99
West Virginia	10	25	19	37	1	92
Mid-Atlantic Subtotal	**95**	**128**	**126**	**177**	**21**	**547**
Midwest						
Illinois	40	26	12	24	0	102
Indiana	2	29	15	30	2	78
Michigan	14	8	30	57	1	110
Minnesota	2	7	19	21	1	50
Ohio	17	27	32	42	11	129
Wisconsin	9	14	16	27	3	69
Midwest Subtotal	**84**	**111**	**124**	**201**	**18**	**538**
Mountain/Plains						
Colorado	2	3	6	37	1	49
Iowa	0	4	14	13	1	32
Kansas	2	6	12	29	4	53
Missouri	19	15	10	113	3	160
Montana	8	8	1	31	0	48
Nebraska	7	1	2	21	3	34
North Dakota	1	5	3	17	1	27
South Dakota	4	9	2	36	1	52
Utah	1	0	4	20	0	25
Wyoming	2	1	1	2	0	6
Mountain/Plains Subtotal	**46**	**52**	**55**	**319**	**14**	**486**

TABLE D.6 *(continued)*

State Name	Number of Sponsors					Total Sponsors
	Government	Nonprofit	Residential Camp	School	NYSP	
Northeast						
Connecticut	9	4	4	13	2	32
Maine	0	3	16	33	1	53
Massachusetts	10	28	18	26	3	85
New Hampshire	3	4	10	9	0	26
New York—ROAP	0	82	131	0	6	219
New York—State	22	0	0	70	0	92
Rhode Island	5	5	3	2	1	16
Vermont	1	13	12	23	0	49
Northeast Subtotal	**50**	**139**	**194**	**176**	**13**	**572**
Southeast						
Alabama	43	6	6	6	8	69
Florida	47	22	15	44	7	135
Georgia	30	58	11	33	6	138
Kentucky	14	17	15	105	0	151
Mississippi	6	6	5	56	7	80
North Carolina	5	33	11	66	10	125
South Carolina	17	17	3	16	0	53
Tennessee	15	5	5	15	6	46
Southeast Subtotal	**177**	**164**	**71**	**341**	**44**	**797**
Southwest						
Arkansas	5	14	10	58	3	90
Louisiana	19	12	14	27	3	75
New Mexico	22	14	5	27	2	70
Oklahoma	2	4	11	84	2	103
Texas	22	28	14	317	9	390
Southwest Subtotal	**70**	**72**	**54**	**513**	**19**	**728**
West						
Alaska	2	3	2	3	0	10
Arizona	5	1	6	96	0	108
California	54	43	60	112	11	280
Hawaii	4	8	4	0	1	17
Idaho	1	3	4	49	1	58
Nevada	13	14	2	4	1	34
Oregon	0	8	10	58	2	78
Washington	20	17	5	69	6	117
West Subtotal	**99**	**97**	**93**	**391**	**22**	**702**
U.S. Total	**621**	**763**	**717**	**2,118**	**151**	**4,370**

SOURCE: SFSP Implementation Study, Sponsor-Site Database (2001).

ROAP = FNS regional office-administered program.

TABLE D.7

COMPARISON OF SPONSOR-SITE DATABASE AND SPONSOR SURVEY

	Sponsor-Site Database	Sponsor Survey	
	Percentage of Sponsors	Percentage of Sponsors	Standard Error
Sponsor Type			
School	48.5	48.1	(5.5)
Government	14.2	14.2	(3.5)
Residential camp	16.4	18.7	(5.0)
NYSP	3.5	2.2	(1.2)
Other nonprofit organization	17.5	16.8	(4.3)
Number of Sites Sponsored			
1	49.6	54.7	(4.1)
2 to 5	27.1	27.4	(4.3)
6 to 10	9.1	6.8	(2.5)
11 to 50	11.6	8.9	(2.0)
51 to 100	1.5	0.8	(0.4)
101 to 200	0.8	0.9	(0.4)
201 to 300	0.2	0.4	(0.2)
>300	0.1	0.1	(0.1)
Median	2.0	1.0	n.a.
Mean	8.1	7.4	(1.1)
Meals Offered			
Breakfast	72.1	73.1	(5.4)
Lunch	98.4	100.0	n.a.
Supper	20.7	17.2	(4.5)
Any snack	15.2	20.5	(4.5)
Total Sponsors—Database	**4,372**	**—**	**—**
Sample Size—Survey	**—**	**126**	**—**

SOURCE: SFSP Implementation Study, Sponsor-Site Database (2001) and Sponsor Survey (2001).

NOTE: Tabulations from the Sponsor Survey are weighted to be representative of sponsors nationally.

n.a. = not available; NYSP = National Youth Sports Program.

TABLE D.8

COMPARISON OF SPONSOR CHARACTERISTICS IN FNS ADMINISTRATIVE DATA AND IN SPONSOR-SITE DATABASE, 2001

	FNS Administrative Data					Sponsor-Site Database				
Type of Sponsor	Number of Sponsors	Percentage	Number of Sites	Percentage	Average Number of Sites	Number of Sponsors	Percentage	Number of Sites	Percentage	Average Number of Sites
School	1,646	43.9	14,023	44.8	8.5	2,118	48.5	17,321	48.8	8.2
Government	610	16.3	13,067	41.7	21.4	621	14.2	13,361	37.6	21.5
Residential Camp	651	17.4	872	2.8	1.3	717	16.4	949	2.7	1.3
NYSP	131	3.5	140	0.4	1.1	151	3.5	181	0.5	1.2
Other Nonprofit Organization	709	18.9	3,202	10.2	4.5	763	17.5	3,678	10.4	4.8
Total	**3,747**	**100.0**	**31,304**	**100.0**	**8.4**	**4,370**[a]	**100.0**	**35,490**	**100.0**	**8.1**

SOURCE: FNS administrative data were provided to Mathematica Policy Research, Inc. by FNS in January 2002. This dataset is from the "FNS-418" reporting forms submitted to FNS by SFSP state agencies. SFSP Implementation Study, Sponsor-Site Database (2001).

[a]The Sponsor-Site Database has missing data on sponsor type for two sponsors. These sponsors had two sites in 2001.

FNS = Food and Nutrition Service; NYSP = National Youth Sports Program.

TABLE D.9

COMPARISON OF JULY SPONSOR CHARACTERISTICS IN FNS ADMINISTRATIVE DATA AND IN SPONSOR-SITE DATABASE, 2001[a]

	FNS Administrative Data					Sponsor-Site Database				
Type of Sponsor	Number of Sponsors	Percentage	Number of Sites	Percentage	Average Number of Sites	Number of Sponsors	Percentage	Number of Sites	Percentage	Average Number of Sites
School	1,646	43.9	14,023	44.8	8.5	1,654	43.8	16,050	47.4	9.7
Government	610	16.3	13,067	41.7	21.4	607	16.1	13,235	39.1	21.8
Residential Camp	651	17.4	872	2.8	1.3	653	17.3	876	2.6	1.3
NYSP	131	3.5	140	0.4	1.1	145	3.8	175	0.5	1.2
Other Nonprofit Organization	709	18.9	3,202	10.2	4.5	717	19.0	3,532	10.4	4.9
Total	**3,747**	**100.0**	**31,304**	**100.0**	**8.4**	**3,776**[b]	**100.0**	**33,868**	**100.0**	**9.0**

SOURCE: FNS administrative data were provided to Mathematica Policy Research, Inc. by FNS in January 2002. This dataset is from the "FNS-418" reporting forms submitted to FNS by SFSP state agencies. SFSP Implementation Study, Sponsor-Site Database (2001).

[a]Sponsors in the Sponsor-Site Database that operated at any time in July 2001 are included in this table. The table excludes 128 sponsors with missing dates of operation.

[b]The Sponsor-Site Database has missing data on sponsor type for one July sponsor. This sponsor had one site in July 2001.

FNS = Food and Nutrition Service; NYSP = National Youth Sports Program.

TABLE D.10

NUMBER OF JULY SPONSORS IN FNS ADMINISTRATIVE DATA
AND IN SPONSOR-SITE DATABASE, BY STATE AND REGION, 2001[a]
(Distribution)

	FNS Administrative Data		Sponsor-Site Database	
State Name	Number of Sponsors	Number of Sites	Number of Sponsors	Number of Sites
Mid-Atlantic				
Delaware	15	187	15	219
District of Columbia	18	167	17	172
Maryland	45	717	46	656
New Jersey	90	1,617	97	1,157
Pennsylvania	156	2,287	161	2,288
Puerto Rico	11	445	11	885
Virgin Islands	3	177	2	180
Virginia	87	685	97	710
West Virginia	79	417	86	457
Mid-Atlantic Subtotal	**504**	**6,699**	**532**	**6,724**
Midwest				
Illinois	101	1,292	101	1,364
Indiana	79	355	N/A	N/A
Michigan	100	759	109	838
Minnesota	45	370	48	388
Ohio	120	955	123	1,024
Wisconsin	71	361	61	378
Midwest Subtotal	**516**	**4,092**	**442**	**3,992**
Mountain/Plains				
Colorado	46	121	44	127
Iowa	30	96	31	96
Kansas	32	96	39	132
Missouri	163	626	70	502
Montana	49	117	45	107
Nebraska	29	77	31	85
North Dakota	20	29	25	35
South Dakota	48	81	50	88
Utah	22	114	N/A	N/A
Wyoming	5	9	5	9
Mountain/Plains Subtotal	**444**	**1,366**	**340**	**1,181**

TABLE D.10 *(continued)*

State Name	FNS Administrative Data		Sponsor-Site Database	
	Number of Sponsors	Number of Sites	Number of Sponsors	Number of Sites
Northeast				
Connecticut	32	357	32	359
Maine	51	131	52	131
Massachusetts	84	693	85	752
New Hampshire	26	45	22	39
New York—ROAP	193	445	215	478
New York—State	93	2,455	92	2,441
Rhode Island	16	184	16	199
Vermont	42	131	45	139
Northeast Subtotal	**537**	**4,441**	**559**	**4,538**
Southeast				
Alabama	68	618	66	697
Florida	127	2,336	128	2,553
Georgia	130	1,755	127	2,005
Kentucky	120	661	129	830
Mississippi	65	206	61	236
North Carolina	107	801	114	992
South Carolina	47	1,187	48	1,408
Tennessee	46	934	45	1,237
Southeast Subtotal	**710**	**8,498**	**718**	**9,958**
Southwest				
Arkansas	58	104	73	156
Louisiana	67	505	75	522
New Mexico	68	744	68	770
Oklahoma	54	212	64	259
Texas	174	1,263	248	2,027
Southwest Subtotal	**421**	**2,828**	**528**	**3,734**
West				
Alaska	9	20	9	25
Arizona	76	359	92	525
California	268	1,881	276	1,938
Hawaii	16	82	16	83
Idaho	34	87	41	109
Nevada	30	74	32	77
Oregon	67	334	76	399
Washington	115	543	116	586
West Subtotal	**615**	**3,380**	**658**	**3,742**
U.S. Total	**3,747**	**31,304**	**3,777**	**33,869**

TABLE D.10 *(continued)*

SOURCE: FNS administrative data were provided to Mathematica Policy Research, Inc. by FNS in January 2002. This dataset is from the "FNS-418" reporting forms submitted to FNS by SFSP state agencies. SFSP Implementation Study, Sponsor-Site Database (2001).

NOTE: N/A indicates that the sponsor dates of operation are missing from the sponsor-site database for these states, and thus we cannot calculate whether their sponsors or sites operated in July.

FNS = Food and Nutrition Service; ROAP = FNS regional office-administered program.

APPENDIX E

NUTRIENT AND FOOD CODING ANALYSIS

This appendix describes (1) the software, nutrient database, and coding procedures used to code the information recorded on the meal and plate waste observation forms; (2) the quality assurance procedures used to review the coding; and (3) the methods used to analyze and report meal pattern compliance, food preferences, and most frequently served foods.

A. NUTRIENT CODING OF MEAL OBSERVATION AND PLATE WASTE FORMS

1. Coding Software and Nutrient Database

The University of Texas-Houston Health Science Center and the Agricultural Research Service (ARS), United States Department of Agriculture (USDA), collaborated in the development of the Food Intake Analysis System© 3.99 (FIAS). FIAS is a DOS-based software application that allows entry and nutrient analysis of dietary data.

As described in Appendix A, for each mealtime observed during Summer Food Service Program (SFSP) Implementation Study site visits, 5 or 10 plates were sampled for observation of foods served, and 10 plates were sampled for observation of foods wasted. Interviewers provided complete descriptions of each plate's foods and recorded the portion size or amount of each food served or wasted on meal observation and plate waste forms. Mathematica Policy Research, Inc. (MPR) hired two nutrition coders to code these forms. Before coding began, MPR sent the coders to a 2-day training class at the University of Texas, where they learned how to use FIAS.[1] The coders also completed additional practice exercises after the training, but before they began using FIAS to enter the study data.

Data from the forms were entered into FIAS's analysis program; the program uses the information on foods and portion sizes to calculate the nutrient content of each food reported as served or wasted. After this nutrient analysis was completed, FIAS produced ASCII files containing food codes and nutrients for each food served or wasted on each plate; these can be used with other database management and statistical software.

The FIAS 3.99 database consists of the Survey Nutrient Data Base (SNDB), developed by ARS and used in the 1998 Continuing Survey of Food Intakes by Individuals (CSFII) (Standard Reference (SR) Release 12; 1998). FIAS also includes a Primary Data Set (PDS), which consists of approximately 7,300 foods, and, for each food, a recipe and 49 nutrient values, including fatty acids.

The FIAS database has two important limitations. First, folate values in FIAS 3.99 include updated food composition data for cereal grains fortified with folic acid, but they do not distinguish between naturally occurring folate (food folate) and synthetic folic acid added during fortification. Dietary Folate Equivalents (DFEs) must be used to fully assess the most current Recommended Dietary Allowance (RDA) for folate (National Academy of Sciences, Institute of Medicine 1998). DFEs take into consideration the differing bioavailability from naturally

[1]Both coders had background in nutrition.

occurring folate in foods and from synthetic folate in fortified foods (as well as from dietary supplements); thus the new RDA is expressed in terms of micrograms (mcg) of DFEs.[2]

Comparing the FIAS-based estimates of mean folate (mcg of total folate, unadjusted for food folate versus synthetic folate) with the current RDA for folate (expressed as DFEs) provides a lower bound for the percentage of the RDA level provided by SFSP foods. Some of the foods served at SFSP meals are fortified with folic acid (for example, cereals and breads), and folic acid contributes more to DFEs than does food folate; thus, the FIAS folate values would be adjusted upward if they were converted to DFEs. If data were available to adjust the folate values in the SFSP meals to produce DFEs, then the mean folate value would be higher. Thus, SFSP meals actually provide a higher percentage of the RDA than is reported here.

The second FIAS 3.99 limitation occurs because total vitamin A activity is expressed in international units (IUs) and retinol equivalents (REs); provitamin-A carotenoids are expressed in terms of REs. The Institute of Medicine's Dietary Reference Institute committee recommended the use of a new method of calculating vitamin A activity, from the previous method based on individual carotenoids, to a new unit based on Retinol Activity Equivalents (RAEs) (National Academy of Sciences, Institute of Medicine, 2001).[3] The revised RDA for vitamin A is based on RAEs, but the FIAS 3.99 database produces REs; thus, because some proportion of the foods SFSP provide carotenoids with a lower RAE value than RE value, the comparisons of mean vitamin A provided in SFSP foods with the RDA will overestimate the percentage of the RDA met.

2. Initial Data Review

After receiving the meal observation and plate waste forms from the field interviewers, MPR survey staff in Princeton, New Jersey, copied them and sent the originals to MPR's Washington, DC, office for nutrient coding. Nutrition coders in the Washington office logged in the forms and reviewed them for completeness. In addition, Dr. Ronette Briefel, the senior project nutritionist, reviewed the forms completed during each interviewer's initial site visits in order to provide feedback to each interviewer early in the data collection period. She also reviewed additional site forms as necessary, to answer questions arising during coding.

Throughout the data collection period, the interviewers received additional training on frequently recurring meal recording issues. The training was provided through periodic mailings and telephone calls.

Nutrition coders who had questions after receiving the observation and plate waste forms or whose forms lacked completed information sent data retrieval forms to field coordinators. The

[2]To calculate the DFE, it is necessary to have separate values for naturally occurring food folate and for synthetic folic acid added to food: mcg DFE = mcg food folate + (1.7 times mcg folic acid) (National Academy of Sciences, Institute of Medicine 1998).

[3]Darkly colored, carotene-rich fruits and vegetables, such as carrots, sweet potatoes, and broccoli, provide half as much vitamin A as previously estimated.

field coordinators, in turn, telephoned the interviewers to receive answers to the coders' questions. Interviewers sometimes were able to provide the missing information. In some cases, however, they were unable to recall the information (for example, the type of milk served); in other cases, they had not been able to observe it (for example, whether a sandwich had condiments). The nutrition coders used the coding guidelines developed by the study nutritionists to address incomplete information.

3. Coding Guidelines

The nutrition research staff worked with the nutrition coders to develop coding guidelines for this study (Table E.1). The guidelines were adapted from guidelines currently used in national food consumption surveys. To illustrate how the guidelines worked, consider the following example, on developing guidelines for chocolate milk. FIAS has a "Not Further Specified" (NFS) option to be used when the information on the food consumed was extremely limited, and the coders needed guidance on when to use that option. Because FIAS did not include 1-percent chocolate milk in the database, but this was commonly reported, the coders coded 1-percent chocolate milk as the recipe, "chocolate syrup, low-fat milk added." They used the recipe, rather than FIAS's chocolate milk NFS option, because the recipe provided a more accurate nutrient profile.

To make coding decisions, the coders relied on information from the food labels and recipes sent in by interviewers, the coding guidelines, and consultation with the project's nutritionists, Dr. Briefel and Ms. Teresa Zavitsky, as necessary. The nutritionists met weekly with the coders to review and resolve any coding problems or issues, and to ensure that the coders used the study's coding guidelines in a consistent fashion. Few recipes were received from the field interviewers, and the coders were able to match and code all of them to a food or recipe in the FIAS system.

4. Quality Assurance Procedures for Coding Work

Several steps were taken to ensure the quality of the food and nutrient coding. All forms were reviewed for content and completeness by the coders and/or by one of the project's nutritionists. As coders entered the meals, they flagged and attached notes to items that raised questions; the questions were then answered by a nutritionist. In addition, a nutritionist reviewed the FIAS data for the first 12 sites, which represented almost 10 percent of all meals entered, and for a random 20 percent of the remaining sites. After all the data had been entered and reviewed, data entry errors that had been flagged by FIAS, such as duplicate site numbers or missing information, were corrected, and an analysis program was run to produce ASCII files.

Finally, to catch any errors that had escaped FIAS's flagging procedure, a nutritionist examined the output for each meal for such measures as the range in the number of foods and the calories per plate served for the same meal at the same site. Substantial differences between the number of foods or the total number of calories on one plate relative to others at a site signaled the nutritionist to check for data entry errors by comparing the original meal form with information entered into FIAS. The data were considered to be clean and ready for final food and nutrient analysis through FIAS only after all outliers were checked and corrected.

TABLE E.1

NUTRIENT CODING GUIDELINES USED IN THE SFSP IMPLEMENTATION STUDY

A. General Rules

1. If interviewer coded 10 standardized meals in error and they are all identical, only code 5 meals for Meal Observation.
2. Do not code food items brought from home.
3. Code all condiments and items added to food.

B. Foods Missing in FIAS Database

1. Apple without peel (use apple with peel), #63101000
2. 1-percent (low fat) chocolate milk and 1-percent (low fat) strawberry milk (use syrup added to 1-percent milk), #11513600

C. Coding Meals—Food Descriptions[1]

1. Orange juice—use "canned, bottled, or in a carton, unsweetened, 100% juice," #61210220, if not specified.
2. Shredded cheese used as a topping or in a Mexican dish, code as natural, prepared cheese, #14104010
3. Assume canned fruits and vegetables unless specified as fresh.
4. According to the USDA database,
   Beef, ground, extra-lean, and raw: ~17% fat (g/100g)
   Beef, ground, lean, raw: ~21% fat (g/100g)
   Beef, ground, regular, raw: ~27% fat (g/100g)
   FIAS does not list ground beef by % fat, but rather by its classification (extra lean, lean, regular) in their database. Therefore, if the interviewer recorded the % fat, use the following ranges to classify the ground beef in FIAS:
   Ranges: ≤19% would be classified as **extra-lean;**
   ≥20 and <25% as **lean**;
   and ≥25% as **regular**.
5. Code American cheese as processed, #14410200, if NFS.
6. Code "Corn, yellow" if corn NFS.

D. Coding Meals—Portion Sizes

1. Height of hamburger buns–code as 1.50 inches if not further specified (NFS). Otherwise, code as #51150000 (Roll, white, soft) and choose hamburger roll under gram weights.
2. Height of chocolate chip cookies–code as 0.33 inches (1/3 of an inch) if NFS.
3. Assume ½ pint for milk and 4 fluid ounces for juice if NFS.
4. If peanut butter is spread on bread, and the amount of peanut butter is not given, record 2 Tbsp.
5. In general, use the FIAS coding guidelines for determining the portion size of unknown amounts of items added to foods or spread on bread.
   a. Sandwiches:

1. Cheese (1 type): 1 oz	1. Meat (1 type): 2 oz
2. Cheese (2 types): ¾ oz each	2. Meat (2 types): 1½ oz each
3. Cheese (3 +): ½ oz each	3. Meat (3 +): 1 oz each

   b. If peanut butter is spread on a graham cracker, and the amount of peanut butter is not given, record 1.5 Tbsp.

E. Coding Plate Waste

1. A few bites/sips left = code 1/8 left (in between visual code 0 and 1).
2. Visual code 4 (1-2 bites eaten) = code 7/8 of original portion size (or 0.875).
3. Code the measured amount listed (not the visual code); use the visual code for the proportion left if that is all the information you have.
4. Crumbs/syrup (e.g., from fruit cocktail)–code 0 waste because it is considered to be a negligible amount.

[1]Food codes listed are 8-digit codes in the USDA Survey Nutrient Database.

NFS = not further specified.

B. ANALYSIS OF FOODS AND FOOD GROUP INFORMATION

Identifying SFSP foods provided and determining their contributions to meal pattern compliance, plate waste, and the nutrient content of the meals provided additional policy-relevant information (see Chapter V).

1. Most Frequently Served Foods

It was necessary to manipulate the food code data in the analysis of the most frequently served foods (Tables V.5 and V.6). Similar foods were aggregated into broad categories to increase the sample size for each food category. A mixed dish sometimes was entered into FIAS as a single food; sometimes it was broken down into its component parts. The way it was entered in FIAS determined how it was categorized in the food group analysis. For example, if a burrito's components were entered (tortilla, cheese, meat, and so on), it would contain foods in several food categories. However, if the burrito that was served resembled a burrito that existed in FIAS's database, it would have been entered as "burrito" and counted in the "mixed dish" category. Therefore, the prevalence of "mixed dish" items is underestimated in Tables V.5 and V.6.

2. Analysis of Food Preferences

As in the analysis of most frequently served foods, to analyze children's food preferences, it was necessary to apply or manipulate food codes. During the site supervisor interview, site supervisors were asked to list the food that children most liked in each of five categories, and to list the food children most disliked in those categories. (The categories are meat or meat alternate, vegetable, fruit, bread or bread alternate, and milk [see Table V.7]). To analyze these reported food preferences, it was necessary to aggregate foods into broader categories than those created by the FIAS food codes. Although similar to the food groups used in the analysis of frequently served foods, these food groups were less specific. In the case of fruit, for example, some site supervisors specified that the children at their site liked "fresh peaches" or "canned peaches" the most, whereas other site supervisors simply reported "peaches." It also was necessary to aggregate foods into broader categories in order to have sufficient sample sizes to produce meaningful estimates. Table E.2 lists the categories chosen, and the foods that fell into the categories.

3. Meal Pattern Compliance

To compare the meals served by nonschool sponsors with the SFSP meal pattern requirements (as shown in Table E.3),[4] it was necessary to complete the following data processing steps:

[4]School sponsors may use this meal pattern or the same menu planning approach they use for the school meals programs. Menu planning approaches used in the school meals programs are described in 7CFR 210.10 and 7CFR 220.8.

TABLE E.2

FOOD CATEGORIES USED TO GROUP SITE SUPERVISORS' REPORTS OF MOST/LEAST LIKED FOODS

Bread
Bagel
Biscuits
Buns—include hot dog, hamburger, hoagie
Bread—dark
Bread—corn
Bread—white; other (include soft)
Bread—egg
Breadsticks
Crackers—include Saltines
Croissants
Garlic bread
Muffins
Pita
Rolls—all types
English muffins
Dessert-type foods—cookies, donuts, cinnamon rolls

Fruit
Apples—include fresh, apple sauce, apple crisp, canned
Apricots
Bananas
Canteloupe
Dried fruit
Grapefruit
Grapes
Kiwi
Mixed fruit cup—include fresh and canned, fruit cocktail
Nectarine
Oranges
Peaches—include fresh and canned
Pears—include fresh and canned
Pineapple—include fresh and canned
Plums—include fresh and canned
Raisins
Strawberries
Tangerines
Watermelon

Milk
Chocolate milk—skim
Chocolate milk—1% (low fat)
Chocolate milk—2% (reduced fat)
Chocolate milk—whole
Chocolate milk—NFS
Powdered milk
White milk—skim
White milk—1% (low fat)
White milk—2% (reduced fat)
While milk—whole
White milk—NFS
Strawberry milk

Vegetables
Beans—include lima, black, baked, NFS
Bean salad
Broccoli
Cabbage—include cole slaw
Carrots
Celery
Corn
Cucumbers
Green beans and string beans
Mixed vegetables
Onions
Peas—include black-eyed peas
Peppers—include green, red
Potatoes—include French fries, Tator tots
Potatoes—include potato salad, mashed potatoes
Salad—include tossed salad, chef salad
Spinach
Squash
Tomatoes
Lettuce and tomatoes (on sandwich)

TABLE E.2 *(continued)*

Meats
Bacon
Beef—hot—include ground, chopped, roast, chicken fried steak, cubes, stew, NFS
Burger—include hamburger, cheeseburger
Chicken—include nuggets, strips, fried, cutlets
Chicken—hot—include breast, soup, baked, NFS
Chicken—sandwich—include chicken salad, patty
Corn dogs
Fish—other—include fried, baked, cod, sticks
Fish—tuna—include sandwiches, casseroles
Grilled cheese
Ham or pork—hot—include riblet, barbecued, chops, roast, NFS
Hot dogs
Italian dishes—include lasagna, ravioli, spaghetti
Meat loaf
Mexican—include tacos, quesadillas, burritos, fajitas, carne guisada, tostada, nachos
Macaroni & cheese
Peanut butter & jelly
Pizza
Pot pie
Refried beans
Sausage
Sloppy Joes—include barbecue, picadillo
Veggie patties, egg rolls
Ham
Turkey
Roast beef
Bologna
Salami
Deli sandwiches/combination meat sandwiches

NFS = Not Further Specified.

TABLE E.3

SFSP MEAL PATTERN REQUIREMENTS[a]

Breakfast Meal Pattern

Select all three components for a reimbursable meal

1 milk	1 cup	fluid milk
1 fruit/vegetable	½ cup	juice[1] and/or vegetable
1 grains/bread[2]	1 slice	bread or
	1 serving	cornbread or biscuit or roll or muffin or
	¾ cup	cold dry cereal or
	½ cup	hot cooked cereal or
	½ cup	pasta or noodles or grains
1 meat/meat alternate[3]		

[1]Fruit or vegetable juice must be full-strength.
[2]Breads and grains must be made from whole-grain or enriched meal or flour. Cereal must be whole-grain or enriched or fortified.
[3]The meat/meat alternate option at breakfast is optional.

Lunch and Supper Meal Pattern

Select all four components for a reimbursable meal

1 milk	1 cup	fluid milk
1 fruit/vegetable	¾ cup	juice[1] and/or vegetable
1 grains/bread[2]	1 slice	bread or
	1 serving	cornbread or biscuit or roll or muffin or
	¾ cup	cold dry cereal or
	½ cup	hot cooked cereal or
	½ cup	pasta or noodles or grains
1 meat/meat alternate	2 oz	lean meat or poultry or fish[3] or
	2 oz	alternate protein product or
	2 oz	cheese or
	1 large	egg or
	½ cup	cooked dry beans or peas or
	4 Tbsp	peanut or other nut or seed butter or
	1 oz	nuts and/or seeds[4] or
	8 oz	yogurt[5]

[1]Fruit or vegetable juice must be full-strength.
[2]Breads and grains must be made from whole-grain or enriched meal or flour. Cereal must be whole-grain or enriched or fortified.
[3]A serving consists of the edible portion of cooked lean meat or poultry or fish.
[4]Nuts and seeds may meet only one-half of the total meat/meat alternate serving and must be combined with another meat/meat alternate to fulfill the lunch or supper requirement.
[5]Yogurt may be plain or flavored, unsweetened or sweetened.

[a]School sponsors may use this meal pattern or the same menu planning approach they use for the school meals programs. Menu planning approaches used in the school meals programs are described in 7CFR210.10 and 7CFR220.8.

- Match FIAS output files to the Pyramid Servings Database for USDA Survey Food Codes. This step provided the number of pyramid servings in 100 grams of food, by food code.[5]

- Adjust the pyramid serving sizes to uniformly match the SFSP meal pattern requirements[6]

- Group foods and sum serving sizes for comparison with the meal pattern requirements. For example, to determine whether the fruit/vegetable requirement was met, all fruits and vegetables served on a plate were grouped, and the servings were summed.

- Compare each plate's foods and adjusted serving sizes with the SFSP meal pattern requirements for that meal. For each plate, the analysis assessed whether all components were present in the required amounts, and whether each component was present in the required amount. For plates that did not meet the requirements, the amounts of individual components were further broken down into one of two categories: (1) component present, but in an insufficient amount; or (2) component not present (see Tables V.8 and V.9).

[5]Data are grouped by the 5 major pyramid food groups (grain, vegetable, fruit, dairy, and meat) and by selected subgroups, as well as by fats, added sugars, and alcohol (30 groups in all). The database was produced by the Community Nutrition Research Group (CNRG), Agricultural Research Service, USDA, and is available on the CNRG website, http://www.barc.usda.gov/bhnrc/cnrg.

[6]For example, based on the Pyramid Servings Database, three-quarters of a cup of 100-percent juice is considered one serving. However, for breakfast, the meal pattern requirement is one-half of a cup of 100-percent juice, which is two-thirds of the pyramid serving. Therefore, the original pyramid serving size amount was multiplied by a factor of 1.5 to account for this adjustment (0.67 * 1.5 = 1.0).

APPENDIX F

SUPPLEMENTAL MEAL SERVICE TABLES

TABLE F.1

SELECTED MEAL CHARACTERISTICS AT SCHOOL- AND NONSCHOOL-SPONSORED SITES

	Percentage of Sites				Percentage of Meals Served			
	School	SE	Nonschool	SE	School	SE	Nonschool	SE
Meal Service Arrangement[a] (n = 161)								
Meals Served in a Serving Line/Food Pick-Up Line								
Variety of food	24.4	(5.95)	2.5	(1.10)	35.2	(9.17)	4.4	(2.34)
Unitized meal	60.4	(9.36)	53.5	(6.64)	50.7	(9.52)	49.9	(7.10)
Meals Served to Seated Children								
Variety of food	2.4	(2.05)	1.1	(0.67)	2.7	(1.97)	13.5	(7.83)
Unitized meal	21.0	(7.94)	40.7	(6.49)	23.9	(9.76)	39.9	(5.83)
Meals Served to Children as They Arrive	27.8	(7.98)	12.8	(4.46)	17.3	(7.09)	12.6	(4.48)
Meals Served to Children Dispersed Throughout the Site	7.8	(3.76)	2.1	(1.99)	8.2	(3.75)	2.3	(1.77)
Sites Serving Meals								
Indoors	81.2	(5.22)	70.4	(6.91)	86.3	(5.54)	78.3	(5.41)
Outdoors	17.6	(5.26)	25.4	(6.81)	10.9	(5.15)	16.8	(4.66)
Indoors and Outdoors	1.2	(1.20)	4.2	(2.59)	2.8	(2.73)	5.0	(2.51)
Sites Where Children Assist with Meal Preparation or Meal Service	2.5	(1.98)	11.9	(4.59)	2.8	(1.86)	10.1	(3.54)

TABLE F.1 (*continued*)

	Percentage of Sites				Percentage of Meals Served			
	School	SE	Nonschool	SE	School	SE	Nonschool	SE
Sites with On-Site Drinking Water Available	61.7	(7.93)	44.4	(9.98)	70.2	(5.85)	54.7	(10.99)
Sites Serving Water with Meals	5.3	(2.92)	5.2	(2.59)	7.1	(3.68)	5.6	(2.36)
Sites with a Share Box Present at Any Meal	36.4	(7.29)	51.6	(6.37)	31.8	(8.18)	45.4	(6.60)
Sites Where These Meals or Meal Components Are Carried Off Site (n = 152):								
None	92.7	(3.17)	80.0	(6.47)	93.5	(3.06)	88.5	(3.82)
Whole Meals	3.2	(2.87)	3.0	(2.11)	3.3	(2.95)	1.8	(1.18)
Fruits and/or Vegetables Only	2.8	(1.85)	9.5	(6.39)	1.4	(0.90)	3.4	(2.42)
Other Components	1.3	(1.08)	7.5	(3.70)	1.7	(1.30)	6.3	(3.38)
Sample Size	**79**	—	**83**	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of sites and meals served nationally.

[a]Multiple answers allowed, so total of percentages may exceed 100 percent.

SE = standard error.

TABLE F.2

HANDLING AND STORAGE OF FOOD AT INDOOR AND OUTDOOR SITES

	Percentage of Sites				Percentage of Meals Served			
	Indoor	SE	Outdoor	SE	Indoor	SE	Outdoor	SE
Food Safety and Handling								
Sites with On-Site Facilities for Hand-Washing (n = 155)	82.5	(4.46)	65.3	(12.00)	83.7	(3.93)	63.6	(13.18)
Sites Where Gloves Are Available for Staff Who Handle Food	51.3	(6.65)	30.4	(11.00)	69.3	(7.13)	44.2	(14.59)
Sites Where All Staff Who Handle and Serve Food Wear Gloves (n = 158)	41.3	(5.57)	25.1	(9.55)	50.3	(7.73)	33.5	(10.24)
Number of Minutes Food Sat Out Before It Was Served (n = 159)								
0	2.6	(1.82)	10.0	(5.83)	1.7	(1.14)	13.7	(9.06)
1 to 15	65.6	(5.54)	52.0	(12.03)	66.7	(6.44)	50.4	(14.39)
16 to 30	16.1	(4.70)	18.0	(9.68)	19.2	(6.30)	10.5	(6.48)
3 to 60	3.2	(2.42)	7.0	(6.79)	1.3	(0.90)	12.6	(11.42)
>60	3.1	(2.87)	5.2	(4.32)	1.0	(0.69)	4.4	(3.67)
Food out when interviewer arrived[a]	9.5	(3.01)	7.9	(6.05)	10.2	(3.21)	8.4	(6.79)
Food Storage								
Sites with On-Site Refrigerator	93.1**	(3.53)	31.7	(11.30)	96.6**	(1.79)	35.3	(15.44)
Sites with On-Site Cooler	63.9	(6.86)	69.0	(10.89)	68.6	(5.64)	53.5	(10.92)
Sites with On-Site Freezer	73.4**	(5.52)	29.1	(10.86)	86.8**	(3.30)	34.0	(15.67)
Sample Size	**133**	**—**	**23**	**—**	**133**	**—**	**23**	**—**

TABLE F.2 *(continued)*

SOURCE: SPSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of sites and meals served nationally. The table does not show six sites that were considered to be both indoor sites and outdoor sites.

[a]As described in Appendix A, interviewers were instructed to arrive at least 30 minutes before breakfast, and 1 hour to 1 hour 30 minutes before lunch. For 9 percent of the meal observations, however, interviewers arrived later because they had difficulty finding the SFSP meal location, or because the meal service had started earlier than scheduled.

SE = standard error.

**Significantly different from outdoor sites at the .01 level, *t*-test.

TABLE F.3

MEAL PATTERN COMPONENTS SERVED BY SCHOOL SPONSORS AT BREAKFAST AND LUNCH
(Percentage of Meals Observed)

	Component Present in SFSP Meal Pattern Amount[a]	Standard Error	Component Present, Not in SFSP Meal Pattern Amount[a]	Standard Error	Component Not Present	Standard Error
Breakfast						
Milk	98.2	(1.06)	0.1	(0.10)	1.8	(1.04)
Fruit and/or vegetable	88.2	(7.07)	10.6	(7.03)	1.3	(0.60)
Bread/bread alternate	95.7	(2.13)	4.1	(2.11)	0.2	(0.17)
Meat/meat alternate[b]	28.5	(9.54)	n.a.	n.a.	71.5	(9.54)
Sample Size[c]	**369**	—	—	—	—	—
Lunch						
Milk[d]	93.4	(2.29)	0.3	(0.20)	6.3	(2.29)
Fruit and/or vegetable	90.9	(3.52)	8.5	(3.26)	0.7	(0.39)
Bread/bread alternate	96.0	(1.77)	3.9	(1.76)	0.1	(0.08)
Meat/meat alternate	71.0	(6.22)	28.9	(6.21)	0.1	(0.08)
Sample Size[e]	**540**	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of meals served nationally.

[a]As defined by SFSP meal pattern guidelines.

[b]At breakfast, the meat/meat alternative component is optional. This table reflects whether a meat or a meat alternative component was present, but not whether it was present in the suggested amount.

TABLE F.3 *(continued)*

[c]Total number of meals observed at breakfast at 54 sites.

[d]Includes kosher meals, where sites may have been exempt from serving milk. Fewer than 1 percent of nonschool sites and fewer than 2 percent of school sites visited at lunch were considered kosher sites, where a milk exemption was likely.

[e]Represents total number of meals observed at lunch at 78 sites.

n.a. = not applicable.

TABLE F.4

MEAL PATTERN COMPONENTS SERVED AT NON-OVS AND OVS SCHOOL-SPONSORED LUNCHES
(Percentage of Lunches Observed)

	Component Present in SFSP Meal Pattern Amount[a]	Standard Error	Component Present, Not in SFSP Meal Pattern Amount[a]	Standard Error	Component Not Present	Standard Error
Non-OVS Lunches						
Milk[b]	91.4	(4.34)	0.4	(0.38)	8.2	(4.38)
Fruit and/or vegetable	96.1	(1.99)	3.9	(1.99)	0	(—)
Bread/bread alternate	97.0	(2.37)	3.0	(2.37)	0	(—)
Meat/meat alternate	64.6	(10.24)	35.4	(10.24)	0	(—)
Sample Size[c]	**210**	—	—	—	—	—
OVS Lunches						
Milk[b]	95.1	(1.50)	0.2	(0.19)	4.7	(1.47)
Fruit and/or vegetable	86.3	(6.31)	12.5	(5.80)	1.2	(0.76)
Bread/bread alternate	95.1	(2.49)	4.7	(2.47)	0.2	(0.16)
Meat/meat alternate	76.7	(6.39)	23.1	(6.36)	0.2	(0.16)
Sample Size[d]	**330**	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of lunches served nationally.

[a]As defined by SFSP meal pattern guidelines.

[b]Includes kosher meals, where sites may have been exempt from serving milk. Fewer than 2 percent of school sites visited at lunch were considered kosher sites, where a milk exemption was likely.

TABLE F.4 *(continued)*

[c]Total number of meals observed at non-OVS lunches at 36 sites.

[d]Total number of meals observed at OVS lunches at 42 sites.

n.a. = not applicable; OVS = offer versus serve.

TABLE F.5

MEAN ENERGY AND NUTRIENTS SERVED AT SFSP BREAKFASTS AND COMPARISON WITH RDAs AT SCHOOL- AND NONSCHOOL-SPONSORED SITES

	School				Nonschool			
	Mean	SE	Mean as Percentage of Total RDA for 4 to 8 Year Olds	Mean as Percentage of Total RDA for 9 to 13 Year Olds	Mean	SE	Mean as Percentage of Total RDA for 4 to 8 Year Olds	Mean as Percentage of Total RDA for 9 to 13 Year Olds
Energy (kcal)	412	(39.5)	21[a]	21[a]	441	(33.0)	22[a]	22[a]
Protein (g)	14.7	(1.27)	53[a]	53[a]	15.8	(1.61)	56[a]	56[a]
Total Fat (% kcal)	27.0	(2.06)	n.a.	n.a.	22.3	(2.09)	n.a.	n.a.
Saturated Fat (% kcal)	11.3	(0.33)	n.a.	n.a.	10.2	(0.78)	n.a.	n.a.
Carbohydrate (% kcal)	58.6	(1.91)	n.a.	n.a.	63.8	(2.24)	n.a.	n.a.
Vitamin A (RE)	310	(26.7)	78[b]	52[b]	353	(51.2)	88[b]	59[b]
Vitamin C (mg)	34	(4.3)	136	76	44	(9.0)	176	98
Calcium (mg)	386	(17.7)	48[c]	30[c]	368	(20.6)	46[c]	28[c]
Iron (mg)	4.1	(0.43)	41	51	4.4	(0.81)	44	55
Sodium (mg)	513	(61.0)	n.a.	n.a.	572	(104.3)	n.a.	n.a.
Cholesterol (mg)	52	(12.1)	n.a.	n.a.	55	(13.1)	n.a.	n.a.
Dietary Fiber (g)	1.9*	(0.19)	n.a.	n.a.	3.1	(0.51)	n.a.	n.a.
Sample Size[d]	**369**	—	—	—	**187**	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfasts served nationally.

[a]Value represents one-fourth of the 1989 RDA for children aged 7 to 10 years.

[b]Value represents the upper bound, as the mean is expressed as Retinol Equivalents (REs), and the RDA is expressed as Retinol Activity Equivalents. See Appendix E for a detailed discussion.

TABLE F.5 *(continued)*

[c]Value represents the percentage of the Adequate Intake (AI) of calcium. The AI is used as the recommended standard because an RDA is not available.

[d]Total number of plates observed at 54 school-sponsored sites and 31 nonschool-sponsored sites.

n.a. = not applicable; RDA = Recommended Dietary Allowance; SE = standard error.

*Significantly different from nonschool meals at the .05 level, chi-squared test.

TABLE F.6

MEAN AND DISTRIBUTION OF ENERGY AND KEY NUTRIENTS SERVED ON A SINGLE DAY AT BREAKFAST AT SCHOOL-SPONSORED SITES

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th	25th	50th	75th	90th
Energy (kcal)	412	(39.5)	500[b]	500[b]	251	277	402	500	597
Protein (g)	14.7	(1.27)	7[b]	7[b]	9.7	10.4	12.0	16.6	24.5
Total Fat (% kcal)	27.0	(2.06)	≤30	≤30	17.7	20.5	26.0	32.6	42.6
Saturated Fat (% kcal)	11.3	(0.33)	<10	<10	6.6	8.8	10.9	14.4	15.9
Carbohydrate (% kcal)	58.6	(1.91)	>55	>55	44.6	51.8	61.6	63.4	70.3
Vitamin A (RE)	310	(26.7)	100	150	139	191	328	383	467
Vitamin C (mg)	34	(4.3)	6.25	11.25	7	12	41	46	56
Calcium (mg)	386	(17.7)	200[c]	325[c]	317	334	346	429	514
Iron (mg)	4.1	(0.43)	2.5	2.0	1.8	2.5	4.0	5.8	6.3
Sodium (mg)	513	(61.0)	≤600	≤600	280	308	401	561	1,027
Cholesterol (mg)	52	(12.1)	≤75	≤75	14	18	29	51	96
Dietary Fiber (g)	1.9	(0.19)	2-3	3.5-4.5	0.9	1.2	1.8	2.2	2.9
Sample Size	**369**	—	—	—	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfasts served nationally. Based on 369 plates observed at 54 sites.

[a]One-fourth of the RDA for energy and nutrients; Dietary Guidelines for fat and saturated fat densities; National Research Council recommendation for carbohydrate density, sodium, and cholesterol; and American Health Foundation for fiber.

[b]Value represents one-fourth of the 1989 RDA for children aged 7 to 10 years.

TABLE F.6 *(continued)*

[c]Value represents the percentage of the Adequate Intake (AI) of calcium. The AI is used as the recommended standard because an RDA is not available.

RDA = Recommended Dietary Allowance; SE = standard error.

TABLE F.7

DISTRIBUTION OF ENERGY AND KEY NUTRIENTS SERVED ON A SINGLE DAY AT BREAKFAST AT NONSCHOOL-SPONSORED SITES

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th	25th	50th	75th	90th
Energy (kcal)	441	(33.0)	500[b]	500[b]	256	287	407	524	639
Protein (g)	15.8	(1.61)	7[b]	7[b]	9.6	9.9	15.1	16.2	27.5
Total Fat (% kcal)	22.3	(2.09)	≤30	≤30	9.9	16.9	19.4	27.9	35.6
Saturated Fat (% kcal)	10.2	(0.78)	<10	<10	5.3	7.9	10.1	12.1	15.0
Carbohydrate (% kcal)	63.8	(2.24)	>55	>55	47.0	60.0	65.8	72.3	76.0
Vitamin A (RE)	353	(51.2)	100	150	142	265	296	395	707
Vitamin C (mg)	44	(9.0)	6.25	11.25	4	12	26	54	90
Calcium (mg)	368	(20.6)	200[c]	325[c]	300	312	349	474	492
Iron (mg)	4.4	(0.81)	2.5	2.0	1.5	1.7	3.4	5.3	10.3
Sodium (mg)	572	(104.3)	≤600	≤600	211	215	475	820	1,152
Cholesterol (mg)	55	(13.1)	≤75	≤75	14	18	23	36	73
Dietary Fiber (g)	3.1	(0.51)	2-3	3.5-4.5	0.7	1.6	3.0	4.0	5.7
Sample Size	**187**	—	—	—	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfasts served nationally. Based on 187 plates observed at 31 sites.

[a]One-fourth of the RDA for energy and nutrients; Dietary Guidelines for fat and saturated fat densities; National Research Council recommendation for carbohydrate density, sodium, and cholesterol; and American Health Foundation for fiber.

[b]Value represents one-fourth of the 1989 RDA for children aged 7 to 10 years.

TABLE F.7 *(continued)*

[c]Value represents the percentage of the Adequate Intake (AI) of calcium. The AI is used as the recommended standard because an RDA is not available.

RDA = Recommended Dietary Allowance; SE = standard error.

TABLE F.8

MEAN ENERGY AND KEY NUTRIENTS SERVED AT SFSP BREAKFASTS AND COMPARISON WITH RDAs AT VENDED AND NONVENDED SITES

	Vended				Nonvended			
	Mean	SE	Mean as Percentage of Total RDA for 4 to 8 Year Olds	Mean as Percentage of Total RDA for 9 to 13 Year Olds	Mean	SE	Mean as Percentage of Total RDA for 4 to 8 Year Olds	Mean as Percentage of Total RDA for 9 to 13 Year Olds
Energy (kcal)	359	(35.5)	18[a]	18[a]	440	(34.3)	22[a]	22[a]
Protein (g)	12.2*	(1.23)	44[a]	44[a]	15.9	(1.26)	57[a]	57[a]
Total fat (% kcal)	17.8**	(2.57)	n.a.	n.a.	26.8	(1.61)	n.a.	n.a.
Saturated fat (% kcal)	8.6*	(1.14)	n.a.	n.a.	11.4	(0.29)	n.a.	n.a.
Carbohydrate (% kcal)	68.9**	(2.32)	n.a.	n.a.	58.8	(1.63)	n.a.	n.a.
Vitamin A (RE)	267*	(25.7)	67[b]	45[b]	342	(30.6)	86[b]	57[b]
Vitamin C (mg)	46	(13.0)	184	102	36	(5.2)	144	80
Calcium (mg)	363	(40.3)	45[c]	28[c]	382	(14.0)	48[c]	29[c]
Iron (mg)	2.6**	(0.60)	26	33	4.6	(0.40)	46	58
Sodium (mg)	286**	(37.9)	n.a.	n.a.	597	(69.6)	n.a.	n.a.
Cholesterol (mg)	25**	(4.9)	n.a.	n.a.	60	(10.8)	n.a.	n.a.
Dietary Fiber (g)	2.4	(0.49)	n.a.	n.a.	2.4	(0.36)	n.a.	n.a.
Sample Size[d]	**98**	—	—	—	**458**	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfasts served nationally.

[a]Value represents one-fourth of the 1989 RDA for children aged 7 to 10 years.

TABLE F.8 *(continued)*

[b]Value represents the upper bound, as the mean is expressed as Retinol Equivalents (REs), and the RDA is expressed as Retinol Activity Equivalents. See Appendix E for a detailed discussion.

[c]Value represents the percentage of the Adequate Intake (AI) of calcium. The AI is used as the recommended standard because an RDA is not available.

[d]Total number of plates observed at 15 vended sites and 70 nonvended sites.

n.a. = not applicable; RDA = Recommended Dietary Allowance; SE = standard error.

*Significantly different from nonvended meals at the .05 level, chi-squared test.
**Significantly different from nonvended meals at the .01 level, chi-squared test.

TABLE F.9

MEAN ENERGY AND KEY NUTRIENTS SERVED AT SFSP LUNCHES AND COMPARISON WITH RDAs AT SCHOOL AND NONSCHOOL-SPONSORED SITES

	School				Nonschool			
	Mean	SE	Mean as Percentage of Total RDA for 4 to 8 Year Olds	Mean as Percentage of Total RDA for 9 to 13 Year Olds	Mean	SE	Mean as Percentage of Total RDA for 4 to 8 Year Olds	Mean as Percentage of Total RDA for 9 to 13 Year Olds
Energy (kcal)	656	(24.7)	33[a]	33[a]	671	(19.4)	34[a]	34[a]
Protein (g)	25.7	(0.85)	92[a]	92[a]	27.5	(1.24)	98[a]	98[a]
Total fat (% kcal)	32.8	(0.86)	n.a.	n.a.	31.3	(0.94)	n.a.	n.a.
Saturated fat (% kcal)	12.3	(0.50)	n.a.	n.a.	11.5	(0.62)	n.a.	n.a.
Carbohydrate (% kcal)	51.5	(1.04)	n.a.	n.a.	52.7	(1.00)	n.a.	n.a.
Vitamin A (RE)	298	(38.0)	75[b]	50[b]	472	(107.4)	118[b]	79[b]
Vitamin C (mg)	30	(4.1)	120	67	23	(3.1)	92	51
Calcium (mg)	444	(18.1)	56[c]	34[c]	453	(15.1)	57[c]	35[c]
Iron (mg)	3.9	(0.19)	39	49	4.0	(0.16)	40	50
Sodium (mg)	1,078	(85.6)	n.a.	n.a.	1,226	(63.2)	n.a.	n.a.
Cholesterol (mg)	55	(4.5)	n.a.	n.a.	59	(5.5)	n.a.	n.a.
Dietary Fiber (g)	5.5	(0.44)	n.a.	n.a.	5.5	(0.29)	n.a.	n.a.
Sample Size[d]	**540**	—	—	—	**449**	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfasts served nationally.

[a]Value represents one-third of the 1989 RDA for children aged 7 to 10 years.

TABLE F.9 *(continued)*

[b]Value represents the upper bound, as the mean is expressed as Retinol Equivalents (REs), and the RDA is expressed as Retinol Activity Equivalents. See Appendix E for a detailed discussion.

[c]Value represents the percentage of the Adequate Intake (AI) of calcium. The AI is used as the recommended standard because an RDA is not available.

[d]Total number of plates observed at 78 school-sponsored sites and 83 nonschool-sponsored sites.

n.a. = not applicable; RDA = Recommended Dietary Allowance; SE = standard error.

*Significantly different from nonschool meals at the .05 level, chi-squared test.
**Significantly different from nonschool meals at the .01 level, chi-squared test.

TABLE F.10

MEAN AND DISTRIBUTION OF ENERGY AND KEY NUTRIENTS SERVED ON A SINGLE DAY AT LUNCH AT SCHOOL-SPONSORED SITES

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th	25th	50th	75th	90th
Energy (kcal)	656	(24.7)	667[b]	667[b]	415	522	651	749	892
Protein (g)	25.7	(0.85)	9[b]	9[b]	18.5	20.9	24.2	30.2	35.6
Total Fat (% kcal)	32.8	(0.86)	≤30	≤30	23.5	27.5	31.6	37.2	42.3
Saturated Fat (% kcal)	12.3	(0.50)	<10	<10	8.5	10.2	12.2	14.1	17.0
Carbohydrate (% kcal)	51.5	(1.04)	>55	>55	42.1	48.1	53.1	55.7	60.2
Vitamin A (RE)	298	(38.0)	133	200	113	152	213	301	338
Vitamin C (mg)	30	(4.1)	8	15	8	11	19	46	73
Calcium (mg)	444	(18.1)	267[c]	433[c]	324	377	436	530	604
Iron (mg)	3.9	(0.19)	3.3	2.7	2.4	3.1	3.7	4.7	5.4
Sodium (mg)	1,078	(85.6)	≤800	≤800	522	667	1,036	1,376	1,704
Cholesterol (mg)	55	(4.5)	≤100	≤100	24	37	51	69	93
Dietary Fiber (g)	5.5	(0.44)	3-4	4.5-6	2.7	3.6	5.0	7.3	9.2
Sample Size	**540**	—	—	—	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of lunches served nationally. Based on 540 plates observed at 78 sites.

[a]One-third of the RDA for energy and nutrients; Dietary Guidelines for fat and saturated fat densities; National Research Council recommendation for carbohydrate density, sodium, and cholesterol; and American Health Foundation for fiber.

TABLE F.10 *(continued)*

[b]Value represents one-third of the 1989 RDA for children aged 7 to 10 years.

[c]Value represents the percentage of the Adequate Intake (AI) of calcium. The AI is used as the recommended standard because an RDA is not available.

RDA = Recommended Dietary Allowance; SE = standard error.

TABLE F.11

MEAN AND DISTRIBUTION OF ENERGY AND KEY NUTRIENTS SERVED ON A SINGLE DAY AT LUNCH AT NONSCHOOL-SPONSORED SITES

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th	25th	50th	75th	90th
Energy (kcal)	671	(19.4)	667[b]	667[b]	486	577	647	766	819
Protein (g)	27.5	(1.24)	9[b]	9[b]	18.1	22.1	25.5	31.2	40.3
Total Fat (% kcal)	31.3	(0.94)	≤30	≤30	22.9	26.6	29.2	36.8	41.7
Saturated Fat (% kcal)	11.5	(0.62)	<10	<10	6.6	8.5	11.0	14.2	16.9
Carbohydrate (% kcal)	52.7	(1.00)	>55	>55	41.3	47.3	53.2	57.9	61.8
Vitamin A (RE)	472	(107.4)	133	200	154	174	231	311	1,587
Vitamin C (mg)	23	(3.1)	8	15	7	11	18	26	43
Calcium (mg)	453	(15.1)	267[c]	433[c]	349	364	444	508	582
Iron (mg)	4.0	(0.16)	3.3	2.7	2.7	3.3	3.8	4.9	5.3
Sodium (mg)	1,226	(63.2)	≤800	≤800	771	902	1,113	1,487	1,820
Cholesterol (mg)	59	(5.5)	≤100	≤100	22	33	49	74	99
Dietary Fiber (g)	5.5	(0.29)	3-4	4.5-6	3.0	4.3	5.2	6.6	7.9
Sample Size	**449**	—	—	—	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of lunches served nationally. Based on 449 plates observed at 83 sites.

[a]One-third of the RDA for energy and nutrients; Dietary Guidelines for fat and saturated fat densities; National Research Council recommendation for carbohydrate density, sodium, and cholesterol; and American Health Foundation for fiber.

TABLE F.11 *(continued)*

[b]Value represents one-third of the 1989 RDA for children aged 7 to 10 years.

[c]Value represents the percentage of the Adequate Intake (AI) of calcium. The AI is used as the recommended standard because an RDA is not available.

RDA = Recommended Dietary Allowance; SE = standard error.

TABLE F.12

MEAN AND DISTRIBUTION OF NUTRIENTS SERVED
ON A SINGLE DAY AT BREAKFAST

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th	25th	50th	75th	90th
Protein (g)	15.2	(1.02)	7.0[b]	7.0[b]	9.6	10.3	13.2	16.4	25.4
Total Fat (g)	12.8	(1.36)	n.a.	n.a.	5.2	6.0	10.2	17.3	24.0
Saturated fat (g)	5.3	(0.42)	n.a.	n.a.	2.6	3.0	4.6	6.8	9.1
Monounsaturated fat (g)	4.5	(0.53)	n.a.	n.a.	4.2	5.2	6.9	11.4	14.6
Polyunsaturated fat (g)	2.1	(0.42)	n.a.	n.a.	0.4	0.5	1.0	2.7	6.2
Carbohydrate (g)	63.8	(4.10)	n.a.	n.a.	41.3	44.3	60.1	81.4	96.8
B Vitamins									
Thiamin (mg)	0.47	(0.042)	0.15	0.23	0.23	0.34	0.43	0.58	0.81
Riboflavin (mg)	0.80	(0.042)	0.15	0.23	0.56	0.67	0.72	0.88	1.21
Niacin (mg)	4.18	(0.462)	2.00	3.00	1.61	2.46	3.58	5.03	7.70
Vitamin B_6 (mg)	0.48	(0.044)	0.15	0.25	0.23	0.29	0.47	0.61	0.87
Folate (mcg)	100	(9.7)	50	75	45	67	91	119	163
Vitamin B_{12} (mcg)	1.26	(0.074)	0.30	0.45	0.87	0.89	1.02	1.50	2.01
Vitamin E (mg)	1.24	(0.173)	1.75	2.75	0.32	0.41	0.94	1.81	2.64
Phosphorus (mg)	376	(14.6)	125	313	266	288	365	435	559
Magnesium (mg)	68	(3.0)	33	60	46	55	64	80	94

TABLE F.12 *(continued)*

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th	25th	50th	75th	90th
Zinc (mg)	2.79	(0.177)	1.25	2.00	1.37	1.71	2.63	3.56	4.40
Copper (mg)	0.21	(0.022)	0.11	0.18	0.10	0.13	0.18	0.28	0.40
Potassium (mg)	729	(36.5)	n.a.	n.a.	532	582	674	817	1,148
Selenium (mcg)	19	(2.1)	8	10	7	10	15	23	38
Sample Size	**556**	—	—	—	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfasts served nationally. Based on 556 plates observed at 85 sites.

[a]One-fourth of the RDA for nutrients.

[b]Value represents one-fourth of the 1989 RDA for children aged 7 to 10 years.

n.a. = not applicable; RDA = Recommended Dietary Allowance; SE = standard error.

TABLE F.13

MEAN AND DISTRIBUTION OF NUTRIENTS SERVED
ON A SINGLE DAY AT LUNCH

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th	25th	50th	75th	90th
Protein (g)	26.5	(0.74)	9.3[b]	9.3[b]	18.4	21.6	24.8	30.3	37.8
Total Fat (g)	24.8	(0.79)	n.a.	n.a.	13.5	17.2	22.9	29.0	37.0
Saturated fat (g)	9.0	(0.34)	n.a.	n.a.	4.8	6.4	8.9	10.8	13.1
Monounsaturated fat (g)	9.3	(0.36)	n.a.	n.a.	8.1	9.1	11.5	14.0	16.6
Polyunsaturated fat (g)	4.7	(0.27)	n.a.	n.a.	1.8	2.2	3.9	6.1	8.3
Carbohydrate (g)	87.3	(2.63)	n.a.	n.a.	58.5	71.2	87.6	101.3	114.5
B Vitamins									
Thiamin (mg)	0.52	(0.021)	0.20	0.30	0.34	0.39	0.49	0.60	0.79
Riboflavin (mg)	0.77	(0.018)	0.20	0.30	0.61	0.67	0.75	0.85	0.97
Niacin (mg)	6.29	(0.302)	2.67	4.00	3.44	4.08	5.39	7.88	9.95
Vitamin B_6 (mg)	0.50	(0.025)	0.20	0.33	0.28	0.33	0.44	0.62	0.82
Folate (mcg)	100	(3.7)	67	100	56	74	91	126	154
Vitamin B_{12} (mcg)	1.55	(0.057)	0.40	0.60	0.92	1.13	1.37	1.88	2.41
Vitamin E (mg)	2.80	(0.166)	2.33	3.67	1.22	1.69	2.39	3.43	4.60
Phosphorus (mg)	499	(13.2)	167	417	373	401	483	574	637
Magnesium (mg)	98	(3.0)	43	80	66	77	93	108	138

TABLE F.13 *(continued)*

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th	25th	50th	75th	90th
Zinc (mg)	3.23	(0.097)	1.67	2.67	2.02	2.55	3.02	3.52	4.65
Copper (mg)	0.39	(0.014)	0.15	0.23	0.20	0.29	0.40	0.46	0.55
Potassium (mg)	1,008	(23.9)	n.a.	n.a.	774	839	980	1,119	1,341
Selenium (mcg)	33	(1.6)	10	13	18	24	29	38	49
Sample Size	**989**	—	—	—	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of lunches served nationally. Based on 989 plates observed at 161 sites.

[a]One-third of the RDA for nutrients.

[b]Value represents one-third of the 1989 RDA for children aged 7 to 10 years.

n.a. = not applicable; RDA = Recommended Dietary Allowance; SE = standard error.

TABLE F.14

MEAN AND DISTRIBUTION OF NUTRIENTS SERVED
ON A SINGLE DAY AT SUPPER

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th[b]	25th	50th	75th	90th[b]
Protein (g)	39.8	(4.63)	9.3[c]	9.3[c]	26.3	31.1	34.7	42.9	61.2
Total Fat (g)	31.7	(1.70)	n.a.	n.a.	22.3	29.8	31.9	34.3	43.3
Saturated fat (g)	10.8	(0.78)	n.a.	n.a.	8.0	8.3	10.7	12.5	14.3
Monounsaturated fat (g)	12.2	(1.07)	n.a.	n.a.	10.1	11.6	13.3	19.0	20.1
Polyunsaturated fat (g)	6.0	(0.99)	n.a.	n.a.	2.6	4.2	4.5	8.3	11.6
Carbohydrate (g)	86.1	(10.55)	n.a.	n.a.	59.0	63.1	71.9	105.1	129.3
B Vitamins									
Thiamin (mg)	0.51	(0.042)	0.20	0.30	0.39	0.42	0.46	0.63	0.68
Riboflavin (mg)	0.80	(0.017)	0.20	0.30	0.71	0.75	0.79	0.82	0.94
Niacin (mg)	10.53	(1.415)	2.67	4.00	5.86	7.40	9.61	11.93	15.77
Vitamin B_6 (mg)	0.72	(0.083)	0.20	0.33	0.46	0.51	0.56	1.01	1.04
Folate (mcg)	117	(11.8)	67	100	91	94	102	134	175
Vitamin B_{12} (mcg)	1.63	(0.271)	0.40	0.60	0.64	1.26	1.30	2.38	2.95
Vitamin E (mg)	3.54	(0.344)	2.33	3.67	2.68	3.03	3.37	3.83	3.92
Phosphorus (mg)	535	(16.6)	167	417	416	498	511	614	640
Magnesium (mg)	101	(11.2)	43	80	73	76	91	128	149

TABLE F.14 *(continued)*

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th[b]	25th	50th	75th	90th[b]
Zinc (mg)	4.70	(0.651)	1.67	2.67	2.68	2.83	4.28	5.98	7.61
Copper (mg)	0.44	(0.074)	0.15	0.23	0.26	0.32	0.35	0.51	0.64
Potassium (mg)	1,115	(118.6)	n.a.	n.a.	782	860	1,092	1,174	1,487
Selenium (mcg)	45	(6.0)	10	13	27	34	35	61	72
Sample Size	**75**	—	—	—	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of suppers served nationally. Based on 75 plates observed at 12 sites.

[a]One-third of the RDA for nutrients.

[b]May be unreliable due to small sample size.

[c]Value represents one-third of the 1989 RDA for children aged 7 to 10 years.

n.a. = not applicable; RDA = Recommended Dietary Allowance; SE = standard error.

TABLE F.15

MEAN AND PERCENTAGE OF ENERGY AND NUTRIENTS WASTED AT BREAKFAST AT SCHOOL-SPONSORED SITES, BASED ON PLATE WASTE OBSERVATIONS[a]

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Macronutrients					
Energy (kcal)	154	(23.0)	412	(39.5)	37
Protein (g)	5.8	(0.96)	14.7	(1.27)	40
Carbohydrate (g)	21.7	(3.12)	59.9	(4.78)	36
Total Fat (g)	5.2	(1.02)	13.5	(2.04)	39
Saturated fat (g)	2.2	(0.40)	5.4	(0.58)	41
Monounsaturated fat (g)	1.7	(0.35)	4.7	(0.79)	36
Polyunsaturated fat (g)	0.8	(0.24)	2.4	(0.67)	33
Vitamins and Minerals					
Vitamin A (RE)	97	(12.9)	310	(26.7)	31
B Vitamins					
Thiamin (mg)	0.13	(0.021)	0.43	(0.023)	30
Riboflavin (mg)	0.27	(0.038)	0.75	(0.027)	36
Niacin (mg)	0.90	(0.166)	3.72	(0.265)	24
Vitamin B_6 (mg)	0.13	(0.018)	0.45	(0.029)	28
Folate (mcg)	25	(4.7)	91	(4.9)	28
Vitamin B_{12} (mcg)	0.48	(0.063)	1.13	(0.070)	42
Vitamin C (mg)	11	(2.7)	34	(4.3)	31
Vitamin E (AE)	0.44	(0.106)	1.25	(0.275)	35
Calcium (mg)	164	(22.1)	386	(17.7)	43
Phosphorus (mg)	152	(21.6)	376	(19.6)	40
Magnesium (mg)	26	(3.7)	66	(2.5)	39

TABLE F.15 (*continued*)

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Iron (mg)	1.0	(0.15)	4.1	(0.43)	24
Zinc (mg)	0.83	(0.128)	2.85	(0.208)	29
Copper (mg)	0.08	(0.015)	0.20	(0.023)	38
Potassium (mg)	287	(34.1)	705	(33.6)	41
Selenium (mcg)	6	(1.4)	18	(2.1)	36
Other Dietary Components					
Sodium (mg)	176	(35.8)	513	(61.0)	34
Cholesterol (mg)	23	(7.0)	52	(12.1)	44
Dietary Fiber (g)	0.6	(0.15)	1.9	(0.19)	34
Sample Size[c]	**520**	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfasts nationally.

[a]Does not include waste from the share box items or discarded meals.

[b]Calculated as mean nutrient wasted divided by the mean nutrient served times 100.

[c]Total number of plates observed at 54 sites.

TABLE F.16

MEAN AND PERCENTAGE OF ENERGY AND NUTRIENTS WASTED AT BREAKFAST AT NONSCHOOL-SPONSORED SITES, BASED ON PLATE WASTE OBSERVATIONS[a]

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Macronutrients					
Energy (kcal)	123	(9.5)	441	(33.0)	28
Protein (g)	4.4	(0.45)	15.8	(1.61)	28
Carbohydrate (g)	19.6	(1.99)	69.5	(5.07)	28
Total Fat (g)	3.3	(0.44)	11.9	(1.69)	28
Saturated fat (g)	1.5	(0.18)	5.2	(0.58)	29
Monounsaturated fat (g)	1.1	(0.18)	4.1	(0.70)	27
Polyunsaturated fat (g)	0.5	(0.11)	1.7	(0.41)	29
Vitamins and Minerals					
Vitamin A (RE)	106	(14.3)	353	(51.2)	30
B Vitamins					
Thiamin (mg)	0.13	(0.023)	0.52	(0.084)	26
Riboflavin (mg)	0.24	(0.024)	0.86	(0.081)	28
Niacin (mg)	1.32	(0.250)	4.83	(0.944)	27
Vitamin B_6 (mg)	0.14	(0.028)	0.54	(0.092)	25
Folate (mcg)	28	(5.6)	112	(19.9)	25
Vitamin B_{12} (mcg)	0.41	(0.051)	1.45	(0.106)	28
Vitamin C (mg)	11	(2.2)	44	(9.0)	24
Vitamin E (AE)	0.45	(0.119)	1.22	(0.172)	37
Calcium (mg)	108	(6.9)	368	(20.6)	29
Phosphorus (mg)	108	(6.9)	377	(22.8)	29
Magnesium (mg)	20	(1.4)	71	(5.6)	28

TABLE F.16 (*continued*)

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Iron (mg)	1.2	(0.33)	4.4	(0.81)	27
Zinc (mg)	0.74	(0.103)	2.72	(0.275)	27
Copper (mg)	0.07	(0.014)	0.24	(0.036)	30
Potassium (mg)	237	(30.0)	764	(71.3)	31
Selenium (mcg)	6	(1.1)	21	(3.9)	27
Other Dietary Components					
Sodium (mg)	143	(25.7)	572	(104.3)	25
Cholesterol (mg)	13	(2.7)	55	(13.1)	24
Dietary Fiber (g)	1.1	(0.22)	3.1	(0.51)	36
Sample Size[c]	**295**	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfasts nationally.

[a]Does not include waste from the share box items or discarded meals.

[b]Calculated as mean nutrient wasted divided by the mean nutrient served times 100.

[c]Total number of plates observed at 31 sites.

TABLE F.17

MEAN AND PERCENTAGE OF ENERGY AND NUTRIENTS WASTED
AT LUNCH AT SCHOOL-SPONSORED SITES,
BASED ON PLATE WASTE OBSERVATIONS[a]

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Macronutrients					
Energy (kcal)	204	(13.7)	656	(24.7)	31
Protein (g)	7.7	(0.54)	25.7	(0.85)	30
Carbohydrate (g)	28.1	(2.09)	85.1	(4.19)	33
Total Fat (g)	7.4	(0.67)	25.3	(1.23)	29
Saturated fat (g)	2.6	(0.20)	9.2	(0.46)	28
Monounsaturated fat (g)	2.8	(0.28)	9.8	(0.57)	29
Polyunsaturated fat (g)	1.4	(0.22)	4.5	(0.42)	31
Vitamins and Minerals					
Vitamin A (RE)	155	(58.5)	298	(38.0)	52
B Vitamins					
Thiamin (mg)	0.16	(0.014)	0.52	(0.031)	31
Riboflavin (mg)	0.24	(0.021)	0.75	(0.028)	32
Niacin (mg)	1.71	(0.146)	6.12	(0.433)	28
Vitamin B_6 (mg)	0.14	(0.011)	0.47	(0.037)	30
Folate (mcg)	36	(3.2)	101	(4.6)	36
Vitamin B_{12} (mcg)	0.43	(0.035)	1.49	(0.067)	29
Vitamin C (mg)	10	(1.3)	30	(4.1)	33
Vitamin E (AE)	0.92	(0.109)	2.91	(0.255)	32
Calcium (mg)	138	(14.3)	444	(18.1)	31
Phosphorus (mg)	149	(11.8)	486	(19.3)	31
Magnesium (mg)	29	(2.4)	96	(4.9)	30

TABLE F.17 (*continued*)

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Iron (mg)	1.3	(0.09)	3.9	(0.19)	33
Zinc (mg)	0.98	(0.059)	3.19	(0.107)	31
Copper (mg)	0.12	(0.012)	0.38	(0.021)	32
Potassium (mg)	313	(20.4)	972	(30.0)	32
Selenium (mcg)	10	(0.7)	30	(0.9)	33
Other Dietary Components					
Sodium (mg)	344	(30.4)	1,078	(85.6)	32
Cholesterol (mg)	16	(1.7)	55	(4.5)	29
Dietary Fiber (g)	2.0	(0.22)	5.5	(0.44)	36
Sample Size[c]	**749**	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of lunches nationally.

[a]Does not include waste from the share box items or discarded meals.

[b]Calculated as mean nutrient wasted divided by the mean nutrient served times 100.

[c]Total number of plates observed at 78 sites.

TABLE F.18

MEAN AND PERCENTAGE OF ENERGY AND NUTRIENTS WASTED AT LUNCH AT NONSCHOOL-SPONSORED SITES, BASED ON PLATE WASTE OBSERVATIONS[a]

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Macronutrients					
Energy (kcal)	216	(18.9)	671	(19.4)	32
Protein (g)	8.3	(0.80)	27.5	(1.24)	30
Carbohydrate (g)	29.1	(2.55)	89.7	(2.75)	32
Total Fat (g)	8.0	(0.83)	24.3	(1.10)	33
Saturated fat (g)	2.7	(0.27)	8.8	(0.55)	31
Monounsaturated fat (g)	2.9	(0.31)	8.8	(0.41)	33
Polyunsaturated fat (g)	1.8	(0.29)	4.9	(0.39)	37
Vitamins and Minerals					
Vitamin A (RE)	253	(98.4)	472	(107.4)	54
B Vitamins					
Thiamin (mg)	0.17	(0.013)	0.53	(0.027)	32
Riboflavin (mg)	0.23	(0.018)	0.79	(0.019)	29
Niacin (mg)	2.26	(0.340)	6.48	(0.468)	35
Vitamin B_6 (mg)	0.18	(0.021)	0.54	(0.029)	33
Folate (mcg)	33	(2.9)	98	(6.1)	34
Vitamin B_{12} (mcg)	0.45	(0.062)	1.63	(0.099)	28
Vitamin C (mg)	8	(1.4)	23	(3.1)	35
Vitamin E (AE)	1.01	(0.147)	2.68	(0.213)	38
Calcium (mg)	124	(8.5)	453	(15.1)	27
Phosphorus (mg)	149	(11.9)	514	(16.5)	29
Magnesium (mg)	31	(3.4)	100	(3.4)	31

TABLE F.18 (*continued*)

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Iron (mg)	1.3	(0.12)	4.0	(0.16)	33
Zinc (mg)	1.04	(0.119)	3.27	(0.177)	32
Copper (mg)	0.13	(0.012)	0.40	(0.015)	33
Potassium (mg)	318	(25.7)	1,049	(36.9)	30
Selenium (mcg)	12	(1.5)	37	(3.1)	32
Other Dietary Components					
Sodium (mg)	405	(40.1)	1,226	(63.2)	33
Cholesterol (mg)	17	(2.6)	59	(5.5)	29
Dietary Fiber (g)	2.1	(0.20)	5.5	(0.29)	38
Sample Size[c]	**821**	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of lunches nationally.

[a]Does not include waste from the share box items or discarded meals.

[b]Calculated as mean nutrient wasted divided by the mean nutrient served times 100.

[c]Total number of plates observed at 83 sites.

APPENDIX G

SUPPLEMENTAL TABLES FOR CHAPTER III

TABLE G.1

SPONSORS' REPORTS ON SFSP REIMBURSEMENTS
AND OTHER FUNDING SOURCES,
BY SCHOOL AND NONSCHOOL SPONSORS

	School Sponsor		Nonschool Sponsor	
	Percentage	SE	Percentage	SE
Sponsors in Nonpilot States				
Percentage of Administrative Costs State Agency Will Cover				
0 to 50	16	(6.6)	33**	(8.4)
51 to 75	7	(3.4)	18	(5.4)
76 to 99	26	(7.6)	26	(7.9)
100	51	(8.9)	23	(6.0)
Percentage of Operating Costs State Agency Will Cover				
0 to 50	0	(0.0)	24**	(8.7)
51 to 75	4	(3.1)	26	(7.9)
76 to 99	31	(9.7)	17	(5.1)
100	65	(10.0)	33	(8.4)
Sample Size	**45**	**—**	**59**	**—**
All Sponsors				
Expects State Agency to Cover All Costs	42	(8.1)	14**	(4.4)
Sample Size	**61**	**—**	**60**	**—**
If Not Expecting All Costs to Be Covered, Sources to Cover Differences Between Actual Costs and State Reimbursement				
Sponsor Funds	50	(10.0)	62	(7.5)
Parent Organization/Affiliation Funds	1	(1.0)	26**	(8.2)
Federal Funds	21	(8.1)	33	(9.8)
State Funds	28	(8.9)	29	(8.4)
Local Government Funds	11	(5.0)	24	(7.6)
Donations/Volunteers[a]	0	(0.0)	7	(4.2)
Other Sources[b]	6	(2.8)	22*	(7.8)
Sample Size	**34**	**—**	**50**	**—**

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

TABLE G.1 *(continued)*

NOTE: Tabulations are weighted to be representative of sponsors nationally. Because of missing data, sample sizes for specific responses are slightly lower.

[a]Category constructed from answers about "any other sources" that would help cover the difference between actual operating and administrative costs and the state's reimbursement.

[b]Category combines two categories from the survey: (1) "other nonfederal funds," and (2) "any other sources," excluding donations and volunteers.

SE = standard error.

*Significantly different from school sponsors at the .05 level, chi-squared test.
**Significantly different from school sponsors at the .01 level, chi-squared test.

TABLE G.2

SPONSORS' REPORTS ON SFSP REIMBURSEMENTS
AND OTHER FUNDING SOURCES,
BY SPONSORS' EXPERIENCE

	Sponsor in Operation			
	2 to 5 Years		6 Years or More	
	Percentage	SE	Percentage	SE
Sponsors in Nonpilot States				
Percentage of Administrative Costs State Agency Will Cover				
0 to 50	21	(10.7)	29	(6.7)
51 to 75	9	(5.9)	15	(4.2)
76 to 99	26	(10.6)	25	(6.4)
100	43	(11.7)	31	(6.3)
Percentage of Operating Costs State Agency Will Cover				
0 to 50	17	(11.3)	11	(5.1)
51 to 75	20	(9.5)	15	(5.4)
76 to 99	22	(9.9)	23	(5.4)
100	41	(10.6)	51	(7.3)
Sample Size	**26**	**—**	**75**	**—**
All Sponsors				
Expects State Agency to Cover All Costs	22	(7.3)	33	(6.1)
Sample Size	**35**	**—**	**82**	**—**
If Not Expecting All Costs to Be Covered, Sources to Cover Differences Between Actual Costs and State Reimbursement				
Sponsor Funds	69	(9.1)	47	(7.8)
Parent Organization/Affiliation Funds	17	(9.4)	15	(6.0)
Federal Funds	34	(12.1)	24	(7.4)
State Funds	36	(11.2)	24	(7.2)
Local Government Funds	15	(8.7)	22	(6.0)
Donations/Volunteers[a]	0	(0.0)	8	(4.4)
Other Sources[b]	18	(9.7)	14	(4.5)
Sample Size	**25**	**—**	**56**	**—**

TABLE G.2 *(continued)*

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NOTE: Tabulations are weighted to be representative of sponsors nationally. Because of missing data, sample sizes for specific responses are slightly lower.

[a]Category constructed from answers about "any other sources" that would help cover the difference between actual operating and administrative costs and the state's reimbursement.

[b]Category combines two categories from the survey: (1) "other nonfederal funds," and (2) "any other sources," excluding donations and volunteers.

SE = standard error.

*Significantly different from 2-to-5 year sponsors at the .05 level, chi-squared test.
**Significantly different from 2-to-5 year sponsors at the .01 level, chi-squared test.

TABLE G.3

EXPERIENCED SPONSORS' COST-CONTROL STRATEGIES, BY SCHOOL AND NONSCHOOL SPONSORS

	School Sponsors		Nonschool Sponsors	
	Percentage	SE	Percentage	SE
Any Strategy	79	(6.2)	68	(8.4)
Staffing				
Combined job functions	55	(7.3)	31*	(7.1)
Hired fewer people	47	(8.0)	18**	(4.6)
Had staff work fewer hours	41	(8.2)	17*	(4.7)
Had volunteers handle work usually done by paid staff	19	(6.6)	25	(7.2)
Let staff go	14	(4.9)	6	(2.5)
Reduced hourly pay	2	(1.6)	5	(3.3)
Meal Preparation				
Found less expensive vendors or suppliers of food or meal components	19	(5.7)	42*	(8.0)
Switched from mostly hot meals to mostly cold meals	7	(2.7)	12	(4.9)
Switched from vended sites to on-site cooking	6	(3.5)	8	(4.0)
Switched from on-site cooking to vended sites	1	(0.7)	5	(2.6)
Reduced food costs (found less expensive food, served fewer extra meals, changed meal plans)[a]	3	(2.0)	1	(0.5)
Program Administration				
Secured additional funds	4	(2.3)	26**	(7.4)
Reduced site monitoring	4	(2.9)	5	(2.9)
Reduced site training	3	(2.5)	3	(1.8)
Participation and Outreach				
Decreased number of sites	12	(4.5)	10	(4.2)
Reduced publicity and promotion efforts	4	(2.6)	8	(3.1)
Limited number of participants	0	(0.0)	8*	(3.5)
Other Strategy[a]	5	(3.7)	7	(3.5)
Sample Size	**59**	—	**64**	—

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NOTE: The sample is restricted to sponsors reporting that they were not in their first year of SFSP participation. Sponsors were asked explicitly whether they used particular strategies to control costs, except where noted. Because of missing data, sample sizes for specific responses are slightly lower. Tabulations are weighted to be representative of sponsors nationally.

TABLE G.3 *(continued)*

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[a]Categories constructed from responses to an open-ended question about any other steps sponsors took during the past few years to control the costs of the SFSP.

SE = standard error.

*Significantly different from school sponsors at the .05 level, chi-squared test.
**Significantly different from school sponsors at the .01 level, chi-squared test.

TABLE G.4

EXPERIENCED SPONSORS' COST-CONTROL STRATEGIES, BY SPONSORS' EXPERIENCE

	Sponsor in Operation			
	2 to 5 Years		6 Years or More	
	Percentage	SE	Percentage	SE
Any Strategy	72	(9.0)	15	(7.2)
Staffing				
Combined job functions	40	(9.1)	44	(6.7)
Hired fewer people	31	(8.2)	33	(5.6)
Had staff work fewer hours	33	(9.4)	25	(4.8)
Had volunteers handle work usually done by paid staff	26	(9.1)	20	(5.8)
Let staff go	10	(4.5)	10	(3.2)
Reduced hourly pay	2	(1.5)	5	(3.0)
Meal Preparation				
Found less expensive vendors or suppliers of food or meal components	29	(8.4)	32	(5.9)
Switched from mostly hot meals to mostly cold meals	3	(3.1)	15*	(4.2)
Switched from vended sites to on-site cooking	2	(1.9)	11	(4.2)
Switched from on-site cooking to vended sites	3	(2.6)	3	(1.5)
Reduced food costs (found less expensive food, served fewer extra meals, changed meal plans)[a]	0	(0.0)	3	(1.8)
Program Administration				
Secured additional funds	21	(8.5)	11	(3.8)
Reduced site monitoring	6	(4.4)	3	(1.5)
Reduced site training	3	(2.6)	3	(2.3)
Participation and Outreach				
Decreased number of sites	10	(5.6)	11	(3.4)
Reduced publicity and promotion efforts	7	(3.0)	5	(2.5)
Limited number of participants	3	(2.6)	5	(2.9)
Other Strategy[a]	7	(5.0)	5	(2.6)
Sample Size	**35**	**—**	**87**	**—**

SOURCE: SFSP Implementation Study, Sponsor Survey (2001).

NOTE: The sample is restricted to sponsors reporting that they were not in their first year of SFSP participation. Sponsors were asked explicitly whether they used particular strategies to control costs, except where noted. Because of missing data, sample sizes for specific responses are slightly lower. Tabulations are weighted to be representative of sponsors nationally.

TABLE G.4 *(continued)*

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[a]Categories constructed from responses to an open-ended question about any other steps sponsors took during the past few years to control the costs of the SFSP.

SE = standard error.

*Significantly different from 2-to-5 year sponsors at the .05 level, chi-squared test.
**Significantly different from 2-to-5 year sponsors at the .01 level, chi-squared test.