

**Cost Variables Associated with
Producing and Serving a Reimbursable
National School Lunch Program (NSLP)
Snack for Children in Afterschool Care Programs**



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National Food Service Management Institute The University of Mississippi

Building the Future Through Child Nutrition

The National Food Service Management Institute (NFSMI) was authorized by Congress in 1989 and established in 1990 at The University of Mississippi in Oxford. The Institute operates under a grant agreement with the United States Department of Agriculture, Food and Nutrition Service.

PURPOSE

The purpose of NFSMI is to improve the operation of Child Nutrition Programs through research, education and training, and information dissemination. The Administrative Offices and Divisions of Technology Transfer and Education and Training are located in Oxford. The Division of Applied Research is located at The University of Southern Mississippi in Hattiesburg.

MISSION

The mission of the NFSMI is to provide information and services that promote the continuous improvement of Child Nutrition Programs.

VISION

The vision of the NFSMI is to be the leader in providing education, research, and resources to promote excellence in Child Nutrition Programs.

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**COST VARIABLES ASSOCIATED WITH PRODUCING AND SERVING A
REIMBURSABLE NATIONAL SCHOOL LUNCH PROGRAM (NSLP) SNACK FOR
CHILDREN IN AFTERSCHOOL CARE PROGRAMS**

EXECUTIVE SUMMARY

The National School Lunch Program (NSLP) reimbursable snack service was established to benefit school-age children and youth by providing a nutritious snack in qualified afterschool care programs. The purpose of this study was to identify costs associated with producing and serving these snacks and determine how those costs are distributed.

The research design used a case study methodology that included direct observation, systematic interviewing, and review of School Nutrition Program (SNP) records. On-site data collection occurred in four school districts during a one-day visit in each school district. The case study districts had a combined total of 43 afterschool program snack sites. Data were organized, tabulated, and cross checked from each site visit. A meal equivalent ratio of three snacks equate to one lunch was used to assess comparable costs for a NSLP snack served in the case study districts. To determine the prorated cost of producing a snack that included food, labor, and all other expenses to the SNP, a three-step calculation was made as follows:

- all food and meal sales were converted to meal equivalents,
- the cost to produce one meal equivalent was determined, and
- the cost of the meal equivalent was divided by three to calculate the prorated cost of producing and serving a snack.

The number of snacks served in the case study districts ranged from an average of 74 to 750 per day. Thirty-seven snack sites (86%) qualified to serve all snacks free to participating students. Although schools in the case study districts calculated the cost of food for snacks, none tracked specific costs for labor, supplies, and general overhead associated with producing and serving a NSLP snack. The average daily food costs reported by the school districts ranged from \$0.32 to \$0.53 for snacks during the month prior to the site visit. School districts in the study used meal equivalent ratios to determine meal and snack costs, however the meal equivalent ratio for snacks varied among districts from two snacks equal one standard lunch to four snacks equal one standard lunch. To ensure consistency in data analysis for this study, the researcher used the NFSMI meal equivalent ratio of three snacks equal one lunch to calculate the cost of producing and serving a NSLP snack. The results ranged from a cost of approximately \$0.71 to \$0.77 to produce and serve snacks to students in afterschool programs in the case study districts during the 2004-2005 school year. SNP directors indicated that factors such as the number of students served, differing labor requirements, and whether or not supplies were needed in the snack service had an impact on the overall cost to produce and serve a NSLP snack. For example, a portion of the labor cost was absorbed by having the afterschool care program coordinator serve the NSLP snacks instead of the school nutrition staff in three of the school districts.

Other issues that had an effect on the cost of producing and serving NSLP snacks were student preferences for more expensive snack items and overproduction of snacks due to inaccurate orders. The afterschool care program sponsors and coordinators in the case study worked closely with SNP directors to prevent snack waste by monitoring and reporting student preference for snack items and tracking the number of snacks ordered versus the number served.

Cost Variables Associated with Producing and Serving a Reimbursable National School Lunch Program
(NSLP) Snack for Children in Afterschool Care Programs

The four SNP directors in the study viewed serving snacks to children in afterschool care programs as a goodwill service to the community. The directors were in agreement that the benefits of children receiving a nutritious snack after the end of the school day outweighs any minimal costs to the NSLP program not covered by the snack reimbursement.

The information in this case study research can be used to assist SNP directors when planning and implementing a NSLP snack service to afterschool care programs. The calculations can be used to evaluate the overall financial efficiency of the NSLP snack service and assist in determining whether or not the costs of snacks are exceeding the federal reimbursement.

A review checklist and sample forms have been included in the back of this report to aide school districts with accountability issues in the afterschool care program NSLP snack service.

Introduction

The National School Lunch Program (NSLP) reimbursable snack service was established to benefit school-age children and youth by providing a nutritious snack in qualified afterschool care programs (USDA, 2000). Because children and youth enrolled in afterschool programs frequently remain at the program site until 6:00 p.m., an important aspect of the care is the preparation and service of a nutritious snack to fill the gap between lunch and the evening meal. These snacks help ensure that children receive the nutrition they need to learn, play, and grow and also provide an opportunity to promote knowledge, attitudes, and behaviors among children about the importance of eating healthful foods (USDA, 1999).

Authority for the reimbursement of snacks in the afterschool care program was granted under provisions in the William F. Goodling Child Nutrition reauthorization Act of 1998 (Public Law 105-336) and signed into law October 31, 1998, by President Bill Clinton. To be eligible for federal reimbursement, snacks must be served in an afterschool care program operated or sponsored by a school or school district that participates in the NSLP and includes regularly scheduled educational or enrichment activities in an organized, structured, and supervised environment. The school food authority must have final administrative responsibility for the snack service. However, there is no obligation to use school personnel in the afterschool program, and management of day-to-day operations may be delegated to other agencies (USDA, 2000).

Afterschool snacks can be served to all school-aged children who are 18 or under at the start of the school year. NSLP snacks claimed for reimbursement must only be served to children after their school day has ended. Schools may not receive reimbursement for snacks served on weekends, holidays, or vacation periods. To qualify for reimbursement under the NSLP, snacks

served to students must meet the USDA meal pattern requirements and be limited to one snack per child per day (USDA, 2004).

Documentation of accountability is an important part of implementing the NSLP snack service in afterschool care programs. Administrators who manage afterschool programs are required to maintain sign-in or attendance sheets. In addition, the total number of snacks served daily must be recorded by eligibility category to ensure that the number of snacks served do not exceed the number of children on the attendance rosters. Documentation that snacks served meet the USDA nutritional requirement for the program must be maintained by the school food authority. Without the required documentation of compliance, school districts risk the possibility of losing reimbursement funds or in some cases school districts may be required to repay funds for snacks claimed during any period for which there were insufficient records (USDA, 2000).

The rate of reimbursement for NSLP snacks served varies, depending on the “area eligibility” of the afterschool care program. If the program is offered at a school or in a school attendance area where at least 50 percent of the enrolled children are eligible for free or reduced priced meals, all NSLP snacks are reimbursed at the free rate, regardless of an individual student’s eligibility. If all meals are claimed free, documentation must be provided to verify the site is located in an eligible area. Snacks served in afterschool care programs that are not area eligible will be reimbursed at the free, reduced, and paid rate depending on each individual’s eligibility for free or reduced price meals. Non eligible sites must maintain documentation for all children whose snacks are claimed for free or reduced reimbursement and an approved application for meal benefits must be on file for students receiving free or reduced priced NSLP snacks (USDA, 2000).

The reimbursable snack service in afterschool care programs is a fairly new program in School Nutrition Programs (SNP). The service continues to operate under proposed rules published October 11, 2000. Final rules have not been published as of this report. Because the snack service functions under proposed rather than final rules, some qualification and accountability requirements could change when the final rules are published (Cater, 2003).

To date, there are no published reports relative to how much it costs to implement an afterschool care program snack service. In an attempt to identify cost factors and program issues that influence efficiency, the Applied Research Division of NFSMI conducted a case study to identify cost variables associated with implementing a NSLP reimbursable snack service to children participating in afterschool care programs and to determine how the case study districts were distributing costs associated with producing and serving NSLP snacks. The research objectives that guided this study include the following:

- to identify the cost variables associated with producing and serving a reimbursable NSLP snack for children in afterschool care programs,
- to collect financial data to determine the distribution of costs directly traceable to snack production and service, and
- to provide school districts with information on costs associated with implementing a NSLP snack service.

Method

Research Design

Case study methodology was determined to be the most appropriate way to consider this issue because the research objectives which guided the study require a descriptive framework. The case study method is also the preferred approach for examining the implementation of a new

program, because the method relies on direct observation, systematic interviewing, and document review (Yin, 2003). For this research project, structured interviews, observations, and archival records (documentation) were used to collect and analyze data. The research design consisted of using a multiple-case design, following a replication format in which conclusions from each study sited contributed to the “whole” study.

The selection of research factors to include in the case study design was based on: 1) an analysis of government publications related to USDA regulations governing implementation of the NSLP snack service, 2) findings from focus group research conducted by Rainville and Cater (2002), and 3) survey results reported by Cater (2003) in a doctoral study that explored factors affecting accountability of the NSLP snack service. The literature review provided a foundation for development of the case study. The research studies helped define the focus for the development of the protocol.

Informed Consent

The Human Subjects Protection Review Committee of The University of Southern Mississippi approved the protocol for the research project (Appendix A). Only publicly available records and documents were used in the study.

Site Selection

The case study sites were selected to present a variety of USDA geographic regions (Southwest, West, and Midwest), size parameters, and site eligibility characteristics. To begin the selection process, NFSMI contacted state agency directors in each region for recommendations of school districts operating a quality NSLP snack service to afterschool care programs that met research parameters and would be willing to participate in the study. Quality was defined as those sites that in the opinion of the state agency provided a nutritious and

financially sound snack service, and consistently met all accountability requirements issued by USDA. Research parameters were set to consider the size of the NSLP snack service, school location, and type of information and documentation available to the researchers. Each state agency provided a brief profile of the NSLP snack service in the school districts recommended for inclusion in the case study research. NFSMI followed up with telephone calls to the SNP directors to confirm the NSLP snack service was within study parameters and that school officials were willing to participate in the study.

Data Collection Instrument

A two-part research instrument, *National School Lunch Program Afterschool Snack Cost and Accountability Study Data Collection Instrument* (Appendix B) was developed using case methods outline by Yin (2003). Research using case study methods emphasize detailed contextual analysis in which a review of documentation and archival records, structured interviews, and planned direct observations are used to collect, analyze, and interpret data. Part I of the data collection instrument was designed to collect demographic information, SNP financial data, and general information about NSLP snack service to afterschool care programs. Part II of the data collection instrument included a structured interview guideline with pre-determined questions designed to gather information about basic school district policies. The interview outline included questions related to how procedures are developed to ensure accountability in the snack service, how reports for the NSLP snack service are prepared, what type of training is provided to afterschool care staff in charge of snacks at the school site, and what type system is in place to monitor the NSLP snack service at each site.

Data Collection Procedures

When the final selections for case study sites were chosen, the SNP directors were notified and a date established for the site visit. Follow-up letters (Appendix C) were mailed to SNP directors and superintendents. The letters contained a brief discussion of the types of data important for the review process, a list of documents important to the case study research, and parts of the data collection instrument. This allowed participants time to gather the appropriate documents and ensure their accuracy. All documents requested were for the school year 2004-2005. Each district SNP director was invited to complete as much as possible of the demographics portion of the instrument prior to the site visit. In addition, the letter mailed served as a reminder to SNP directors and school district superintendents that participation was voluntary and school district data would be treated as anonymous.

Pilot Study. The researcher field tested the data collection instrument and procedures for direct observations of the snack service during a one-day site visit to the pilot school district. The pilot case study site was chosen based on convenience, access, and geographic proximity (Southeast). These criteria allowed the researcher flexibility and more personal contact with the pilot site school officials. In addition to easy access and convenience, the site was also judged by the NFSMI researcher to have characteristics typical of most NSLP snack services. The pilot test included actual collection of information and data, a structured interview with the SNP director, and informal interviews with a school manager and the school nutrition financial manager. Based on the field test, minor modifications were made to the instrument to clarify the procedures. No other additions were made to the data collection instrument or case study procedures.

Site Visits. On-site data collection and direct observation of the snack service occurred during a one-day visit in each school district. Site visits included the following research activities:

- Overview of the NSLP snack service by the SNP director
- Structured formal interview conducted by NFSMI researchers
- Document and records review
- Review and discussion of demographics portion of data collection instrument
- Informal discussion with SNP director
- Direct observation of the NSLP snack service
- Informal discussion with the snack site's lead teacher/coordinator
- Wrap summary comments with SNP director

The overview of the district's snack service to afterschool care programs allowed directors to showcase the strengths of the snack service in the case study districts and provide the NFSMI researchers with background information for the study. The structured interview ensured replication across all case studies, thus establishing reliability of the research study procedures. The informal discussion provided SNP directors with an opportunity to share information they felt was important to the successful implementation of a NSLP snack service, but not covered in the structured interview. Direct observation of the snack service at an afterschool care site allowed the researchers to view the procedures related to serving and tracking reimbursable NLSP snacks. The NFSMI researcher discussed, on an informal basis, issues related to the NSLP snack service with the afterschool care program coordinator in charge of serving snacks. The discussion focused on the responsibilities of an afterschool care coordinator for documenting that regulations and requirements of the NSLP snack service were met. During the wrap-up session,

the researcher reviewed information entered on the data collection instrument by the SNP director prior to the site visit.

Data Analysis

Once the pilot and three site visits were completed, the researcher examined all raw data using several analytical strategies outlined by Yin (2003). It was determined that the pilot information could be included in the case study report because both the case study procedures and data collected closely replicated the “whole” case study. Interview responses and the researcher’s field notes were organized, categorized, and when appropriate, clarified with a follow-up telephone interview or e-mail correspondence. Documents and reports were examined according to their context and purpose using content analysis techniques. Financial data were calculated using formulas and methods that could be applied across the board to each district in the study. Data were tabulated and cross-checked from each individual site visit. After the individual case studies were analyzed for pertinent data, a cross-case search for patterns was conducted. In the cross-case analysis, the data was investigated across all four districts, then data about each site’s activities were compared to determine commonalities and differences in implementing the NSLP snack service to afterschool care programs. The analysis focused mainly on financial data in an attempt to identify cost variables that impact the production and service of NSLP snacks in afterschool care programs.

The draft report was e-mailed to participants for review to corroborate the essential facts and information present in the case report. A short focused repeat interview was conducted via telephone to gather additional data to verify key observations and check outcomes of formula calculations. This process enhances the accuracy of the case study, hence increasing the construct validity of the study (Yin, 2003).

Results and Discussion

Demographics of Case Study Schools

As shown in Table 1, the pilot and three school districts chosen for the case study ranged in size from a small district with four schools and an enrollment of 3,668 students to a larger school district with 22,206 students enrolled in 35 schools. Students eligible to receive free or reduced price meal benefits ranged from 44% to 59% of enrollment in the case study districts. Overall daily participation rates ranged from 57% to 84% for lunch and 14% to 33% for breakfast. Participation rates were defined as the total number of school breakfasts or lunches served divided by the average daily attendance.

Because the NSLP snack service is provided to afterschool care programs outside the regular school day, calculating snack participation rates based on the school site's student enrollment or school attendance are not appropriate measurements of the snack service's effectiveness. Afterschool care programs are offered to parents as a community service. Both enrollment and attendance are voluntary and often fluctuate according to immediate needs of parents within the community. For this reason, comparing the number of students participating in the NSLP snack service to the number of students attending the afterschool care program on a day-to-day basis, rather than general school enrollment, is a more effective measure of snack participation rates. In addition, government regulations require school officials to compare the number of NSLP snacks served each day to the afterschool care program's daily attendance records to ensure accuracy of eligible meal counts.

The number of snacks served daily in the case study districts ranged from 74 in the smallest school district to an average of 750 snacks served daily in the larger school district. Based on conversations with the afterschool program co-coordinators and direct observation, it

was determined that all students attending afterschool care programs at each of the case study sites received a snack on the date of the site visit.

The number of school days that NSLP snacks were served in afterschool care programs varied among the districts. While none of the districts served NSLP snacks the full number of service days for lunch/breakfast, District B provided NSLP snacks all but two of the days that students received lunch/breakfast meals (168 out of 170). District A, which served as the pilot for the case study, provided lunch/breakfast meals 47 more days than they provided snacks to the afterschool care program.

The majority (86%) of NSLP snack sites in the four case study districts were “area eligible” sites which meant all snacks served in those sites were free to participating students. Only six of the 43 total snack sites in the case study districts were considered non eligible areas for all free snacks.

Table 1

Selected Demographic Information of School Districts Chosen as Case Study Sites.

Variables	District A	District B	District C	District D
USDA region	Southeast	Western	Southwest	Midwest
Number of schools in district	4	9	20	35
Student enrollment	3,668	5,193	9,110	22,206
Average daily attendance	3,498	4,934	8,110	21,318
Number of days lunch/breakfast served	180	170	201	180
Number of days snacks served	133	168	178	140
Meal benefit eligibility percentage (based on enrollment)	48%	44%	59%	49%
Lunch participation percentage (based on ADA ¹)	84%	61%	57%	63%
Breakfast participation percentage (based on ADA)	33%	14%	32%	16%

¹ Average Daily Attendance

² Average Daily Participation (actual number of students served)

(table continues)

Table 1 (continued)

Selected Demographic Information of School Districts Chosen as Case Study Sites.

Variables	District A	District B	District C	District D
USDA region	Southeast	Western	Southwest	Midwest
NSLP snacks ADP ²	74	104	444	750
Area eligible sites for “free” snacks	3	3	13	18
Non eligible sites	0	3	3	0

¹ Average Daily Attendance

² Average Daily Participation (actual number of students served)

Revenue Generation

Federal funds, which include reimbursement dollars for NSLP snacks, supplied the greatest percentage of revenue for the four districts in the case study (Table 2). District C received the highest percentage (57.15%) of revenue from federal sources followed by District A (49.53%). The second largest source of revenue for case study sites varied among districts. Districts A and B received 32.87% and 31.48% respectively from student meal sales. In District D, nonreimbursable food sales (25.49%) accounted for the second largest source of revenue followed closely by student meals sales (20.37%). Student meal sales only accounted for 6.16% of revenue in District C. The second largest source of revenue (17%) for District C was designated as “all other revenue.”

State funds and adult meal sales combined contributed less than five percent of total revenue to the SNP budgets in Districts A, C, and D. District B was the exception, receiving 6.84% of their revenue from the state and another 2.77% from adult meal sales for a combined percentage of 9.61%.

Commodity values from the case study districts were recorded for the purpose of comparing financial status. However, the districts in the study rarely used commodities in the snack service.

Cost Variables Associated with Producing and Serving a Reimbursable National School Lunch Program
(NSLP) Snack for Children in Afterschool Care Programs

Table 2

School Nutrition Programs: Percent of Total Revenue Generated by Source (2004-05)

Revenue	District A	District B	District C	District D
¹ Student meal sales	32.87%	31.48%	6.16%	20.37%
Adult meal sales	4.32%	2.77%	0.94%	2.05%
Non reimbursable food sales	3.39%	5.82%	13.89%	25.49%
State funds	0.54%	6.84%	0.89%	0.97%
² Federal funds	49.53%	47.40%	57.15%	47.02%
All other revenue	3.09%	0.59%	17.01%	2.80%
Commodity value	6.26%	5.10%	3.96%	1.30%

¹Includes revenue from the sale of NSLP snacks to afterschool care programs.

²Includes reimbursement from the service of NSLP snacks to afterschool care programs.

Program Expenditures

As shown in Table 3, a greater percentage of the revenue received in the case study districts was spent for the combined expenses of food and labor. However, the percent of revenue spent for labor was greater than the percent spent for food in all districts. Labor costs as a percentage of revenue ranged from 45% in District B to slightly less than 53% in District D. Districts A and C spent approximately 47% of revenue earned for labor costs.

There was a much larger range in food costs percentages among case study districts for food purchases than for labor expenditures. The percent of revenue spent on food ranged from 40.94% in District B to only 22.30% in District C.

Table 3

Percent of Expenditures to Total Revenue

Expenditures	District A	District B	District C	District D
Labor/benefits	46.66%	45.08%	47.05%	52.79%
Food	30.01%	40.94%	22.30%	39.62%
Supplies	5.29%	10.61%	0.00%	3.74%
All other	4.58%	1.82%	7.37%	10.02%
Commodities	6.26%	5.10%	3.96%	1.30%

Food and labor percentages of total revenue were calculated on the cumulative totals for all food and labor expenditures and all revenue received in the district SNP. None of the school districts in the case study calculated percentages separately for each program. In order to identify costs associated with providing a NSLP snack service to afterschool care programs, it was necessary for the researcher to develop a method for converting financial data to a common factor that could be used to equate all meal services offered. That method along with the results is described in the following section of this report.

Calculating the Costs of NSLP Snacks

In order to assess comparable costs for the NSLP snacks served in the case study districts, it was necessary to first convert data for all food sales into a measurable unit that could be used to calculate the average costs of producing and serving a meal. The calculation of meal equivalents (ME) is the method most often used in SNPs. A ME is a standard unit of measurement that can be used to compare breakfasts, NSLP snacks, and all other nonreimbursable food sales to the student lunch. In order to equate meals and other food sales to a lunch standard, a ME ratio (e.g., the number of breakfasts, snacks, or other food sales that equate to one lunch) must be established for each meal or food category. When MEs are used to assess the effectiveness and efficiency of an operation, the ratios must remain consistent for the entire school year for a valid assessment. Once ratios are established and MEs are computed, they can be used to allocate program costs, calculate meal costs, and determine meals per labor hour.

While there are no current research studies that establish ME factors as a national standard, Cross (1998) reported that based on findings from a NFSMI survey, some state agencies issue guidelines for programs in their states. Out of 29 states responding to the survey,

19 (66%) indicated they issued guidance to states for calculating MEs and 10 states (34%) indicated they did not issue guidelines. In states that do not issue guidance, school districts often formulate local calculations for MEs that are based on district procedures for allocating costs to the various meal services offered (Cater & Mann, 1997).

As shown in Table 4, school nutrition programs in this case study used different ratios to calculate MEs for all meal categories outside the student lunch. Three different breakfasts ME ratios were used in the four case study districts. Only District B and D equated the same number of breakfasts to a student lunch. There were similar variations for NSLP snacks and nonreimbursable food sales. District D used different ratios for nonreimbursable food sales according to grade levels. In that district, high school food sales netted a higher rate of MEs with a 2 to 1 ratio than did elementary sales with a 4 to 1 ratio.

Table 4

ME Ratios in Case Study Schools

Meal Service	District A	District B	District C	District D
Lunch	1 lunch = 1 ME ¹	1 lunch = 1 ME	1 lunch = 1 ME	1 lunch = 1 ME
Breakfast	3 breakfasts = 2 ME	2 breakfasts = 1 ME	4 breakfasts = 3 ME	2 breakfasts = 1 ME
Snack	3 snacks = 1 ME	2 snacks = 1 ME	4 snacks = 1 ME	4 snacks = 1 ME
Other food sales	Sales divided by free reimbursement + commodity value = 1 ME	Sales divided by \$2.00 = 1 ME	Sales divided by \$2.00 = 1 ME	Sales divided by: \$4.00 (Elem.) = 1 ME \$3.00 (M.S.) = 1 ME \$2.00 (H.S.) = 1 ME

¹A ME is the equivalent of 1 reimbursable student lunch

To effectively compare the NSLP snack service in the four districts, it was necessary for the NFSMI researcher to establish a consistent set of ME ratios for each type of meal service offered in the case study school districts. Since all of the districts were already categorizing meal service types as lunch, breakfast, snack, and other nonreimbursable food sales, no changes were

necessary in the meal type variables. However, diversity in the ME ratios used to equate meals and food sales to the student lunch necessitated the selection of a uniform set of ME ratios by the researcher to insure consistency in the ME calculations.

For purposes of this study, MEs were calculated using formulas from the NFSMI Financial Management Information System (FMIS) model (Cater, 2005). FMIS is a financial management resource developed by NFSMI to assist SNP directors in interpreting the financial outcomes of operational decision-making. The original version of FMIS was published in 2001 after NFSMI convened a national task force to determine the scope, content, and format for a uniform financial management system model. After a review and modifications by a second national task force, an updated version of FMIS was published in 2005. The ME conversion formulas used in the latest version of FMIS are as follows:

- Lunch – a lunch equals one ME
- Breakfast – three breakfast equals two ME (conversion factor $.66 \times$ breakfast served)
- NSLP Snacks – three snacks equals one ME
- Non reimbursable food sales – all non reimbursable food sales divided by the value of a free lunch reimbursement plus the commodity value per lunch equals one ME

Once all meal and food sales are converted to a standard unit of measurement, a unit cost for each ME can be determined. The ME unit cost can then be prorated to provide the costs of a breakfast or NSLP snack by using the appropriate ratio for each meal service. For example, if the cost per ME is \$2.25 and the ratio of three snacks is the equivalent of one ME, then the prorated cost of a snack is $\$2.25/3$ or 0.75 per snack.

Although it is expected that the overall dollars spent for snacks is negligible in comparison to other meal types, it is important to prorate a unit cost that represents all expenses related to the operational requirements of producing and serving NSLP snacks if schools districts

are to benchmark against internal goals or compare costs with other districts. To accomplish this goal, the researcher used the formulas and methods described in the FMIS model to determine a unit cost for producing and serving a NSLP snack in the case study districts. The procedures and methods used are outlined in the following steps.

Step One: Calculate Participation Totals. The first step toward identifying the full costs of a meal or ME is to record the participation of both students and adults according to each type of meal service. Table 5 provides the actual number of meals served to students participating in the lunch, breakfast, and snack programs along with the amount of sales for nonreimbursable food items in the case study districts during the 2004-05 school year.

Table 5

Annual Participation in Each School Meal Category

Meal Service Type	District A	District B	District C	District D
Lunch	557,680	537,666	899,751	2,525,699
Breakfast	210,798	122,899	498,586	621,609
Snacks	9,750	17,355	78,993	105,036
Sales of nonreimbursable food items	\$60,579	\$89,801	\$589,761	\$2,102,174

Step Two: Convert Meal Participation and Other Food Sales to Meal Equivalencies.

The researcher converted the actual number of meals and other food sales as shown in Table 5 to a standard ME by applying appropriate FMIS conversion factors to equate meals and food sales to a reimbursable student lunch. Table 6 details the calculations and resulting MEs for each meal service offered in the case study districts.

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Table 6

MEs for Each Meal Service Offered

Meal Service Type	District A	District B	District C	District D
¹ Lunch (1 = 1)	557,680	537,666	899,751	2,525,699
² Breakfast (3 = 2)	139,127	81,113	329,067	410,262
³ Snack (3 = 1)	3,250	5,785	26,331	35,012
⁴ Non reimbursable food sales (Free reimbursement + commodity value/ food sales)	25,110	37,223	244,461	871,367
Total MEs	725,167	661,787	1,499,610	3,842,340

¹Lunch is the standard used for all meal equivalents; therefore one lunch is one ME.

²Breakfast meal equivalents were calculated by multiplying a conversion factor of .66 (3 breakfast = 2 lunches) x the total number of lunches served.

³Snack meal equivalents were calculated using 3 snacks = 1 lunch (Total lunches served divided by 3)

⁴Non reimbursable sales were converted to meal equivalents by dividing the total amount of sales by the current reimbursement rate for free meals (\$2.24) plus the current rate allowed per meal for commodities (0.1725).

Step Three: Determine NSLP Snack Cost Based on Prorated Share of ME Costs. The

final step in calculating the average prorated costs of a NSLP snack in the case study was to first divide the SNP annual expenditures by the total MEs served to obtain the unit cost of one ME. The ME unit cost was then divided by the snack ratio of three (3 snacks = 1 lunch) to arrive at the prorated cost of producing and serving a NSLP snack. As shown in Table 7, the production and service costs for a reimbursable snack ranged from approximately 0.71 in District A to 0.77 (rounded) in District B. The prorated cost of serving a NSLP snack in District C and District D were similar to the other districts.

Table 7

Prorated Costs of NSLP Snacks in the Four Case Study Districts

Variables	District A	District B	District C	District D
Total MEs	725,167	661,787	1,499,610	3,842,340
Annual expenditures	\$1,659,348	\$1,600,765	\$3,426,140	\$8,863,542
Commodity value	111,938	78,880	168,074	107,252
Expenditures less commodity value	\$1,547,410	\$1,521,885	\$3,258,066	\$8,756,290

¹Total annual expenditures divided by total MEs

(table continues)

²Per ME cost divided by 3 (based on 3 snacks equals one lunch ratio)

Table 7 (continued)

Prorated Costs of NSLP Snacks in the Four Case Study Districts

Variables	District A	District B	District C	District D
ME cost ¹	\$2.1338	\$2.2996	\$2.1726	\$2.2789
Prorated share of expenditures for snack cost ²	\$0.7113	\$0.7665	\$0.7242	\$0.7596

³Total annual expenditures divided by total MEs

⁴Per ME cost divided by 3 (based on 3 snacks equals one lunch ratio)

It should be noted that these costs do not include the value of commodities. Because school districts in this study rarely used commodities in the NSLP snack program, calculating the cost of the snacks without commodity value is likely a closer representation of the true snack costs. A school district that seldom or never uses commodities in the NSLP snack service receives no revenue benefits from the value of commodities, nor do they expend value, therefore the value of commodities should be excluded in most cases when calculating the prorated cost of a NSLP snack.

Alternative Calculation for Determining the Prorated Cost of a NSLP Snack

The cost of producing and serving a NSLP snack can also be calculated as a percentage of total MEs served. While the results are generally the same as in the previous method, depending upon how the districts round numbers, this calculation provides a picture of the distribution of actual dollar expenditures for the snack service to afterschool care programs. Table 8 provides an example of how the costs of NSLP snacks can be calculated based on the percentage of meal service types. The snack percentage of total MEs is applied to expenditures to get an actual prorated dollar amount spent on snacks. The dollar amount is then divided by the actual number of NSLP snacks served to obtain the per snack costs.

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Table 8

Calculating the cost of a NSLP Snack Served in Afterschool Care Programs

Variables	District A	District B	District C	District D
a. Total MEs	725,167	661,787	1,499,610	3,842,340
b. NSLP snack MEs	3,250	5,785	26,331	35,012
c. NSLP snack % of MEs ¹	.004482	.008741	.017559	.009112
d. Expenditures less commodity value	\$1,547,410	\$1,521,885	\$3,258,066	\$8,756,290
e. Prorated expenditures for snacks ²	\$6,935	\$13,303	\$57,208	\$79,787
f. Total actual NSLP snacks served	9,750	17,355	78,993	105,036
g. Cost per snack serving ³	\$0.7113	\$0.7665	\$0.7242	\$0.7596

¹Divide the snack MEs (b) by the total MEs (a) to obtain the percent of meal service make-up (c).

²Multiply the NSLP snack percentage of total MEs (c) x expenditures (less commodities) (d) to obtain the prorated dollar amount for snack expenditures (e).

³Divide the total NSLP snack expenditures (e) by the actual number of NSLP snacks (f) served to arrive at a prorated snack cost (g).

When using this method for calculating the costs per NSLP snack, one can see that the actual prorated dollars spent for snack service in afterschool programs ranged from \$6,935 in the smallest district to \$79,787 in the largest district. As in the previous calculation, the ratio used to equate snacks to a student lunch is a key factor in the outcome of the computation. Should a school district use four snacks as the equivalent of one student lunch instead of three snacks equals one lunch, the results would be significantly different.

Calculating Food and Labor Costs for the NSLP Snack Service

SNP directors participating in the case study research tracked food costs for the NSLP snack program using bid prices to pre-cost snack menu items. Monthly menu planning worksheets were used to document that snacks menus complied with the USDA meal pattern and to compute daily food costs based on the price of components served. Types of menu items purchased and the cost of the items varied from district to district. Food items such as cookies, snack crackers, chips, fruit juice, milk, and certain types of fresh fruit were purchased in all districts. Snack items such as cereal, muffins, pop tarts and yogurt were purchased in some

Cost Variables Associated with Producing and Serving a Reimbursable National School Lunch Program
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districts in the case study, but not in others. Examples of selected menu items and the unit cost of those items are shown in Table 9.

Table 9

Cost of Selected NSLP Snack Menu Items in Case Study Districts

Menu Item	District A	District B	District C	District D
Animal crackers	0.13	—	0.1050	0.11
Saltine crackers/sliced cheese	—	0.24	—	0.11
Cereal	0.28	—	—	0.22
Cereal bar/Granola	—	—	—	.26
Chips	Baked 0.11	Tortilla 0.15	Doritos 0.1739	Taco 0.12
Cheetos	—	—	0.1731	0.17
Cookie (variety served)	(Grandma) 0.23	0.15	(Vanilla) 0.1459	(Sugar) 0.05
Munchies	—	—	.1500	.17
Nab type cracker snack	0.22	0.24	0.13	0.12
Goldfish Grahams	0.11	—	0.11	0.11
Cinnamania Grahams	—	—	—	0.27
Muffins	—	0.25	0.22	0.23
Pop Tarts	0.14	—	0.15	0.20
Pretzel (soft)	—	0.15	0.18	0.17
Rice Krispy Treats	—	0.28	—	0.33
Elf Cookie	—	—	0.1459	0.17
Assorted pudding	—	.20	—	—
Uncrustables	0.36	—	—	0.41
Cheese pizza (1/2 slice)	—	0.25	—	0.20
Jello	—	0.15	—	—
Fresh fruit	(Grapes) 0.17	(Banana) 0.20	—	(Apple) 0.20
Yogurt	—	0.31	—	0.27
Blended fruit juice	0.14	0.10	0.1664	0.20
Orange juice	—	—	0.1624	0.19
Milk	0.18	0.15	—	0.1770

Factors that influenced the overall food cost of serving a NSLP snack in the afterschool care programs were the type of snack food purchased and the menu itself. In the case study school districts, the types of items served on the menu varied as well as the actual number of menu items served. Districts C and D served only two NSLP snack components per day and students were required to take both items. District B offered three components and encouraged students to take all three which could account for a higher per snack cost serving than the other

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three districts. In District A, three snack components were offered three days during the week and two components served the other two days. As a rule, cycle menus were used in all district, however, menus were modified as necessary to take advantage of lower prices for certain snack components. Table 10 indicates the actual daily food costs of snacks served for one month as provided by the menu worksheets from each district.

Table 10

Daily Food Costs for a NSLP Snack in the Case Study Districts

20-Day Menu	District A	District B	District C	District D
Day 1	0.25	0.39	0.30	0.41
Day 2	0.45	0.44	0.38	0.40
Day 3	0.54	0.49	0.33	0.35
Day 4	0.25	0.49	0.30	0.38
Day 5	0.55	0.62	0.29	0.36
Day 6	0.25	0.58	0.35	0.40
Day 7	0.45	0.59	0.32	0.35
Day 8	0.54	0.50	0.34	0.41
Day 9	0.25	0.61	0.30	0.30
Day 10	0.55	0.43	0.30	0.44
Day 11	0.25	0.37	0.30	0.40
Day 12	0.45	0.58	0.34	0.39
Day 13	0.54	0.70	0.30	0.43
Day 14	0.25	0.59	0.34	0.30
Day 15	0.55	0.50	0.34	0.29
Day 16	0.25	0.50	0.27	0.40
Day 17	0.45	0.59	0.30	0.33
Day 18	0.54	0.61	0.31	0.44
Day 19	0.25	0.58	0.31	0.54
Day 20	0.55	0.44	0.31	0.31
Four-week average	\$0.4080	\$0.5300	\$0.3165	\$0.3815

There seemed to be little relationship between the prorated total cost to serve a NSLP snack based on MEs and the food costs reported by districts to produce a snack. While District B had the highest per snack costs (\$0.7665) and the highest food cost (\$0.53), District A had the lowest per snack costs (\$0.7113), but the second highest food cost (\$0.4080). The overall food cost per snack averaged \$0.4090 across the four case study districts. This average cost, though

less, is similar to findings by the School Nutrition Association (SNA) (2004, July). In an online questionnaire sent to approximately 4,617 school district directors, SNA reported a net average food cost per snack of \$0.44 based on survey responses.

Because labor costs, along with food purchases, were the major categories of expenditures in the case study districts, it was important to investigate the impact of labor requirements on implementing the NLSP snack service in afterschool care programs. In an attempt to identify factors influencing the cost of labor, the NFSMI researcher asked the case study districts to provide an approximate number of staff hours devoted to the NSLP program weekly along with the hourly rate for wages and benefits. The researcher found that basically none of the case study school districts tracked or documented time and effort for responsibilities to the NSLP snack service and only one district assigned a specific wage and time factor to the preparation and service of snacks. The participating SNP directors indicated that due to the small size of the program, tracking time and costs for labor was not feasible. They concurred that costs not covered by the snack reimbursement would be insignificant and could be absorbed by the school district's NSLP. Without the requested data, it was not possible to compute labor as a percent of the total cost of producing and serving a NSLP snack in this study.

In lieu of calculating labor costs, the researcher calculated the difference between the 2004-05 reimbursement received for free snacks and the monthly average food costs from Table 10 to determine funds available for labor and all other expenses related to the snack service. This type calculation is beneficial only to the extent that school districts can use the results to evaluate overall financial goals for the NSLP snack service. The reader should be reminded that using this method assumes that cycle menus are used and that food costs remain stable for the year. The number of snack components served and the costs of each component can dramatically

affect the amount of food dollars needed to produce and serve NSLP snacks to afterschool care programs.

To calculate the revenue available for costs other than food in each district, the researcher first subtracted food costs from the reimbursement for a free snack, and then multiplied the difference by the actual number of snacks served in 2004-05 (Table 11). The resulting total dollar amount was then divided by the number of days snacks were served in the district to determine the daily revenue available. The available revenue was divided equally among afterschool care program sites.

Table 11

Calculating Available Revenue for Costs Other than Food

Case Study District	2004-05 Reimbursement rate minus average snack food costs	Number snacks served x portion of snack reimbursement available for costs other than food	Revenue available per site for all other costs per day.
District A 133 days 3 sites	$\$0.61 - \$0.4080 = \$0.2020$	$9,750 \times \$0.2020 = \1969.50	$\$1970/133/3 \text{ sites} = \4.94
District B 168 days 6 sites	$\$0.61 - \$0.53 = \$0.0800$	$17,355 \times \$0.0800 = \1388.40	$\$1388/168/6 \text{ sites} = \1.38
District C 178 days 16 sites	$\$0.61 - \$0.3165 = \$0.2935$	$78,993 \times \$0.2935 = \$23,184$	$\$23,184/178/16 = \8.14
District D 140 days 18 sites	$\$0.61 - \$0.3815 = \$0.2285$	$10,5036 \times \$0.2285 = \$24,000$	$\$24,000/140/18 = \9.52

The cost for food in the case study districts absorbed most of the reimbursement available for a NSLP snack. The exception was in District C where approximately 52% of the reimbursement revenue was spend for food, leaving 48% for all other costs. If one looks at dollar amounts, the daily revenue available for all costs other than food ranged from \$1.38 per site in District B to \$9.52 per site in District D.

A limitation to this computation is that the actual amount of dollars required may vary significantly from site to site. The calculations presented here are averages useful only as guidelines to SNP directors for planning program expenditures. They may or may not have value as comparisons within districts or with other outside districts. For example, when considering labor and other financial needs, factors such as the number of students served at any given site and differing labor requirements from district to district must be taken into account. Cater (2003) reported that afterschool care programs often supply all labor to serve NSLP snacks at the program site and the SNP is responsible only for providing the snack.

If the objective is to cover only food costs with the snack reimbursement funds, then more food choices can be offered to afterschool care programs. If districts decide to allocate the snack reimbursement to labor, supplies, and other costs, a lower limit must be set for food costs.

Considerations that Impact the Cost of Producing and Serving a NSLP Snack

Student preference plays an important role in planning a cost effective NSLP snack service to afterschool care programs. Menu planners must consider student likes and dislikes of snack items and at the same time provide nutritious snacks that meet USDA requirements. Some SNP directors in the case study districts indicated that it might be helpful for industry to provide more variety in the products they offered for the NSLP snack service. Rainville and Cater (2002) found similar concerns in focus group research to determine barriers to successful implementation of the NSLP snack service in afterschool care programs.

In order to determine the types of snacks preferred by students in the case study research, SNP directors were asked to provide the student's six top favorite snacks in their district in order of preference. As shown in Table 12, preferences differed among districts and no one item made the list in all four districts. Various types of chips and snack crackers were listed as favorites in

three of the four case study districts. Cereal and cookies were listed in two districts. While all SNP directors participating in the study indicated that they considered student preferences when planning snack menus, they agreed that the cost of the menu item was also an important factor. More expensive items were occasionally added to the menu to give students more variety and to meet preference demands, however school districts in this study worked to keep food cost factors low.

Table 12

Preferred Snack Items

District A	District B	District C	District D
Baked chips	Tortilla Chips	Munchies	Bag snacks
Grandma cookies	Saltine crackers/cheese	Cheetos	Cereal
Animal crackers	Rice Krispy Treats	Vanilla cookie	Cereal bar/Granola
Goldfish crackers	Snack Mix/Trail Mix	Pop-Tarts	Yogurt
Uncrustables	Jello	Doritos chips	Goldfish crackers
Cereal	Soft pretzel	Elf cookie	Cinnamania Graham

Another important consideration in analyzing the costs of the NSLP snack service is the number of snacks ordered as compared to the number of snacks served and whether or not waste occurs due to excessive un-served snacks. It is important for SNPs who are responsible for documentation to implement procedures that limit excessive ordering and the need to discard un-served snacks. As shown in Table 13, the duties for ordering, tracking, and storing snacks were shared between the SNP staff and afterschool care program staff in all of the case study districts. In three of the four school districts, staff members from the afterschool programs were responsible for determining the number of snacks needed. Providing storage for un-served snacks was the responsibility of the SNP staff in all four case study districts.

Table 13

Ordering and Tracking NSLP Snacks

Procedures	District A	District B	District C	District D
Determines snacks quantities to order	Afterschool program coordinator	Afterschool program coordinator	Afterschool teacher	Site Manager
How order is determined	Standing order based on daily attendance	Standing order based on daily attendance	Forecast daily based on attendance	Forecast daily based on attendance
Tracks un-served snacks	Site Manager	Foodservice worker	Afterschool coordinator	Site Manager
Provides storage for un-served snacks	Foodservice Worker	Site Manager	Site Manager	Site Manager

During direct observation of the NSLP snack service in the case study districts, the NFSMI researcher observed there was little or no waste in the NSLP snack services to the afterschool care programs. Unserved NSLP snacks were counted and returned to inventory whenever possible. In instances where the afterschool care program paid for a standing snack order, the unserved snacks were offered to students as seconds. No snacks were provided for staff members.

Conclusions and Recommendations

Results from this study indicate that the school districts participating in the case study research provided the majority of NSLP snacks to afterschool programs located in sites that qualified as “eligible” for all free snacks. In the remaining sites that were not “area eligible” for all free snacks, other grants or the school district provided funding at the free reimbursement rate for children who did not qualify for free snacks. All SNP directors in the case study indicated that the reimbursement rate was sufficient to cover the food costs for serving the NSLP snack in their respective districts and that other costs were absorbed as needed.

It is important to note that when labor and other costs are considered, current snack reimbursements may not be sufficient to cover the total costs of producing and serving a NSLP snack. During the case study interviews, SNP directors acknowledged they were aware that the USDA reimbursement might not be sufficient to cover the total costs for food, labor, and administrative requirements. However, the directors indicated that they considered serving NSLP snacks to afterschool care programs a goodwill service to the community and did not necessarily expect to break-even or generate extra revenue in the snack service. Most of the case study directors suggested that costs other than food were minimal and could be absorbed without detriment to the SNP.

The findings from this study suggest the need for more financial analysis of the NSLP snack service and the development of resources to guide the analysis. SNP directors could benefit from a handbook with written procedures, recording forms, and other pertinent materials related to implementing an efficient NSLP service in afterschool care programs.

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Sage Publications.

Appendix A

National School Lunch Program Afterschool Snack Cost and Accountability Study
Data Collection Instrument

**National School Lunch Program Afterschool Snack Cost and Accountability Study
Data Collection Instrument
(May be completed by Foodservice Department)**

School District Profile

A. District Information

School District: _____
 School Address: _____ City, State, Zip: _____
 Contact Person: _____ Title: _____
 Telephone: _____ Fax: _____
 Email: _____
 District Student Enrollment: _____ District Average Daily Attendance: _____
 Number of Schools in District: Elementary Schools _____ Middle/Junior High _____
 High Schools _____
 Number of students currently approved for free meal benefits: _____
 Number of students currently approved for reduced price meal benefits: _____

B. School Meals Participation

Provide total meals served in each category for the *school year 2004-05*.

Meal Category	Free	Reduced	Paid	Total	# Days Served	*ADP
Student Breakfast						
Student Lunch						
Adult Breakfast						
Adult Lunch						
Afterschool NSLP Snack						

*ADP – Average Daily Participation

C. School District Financial Information

Revenue	2004-05 Totals	Expenditures	2004-05 Totals
Student Meal Sales		Salaries	
Adult Meals Sales		Benefits	
Non reimbursable Food Sales		Purchased Food	
State Funds		Supplies	
Federal Funds		Capital Equipment	
Miscellaneous (all other)		Overhead (all other)	
Commodity Value*		Commodity Value	
Total Revenue Received		Total Expenditures	

*For purposes of this study, the value of commodities received as revenue should equal the value of commodities used (expended).

D. Snack Participation

Please provide the total number of reimbursable snacks served in the NSLP during the 2004-2005 school years. If possible, please provide this information separately for each snack site. *[Insert available numbers in each cell]*

Snack Eligibility Category						
2004-2005		Area Eligible		Non Area Eligible		
Elementary School Sites		All Free		Paid	Reduced Price	Free
Middle School Sites						
High School Sites						
Total						

If more lines are needed, attach a sheet with sites listed.

E. NSLP Snack Service Revenue

1. What is the price per snack for Paid Students? _____
 Reduced-Price Students? _____
 (*Note – insert N/A if all sites are free)

2. Provide revenue earned from the NSLP snack service for 2004-2005. Complete cells as appropriate. If the information is not available, please indicate the reason under “comments.”

<u>Snack Revenue Source</u>	Revenue Amount	Check Here if Revenue is Reported as Part of Another Program (such as the NSLP)	Comments
Area Eligible School Sites			
USDA Free Reimbursement (Snacks)			
Other Grant Funds (specific to afterschool programs)			
Adults (snacks only)			
Other Funds for snacks; Specify			
Non-eligible Area School Sites			
Student Full Price			
Student Reduced Price			
USDA Paid Reimbursement			
USDA Reduced Price Reimbursement			
USDA Free Reimbursement			
State Supplement Funds			
Other Grant Funds specifically for Afterschool Care Programs			
Adults (snacks only)			
Other Funds; Specify			
Total			

F. Snack Costs – Pre-prepared

Worksheet for Beverages and Pre-prepared Snack Components

Using the worksheet and example below, calculate the cost per serving of beverages, pre-prepared foods and other non-recipe items served on a regular basis in the NSLP snack service. Repeat items if served in different portion sizes.

Menu Items	Serving Size	Size of Purchase Unit	Servings per Unit Purchased	Cost per Unit Purchased	Cost per Serving
Example: Whole Milk	8 ounces				.1750
Frozen Orange Juice	6 ounces	Case	100	\$8.00	.0800

Attach extra sheets as needed

H. Snack Service Labor Cost – (Complete for Each Site)

Site Name _____

1. IF POSSIBLE, please provide the following information regarding labor costs for implementation of the NSLP Snack Service in Afterschool Care Programs.

Position	Monthly Salary Staff			Hourly Wage Staff		
	Salary	% of time on snack service*	Labor cost	Wages per hour	No. hours per week (snacks)	Labor cost
Central Office						
Administrative Central Office						
Secretary/Accounting Central Office						
Other Central office (specify)						
Snack Site Staff						
Site Manager						
School FS Staff						
School FS Staff						
Other (Specify)						
Total						

* If the percent of time spent on snack service is not calculated, hold this worksheet until the interview.

2. What is the current fringe benefit rate for full-time employees of this school district? The fringe rate may be a percentage of base pay, a dollar cost per person, or a combination of these factors.

- a. Total fringe benefits as percentage of base pay: _____
- b. Average fringe benefits costs per person-month _____

3. How is time and effort for responsibilities to the snack service tracked and documented?

- a. time studies
- b. labor allocation rates
- c. percentage of meal equivalents
- d. other; specify _____
Please provide examples of time and effort documentation.
- e. time and effort devoted to snack service is not tracked

I. Supply and Overhead Costs

Please share the method or formula for calculating the following other costs associated with the NSLP snack service. If the category listed is not a cost to the NSLP program, indicate with N/A

Item	Method or Formula
Supplies (napkins, straws, cleaning items, disposables)	
Kitchen supplies (trays/pans for snack transport)	
Refrigeration equipment (used for holding juice/milk until serving)	
Transportation of snacks to snack sites (delivery/vehicle expense)	
Overhead (maintenance, pest control, custodial, postage, printing, phone)	
Administrative Travel (meetings specific to snack service, supervisions, reviews)	
Other; specify	

General Information

A. Meal Equivalents

How are meal equivalents determined for each of the following meal services? Please provide formulas.

1. Breakfast: _____
2. Afterschool Snack: _____
3. Nonreimbursable Food Sales: _____

B. Snack Service and Facilities (Child Nutrition Director)

1. What hours do the afterschool care programs operate? From _____ to _____.
2. Approximately what time is the afterschool snack served? _____ P.M.
3. How many sites are "area eligible" for all free snacks? _____.
4. How many sites are NOT eligible for all free snacks? _____.
5. Where are snacks most often served?
 - a. School Dining Room
 - b. Classroom
 - c. Outside Patio
 - d. Other; specify _____

6. Who provides the day-to-day management of the afterschool care program?
 - a. school district
 - b. other organization; specify _____
7. Are facilities for snack service adequate at all school sites? If not, specify which sites are adequate and which are inadequate.

Direct Observation

Observe the following procedures during the NSLP snack service and provide a brief description of each procedure.

1. Recording point of service meal counts
2. Recording daily attendance of children in the Afterschool Care Program
3. Documenting compliance with meal pattern requirements
4. Reconciling reimbursable snacks served with snacks ordered
5. Ensuring food safety during transportation and storage

Appendix B

Sample Cover Letters and Forms

Sample Cover Letter to the School District Superintendent/Principal

Date

Dear (school official)

The National Food Service Management Institute, Applied Research Division is conducting a case study research project to identify best practices and effective resources that lead to increased accountability in the National School Lunch Program (NSLP) snack service offered to children enrolled in the Afterschool Care Program. Your school district was recently identified by the Child Nutrition Program state agency as having an exemplary NSLP snack service. We discussed the research project with your school foodservice administrator, ..(name).. and believe including your school district in our snack study will contribute to the success of the research project. With your permission we propose a site visit to the district on ... (date). During our visit we would like to review documents and records relevant to the afterschool snack service, observe the snack service operation, and interview the school foodservice director and afterschool program coordinator. Only records and documents that are publicly available will be requested for review. We anticipate that it will take approximately one full day in your district to observe the snack service and collect data.

The information from the case study will contribute to the general knowledge of issues related to characteristics of the managerial process in offering the NSLP snack service to Afterschool Care Programs. Identification of best practices and meaningful resources can assist district officials in compliance with federal regulations and increased accountability in the NSLP snack service.

Your support of this study is important and we want to assure you that your school district information will be kept in strictest confidence. Information will be recorded in such a manner that sites cannot be identified directly or through identifiers linked to sites. Participation in this project is completely voluntary and participants may withdraw from the study at any time.

This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, Box 5147, Hattiesburg, MS 39406, (601) 266-6820.

Thank you for your help.

Sincerely,

Jerry B. Cater, PhD
Research Scientist
601-266-5773
jerry.cater@usm.edu

Sample Cover Letter to the School Foodservice Administrator

Date

Dear

We are pleased that you have expressed an interest in participating in a research study to identify best practices and effective resources that lead to accountability in the National School Lunch Program (NSLP) snack services offered to children enrolled in the Afterschool Care Program. As we discussed with you by telephone, we believe including your program in our snack study will contribute to the success of the research project. The information from the research will contribute to the general knowledge of best practices that can be used to assist school foodservice administrators and other school officials in maintaining compliance with federal regulations and increasing accountability in the NSLP snack service. We anticipate that it will take approximately one full day in your district to observe the snack service and collect data.

During our visit we would like to review the following documents and records relevant to implementing the NSLP snack service in the Afterschool Care Program. We are limiting our request to documents that are publicly available. The documents/records requested are:

- One month of snack menus
- Snack service meal counts (actual or meal count form)
- Snack service production records
- Documentation for each day of a child's attendance
- Documentation of compliance with meal pattern requirements
- Sample of a "claim for reimbursement" report
- Temperature logs for refrigeration units used to hold snack items until serving
- Financial records relevant to production and service of NSLP snacks

To facilitate the research process, we are enclosing a copy of the data collection instrument to assist you in selecting the appropriate information for our visit. Feel free to complete any part or all of the instrument prior to our arrival.

Your support of this study is important and we want to assure you that your school information will be kept in strictest confidence. Information will be recorded in such a manner that sites cannot be identified directly or through identifiers linked to sites. Participation in this project is completely voluntary and participants may withdraw from the study at any time.

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Sincerely,

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Tools and Sample Forms
for the
Afterschool Care Program
NSLP Snack Service

Sample forms for recording production, meal counts, and attendance are included.

The following sample tools and forms are provided to assist school nutrition directors in implementing a NSLP snack service to afterschool care programs. State agencies should be contacted to verify information in these tools conform to regulation requirements.

- A. Review Checklist
- B. Sample Production Record
- C. Student Sign-in Sheet
- D. Daily Attendance Record
- E. Combined Monthly Meal Count and Attendance Record
- F. Weekly Snack Count Record
- G. Daily Snack Count for “Area Eligible” Site

A: Afterschool Care Programs Review Checklist for Implementing a NSLP Snack Service

School/Site: _____ Date: _____

Name of afterschool care program coordinator/lead teacher _____

Contact phone number for afterschool care program _____

Site Eligibility _____ Days Snack Service Operates (circle) M T W T F

Student enrollment in Afterschool Care Program _____

Average number of snacks ordered per day _____

A. Site Accountability	YES	NO	Comment
1. Do afterschool care programs include education or enrichment activities in organized, structured, and supervised environments?			
2. Are sites established as either "area eligible" or "non-area eligible?"			
3. If all snacks are served free, is there documentation that the school has at least 50% of the enrolled students eligible for free or reduced price meals?			
4. If sites are not eligible for all free, are free and reduced price applications maintained for all students for whom free and reduced meals are claimed?			
5. Do all children have equal access to services and facilities at the site regardless of the child's race, color, national origin, sex, age, or disability?			
6. Are reimbursable NSLP snacks served only during the regular school year? (Schools may not receive reimbursement for snacks served on weekends, holidays, and vacation.)			
7. Are reimbursable NSLP snacks served only after the school day has ended?			
8. Are afterschool care program sponsors/coordinators provided information/training to support the administrative requirements for accountability in the NSLP snack service?			
9. Is the afterschool care program site claiming snacks served only to students 18 and under, to students who turned 19 during the school year, or to mentally and physically disabled students?			
10. Is there a "Justice for All" poster on display in the meal service area?			

B. Attendance and Meal Count Documentation	YES	NO	Comment
11. Is the master list of enrolled children complete and current? (non-eligible site)			
12. Are daily sign-in sheets/attendance records completed and maintained on file?			
13. Are accurate snack counts taken at the site on a daily basis?			
14. Do attendance reports and daily snack counts support the claim for snack reimbursement?			
15. Do schools claim reimbursement for one snack, per child, per day?			
16. Are snack records and meal counts sent to the school food authority on or before due date for Claim preparation?			
C. Snack Menu and Production Records			
17. Do all NSLP snack menus consistently meet the minimum meal pattern requirements?			
18. Is there a trained person checking snacks as they are served to ensure students are receiving at least 2 components?			
19. Are production records completely daily?			
20. Do records reflect that NSLP snack menu items meet serving size requirements?			
21. Are menus retained on file?			
22. Is feedback regarding student preferences to the snack menu communicated to the menu planners?			
D. Other			
23. Are food safety guidelines followed in the production and serving of NSLP snacks?			
24. Are educational activities and materials provided to afterschool program coordinators/teachers concerning the nutritional benefits of NSLP snacks?			
25. Is the afterschool care program NSLP snack service reviewed by the school food authority as required?			

School districts should address any questions that are marked with "no."

B: Afterschool Snack Program Sample Production Record

**Two of the four components must be served.
(Serving size based on requirements for children 6 to 12 years)**

School Site: _____ Date _____

Component	Snack Menu Item	Portion Size	Actual Quantity prepared	# units served	# un-served items
Vegetable/Fruit ¾ Cup					
Bread/Alternate 1 serving					
Meat/Alternate 1 ounce					
Milk 1 cup					
Total snacks prepared:			Total snacks served:		

Juice may not be served when milk is served as the only other component.

One snack per child per day may be claimed for reimbursement.

C: Afterschool Care Snack Service Sign-In Sheet*

School/Site: _____ Date: _____ Total Attendance Count: _____

*(For afterschool care programs that prefer having students sign in rather than maintaining an attendance roster)

1.	21.
2.	22.
3.	23.
4.	24.
5.	25.
6.	26.
7.	27.
8.	28.
9.	29.
10.	30.
11.	31.
12.	32.
13.	33.
14.	34.
15.	35.
16.	36.
17.	37.
18.	38.
19.	39.
20.	40.

D: Daily Attendance Roster*
Afterschool Care Program Snack Service

School/Site: _____ Dates: _____

*(Record the names of children enrolled in the afterschool care program. Write P if present and A if absent for each day of the week)

Name of child enrolled in afterschool care	Mon.	Tues.	Wed.	Thurs.	Fri.
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
Totals					

Signature _____
 Afterschool care program official

**G: Daily Snack Count Record for “Area Eligible” Sites
Afterschool Care Program NSLP Snack Service**

Date: _____ Site: _____ Total Snacks Prepared: _____

Snacks Served to Children: Cross off number as each student receives a snack.									
1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100
Snacks Served: _____									

Snacks Served to Children: Cross off number as each student receives a snack.									
101	111	121	131	141	151	161	171	181	191
102	112	122	132	142	152	162	172	182	192
103	113	123	133	143	153	163	173	183	193
104	114	124	134	144	154	164	174	184	194
105	115	125	135	145	155	165	175	185	195
106	116	126	136	146	156	166	176	186	196
107	117	127	137	147	157	167	177	187	197
108	118	128	138	148	158	168	178	188	198
109	119	129	139	149	159	169	179	189	199
110	120	130	140	150	160	170	180	190	200
Snacks Served: _____									

Total Snacks Served: _____ **Signature:** _____



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