

FNS Research Corner

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Please note that this study was published before the implementation of Healthy, Hunger-Free Kids Act of 2010, which went into effect during the 2012-13 school year, and its provision for Smart Snacks Nutrition Standards for Competitive Food in Schools, implemented during the 2014-15 school year. As such, certain research may not be relevant today.

The FNS Research Corner provides a continuing series of summaries of recently completed and current research conducted by the Food and Nutrition Service (FNS) in the area of child nutrition. For further information, contact the Office of Research, Nutrition, and Analysis (ORNA) at (703) 305-2117. Links to published studies and reports as well as descriptions of ongoing studies conducted by ORNA are available from the FNS Internet web site at <http://www.fns.usda.gov/oane/>

Recently Completed Research

NSLP/SBP ACCESS, PARTICIPATION, ELIGIBILITY, AND CERTIFICATION (APEC) STUDY – ERRONEOUS PAYMENTS IN THE NSLP AND SBP

Background:

The National School Lunch Program (NSLP) and School Breakfast Program (SBP) serve about 6.6 billion meals to children annually. Some portion of each meal is subsidized by the Federal government regardless of household income. The food consumed at these meals makes up an important component of these children's overall nutritional intake. In recent years, concerns have grown about the accuracy of the programs' system for certifying or establishing eligibility for free or reduced-price meals. Several data sources suggest that a significant number of ineligible children are receiving free or reduced-price meals. Payment errors can also result from other aspects of program operations, including the process of tracking, counting, and reporting the meals served at different reimbursement levels.

The Improper Payments Information Act of 2002 requires Federal agencies to report annually on the extent of erroneous payments in their programs, including overpayments (payments that were made improperly or exceeded the proper level) and underpayments (payments that were denied improperly or were lower than the proper level). This study provides the first reliable national estimates of erroneous payments made to school districts for the NSLP and SBP. These findings apply to SY 2005-06.

Data and Methods:

The study used a multistage-clustered sample design. Researchers selected representative samples of 87 school districts, 266 schools, and about 7,800 free or reduced-price meal applicants and directly certified students participating in NSLP/SBP in the contiguous United States during SY 2005-06. Over 3,400 in-person surveys were conducted to collect household income and household size information.

The data sources provided information that was used to examine two types of erroneous payments: (1) certification errors – mistakes made in the determination of a student's free, reduced-price, or paid meal status; and (2) non-certification errors – operational mistakes in determining whether a

meal meets the requirements for reimbursement or mistakes in reporting the number of reimbursable meals.

Key Findings:

- A combined total of about \$1.8 billion in payment errors (both overpayments and underpayments) were made in school meal programs in SY 2005-06 with a net loss of about \$1 billion. Certification errors resulted in \$935 million in erroneous payments and about \$860 million was due to non-certification operational errors.
- Erroneous payments due to certification error accounted for about \$759 million for NSLP (9.4 percent of total NSLP spending) and \$177 million for SBP (9.1 percent of SBP reimbursements).
- Slightly more than one in five students were certified inaccurately or erroneously denied meal benefits. Among all certified students and denied applicants, 22 percent were certified in error, with 15 percent receiving an improperly high benefit level (overcertification) and 7 percent receiving an improperly low benefit level (undercertification).
- Errors by applicants in reporting their household income and size (22 percent of the applicants) were nearly three times more common than administrative errors by schools (8 percent of applicants).
- Erroneous payments (overpayments and underpayments) due to causes other than certification error represented \$555 million for NSLP (7 percent of total NSLP spending) and \$306 million for SBP (16 percent of SBP reimbursements). Cashier error (e.g., counting nonreimbursable meals as reimbursable) represented more than one-third of non-certification error in NSLP and nearly two-thirds of non-certification error in SBP. Aggregation errors (e.g., mistakes in adding up meal counts from individual points-of-sale, schools, or districts) accounted for the remaining non-certification error.

Conclusions:

Erroneous payments in the school meal programs received extensive consideration in the development of the Child Nutrition and WIC Reauthorization Act of 2004 (Public Law 108-265). The first-ever national estimate shows that these continue to be a problem, with SY 2005-06 certification error estimated at \$935 million and non-certification error estimated at \$860 million. However, there is no simple solution. Improving accuracy must not compromise access for low-income families since this would undermine the programs' goals and nutritional benefits. Placing additional requirements on schools may discourage some from participating in the future. Increasing accuracy will also likely be resource-intensive. The cost required to improve accuracy must not be greater than achieved savings. The report provides USDA with information that will support ongoing extensive efforts and facilitate increased action in cooperation with Congress and program partners to improve program accountability.

THE SCHOOL NUTRITION DIETARY ASSESSMENT STUDY III (SNDA-III)

Background:

As part of the Agency's periodic assessment of the nutritional effects of school meals, this study provides policy makers with updated information on the school meals programs, the school environment that affects the programs, the food and nutrient content of school meals and the contributions of school meals to students' diets. The last SNDA study published in 2001 only examined the nutritional quality of meals offered and served.

Data and Methods:

Data were collected from school officials, students, and parents of students in a nationally representative sample of 398 schools in 129 school districts during the spring of School Year (SY) 2004-2005. SFA directors and school food managers were asked to provide data on food service characteristics and meals offered. Descriptive information about district-level operations and meal service characteristics were collected through telephone interviews with SFA directors. Food service managers in sampled schools reported information on foods offered at all breakfasts and lunches during a specified five-day target week. In addition, data on the types of food offered on an a la carte

basis for one day of the target week was collected. A random sample of about 2,400 students enrolled in 300 of the participating schools was selected and interviewed about their food consumption over a 24-hour period.

Key Findings:

- In SY 2004-05, most schools (over 85 percent) offered school lunches that met standards for many nutrients that contribute to healthy diets, including protein, iron, calcium, and vitamins A and C.
- Less than one third of public schools offered and served school lunches that met the USDA standards for total fat (no more than 30 percent of calories) or saturated fat (less than 10 percent of calories). On average, schools offered and served lunches containing 34 percent of calories from fat and 11 percent of calories from saturated fat.
- Few schools (6-7 percent) offered or served lunches that met all of the NSLP nutrition standards. Most schools failed to meet either the energy standard or the standards for fat or saturated fat.
- Most schools offered students the opportunity to select a balanced meal, but few students made the healthful choice. In about 90 percent of all schools nationwide, a motivated student had opportunities to select low-fat lunch options, but in only about 20 percent of all schools did the average lunch actually selected by students meet the standards for fat.
- NSLP participants consumed more nutrients at lunch and were more likely than nonparticipants to have adequate usual daily intakes of key nutrients.
- Competitive foods were consumed by fewer NSLP participants than nonparticipants. Competitive foods most frequently consumed were energy dense and relatively low in nutrients.
- Information was also collected on reasons students participate in the NSLP and their satisfaction with the meals. Overall, half of the students who ever ate schools lunches reported that they liked the lunches; with opinions declining with students' grade level.

Conclusions:

The report indicates that school meals continue to make an important contribution to the diets of school children. However, the report also underscores an important challenge for all those who care about schools meals – that major changes in school meals will be needed to meet the recommendations in the 2005 Dietary Guidelines for Americans. Schools will need to reduce fat and saturated fat, cut sodium levels in half, double fiber levels, and increase the use of fruits and vegetables, whole grains and fat-free or lowfat milk.

SCHOOL LUNCH AND BREAKFAST COST STUDY-II

Background:

This study presents updated information on the cost of producing school meals and the revenues School Food Authorities (SFAs) receive to cover the cost. It examines costs and revenues for school year (SY) 2005-06 and updates information last collected in SY 1992-93. The study relies on directly measuring costs attributable to various SFA activities using standard accounting principals.

School food services must operate on a nonprofit basis, with all revenue used to support or improve the food service. Nonprofit status is determined by the financial status of the school food service operation as a whole; SFAs are not required to maintain separate cost and revenue records for the NSLP, SBP, and other nonprofit school food service activity. Costs charged to SFAs (reported costs) as well as those costs paid for by the school district in support of the SFA operation (unreported costs) were examined. The full cost of meal production combines both the reported costs and the unreported costs. Reported costs reflect all costs that a school food service must cover with the funds they receive.

Data and Methods:

A national probability sample of 120 SFAs, and a representative sample of 356 schools within those SFAs participated in the study. Schools were stratified by grade level and school kitchen type.

Estimates of the cost of producing reimbursable meals used four basic steps: (1) measuring the full cost of SFA operations including both reported and unreported costs; (2) distributing costs to the direct production of lunches, breakfasts, after-school snacks, and to non-production activities (certification, food purchasing, etc.); (3) distributing a share of the cost of non-production activities to the production of lunches, breakfasts, and after-school snacks; and (4) distributing the reported and full costs of meals to the production of reimbursable and non-reimbursable lunches and breakfasts.

SFA financial statements, meal production records, recipes, invoices, and other documents for SY 2005-06 were reviewed. Data from interviews with SFA and school district officials were used to calculate unreported costs and allocate labor costs among SFA activities. Samples of meals taken by students were observed to obtain data on menu items sold in reimbursable and nonreimbursable meals.

Costs of producing reimbursable meals were examined from two perspectives: the SFA-level which provides estimates of producing these meals for a "typical" SFA with each SFA given equal weight; and the meal-level which gives equal weight to each meal and represents the cost of an average reimbursable meal

Key Findings:

- On average, SFAs operated at a break-even level for school year 2005-06, with total revenues equal to reported costs. Total revenues, on average, did not cover the full costs of meal production, which include related expenses that some schools do not always charge to food service accounts.
- For the average SFA, the average reported cost of producing a reimbursable lunch in SY 2005-06 was \$2.36, less than the Federal subsidy (including both cash and commodities) for a free lunch of about \$2.50.
- On average, revenue generated from reimbursable lunches exceeded the reported cost of production. However, on average, revenue generated from reimbursable breakfasts and a la carte foods did not cover the reported costs for production. As a result, revenue from reimbursable lunches subsidizes a portion of the cost to produce and serve both breakfasts and a la carte foods.
- Food and labor accounted for the vast majority (90 percent) of the average SFA's reported costs. Food costs including donated commodities accounted for 46 percent of reported costs, while labor costs accounted for 45 percent of reported costs. All other costs (supplies, contract services, capital expenditures, etc.), accounted for the remaining 10 percent.
- USDA subsidies, including cash reimbursements and donated commodities, represent the largest single source (51 percent) of SFA revenues. Student payments for reimbursable meals represented almost one-fourth (24 percent) of total SFA revenues. A la carte and other nonreimbursable food sales accounted for 16 percent.
- The mean reported cost of producing reimbursable lunches and breakfasts have not changed significantly since the last meal cost study conducted in SY 1992-93 when adjusted for inflation. However, a higher proportion of total costs were charged to school food service accounts in SY 2005-06 than in SY 1992-93.

Conclusions:

The study shows that for most schools, Federal subsidies and other revenues do cover the costs that school food authorities attribute to meal production. In 2005-2006, the average reported cost to produce a lunch was \$2.28 and the Federal subsidy for a free lunch (both cash and commodities) was \$2.50. This suggests that USDA reimbursements cover the school food service cost for free meals, and enough of the costs for reduced-price and paid meals to permit schools to cover the remainder through other sources, including payments from participating families. The study shows that in many SFAs, school breakfast costs exceed revenues, with the result that school lunch revenues cover part of the cost of breakfast production in some places. The Department considers the current reimbursement rates adequate to provide funding to support healthful, nutritious meals nationwide.