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Report No. CN-08-MCII

School Lunch and Breakfast

Cost Study – II

Executive Summary



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Executive Summary

Study Background

The *School Lunch and Breakfast Cost Study-II* (SLBCS-II) was carried out by Abt Associates Inc. of Cambridge, Massachusetts, under contract to the Food and Nutrition Service (FNS), US Department of Agriculture. The study provides a detailed examination of the cost of producing reimbursable meals in the National School Lunch Program (NSLP) and the School Breakfast Program (SBP) during school year (SY) 2005-06. Information was collected from a nationally representative sample of 120 School Food Authorities (SFAs). In each SFA, data were collected in a representative sample of schools and kitchens. In total, data were collected in a sample of 353 schools.

FNS has conducted several studies to examine meal production costs in the NSLP and the SBP. The last study, the School Lunch and Breakfast Cost Study (SLBCS-I), used a direct measurement methodology to develop national average meal production cost estimates for reimbursable NSLP and SBP meals. SLBCS-I was completed in 1994 and used data collected during the 1992-1993 school year. Reimbursement rates provided to States for lunches and breakfasts served in the NSLP and the SBP have been adjusted annually since SLBCS-I to reflect changes in the Food Away From Home series of the Consumer Price Index for All Urban Consumers.

Much has changed in school foodservice since SLBCS-I was conducted, and although reimbursement rates in the NSLP and SBP have been adjusted to account for inflation, there is concern that the current reimbursement rates do not adequately reflect the current cost of producing school lunches and breakfasts. Information from SLBCS-II will allow FNS to assess the adequacy of current meal reimbursement rates in these programs.

The study examined the costs charged to SFAs (reported costs) as well as those incurred by the school district in support of SFA operations, but not charged to the SFA (unreported costs). Together, the reported costs plus unreported costs are the full cost of meal production.

Reported Cost of Producing Reimbursable Meals

Reported costs include only those costs that are charged to SFA budgets. From the SFA's perspective, reported costs are the costs of running the NSLP and SBP and are the costs that they are expected to cover. In addition, NSLP and SBP subsidies for free meals are, on average, expected to cover costs. Food costs (including the value of donated commodities) accounted for about 46 percent of reported costs, while labor costs accounted for slightly less than 45 percent of reported costs. All other costs, including supplies, contract services, indirect charges by school districts, etc. represented slightly less than 10 percent of reported costs.

The average costs of producing reimbursable meals in the NSLP and SBP are examined from two perspectives. Costs are first examined using the SFA as the unit of analysis. The SFA-level analysis weights the sample so as to count each SFA nationwide equally, regardless of size. From this perspective, estimated costs represent the average cost for a "typical" SFA.

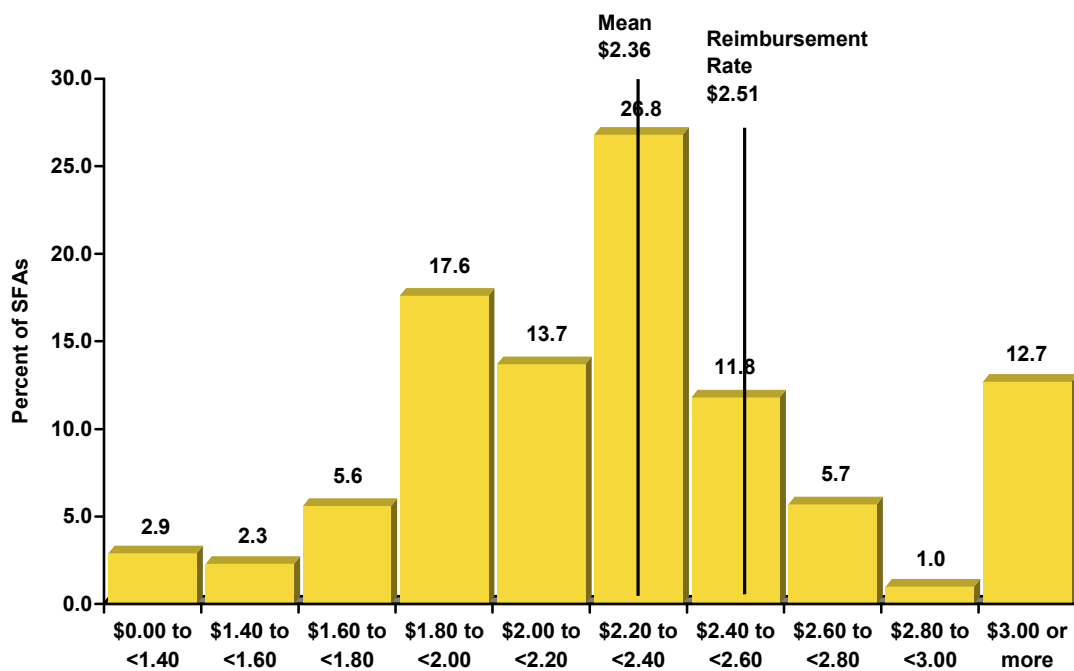
Costs are also examined using the meal as the unit of analysis. This analysis gives equal weight to each reimbursable meal, and since most reimbursable meals are produced in large SFAs, the results are dominated by the costs incurred in large SFAs. From this perspective, estimates represent the cost of an average reimbursable meal.

Reported Cost per Reimbursable Lunch

In SY 2005-06 the mean reported cost per reimbursable lunch was \$2.36 when the unit of analysis is the SFA (Exhibit ES.1). The mean reported cost of producing a reimbursable lunch was \$2.28 when the unit of analysis is the NSLP meal (Exhibit ES.2). The difference reflects the fact that reported costs are somewhat lower in the small number of very large SFAs that produce a large share of total NSLP lunches. The mean reported cost of producing a reimbursable lunch in SY 2005-06 was considerably less than the prevailing USDA subsidy for a free lunch of \$2.51.¹ In 78 percent of SFAs, the reported cost of a reimbursable lunch was less than the USDA subsidy for a free lunch. Similarly, when the unit of analysis is the NSLP meal, 76 percent of all lunches served in SY 2005-06 were produced at a reported cost that was less than the reimbursable rate for a free lunch.

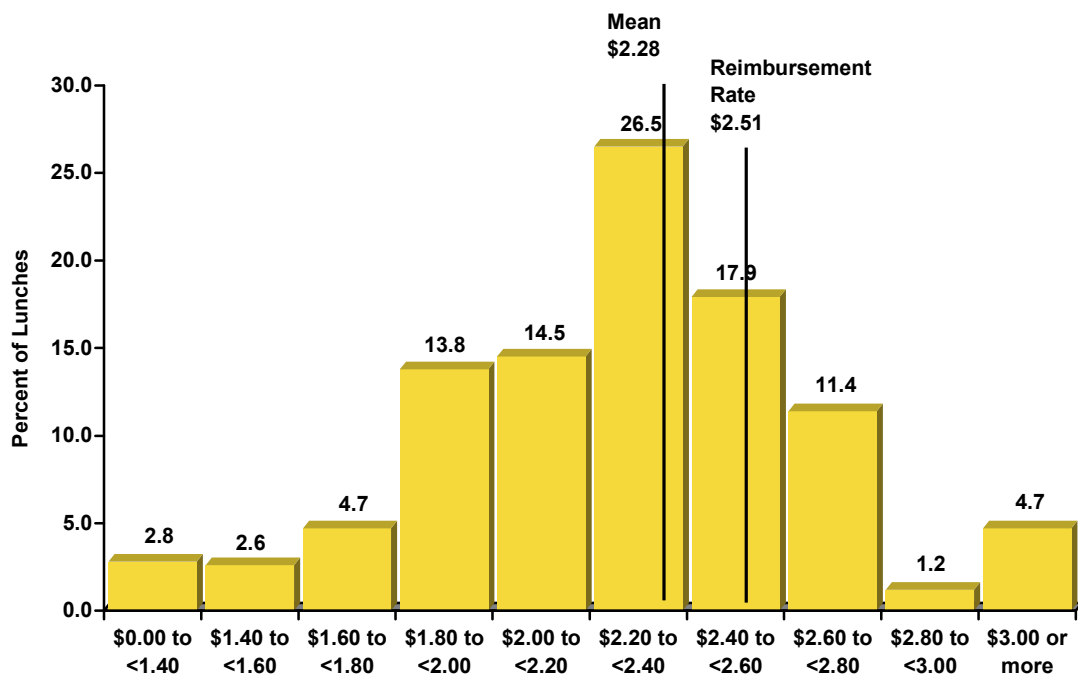
Exhibit ES.1

Distribution of SFAs by Reported Cost per Reimbursable Lunch



¹ This figure represents the midpoint between the lower (\$2.495) and higher (\$2.515) subsidy rates; schools qualify for the higher rate if a specified percentage of their lunches are provided free or at a reduced rate. The rates include \$2.32 or \$2.34 in cash reimbursements plus \$.175 in entitlement commodities.

Exhibit ES.2**Distribution of Lunches by Reported Cost per Reimbursable Lunch**



Reported Costs per Reimbursable Breakfast

In SY 2005-06, when the unit of analysis is the SFA, the mean reported cost of producing a reimbursable breakfast was \$1.92 (Exhibit ES.3). When the unit of analysis is the SBP meal, the mean reported cost of producing a reimbursable breakfast was only \$1.46 (Exhibit ES.4). Again, this reflects the much lower unit costs in SFAs serving large numbers of reimbursable breakfasts. These large SFAs serve a larger proportion of total breakfasts than total lunches, accounting for the larger difference between the SFA-level and meal-level mean reported costs for breakfasts compared to the difference observed for lunches.

The regular reimbursement rate for a free breakfast in SY 2005-06 was \$1.27, with a “severe need” rate of \$1.51.² In contrast to lunch costs, where the reported cost of producing a reimbursable lunch tended to be less than the Federal subsidy for free lunches, in most SFAs the reported cost of producing reimbursable breakfasts exceeded the reimbursement rates. In 64 percent of SFAs the

² SFAs receive reimbursement at the higher severe need level for free and reduced price breakfasts which are served in schools in which at least 40 percent of lunches were free or reduced price in the second preceding school year.

Exhibit ES.3**Distribution of SFAs by Reported Cost per Reimbursable Breakfast**

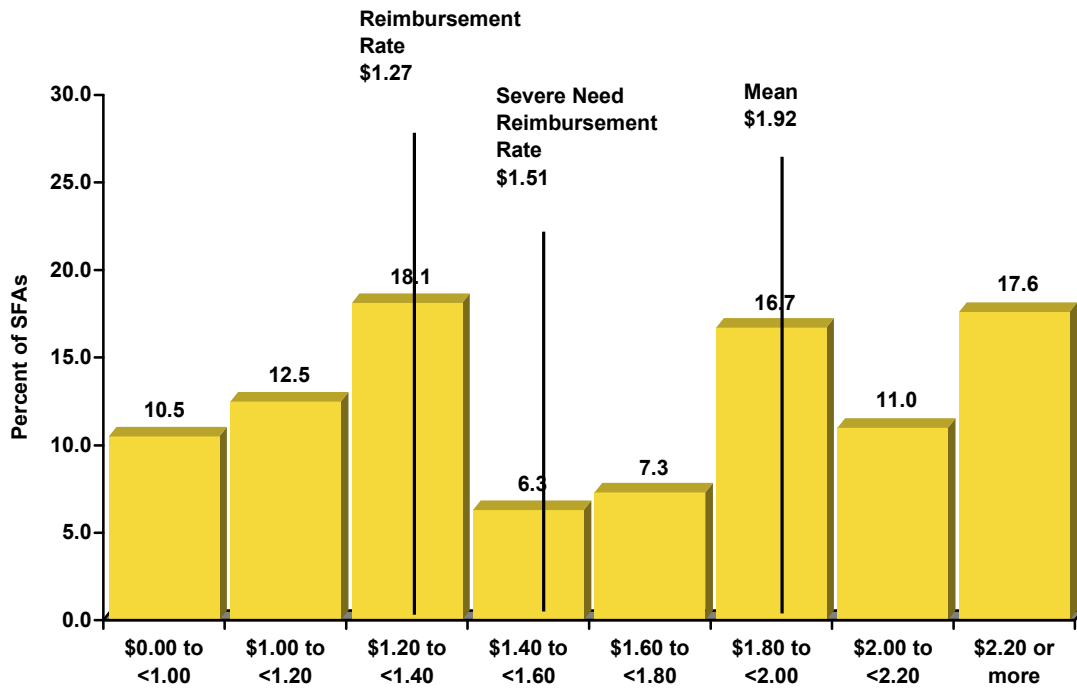
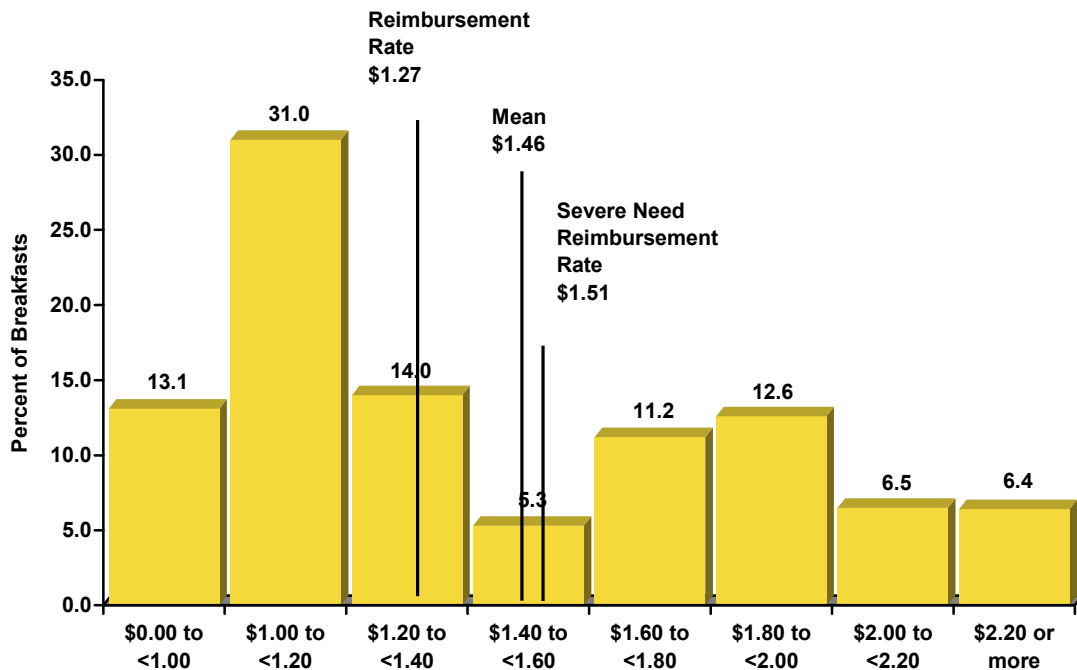


Exhibit ES.4**Distribution of Breakfasts by Reported Cost per Reimbursable Breakfast**



reported cost of producing a reimbursable breakfast was greater than the applicable reimbursement rate for a free breakfast.³ Even when the unit of analysis is the SBP meal so that larger SFAs are counted more heavily than smaller SFAs, 42 percent of all breakfasts served in SY 2005-06 were produced at a reported cost that exceeded the reimbursement rate for a free breakfast.

Meal Production Systems

The study examined meal production costs by the types of meal production system used by SFAs, as defined by the mix of the various types of kitchens used by schools in the SFA. Meal production systems included: a) on-site kitchens only; b) base/central kitchens only; c) mostly on-site kitchens; and d) mostly satellite kitchens.⁴

There were no significant differences in the reported cost of producing reimbursable lunches based on the type of meal production system used by SFAs. However, the mean reported cost of producing reimbursable breakfasts varied by the type of meal production system used, with SFAs using mostly on-site school kitchens having the lowest average cost per reimbursable breakfast (\$1.38) and SFAs using only base/central kitchens having the highest average cost per reimbursable breakfast (\$2.10).⁵

Reported Administrative Labor Costs

A major research objective for SLBCS-II was to examine the proportion of foodservice labor costs that were attributable to foodservice administration. This study broadly defined foodservice administration to include regular administrative activities such as planning, budgeting and management for the foodservice program and other non-production activities such as maintenance of foodservice equipment and warehousing of food and supplies. Across SFAs, administrative labor costs accounted for an average of 19 percent of total reported labor costs (Exhibit ES.5), and 8 percent of total reported costs (Exhibit ES.6).

³ The severe-need reimbursement rate was used for all schools in SFAs in which at least 40 percent of the lunches were reimbursed at the free or reduced-price rates because data to determine severe need status of individual schools were not available to this study. In fact, SFAs receive the higher severe need rate for breakfasts served in *individual schools* in which at least 40 percent of lunches were free or reduced price. According to FNS program data, in SY 2005-06, 89 percent of all free breakfasts served in the School Breakfast Program were reimbursed at the severe need rate. The study assumption that all breakfasts in an SFA were reimbursed at the same rate has only a small effect on the estimate that in 64 percent of SFAs the reported cost of producing a reimbursable breakfast was above the applicable reimbursement rate. The reported cost of producing a reimbursable breakfast was above the regular free reimbursement rate in 70 percent of all SFAs and was above the severe need reimbursement rate in 57 percent of all SFAs.

⁴ Central kitchens are not located in a school; on-site, or independent, school kitchens prepare all of the food served in the school in which they are located; base school kitchen prepare food for other schools in addition to the one in which they are located; and satellite school kitchens receive some or all of the food served in the school in which they are located from a base or central kitchen.

⁵ These are the average costs using the SFA as the unit of analysis. There were no significant differences in the average cost of producing a reimbursable breakfast across meal production systems when the SBP breakfast is the unit of analysis.

Exhibit ES.5

Administrative Labor Costs as a Percentage of Reported Labor Costs

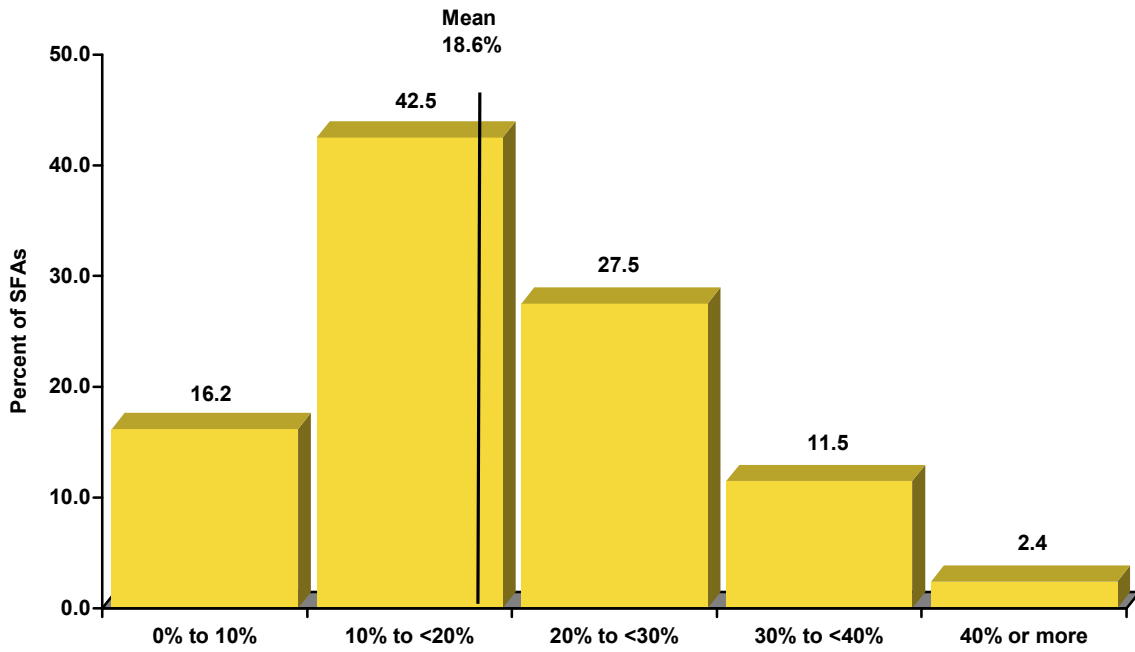
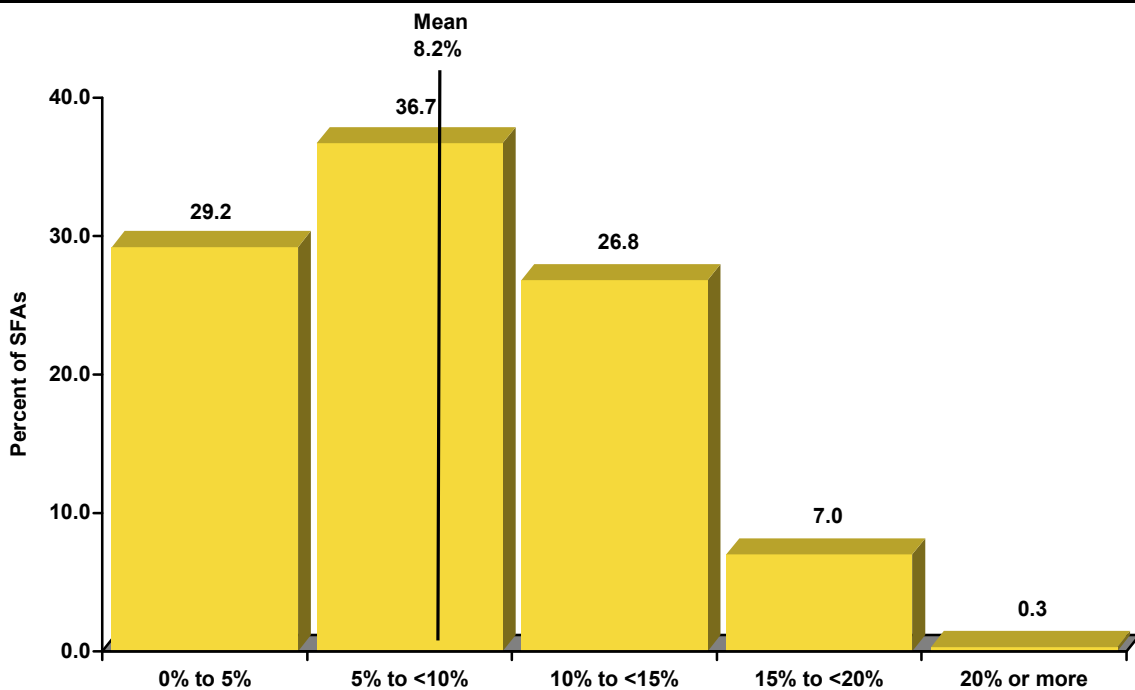


Exhibit ES.6

Administrative Labor Costs as a Percentage of Total Reported Costs



Full Cost of Producing Reimbursable Meals

While reported costs include only those costs that are charged to SFA budgets, and are the costs that they are expected to cover, the full cost of producing reimbursable meals also includes those costs incurred by the school district in support of SFA operations that are not charged to the SFA (unreported costs).

Full Cost per Reimbursable Lunch

In SY 2005-06 full costs per reimbursable lunch ranged from less than \$2.00 to over \$3.40, with a mean of \$2.91 when the unit of analysis is the SFA (Exhibit ES.7). The mean reported cost of producing a reimbursable lunch was \$2.79 when the unit of analysis is the NSLP meal (Exhibit ES.8). The difference reflects the fact that (as with reported costs) full costs are relatively low in the small number of very large SFAs that produce a large share of total NSLP lunches. The mean full cost of producing a reimbursable lunch in SY 2005-06 was considerably more than the prevailing USDA subsidy for a free lunch of \$2.51. In 68 percent of SFAs, the full cost of a reimbursable lunch was more than the USDA subsidy for a free lunch. Similarly, 72 percent of reimbursable lunches were produced at a full cost that was greater than the USDA subsidy for a free lunch.

Full Costs per Reimbursable Breakfast

In SY 2005-06, when the unit of analysis is the SFA, the mean full cost of producing a reimbursable breakfast ranged from less than \$1.20 to more than \$2.60 with a mean of \$2.50 (Exhibit ES.9). When the unit of analysis is the SBP meal, the mean full cost of producing a reimbursable breakfast was only \$1.81 (Exhibit ES.10). Again, this reflects the much lower unit costs in SFAs serving large numbers of reimbursable breakfasts. In 82 percent of SFAs the full cost of producing a reimbursable breakfast was greater than the applicable reimbursement rate for a free breakfast. When the unit of analysis is the SBP meal, 67 percent of all breakfasts served in SY 2005-06 were produced at a full cost that exceeded the applicable reimbursement rate for a free breakfast.

Meal Production Systems

As with reported costs, there were no significant differences in the full cost of producing reimbursable lunches based on the type of meal production system used by SFAs. However, the mean full cost of producing reimbursable breakfasts varied by the type of meal production system used, with SFAs using mostly on-site school kitchens having the lowest average cost per reimbursable breakfast (\$1.79) and SFAs using only base/central kitchens having the highest average cost per reimbursable breakfast (\$2.75).⁶

Full Administrative Labor Costs

On a full-cost basis, administrative labor accounted for an average of 20 percent of total labor costs, and 10 percent of total full costs.

⁶ These are the average full costs using the SFA as the unit of analysis. There were no significant differences in the average full cost of producing a reimbursable breakfast when the SBP breakfast is the unit of analysis.

Exhibit ES.7**Distribution of SFAs by Full Cost per Reimbursable Lunch**

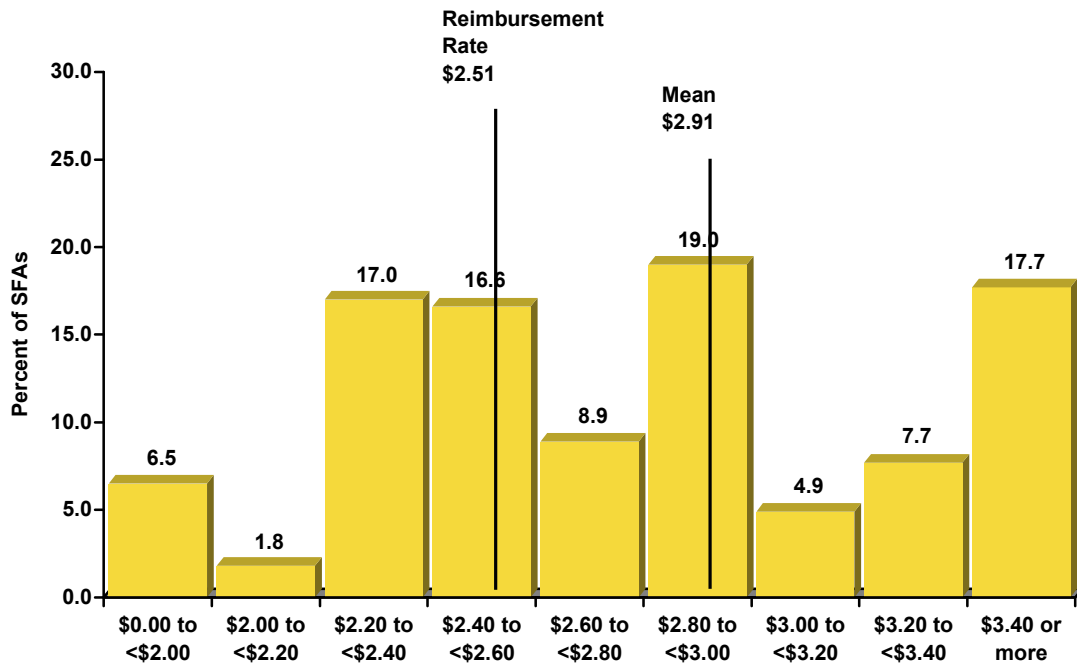


Exhibit ES.8**Distribution of Lunches by Full Cost per Reimbursable Lunch**

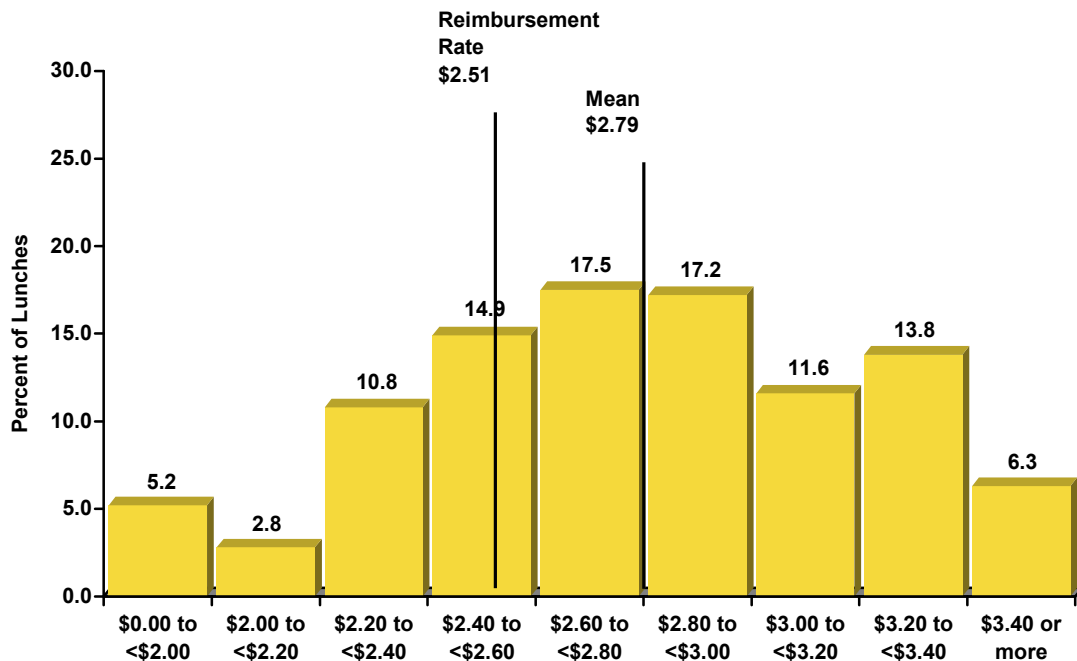


Exhibit ES.9

Distribution of SFAs by Full Cost per Reimbursable Breakfast

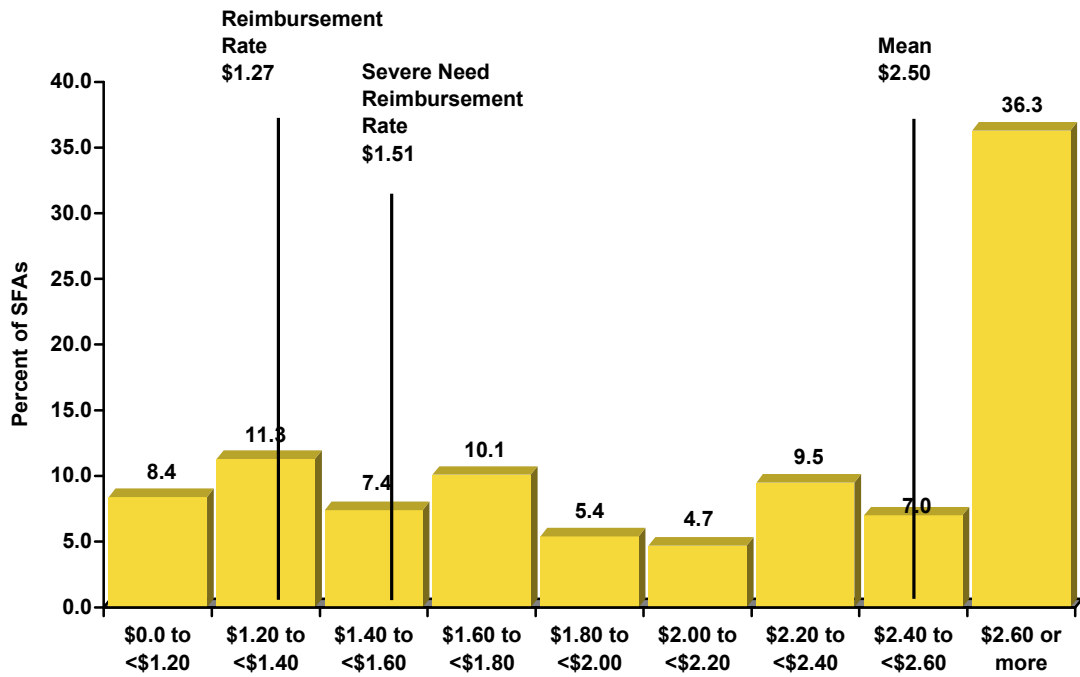
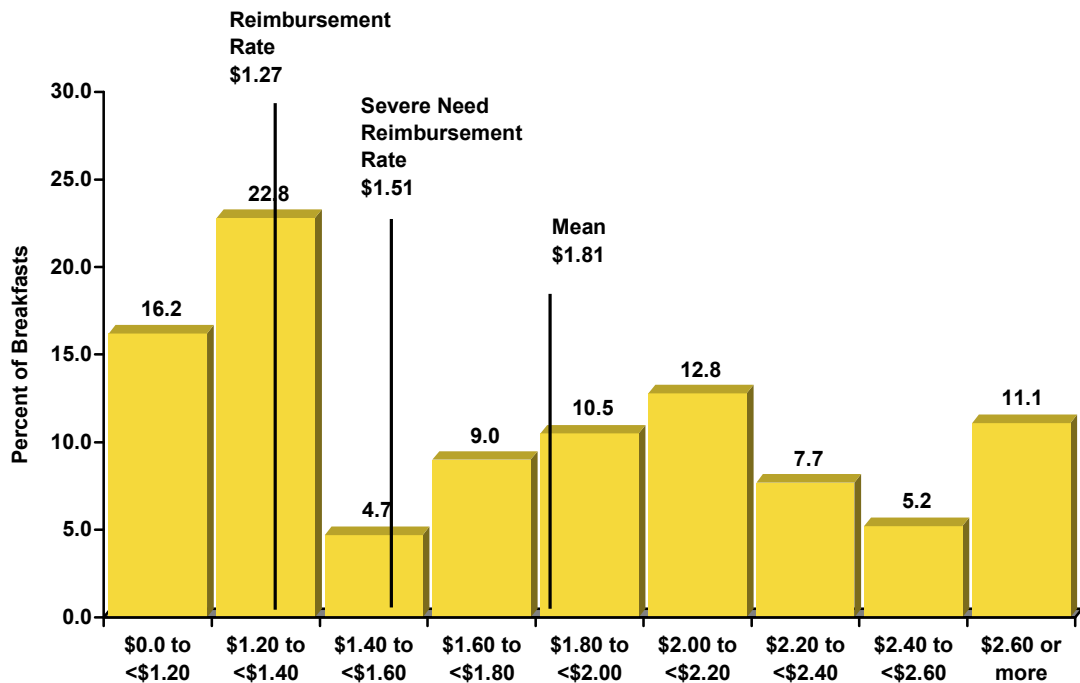


Exhibit ES.10

Distribution of Breakfasts by Full Cost per Reimbursable Breakfasts



Unreported Costs

Most school districts incur some costs in support of their foodservice operations that are not charged to the SFA budget. In some cases, school districts chose to bear these costs as a way to subsidize the SFA, while in other cases districts carried the costs because the SFA had insufficient funds to cover all expected costs. In SY 2005-06, these unreported costs accounted for an average of 19 percent of the full cost of foodservice. Three categories of unreported costs account for nearly all unreported costs (Exhibit ES.11). Unreported labor (which includes salaries and fringe benefits) represented 61 percent of total unreported costs, unreported indirect costs represented 26 percent, and unreported equipment depreciation represented 10 percent.

Indirect Costs

SFAs (and other school district grants and programs) often use a variety of resources that are provided or purchased by the school district, including:

- administrative or support functions performed by school district personnel, (such as accounting, data processing, payroll, personnel, purchasing, storage, and transportation);
- facilities, equipment, supplies, and services (such as energy, communications and transportation) provided or purchased by the school district; and
- employee benefits, payroll taxes and insurance.

There are several ways in which a school district may account for these costs. First, costs which the school district can and wants to identify as costs related to foodservice are treated as *direct foodservice costs*. Alternatively such costs may be treated as *indirect costs*. Indirect costs represent overhead-type expenses; they are expenses incurred by the school district that are not practical to identify with specific functions or activities (such as foodservice), but are necessary for the general operation of the organization and the conduct of activities it performs.

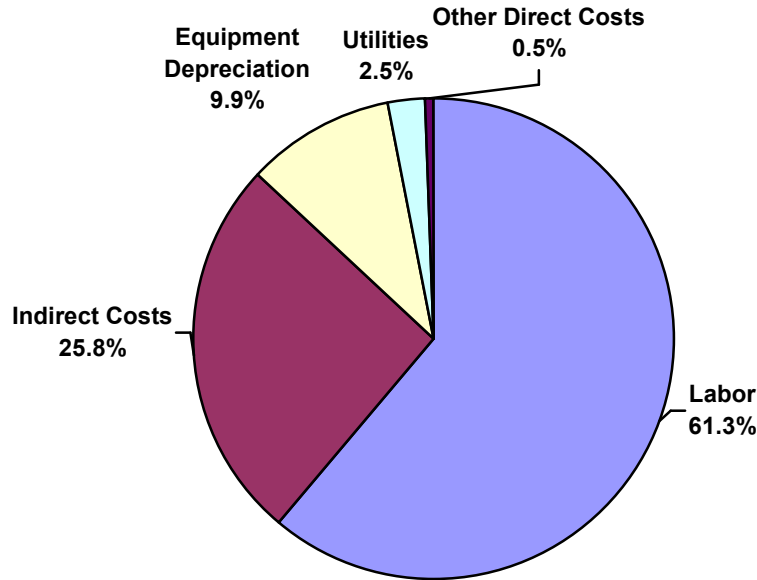
Many school districts use *indirect cost rates* to distribute such costs to benefiting activities.⁷ An indirect cost rate is the ratio of an organization's (in this case the school district's) indirect costs to its direct costs, computed for the purpose of allocating indirect costs to grants and programs operated by the organization.⁸

While nearly all SFAs (95 percent) had an indirect cost rate that could be applied to foodservice, most SFAs (79 percent) did not report any indirect costs on the SFA's expense statement. Only 9 percent

⁷ The Office of Management and Budget Circular A-87 sets guidelines for which indirect costs are allowable to be allocated to grants and programs receiving Federal funds; individual programs may have additional restrictions. State and local governments may use methods other than indirect cost rates, such as allocation of costs in proportion to staff hours, to allocate indirect costs. In this study, no school district used an indirect cost allocation method other than indirect cost rates.

⁸ U.S. Department of Education regulates the allocation of indirect costs pool by school districts to its grants and oversees the role of State Education Agencies (SEAs) in setting the methods by which school districts compute and use indirect cost rates. SEAs generally specify the types of indirect and direct costs included in the computation of school district indirect cost rates.

Exhibit ES.11**Composition of Unreported Costs**



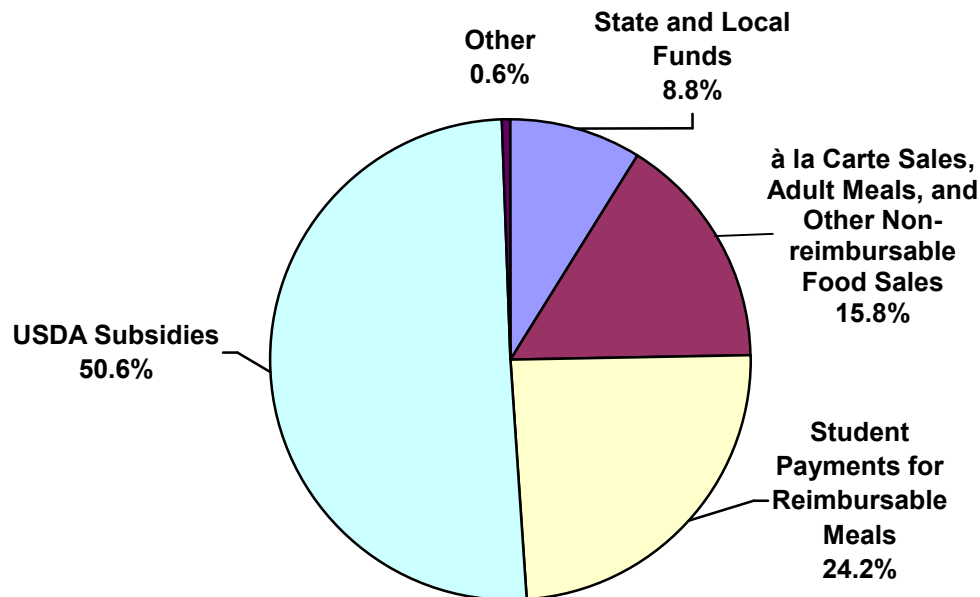
of all SFAs reported all of the indirect costs attributable to foodservice, and 7 percent reported some, but not all, of the indirect costs attributable to food service.

It is important to distinguish between reporting indirect costs and recovering indirect costs. When a school district charges an SFA for (all or part of) the indirect costs attributable to SFA operations these indirect costs are reported on the SFA's expense statement. However, payment or recovery of these reported indirect costs requires that funds be actually transferred from the SFA account to the school district's general fund. It is quite rare for such transfers to take place. Among the 16 percent of school districts that had at least some reported indirect costs, about one-quarter (4 percent of all districts) recovered all of the reported indirect costs from the foodservice account. The most common reason for not recovering all reported indirect costs from foodservice was that the district did not charge indirect costs for any grant or program. For the average SFA, unreported indirect costs accounted for 26 percent of all unreported costs.

Revenues

Revenues derived from reimbursable meals, including Federal, State, and local subsidies tied to reimbursable meals, other State and local funds, and student payments for reimbursable meals accounted for an average of 84 percent of SFA revenues in SY 2005-06 (Exhibit ES.12). USDA subsidies accounted for an average of 51 percent of total SFA revenues—45 percent from meal reimbursements and 5 percent from donated commodities. Student payments for reimbursable meals accounted for an average of 24 percent of total SFA revenues, and state and local revenues accounted for 9 percent of total SFA revenues. à la carte sales, adult meals, and other nonreimbursable food sales represented only 16 percent of the average SFA's total revenues.

Exhibit ES.12**Composition of SFA Revenues**

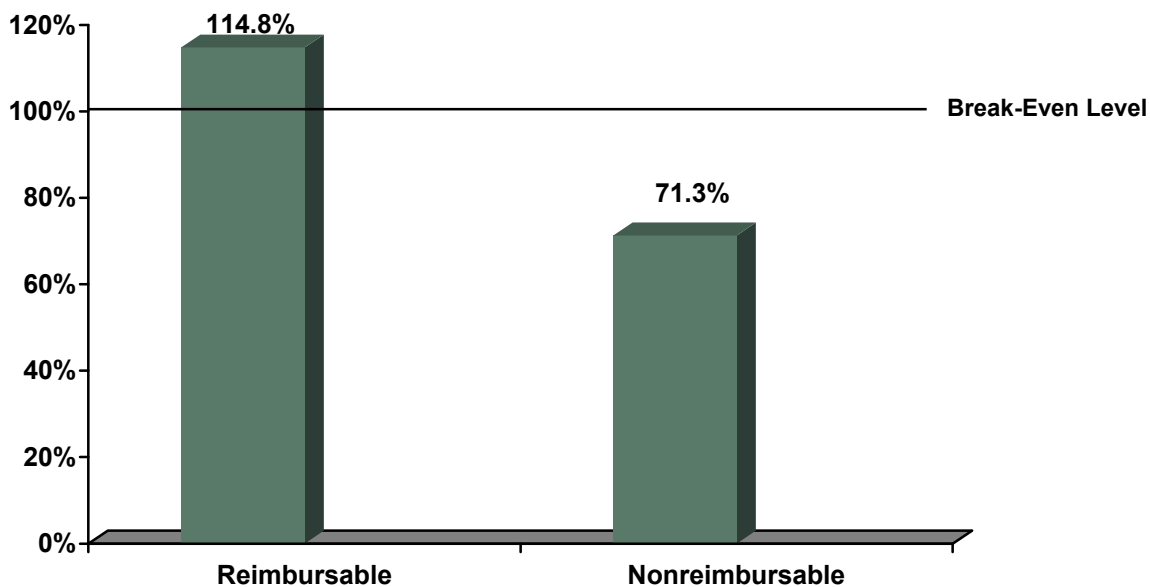


Comparison of Costs and Revenues**Reported Costs**

SFAs are required to operate the school foodservice on a nonprofit basis. Program regulations define a nonprofit foodservice as one operated primarily for the benefit of enrolled children, all revenue from which is used solely to operate or improve the foodservice. An SFA must limit the net cash resources of its nonprofit foodservice to three months' average expenditures. Usually SFAs operate at the break-even level, i.e., costs equal revenues from all sources. Nonprofit status is determined by the financial status of the school foodservice *as a whole* rather than the financial status of each Federal program separately. SFAs must accrue all revenues from the school foodservice to a nonprofit foodservice account, including Federal lunch, breakfast, and snack payments; all funds from this account must be used to support the nonprofit school foodservice, which can include other parts of their foodservice operations such as à la carte and adult food sales. SFAs are not required to maintain separate cost and revenue records for the NSLP, SBP, or other programs within the nonprofit school foodservice account.

In SY 2005-06, across SFAs, revenues from reimbursable meals exceeded the reported cost of producing those meals by an average of 15 percent. By contrast, revenues from nonreimbursable meals fell short of the cost of producing those meals by an average of 29 percent (Exhibit ES.13). The average SFA used revenues from reimbursable meals to offset the cost of producing à la carte and other nonreimbursable food items. Combining reimbursable and nonreimbursable meals, reported costs were essentially equal to revenues (101 percent), indicating that SFAs typically operated at a break-even level.

Exhibit ES.13**Ratio of Revenue to Reported Cost for Reimbursable and Nonreimbursable Meals**



While reimbursable lunches and breakfasts taken together generated a surplus, this is due entirely to the surplus revenues generated by reimbursable lunches. Revenues from reimbursable lunches exceeded the costs of producing those meals by an average of 16 percent, while revenues from reimbursable breakfasts fell short of the cost of producing those meals by an average of 4 percent (Exhibit ES.14). This is consistent with the relationship of Federal subsidy rates (meal reimbursements plus entitlement commodities) to reported meal costs. In SY 2005-06 the Federal subsidy for a free lunch covered or exceeded the reported cost of producing reimbursable lunches in 78 percent of SFAs. Based on the applicable reimbursement rates as determined for this study, the regular Federal subsidy for a free breakfast covered or exceeded the reported costs of producing reimbursable breakfasts in only 36 percent of SFAs. The regular Federal subsidy for a free breakfast covered or exceeded reported costs for breakfast in 30 percent of SFAs, and the severe need subsidy covered or exceeded reported costs in 43 percent of SFAs (Exhibit ES.15).

Full Costs

From an SFA's perspective, reported costs are the costs that they are expected to cover from the revenues that accrue to the nonprofit school foodservice account. However, as noted above, reported costs do not reflect all of the costs of foodservice operations. Given that, on average, SFA revenues just covered their reported costs, SFA revenues fell considerably short of covering their full costs. On average, SFA revenues covered only 82 percent of their full costs. Revenues from reimbursable meals also fell short of covering the full cost of producing these meals, with a revenue to cost ratio of 92 percent. Similarly, revenues from nonreimbursable meals fell short of the full cost of producing these meals, with a revenue to cost ratio of 61 percent.

Exhibit ES.14

Ratio of Revenue to Reported Cost for Reimbursable Lunches and Reimbursable Breakfasts

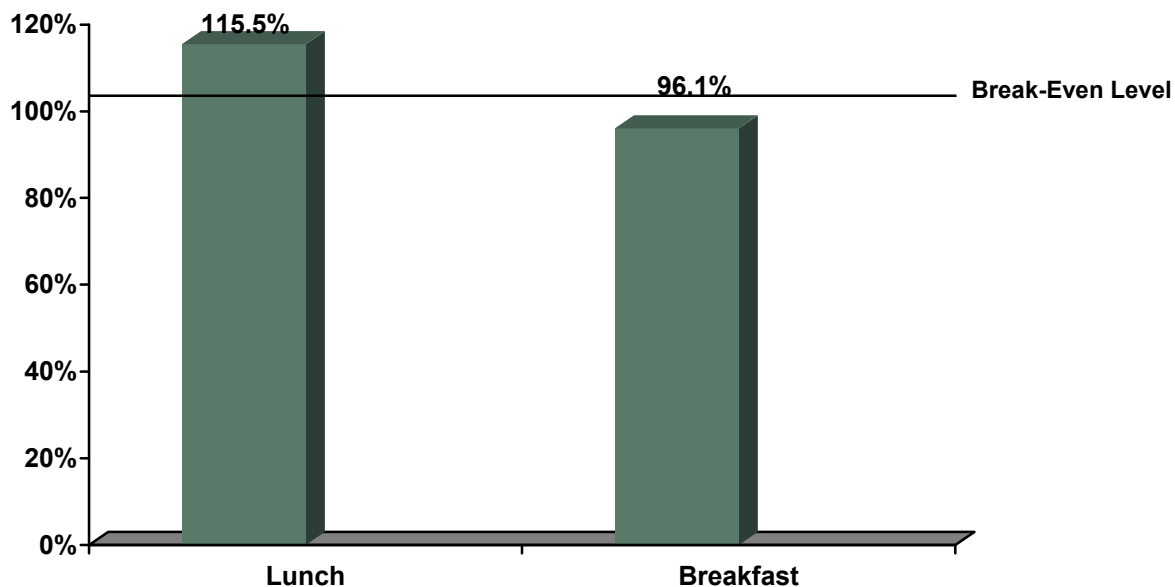
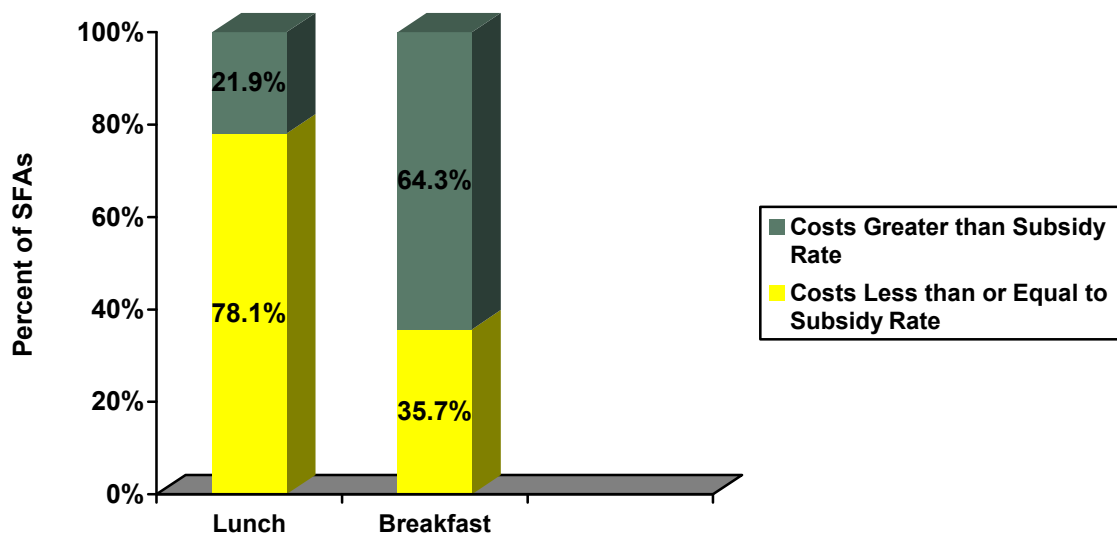


Exhibit ES.15

Percent of SFAs with Reported Costs Greater Than the Subsidy Rate and Percent Less Than or Equal to the Subsidy Rate for a Free Meal



Comparisons to SLBCS-I

One key finding is that, when the SFA is the unit of analysis, there was no statistically significant difference in the real (inflation-adjusted) reported cost of producing reimbursable meals over the 14 years that elapsed between SLBCS-I and SLBCS-II, even though the nutritional standards have changed. However, there was a statistically significant difference in inflation-adjusted unreported costs for the average SFA, when measured on the same basis as for SLBCS-I.⁹ As a result, the full costs for producing reimbursable meals were below the real (inflation-adjusted) full costs in SY 1992-93. Unreported costs as a percentage of full costs decreased from 19 percent SY 1992-93 to 12 percent in SY 2005-2006. In 2006 dollars, for the average SFA, the SY 2005-06 full cost of producing a reimbursable lunch was \$2.72, compared to \$2.97 for SY 1992-93 (though this observed difference is not statistically significant). For reimbursable breakfasts, for the average SFA, the full cost in 2006 dollars was \$2.25 in SY 2005-06, compared to \$2.32 in SY 1992-93 (not a statistically significant difference).

Using the meal as the unit of analysis, the inflation-adjusted full cost of producing lunches was significantly lower in SY 2005-06 than in SY 1992-93.

Exhibit ES.16 shows the comparison of inflation-adjusted mean reported and full costs between SLBCS-I and SLBCS-II.

⁹ This comparison uses full costs as defined for SLBCS-I, not the more inclusive definition of full costs used in SLBCS-II. The difference in methodology reflects the treatment of school supervisory staff in the cafeteria during mealtime. These staff were not included in unreported costs in SLBCS-I, but were included in SLBCS-II. The figures presented in Chapter Four include school supervisory staff in unreported costs. These staff were removed from unreported costs for the comparison to SLBCS-I presented in Chapter Nine.

Exhibit ES.16

Comparison of the Mean Reported and Full Cost per Reimbursable Meal: SLBCS-I vs. SLBCS-II

