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School Foodservice Costs: Location Matters

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The National School Lunch Program and School Breakfast Program reimburse school food authorities (SFAs) for providing school meals that meet USDA nutritional standards. Reimbursement rates depend on whether the meal is lunch or breakfast and whether the student is certified to receive the meal for free or at reduced or full price. Reimbursement rates are the same for all SFAs, except those in Alaska or Hawaii and for schools in which a certain percentage of children receive free or reduced-price lunches even though cost-of-living indexes for all 50 States show considerable variation in food and labor costs. No previous research has rigorously examined whether school foodservice costs vary geographically, or identified the factors that help explain those differences.

What Are the Major Findings?

In this study, we measured geographic variation in school foodservice costs, after accounting for nongeographic factors, to better clarify economic and operational factors that help explain why per meal costs vary by school location. We examined the impact of (1) location; (2) total USDA reimbursable breakfasts and lunches served; (3) measures of input prices for labor, food, and supplies; and (4) several SFA characteristics affecting total school foodservice cost: the mix of breakfasts and lunches served, a measure of meal value that was based on prices charged to students paying the full price for lunch, a la carte revenue per meal, and other aspects of foodservice operation.

- After accounting for nongeographic characteristics of SFAs, we found that average foodservice costs per reimbursable meal (including all breakfasts and lunches) in 21 locations (rural, urban, and suburban areas across 7 U.S. regions) range from 21 percent below the national average for the rural Southwest to 19 percent above in the suburban Midwest. The Southwest and Southeast regions had average costs per meal below the national average, and urban locations had lower average costs per meal than their rural and suburban counterparts.
- The main drivers of differences in foodservice cost varied by location. Wage and benefit rates were the largest contributors in five locations. SFA characteristics—particularly the total number of reimbursable meals served, this study's measure of meal value, and the presence of a la carte foods—were the most important factors behind cost differences in five locations.

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In the remaining 11 locations, per meal cost variation was largely due to differences in total food expenditure per meal, which include differences in food item prices and food items served.

- Per meal costs dropped when the number of meals served rose and when the SFA served more lower-value meals. Per meal costs rose when the SFA served more higher-value meals and had more than 10 cents per meal in a la carte food sales.

This study examines the extent to which location influences school foodservice costs per meal. It does not examine the effects of cost variation on financial solvency of an SFA or the adequacy of USDA meal reimbursements. Higher per meal costs do not necessarily indicate that an SFA is operating at a loss because higher cost SFAs may also have higher revenues. Due to data limitations, we can determine neither the extent to which higher per meal costs are associated with higher revenues per meal nor whether higher cost SFAs are more likely to serve meals that meet USDA nutrition standards.

How Was the Study Conducted?

Previous cost estimates for school meals used accounting methods to estimate the cost per meal to SFAs of providing USDA-reimbursable lunches and breakfasts, but lacked the necessary sample size to obtain regional averages. We, however, used data from 1,432 SFAs participating in the 2004 School Food Authority Characteristics survey, a nationally representative survey that was stratified to allow estimates by region and urbanicity. The survey was administered by USDA's Food and Nutrition Service and collected data for the 2002-03 school year. To measure the effects of location on total school foodservice costs, we employed a flexible econometric approach and controlled for total reimbursable meals served (including breakfasts and lunches), measures for input prices, and SFA characteristics.

Due to limitations of our data set, our measure of the input price for food was constructed as total food expenditure per reimbursable meal. This measure reflects both differences in prices paid by SFAs for individual food items and in food items served, making the separation of these two influences on per meal costs difficult. We developed a measure of meal "value" to adjust for differences in food items served; this measure may also reflect differences in food item prices to some extent. For the labor cost measure, we used local salaries and wages reported in the survey to estimate the cost to each SFA of a standardized set of foodservice personnel.