

Abstract

The most recent School Food Purchase Study provides national estimates of the types, amounts, and costs of foods acquired by public school districts participating in the National School Lunch Program during School Year (SY) 2009/10. It also includes a comprehensive analysis of the nutritional characteristics of foods acquired by these school districts. This report presents findings about the calories, nutrients, and food groups available for use in school meals and other school food programs, including a la carte foods, and the extent to which school food acquisitions are consistent with the *Dietary Guidelines for Americans* and associated food guidance system.

Background

Children's diets may be influenced by the foods provided as part of the school meal programs and other foods offered to children in school but not part of the National School Lunch Program (NSLP) and School Breakfast Program (SBP). Over the past two decades, program administrators and school food service professionals have been working to bring school meals in line with the *Dietary Guidelines for Americans*, as required by Federal regulations and reflected in nutritional standards for the programs. Many States or school districts have set nutrition guidelines for competitive foods, and the Healthy, Hunger Free Kids Act of 2010 gives USDA the authority to establish national standards. This study offers a baseline that USDA can use to monitor trends in the composition and nutritional quality of school food acquisitions over time.

Study Objectives

The three main objectives of the study were:

- (1) Develop national estimates of the calories, nutrients, and food groups available in food acquisitions.

- (2) Assess the nutritional quality of school food acquisitions relative to the 2005 *Dietary Guidelines for Americans* and associated food guidance system, as measured by the Healthy Eating Index-2005 (HEI-2005).
- (3) Describe the amounts of calories, nutrients, and food groups available in foods acquired exclusively for a la carte sales, for reimbursable meals, and for mixed uses.

Methodology

Food acquisition data was linked to USDA nutrient and MyPyramid databases and then adjusted to reflect the amount of food available for consumption. Calorie density (calories/gram), sources of calories, nutrient density (per 1,000 calories), food group density, and Healthy Eating Index-2005 scores were analyzed for all foods combined and separately for purchased foods, donated USDA Foods and processed foods containing donated USDA Foods.¹ A second set of analyses were conducted for a non-random subsample of 128 school districts that provided complete information on foods used exclusively for a la carte sales.

Findings

- **The mix of food acquired by school districts met or exceeded most nutrient-based recommendations:**
 - The percentage of calories from total fat (33 percent) was within the recommended range of 25 to 35 percent.
 - The percentage of calories from saturated fat was 10 percent, just slightly higher than the recommended limit of less than 10 percent.

¹ These measures were compared to nutrition and dietary reference standards in place during SY 2009/10. The MyPlate food guidance system replaced MyPyramid in June 2011, after the period analyzed here.

- Average concentrations of Vitamins A and C, calcium, and iron met or exceeded the Dietary Reference Intakes (DRI) per 1,000 calories. Potassium and fiber density were lower than the DRI standards.
 - Cholesterol density was consistent with DRI recommendations.
 - Sodium density exceeded the average concentration suggested in the DRIs by about 75 percent.
- **USDA Foods received perfect or near perfect HEI-2005 scores for total fruit, whole fruit, total vegetables, milk, meat and beans, and oils.**
 - **USDA Foods and processed foods containing donated USDA Foods accounted for a disproportionate share of several nutrients that are a concern due to overconsumption (total fat, saturated fat, and cholesterol).** This finding is consistent with the relatively large volumes of cheese, poultry, beef, and prepared foods (specifically pizza and prepared sandwiches) acquired as donated USDA Foods or a processed product.
 - **The mix of food acquired by school districts is more consistent with the *Dietary Guidelines for Americans* than the U.S. food supply.** The HEI-2005 for all school food acquisitions was 67.7 out of a possible 100 compared to 54.9 for the U.S. food supply. School food acquisitions included greater concentrations of milk/milk products, fruit, and total vegetables and smaller shares of total calories from saturated fat and solid fats and added sugars than the U.S. food supply. They were both low in whole grains and dark green and orange vegetables and legumes and high in sodium.
 - **Foods used in reimbursable meals were of higher nutritional quality than foods used exclusively in a la carte sales.** Foods used in reimbursable meals achieved a total HEI-2005 score of 68.4, compared to 45.7 for a la carte only foods. This reflects the relatively smaller share of calories contributed by solid fats and added sugars, as well as higher concentrations of milk, whole grains, and fruit, and to a lesser degree, vegetables and meat and beans.

Overall Conclusions

Since the vast majority of school food acquisitions are used in NSLP and SBP reimbursable meals that must meet defined nutrition standards, it is not surprising that the nutritional profile of school food acquisitions as a whole compare favorably with various nutrition measures. The mix of foods acquired were nutrient dense and met or exceeded DRI standards for school-age children for a number of nutrients. The percentage of calories from total fat and saturated fat were within or near acceptable ranges. The amount of sodium present in food acquisitions continues to exceed recommendations.

For More Information

All volumes of the School Food Purchase Study-III including this analysis of the nutritional characteristics of school food acquisitions are available online at: www.fns.usda.gov/ora.

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