USDA United States Department of Agriculture
Food and Nutrition Service

EVALUATION OF THE SCHOOL BREAKFAST PROGRAM PILOT PROJECT: FINDINGS FROM THE FIRST YEAR OF IMPLEMENTATION

Office of Research and Analysis **October 2002**

Background

Participation in the School Breakfast Program (SBP) by children from low-income households continues to be less than their participation in the National School Lunch Program (NSLP). There is concern that children might be coming to school without eating breakfast and still not be participating in the SBP for a variety of reasons, including a perceived stigma associating school breakfast participation with poverty. Breakfast is an important meal and several studies appear to link the consumption of nutritious breakfasts to improved dietary status and school performance. One approach to increasing participation in the SBP is to offer free breakfast to all students, regardless of their household's ability to pay for the meal. It is believed that a universal-free breakfast program would result in more children consuming a nutritious breakfast and beginning the school day ready to learn. This approach to increasing breakfast participation, however, would substantially increase the cost to the federal government as a result of subsidizing school breakfasts at the free-rate for all students. Thus it is critical to know if such expenditures are warranted. Specifically, would the increase in SBP participation result in improved dietary intake and/or academic performance?

Toward this end, Congress enacted Section 109 of the William F. Goodling Child Nutrition Act of 1998 (Public Law 105-336), authorizing implementation of a three-year pilot in elementary schools in six school districts representing a range of economic and demographic characteristics. The Food and Nutrition Service was also directed to evaluate this pilot. The three-year pilot began in school year (SY) 2000-2001 in the following school districts, which were chosen from among the 386 school districts that applied to participate:

- Shelby County Board of Education, Columbiana, Alabama;
- Washington Elementary School District, Phoenix, Arizona;
- Santa Rosa City Schools, Santa Rosa, California;
- Independent School District of Boise City, Boise, Idaho;
- Wichita Public Schools, Wichita, Kansas; and
- Harrison County School District, Gulfport, Mississippi.

The aim of this pilot is to study the impact of the availability of universal-free school breakfast on breakfast participation and measures related to students' nutritional status and academic performance. This pilot is not intended to evaluate the current SBP or the value of consuming breakfast.

Objectives

The two main objectives of the evaluation are to: (1) assess the effects of the availability of universal-free school breakfast on breakfast participation and selected student outcome measures, including dietary intake, cognitive and social/emotional functioning, academic achievement tests, school attendance, tardiness, classroom behavior and discipline, food insecurity, and health; and (2) document the methods used by schools to implement universal-free school breakfast and determine the effect of participation in this program on administrative requirements and costs.

Study Design and Methodology

The evaluation is based on an experimental design in which schools within each district were randomly assigned to implement the universal-free school breakfast (treatment schools) or to continue to operate the regular

SBP (control schools). There are 79 treatment and 74 control schools in the pilot. In Spring 2001, about 4,300 students across the treatment and control schools were measured on dietary intake, cognitive function, and height and weight. Other data were also collected from parents and teachers. An analysis of these measures, data extracted from school records for SY 1999-2000 (pre-implementation) and SY 2000-2001, and information collected during interviews with school district staff in Spring 2001 are presented in this interim report.

Findings

Key findings from the first year of the pilot include:

Breakfast Participation and Dietary Intake

Participation in the SBP nearly doubled in the treatment schools (from 19 to 36 percent). Greater increases were seen among the paid-eligible participants than the free and reduced-price participants.

Few elementary school students, less than 4 percent in both treatment and control schools, skipped breakfast altogether.

Students in treatment schools (80 percent) were more likely than control school students (76 percent) to consume a nutritionally substantive breakfast.

Given that most students in this study consumed breakfast, universal-free school breakfast seems to have shifted the source of breakfast from home (or elsewhere) to school.

Students in treatment schools (7 percent) were more likely than control school students (4 percent) to consume two or more substantive breakfasts.

There was almost no difference in the food and nutrient intake of treatment and control school students at breakfast or over the course of a day. Food energy, protein, and vitamin and mineral intakes of most students in both groups met the standards for dietary adequacy.

Few students, teachers, or principals in either treatment or control schools reported a stigma that associated breakfast participation with students from low-income households.

Cognitive Functioning and Academic Achievement Test Scores

Treatment and control school students had similar scores on a cognitive test battery that assessed a range of cognitive functions including attention, short-term and long-term memory.
There were no differences in math and reading score gains across all grades between treatment and control school students.

Other Measures

School attendance, tardiness, social/emotional functioning, food insecurity, and health status were not different for treatment and control school students.

The prevalence of overweight was similar, but high, in both treatment (17 percent) and control (18 percent) school students.

There was one significant difference on a behavior rating between the treatment and control school students. Treatment schools students had a slightly more negative rating. In addition, a significantly higher number of disciplinary incidents were recorded in treatment schools.

Implementation-Related Findings

School breakfast participation was much higher in treatment schools in which students ate breakfast in classrooms (65 percent) than when they ate in a cafeteria or other non-classroom setting (28 percent).

Treatment school breakfasts were just as likely as control school breakfasts to meet SBP nutrition standards for food energy, target nutrients, and total and saturated fat.

Increased breakfast participation resulted in lower per-meal labor costs in treatment schools.

Conclusion

During the first year of implementation, the availability of universal-free school breakfast nearly doubled school breakfast participation (from 19 to 36 percent). Since most elementary school students in this study were consuming breakfast, the availability of free breakfast seems to have primarily shifted the source of breakfast from home to school. Given the low rate (less than 4 percent) of breakfast skipping, it is not surprising that the availability of universal-free school breakfast did not have a significant impact on measures of dietary intake or school performance.

Whether two additional years of exposure to the availability of universal-free school breakfast will have an impact on student outcomes will be determined after data collection and analyses for all three years are completed. A report of the findings on the impact of the availability of universal-free school breakfast on elementary school students over the three-year period will be available in 2004.