

# Executive Summary

***Universal-free school breakfast availability was not found to improve academic outcomes beyond what was seen in elementary schools that operated the means-tested School Breakfast Program.***

## Background

On a typical school day the School Breakfast Program (SBP) operates in over 78,000 schools and residential child care institutions and serves over 8 million children. Fewer low-income children participate in the SBP (about 7 million) than in the National School Lunch Program (NSLP) (nearly 17 million). There is concern that low-income 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. One approach to increasing participation in the SBP is to offer free breakfast to all students, regardless of their household income. However, such a universal-free approach to increasing breakfast participation would substantially increase the cost to the federal government. Thus it is critical to know if such expenditures are warranted. *Specifically, would the increase in SBP participation by students in elementary schools offering universal-free school breakfast result in improved dietary intakes and/or measures of academic performance?* In this context, Congress enacted Section 109 of the William F. Goodling Child Nutrition Act of 1998 (Public Law 105-336), authorizing the implementation and the evaluation of a three-year pilot in elementary schools in six school districts representing a range of economic and demographic characteristics.

The U.S. Department of Agriculture, Food and Nutrition Service conducted the three-year pilot from school year (SY) 2000–2001 through SY 2002–2003 in elementary schools in the following school districts:

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

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

## Objectives

The two main objectives of the evaluation were 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, 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

An experimental design was used. Elementary schools within each of the six districts were matched and randomly assigned to implement universal-free school breakfast (treatment schools) or to continue with the regular SBP (control schools). Seventy-nine treatment and 74 control schools participated in the three-year pilot. In Spring 2001, about 4,300 students across the treatment and control schools were measured on dietary intakes, 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 School Year (SY) 1999–2000 (baseline) and SY 2000–2001 (Year 1), and information collected during interviews with school district and school staff in Spring 2001 was presented in an interim report. In SY 2001–2002 (Year 2) and SY 2002–2003 (Year 3) administrative record data including breakfast participation, attendance, tardiness, visits to the school nurse for health reasons, disciplinary incidents and academic achievement test scores were collected from schools. A second set of site visits and telephone interviews with school district and school staff was completed in Spring 2003.

The interim report “*Evaluation of the School Breakfast Program Pilot Project: Findings from the First Year of Implementation*” and the final report are available on the FNS website <http://www.fns.usda.gov/oane/MENU/Published/CNP/cnp.htm>. The final report summarizes the first year findings, presents findings from the second year and the third year of the evaluation and also examines changes over all three years of the pilot. The findings are summarized below.

## Findings Across the 3 Years

### Implementation of Universal-free School Breakfast

- Universal-free school breakfast can be implemented and administered in elementary schools with varying economic and demographic characteristics.
- Most stake-holders (e.g., school staff, parents, students) were generally supportive of the concept of universal-free school breakfast.

### School Breakfast Participation

- The availability of universal-free school breakfast caused a substantial increase in school breakfast participation. School breakfast participation almost doubled in the treatment schools in the first year (from 19 percent at baseline to 36 percent) of universal-free school breakfast. This higher level of participation by treatment school students was maintained in the second (38 percent) and third year (36 percent) of the pilot. During this period, school breakfast participation in control schools increased slightly over baseline (from 19 percent to 21 percent).
- The impact of the pilot on school breakfast participation rates varied across the treatment schools. Greater increases were noted in treatment schools with classroom breakfast.
- School breakfast participation by paid-eligible students in treatment schools increased fourfold in the first year (from 8 percent to 31 percent). Participation by free and reduced priced eligible students in treatment schools doubled (from 25 percent to 48 percent). These higher rates were maintained in the second and third year.

### Dietary Intakes (Collected in Year 1 Only)

- Students who attended universal-free school breakfast schools were more likely to consume a nutritionally substantive breakfast than students attending control schools (80 percent versus 76 percent). However, the average food and nutrient intakes of treatment and control school students at breakfast and over the course of the day was essentially the same.
- Although few students ate two or more substantive breakfasts, treatment school students (7 percent) were also more likely to do this than control school students (4 percent).

- The rate of breakfast skipping was similar and low (less than 4 percent) for treatment and control school students.
- The availability of universal-free school breakfast seems to have shifted the source of breakfast from home (or elsewhere) to school in the treatment schools.

### Student Behavior—Disciplinary Incidents

- Although Year 1 findings indicated a significantly higher rate of disciplinary incidents in treatment schools as compared to control schools, there was no difference in the total number of daily incidents in Year 2 or Year 3.

### Academic Achievement Test Scores, Attendance and Tardiness

- There was no clear indication that the pilot had any impact on gains in academic achievement test scores (reading and math) in any of the three years.
- There was no impact of the availability of universal-free school breakfast on the rates of attendance or tardiness in Years 1, 2 or 3.

### Student Health—Visits to the School Nurse

- In Year 2, control school students had a significantly higher rate of daily visits to the school nurse than treatment school students (4.0 versus 3.3). However, in Year 3, as in Year 1, there was no significant difference in the number of daily visits to the school nurse between students in control and treatment schools.

Additional analyses were conducted on the data that were collected from students in Year 1 to further explore the relationship between breakfast consumption and student outcomes. Findings are presented in the final report.

## Conclusion

The availability of universal-free school breakfast significantly increased school breakfast participation but had little impact on other outcomes measured over the course of the evaluation including academic achievement test scores, attendance, tardiness, health, and discipline. Although treatment school students were more likely to consume a nutritionally substantive breakfast than control school students, there was almost no difference in average food and nutrient intakes at breakfast or over the course of the day. It should be noted that these findings do not negate the importance of eating breakfast. What these findings suggest is that simply offering free school breakfast to all elementary school students would not, on average, be expected to improve academic or behavior outcomes beyond what occurs in schools already offering the SBP.