



A New Study Links School Breakfast and Academic Achievement:

School Breakfast Participation is Directly Correlated with Higher MCAS Scores among Elementary School Students

In collaboration with the Massachusetts Department of Education (DOE), the Center for Social Policy at the University of Massachusetts, Boston conducted a study of school breakfast participation and academic achievement that was sponsored by Project Bread. The study analyzed the correlation between School Breakfast Program participation and Massachusetts Comprehensive Assessment System (MCAS) scores during the 2003–2004 school year.

Method

The study focused on schools in Massachusetts where 60 percent or more of the students are eligible for free or reduced price school meals. We looked at spring 2004 English MCAS scores for students in grade three, and Math and English scores in grade four, at 228 elementary schools in 24 districts (and four charters). The data set included records on almost 14,000 students in each grade. These MCAS scores were compared with school-wide information, collected by the DOE in October 2003, about eligibility for and participation in the School Breakfast Program.

Schools were grouped into four categories according to the proportion of students eligible for free and reduced price school meals (60-69; 70-79; 80-89; and more than 90 percent). Scores were then compared across similar populations in terms of household income as indicated by level of eligibility for school nutrition assistance.

Findings

Among the 125 schools, (in 23 districts and three charters) where between 60 and 79 percent of the students were eligible for free or reduced price meals, higher school breakfast participation correlated with higher MCAS scores. This finding holds for both grades three and four, as well as for both English and Math scores, and is statistically significant.

In all cases, a participation rate of 80–100 percent in the School Breakfast Program results in significantly higher MCAS scores than participation at lower levels.

These results confirm findings from previous research showing that school breakfast participation can lead to better grades. In a study with Boston Public School students, researchers at Massachusetts General Hospital found that when students increased their nutrient intake by eating school breakfast, their math grades improved significantly.

Overcoming Barriers to School Breakfast Participation

In most schools, breakfast is still served during the hour before school starts. Children on late buses or on tight morning schedules cannot arrive in time to eat. With families increasingly pressed for time, many students fall into the group that arrives “as the bell rings.” The universal breakfast model, created to eliminate stigma and make breakfast free to all students, still often achieves only 30–40 percent participation when served before the bell. In the optimal model, breakfast during the regular school day becomes the standard, and over 80 percent of students participate.

Conclusion

With the introduction of the MCAS, many schools began serving breakfast to all students being tested on the day of the exam. This was based on the notion that a nutritious breakfast improves children’s ability to concentrate and follow instructions. In low-income communities, where children are more likely to come to school hungry and undernourished, school breakfast should be served every school day. Schools can encourage all students to participate in the breakfast program by offering universal breakfast as part of the school day. When they do, their students are better prepared to learn and achieve.