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The Impact of Participation in Supplemental Educational Services (SES) on Student Achievement: 2007–08

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Summary

This study evaluated the impact of participation in SES on the academic achievement of LAUSD students for the 2007–08 school year. The major findings of this study were as follows:

- Overall, SES participants demonstrated higher average performance on the California Standards Test (CST) in both ELA and math, although the effect size was very small.
- For ELA, SES participants performed better than non-participants at all three school levels—elementary, middle, and high. For math, participants outperformed their peers at the elementary and middle school levels.

Although these findings suggest that SES has a positive impact on student achievement, it should be noted that SES participation adds an average of less than 5 scale points to a student’s score. Given the high cost of SES and their small impact on student achievement, policymakers may wish to evaluate the cost effectiveness of SES.

Overview

The No Child Left Behind (NCLB) Act of 2001 requires schools that fail to make progress in improving the percentage of students proficient in core academic subjects to offer supplemental education services (SES) to their low-income students. SES provide students with tutoring in English–language arts (ELA) and math during non-school hours, typically online or through individual or small group sessions. Providers of SES may include schools or school districts, as well as for-profit, non-profit, and faith-based organizations.

Since SES were first offered in 2002–03, the number of LAUSD students participating in SES and the annual budget for outside providers of SES has increased dramatically. From 2002–03 to 2007–08, the number of SES participants increased from 2,500 to 29,000, while the amount of Title I funding paid to outside providers increased from \$1.8 million to \$38.8 million. In addition, 2007–08 marked the first year that the majority of LAUSD students were eligible to participate in SES.

Given the cost and potential impact of SES, the Beyond the Bell asked Research and Planning to conduct a study to evaluate the effectiveness of the SES during the 2007–08 school year. The research questions for this study were the following:

- (1) Does participation in SES have an impact on students’ academic achievement?
- (2) Does the impact of SES participation vary by school level (elementary, middle or high)?

Methods

In order to evaluate the impact of SES participation, a value added regression model was used to compare the performance on the CST in both ELA and math for SES participants and non-participants. In order to conduct this analysis, two years of data on CST performance for LAUSD students was linked with data on student demographics and SES participation.

A value added regression model was used to “factor out” or control for differences in student performance that were not the result of SES participation. These differences included the student’s CST performance from the prior year, as well as the student’s gender, ethnicity, language status, and parental education. They also included school-level characteristics, e.g., the percentage of students who were English language learners, the percent that were female, etc.

The residuals from the regression model, i.e., the “value added” scores, were averaged for the group of participants and non-participants. An average residual that was higher than 0 indicated that the group had performed higher than expected, while an average residual below 0 indicated that the group had performed lower than expected. The difference in the average value added between the two groups was the estimated impact of SES participation.

- Sample size: 704,806 students enrolled in LAUSD in 2007–08
 - 54% of sample was eligible for SES
- Value added models estimated using the data for the 60% of enrolled students for which the District had CST test scores for both 2006–07 and 2007–08

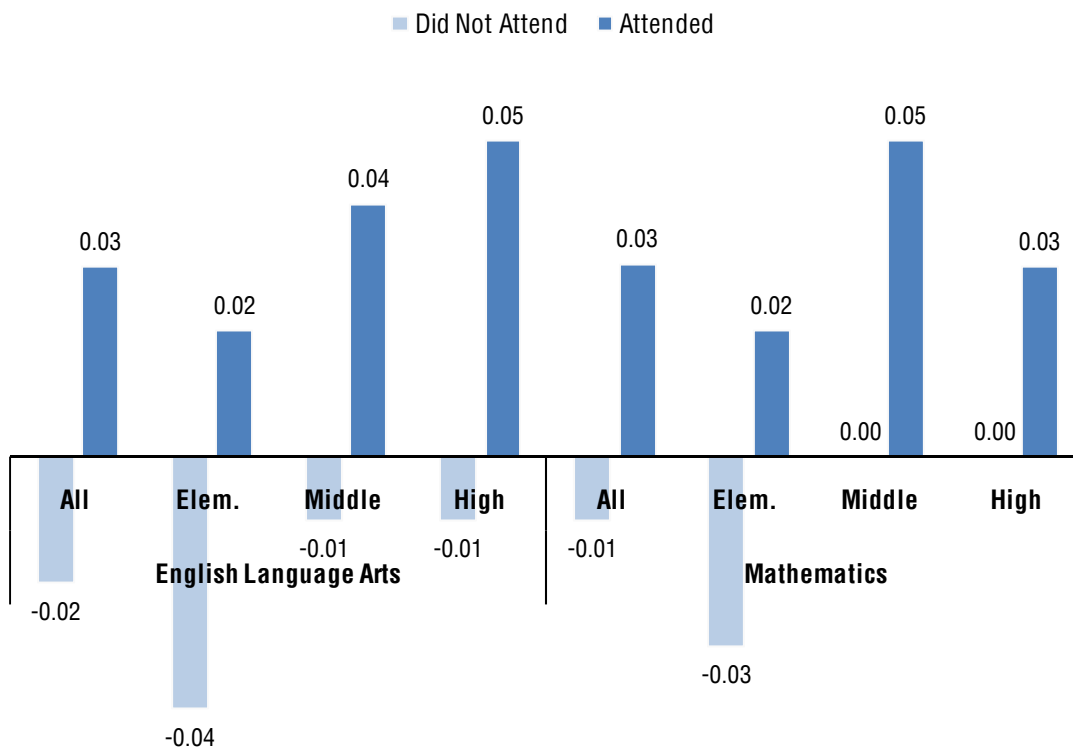
Key Findings

Overall, SES participants demonstrated higher average performance on the California Standards Test (CST) in both ELA and math, although the effect size was very small.

Student Group	Average Value Added	
	ELA	Math
Applied for SES, But Did Not Attend	-.02	-.01
Attended SES	.03	.03
Estimated Impact of SES Participation	.05	.04

For ELA, SES participants performed better than non-participants at all three school levels—elementary, middle, and high. For math, participants outperformed their peers at the elementary and middle school levels.

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As shown in the preceding graph, SES participants scored higher in ELA than students who applied for SES but did not attend at the elementary, middle, and high school levels. SES participants scored higher in math than those who applied for SES but did not attend at the elementary and middle school levels, but not high school.

Conclusion

As shown in previous LAUSD studies, SES participation has a positive impact on the CST performance of LAUSD students, but the effect size is small, and is equivalent to less than 10 scale points. Given the high cost of SES and their small impact on student achievement, policymakers may wish to evaluate the cost effectiveness of SES, particularly prior to the re-authorization of NCLB.

One limitation of this study is that it relies on CST test performance, and does not look at the overall quality of SES services. Future studies of the impact of SES may wish to explore actual quality of instruction within the classroom, as well as parental and student levels of satisfaction with services.

For more information regarding this study see the full report:

Barnhart, M. K., The Impact of Participation in Supplemental Educational Services (SES) on Student Achievement: 2007–08. Research and Planning No. 2009–04. Available Online: research.lausd.net.