

Reference: Krueger, A. & Whitmore, D. (2001). The effect of attending a small class in the early grades on college-test taking and middle school test results: Evidence from Project STAR. Economic Journal, 111, pp. 1-28.

STRUCTURED ABSTRACT

Background: Project STAR was a major randomized-controlled field trial in Tennessee where students were randomly assigned to small class sizes of about 13-17 students or regular class size of about 22-25 students in kindergarten through third grade. Teachers were likewise randomly assigned to small size or regular size classes. The study took place between 1985 and 1989 and involved more than 11,600 students; approximately one-third of the participating students were black. As one of the very few examples of a large-scale experiment in education in the United States, it is important to follow the progress of the former participants in this study over time to help determine the long-term outcomes of small classes in the early elementary grades.

Purpose: To examine the long-term impact of being assigned to a small class in the early elementary grades by examining college-entrance exam data.

Population: 9,397 high school seniors who formerly participated in Project STAR.

Research Design: Quantitative comparison. Long-term follow-up of participants in Project STAR, the Tennessee class size randomized-controlled field trial

Data Collection and Analysis: In the summer of 1998, ACT, Inc. and the Educational Testing Service provided ACT and SAT college entrance exam data for former participants in Project STAR, most of whom had graduated from high school as the Class of 1998. SAT and ACT records were searched nationwide; 9% of former Project STAR participants were found to take either the ACT or SAT outside of Tennessee.

Findings: Nine years later, students who had been randomly assigned to small class size in kindergarten through third grade were more likely than students who had been assigned to regular class size to take the ACT and SAT college entrance exams: 43.7% of high school seniors who had been initially assigned to small classes in the early elementary grades had taken the ACT or SAT exam, compared to 40.0% of students assigned to regular size classes during that same time period. The difference was even more pronounced for black students: 40.2% of black high school seniors who had been assigned to small classes had taken the ACT or SAT exam, compared to 31.7% of black students assigned to regular size classes. As a result, the gap in the test-taking rate between white and black high school seniors taking the college entrance exams was 54% smaller among students assigned to small classes in Project STAR than students assigned to regular size classes.

After statistically adjusting for the fact that a smaller number of high school seniors (and thus a more selective cadre) had taken the ACT and SAT exams from the group of students who had been assigned to regular size classes in Project STAR, students who had been assigned to small classes in kindergarten through third grade were found to outperform their counterparts who had

been assigned to regular size classes on the ACT and SAT by 0.1 standard deviation overall; among black students, the difference was about 0.2 standard deviations.

Conclusions: Students assigned to a small class in kindergarten through third grade were more likely to take the ACT or SAT college entrance exam by the end of high school, increasing their prospects of attending college. This benefit of small classes was especially salient for black students.