

What Have Researchers Learned from Project STAR?

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This paper provides an overview of the research on Tennessee's Project STAR, a randomized class-size experiment conducted in the mid-1980s. In the experiment, students and teachers in kindergarten through third grade were randomly assigned within seventy-nine schools across the state to a small-size class (fifteen students), a regular-size class (twenty-two students), or a regular-size class with a full-time teacher's aide. Overall, students performed 0.15 to 0.20 standard deviation higher when they were assigned to small classes, and African American students achieved even larger gains. After all students were returned to regular-size classes in fourth grade, children who had been assigned to small classes continued to score between 0.03 and 0.11 standard deviation higher on annual standardized tests. Small-class students also showed increases along other measures of outcomes: they were more likely to take a college entrance exam and were less likely to bear a child as a teenager or to be arrested. Although there were some violations of randomized assignment when the experiment was implemented, the results hold up when these shortcomings are accounted for. Based on the impacts on test scores alone and their projected impact on future earnings, a cost-benefit analysis indicates that the investment is worthwhile. Finally, because of randomized assignment, the experiment also afforded a chance to investigate other aspects of the education production function, such as the impact of teachers who were the same race as the student, teachers who were receiving merit pay, and peer composition of the classroom.