

Points

ASQ

Class Size: Counting Students Can Count

For many parents, educators, and policymakers, smaller classes are an apparently foolproof prescription for improving student performance: Fewer students means more individual attention from the teacher, calmer classrooms, and consequently, higher test scores. Is the answer that straightforward?

Most education research has confirmed that small classes do yield benefits. But research also has revealed nuances about how and when small classes will work best, where an investment will result in maximum return, and exactly how many students a “small” class should have. The details of these findings can help policymakers strike a practical balance between making classes smaller and breaking the bank in these budget-conscious times.

The STAR Experiment

The nationwide trend toward smaller classes was prompted by a class-size reduction experiment in Tennessee called the Student/Teacher Achievement Ratio, or STAR (1985–1989).

Additional Research

Other research on class-size reduction adds to the STAR findings. One example: Wisconsin's Student Achievement Guarantee in Education (SAGE) project, a statewide effort to increase the academic achievement of children living in poverty.² Using roughly the same K–three class sizes, SAGE reinforced STAR's results in a different location and with a different ethnic composition. SAGE also showed that the impact is greater for low-income students.

While small classes benefit all kinds of students,³ much research has shown that the benefits may be greatest for minority students or students attending inner-city schools. For these students, smaller classes can shrink the achievement gap and lead to reduced grade retention, fewer disciplinary actions, less dropping out, and more students taking college entrance exams.⁴

The most dramatic impact seems to be achieved by reaching students early. Ideally, students should experience small classes of 13 to 17 students when entering school, in either kindergarten or first grade. While there is strong evidence of academic improvement during the first two years spent in a small class, there is more ambiguity about the value of additional years. It is not certain that there are added gains during second- and third-grade small classes.⁵ Yet, recent studies indicate that, after the students have returned to regular-sized classes (in fourth through eighth grade), students who were in small classes for three or four years retain a greater advantage.⁶

Why It Works ... and When It Might Not

Changes in student and teacher behavior are believed to be a major reason why small classes work.⁷

Teachers in small classes pay greater attention to each pupil. Students in these classes experience continuing pressure to participate in learning activities and become better, more involved students. Attention to learning goes up, and disruptive and off-task behavior goes down.

Just placing another adult in the class does not achieve the same results, however. In the STAR experiment, policymakers thought that assigning full-time paraprofessionals to assist teachers might be a

low-cost alternative to reducing class size. But careful analysis of the STAR data has made it clear that an aide in the classroom has no positive impact on student achievement or behavior.⁸

Also, it seems that class sizes must be reduced substantially to achieve the benefits. There is no experimental research suggesting that any benefits are realized by subtracting only a few children from a larger class — for example, transitioning from 28 to 25 students. Even a class of 20 students may be too large.

Paying for Smaller Classes



Not

Facts at a Glance

- ▶ For minority students, smaller classes can shrink the achievement gap and lead to reduced grade retention, fewer disciplinary actions, less dropping out, and more college-entrance test taking.
- ▶ Small classes have the greatest impact when experienced in the early grades. A kindergarten or first grade class of 13 to 17 students is ideal.

