

## What the research says about **CLASS SIZE**

### HOW IS CLASS SIZE DEFINED AND MEASURED?

Class size is the number of students in a given course or classroom. Average class size is the average (mean) number of students taught by classroom teachers. This differs from student to teacher ratio in that for the ratios, all licensed staff in the building (e.g. librarians, speech therapists, academic support specialists) count towards teachers in the ratio. For example, a student to teacher ratio of 20:1 may translate into a class size of about 30. What is considered a 'large' or 'small' class size varies widely depending on grade level, make-up of the student body, as well as personal opinions.

### WHY THINK ABOUT RESEARCH ON CLASS SIZE?

Class size is a highly political and debated topic. Many campaigns, policies, and lobbying efforts have been built around the class size debate. It is easy to see that very high class sizes are difficult for any teacher to handle, and very small class sizes are fiscally unattainable with current educational funding levels, but where to land in the middle is a hotly debated topic. In a large national poll, 77 percent of American indicated that decreasing class size is a better use of resources than increasing teacher salaries (Howell, West, & Peterson, 2007). But is the public opinion backed by research?

### COMMON BELIEFS/MYTHS ABOUT CLASS SIZE?

A common myth about class size is that reducing class size may be the closest thing we have to a 'silver bullet' in education. It makes intuitive sense to most people that smaller class sizes lead to more individualized attention from teachers, and thus improving outcomes for students. But these assertions are made without taking a closer look at the research as well as more deeply investigating the cost-benefit analysis of altering class sizes.

### RESEARCH SAYS:

While class size may be the most researched area in education (Biddle & Berliner, 2002), the research is not conclusive. The most famous and most cited study on class size is the Tennessee STAR (Student/Teacher Achievement Ratio) Project which began in the 1980s. It is arguably the largest, best-designed, field experiment on the issue (ibid). The results are generally favorable for class size reduction, and provides some evidence that smaller class sizes can positive long-term impacts. However, some questions have been raised regarding the design (e.g. parents advocating to have their child switched into small classes) and whether the findings were generalizable across different contexts. The method of meta-analysis pulls together information from a lot of different studies on the same topic (Robinson, 1990, Biddle & Berliner, 2002). These types of analysis have shown that class size reduction has larger effects in lower grade levels (K-3), for students with lower socioeconomic status, and in the area of reading (ibid). While most class size research is based on standardized test scores, some research supports positive social and emotional results for students and increased morale and attitude for teachers (Robinson, 1990). More recent analyses of the topic have turned to cost-benefit analyses. Human resources are the highest expenditure for school districts, so altering class size has large fiscal ramifications. In an examination of 3,000 studies and 35 educational interventions, Walbery (1984) found that class size reduction has the smallest positive effect (+.09) as compared to some instructional interventions that had positive impacts 13 times greater (+1.17). Although class size reduction is a common proposed way of improving student learning, research does not support that reduction in class size will inherently result in student achievement gains (Robinson, 1990). In more recent research, John Hattie has shown class size to have an effect size of 0.21. Hattie says, "Certainly reducing class size has a small increase on achievement -- but the problem that has been found is that when class size is reduced teachers rarely change their practice so it is thus not surprising that there are small differences" (2008). A more research-supported focus would be on instructional improvements that are known to have much higher impacts and cost less.



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