

# THE Center for Education Reform



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## **DEBUNKING THE CLASS SIZE MYTH: HOW TO REALLY IMPROVE TEACHER QUALITY**

*Americans are being swept away by the conventional wisdom on class size. This policy issue — long dormant while policymakers searched for more intensive ways to improve schools — is suddenly back on top of the nation's education agenda. Education groups — among them the teacher's unions, PTA and school boards — have convinced Washington and many state capitals that unless they do something about lowering class sizes, our children will suffer. At the same time, these very groups claim that public education has never been better. So why all the clamor?*

### **Class Size and Its Impact on Teaching**

A common argument for adopting a policy of reducing class size throughout the schools is that a teacher's ability to reach his or her students will grow as class numbers decrease. In other words, the number of students in the class effects the teacher's success more than the teacher's experience knowledge or teaching style. That does not explain why students in some private schools, in classes of thirty or larger, frequently outscore their public school counterparts. Students in other industrialized countries frequently take math classes which average 40 students large and yet they consistently score better in math than American children. In fact, according to a 1999 study by Pennsylvania State University, a good teacher can make a difference in a class, despite its size or makeup, as can a good curriculum.

### **Class Size and Its Impact on Student Achievement**

Many education and government leaders in favor of class size reduction base their advocacy on a four-year study conducted in Tennessee called Project STAR. The report concluded that some children in classes of 13-17 children performed better in certain subject areas. Project STAR also noted that students who participated in the smaller classes in the lower grades and were then returned to regular size classes still performed better than their peers who had never had the smaller classes, "although the scores narrowed as the years went on."

### **What We Really Learn from Project STAR**

The Tennessee STAR study found that smaller classes helped disadvantaged students, many of whom were African-American, more than most. Black students in the larger first-grade classes scored 14 percent below whites on a key reading test, but the gap narrowed to 4 percent in the smaller classes. A major study of class size by the Rand Corporation of Santa Monica, California, reached a similar conclusion: Smaller

classes benefit students from low-income families most, middle-class children less, and those from upper-income backgrounds least of all. Finally, the class benefits of smaller class size, even in these groups, have no effect if those same children are given poor teachers or a substandard curriculum.

Project STAR has been the impetus for the federal government's more than one-billion-dollar expenditure to local school districts for two consecutive years. But the study has been widely criticized for failing to reproduce the kinds of effects that one would expect in order to replicate the program nationwide. STAR fails to demonstrate long term effects. Caroline Hoxby, assistant professor of economics at Harvard University, criticized the study's methodology, saying the "participants were mindful of the rewards being contingent upon the outcome," which made the results biased.

Additional data suggest similar problems with class size proposals. The 1999 Pennsylvania State University study done by Suetling Pong concluded that the effect of class size on achievement is very small. It compared ten industrialized nations other than the U.S. and found that students in Australia, Flemish Belgium and France did significantly better in *larger* math classes. Class size had no effect on students in Canada, Germany, Iceland, South Korea and Singapore. And students in Japan, who consistently outscore U.S. students in math and science frequently, attend math classes of 40 or more students.

### **The Solution is in the Research**

Numerous studies have been conducted trying to assess the effectiveness of class size reduction. However, a more reliable body of research exists which shows the biggest influence on student achievement is teacher quality. Ensuring quality teachers in every classroom is beginning to take center stage over more simplistic class size proposals.

*The Value-Added Assessment:* A major research effort undertaken in Tennessee found that the single most important variable in student academic progress is having an effective teacher. At the University of Tennessee, Professor William Sanders found in his Value-Added Assessment study that students regularly assigned to more effective teachers have an advantage in terms of attaining higher levels of achievement. Low achieving students were the first to benefit from effective teaching, but top level teachers also facilitated gains for students of all achievement levels. Students of all ethnicities benefit from increased teacher quality. The most startling finding was that the residual effects of teachers (both effective and ineffective) were still measurable two years later, despite the effectiveness of teachers in later grades. Whether a child is two years behind, in an inner city school, or a just slow learner, it is clear that a good teacher has the power to make all the difference in his achievement.

Others have added their own conclusions to the growing evidence that teachers matter most. Better Teachers, Better Schools by the Thomas B. Fordham Foundation, found that too many teachers lack a college degree in the curriculum area that they teach, many have weak verbal skills and one in five leave teaching colleges feeling unprepared to teach in today's classroom. Clearly teacher quality is important and must be improved before hiring teachers en masse to reduce class sizes. The Fordham

study came to a number of conclusions on this issue, such as giving teachers the opportunity to increase their knowledge base and making sure colleges of education beef up curricula so teachers come out of college with strong content knowledge, rather than often useless theory.

### **Flexibility and Accountability**

If teacher quality is paramount, what policies exist to guarantee an expert in front of every child? Several important, proven practices have begun to spring from recent efforts in school reform:

- 1) *Charter schools*: These public schools of choice are open to all children, autonomous from most existing public school rules and regulations and are required to demonstrate success. Charters have an incentive to hire high quality teachers and may hire experts in a field that do not have traditional certification. They may set up different rewards and incentives as well.
- 2) *Alternative Certification*: Traditional public schools are required to hire teachers certified by existing rules. Certification is earned by graduation from an accredited teacher education program and the completion of a basic skills exam. Yet there's no guarantee that an education degree and passage of a lower-level test provides for great teachers who know math, history, science or the like. Alternative programs have been created in many states, and research from early efforts show that alternatively certified teachers are higher quality. For example in New Jersey alternative certification was put into place in 1984 to put stronger teachers in the classroom. Consequently, studies show that applicants of this program had higher scores on teacher licensing tests than traditionally prepared teachers, lower attrition rates, and became the dominant source of minority teachers for both urban and suburban schools.
- 3) *Consequences*: If there is no relationship between how a teacher performs and how well her students do, what incentive is there for a teacher to strive higher? The concept of performance must be tied to a teacher's pay and renewal contracts should be instituted for quality individuals rather than lifetime tenure.
- 4) *Follow the money*: If schools want to lower class sizes, let them do so on their own, in classes that they believe it makes the largest difference. Right now, that's all but impossible as the money for schools is controlled by the school districts, and therefore, class size is controlled both by the central office and through teacher union contracts. Some states already require a certain minimum and maximum number of students in each class. While that may sound worthwhile, it robs individual schools of any flexibility to determine the conditions under which a certain class size is optimal.

## Conclusion

State policymakers have already begun to adopt the class size argument as a way to win friends and influence communities. Unfortunately, there is no guarantee that the mass hiring of teachers to reduce class sizes to between 15 and 18 in the early grades will yield the results the advocates claim. In California, a shortage of certified teachers is making it difficult to hire good teachers in many areas. It's clear that even a class of ten may not learn if the person leading that class does not possess high caliber knowledge and teaching skills.

Parents and educators alike should be aware that this latest craze to try to reform education by tinkering with class size is a small, relatively inconsequential policy move over the length of a child's schooling.

For more information on the effects of class size, please see the following publications: "One Size Does Not Fit All," by Chester E. Finn & Michael J. Petrilli, *Teacher Magazine*, January 1999; "The Elixir of Class Size," by Chester E. Finn & Michael J. Petrilli, *The Weekly Standard*, March 9, 1999; "The Evidence on Class Size," by Eric Hanushek, *Earning and Learning: How Schools Matter*, Brookings Institute (1999); "The Failure of Class Size Reduction," by Tom Dawson, *San Diego Tribune*, July 7, 1999; and "Politicizing Class Size," by Casey Lartigue, *Education Week*, September 29, 1999.

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