Smaller classes become big issue

Andrew Leigh
Justin Wolken

STUDENT-TEACHER ratios are going to be a major issue in 2002, especially in NSW, where the Primary Principals Association and Teachers Federation have launched campaigns for reduced class sizes.

But are the would-be reformers right that "Twenty is Plenty"?

It is almost certainly true that smaller class sizes will make classroom life more pleasant for teachers, and probably also for children. But the more important question is whether there will be any educational benefit.

Unfortunately, research on this question is scantier than most advocates seem willing to admit. This is because small classes tend to appear in two contexts—in rural Australia or in rich private schools. Comparing the outcomes in these settings with larger classes found in urban public school yields contrasting results

Moreover, comparisons within a school are not much better. Principals often tend to use small classes as a means of enriching gifted students or remedying disadvantage among at-risk students. Thus, comparisons of the performance of small and large classes may obscure more than they reveal.

In the absence of any good Australian experimental evidence, both advocates and sceptics have drawn—often selectively—from American research. But until very recently, most of this research has been of poor quality.

An influential review by Stanford's Eric Hanushek concluded that evidence tended to support the claim that smaller class sizes would improve student achievement. But while this militates against across-the-board reductions in class size, Hanushek argues that there probably are gains from reducing student numbers in specific circumstances—such as for disadvantaged and at-risk youth.

This is where the debate rested until the results from Project Star materialized. One of the largest education policy experiments ever conducted, Project Star compared class sizes in a randomly selected group of Tennessee schools.

Students from these schools were then compared with a control group who had experienced no such reduction in student-teacher ratios.

When follow-up studies were conducted, Princeton's Alan Krueger and collaborators concluded that test scores of those in smaller classes had indeed improved by a substantial margin, relative to those in larger classes.

Patria Forsythe, the New York City Department of Education, has claimed lately to have been following the US evidence closely. Presumably Project Starunderpins her claim that "the weight of evidence in relation to smaller class sizes for the beginning years of school seems to be compelling." But is Project Star compelling?

The sceptics doubt it. Social science has long known about the Hawthorne effect—the tendency of subjects to alter their behaviour when they know they are being observed.

In the past few years, the most persuasive piece of evidence in the class size debate has been a novel study by Harvard University's Caroline Hoxby. Instead of conducting a new experiment, Professor Hoxby adopted an ingenious research strategy, looking for a "natural experiment." As in Australia, many US schools have a rule that when class sizes exceed a fixed number, another class will be created.

For example, if class sizes were capped at 25 students, one school may have 50 students in second grade, yielding two classes each with 25 students, while a neighboring school with 55 second-graders would have three much smaller classes.

By examining many such natural experiments, Hoxby's study avoided distorting the regular incentives that teachers face.

The results of this study have turned the class size debate on its head. Using her analysis on a large sample of Connecticut schools, Hoxby found that the effect of smaller class sizes was precisely nil.

This research supports the view that the effects of across-the-board class size cuts should not deter education reformers from seeking innovative solutions to improve the quality of education. Better teacher training, fresh ways of improving teacher quality in poorer areas, remedial after-school programs, and targeted class cuts are all potentially effective strategies of raising student performance.

Andrew Leigh is a Frank Knox scholar at the John F. Kennedy School of Government. Justin Wolken is an assistant professor of economics at Stanford Business School.