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The Impact of Class Size on Teacher Retention

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It's Elementary

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A great deal has been written about the impact of class size on student performance, but far too little attention has been paid to another important issue concerning class size, namely, the impact of class size on teacher retention. Fortunately, a recent Ph.D. dissertation by Emily Pas Isenberg, who was a graduate student associated with EFAP, sheds important new light on this issue.[1]

Most scholars agree that, within limits, smaller class sizes lead to higher student performance, all else equal. Nevertheless, class-size-reduction policies are often controversial because they are expensive. Reducing class size from 30 pupils to 20 pupils, for example, requires a 50 percent increase in the number of teachers, and hence might require a 50 percent increase in a district's teacher-salary budget. In fact, however, reducing class size might also reduce teacher attrition. Teachers might find, in other words, that smaller classes lead to less stress and more satisfaction—and hence less interest in moving to another district. If so, this policy would save the district money in the form of lower separation, recruiting, hiring, and training expenses, which might save the district several thousand dollars each time a teacher is convinced not to leave. Moreover, this policy might also raise the average experience level of the districts' teachers, which is one indicator of teacher quality. Thus, the net impact of a class-size-reduction policy on both education costs and student performance depends on the extent to which this policy affects teacher attrition.

[1] Emily Pas (now Emily Pas Isenberg), "The Effect of Class Size Reduction on Teacher Attrition and Recruitment: Evidence from Class Size Reduction Policies in New York State," Essay Two in *Essays on Teacher Labor Markets and Educational Disparities*, Ph.D. Dissertation, Department of Economics, Syracuse University, June 2007.

Dr. Isenberg studies this issue using data on teachers in New York State, which implemented a class-size-reduction program for early elementary grades beginning in 1999. This program (and a comparable federal one) did not provide enough funding for districts to reduce class sizes in all early elementary grades. This led to a type of natural experiment in which each district reduced class sizes in some grades but not in others. Dr. Isenberg carefully takes advantage of this situation to determine whether teachers affected by the class size reductions associated with these state and federal policies were less likely to leave a school district than were unaffected teachers.

Dr. Isenberg finds that class size reduction in early elementary grades does lower teacher attrition. To be specific, she finds that a decrease in class size from 23 to 20 students decreases the probability that a teacher will leave a school district by 4.2 percentage points. Compared to other factors that influence teacher attrition, this is a large effect.

This result implies that simply looking at new salary costs overstates the net cost of a class-size-reduction policy, perhaps significantly. The debate about this type of policy should recognize and calculate the cost savings associated with lower teacher attrition.

In addition, Dr. Isenberg finds that districts in New York tended to hire relatively inexperienced teachers when expanding their teacher force to support lower class sizes. Other states that decide to lower class sizes are likely to have a similar experience, because additional experienced teachers are often not available. Hence, a class-size-reduction policy has a negative short-run impact on teacher experience, as inexperienced teachers are hired, and a positive long-run impact, as smaller class sizes convince more teachers to stay in the district.

Dr. Isenberg's findings may be particularly important for schools with high concentrations of disadvantaged students, which have relatively high rates of teacher attrition. Existing research indicates that these schools would have to offer huge salary increases to bring their attrition rates down to the level in schools with few disadvantaged students (see my July 2007 column). As a result, policies to reduce class size may, in the long run, prove to be more cost effective than salary increases as a way to retain teachers and boost teacher experience in schools with concentrated disadvantage.