Highly Effective Teacher Retention Bonuses

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Proponents of teacher evaluation and tenure reform often argue that if we could identify the least effective teachers in the profession and somehow replace them with teachers of average effectiveness, the improvements in student outcomes would be substantial. However in many of the lowest performing, highest poverty schools, where rates of teacher turnover are high across the board, the larger challenge may be identifying and retaining their most effective teachers, who are typically replaced by teachers whose measured effectiveness is well below average. In the spring of 2013, Tennessee’s $2.1 million pilot program offering retention bonuses to the highest rated teachers in the lowest rated schools set out to do just that.

The bonus program enabled all Priority Schools (the bottom 5% on a composite of student outcomes) to offer any classroom teacher who earned the top rating designation (Level 5 or “Significantly Exceeds Expectation”) on the statewide teacher evaluation system a $5,000 bonus if they returned to a Priority School the following year. Tennessee categorizes teacher effectiveness (1 to 5) based on whether a teacher’s overall score on a composite of observation scores, school-wide growth scores, and an individual achievement score (test score value-added for teachers of tested subjects and grades) falls above or below a series of cut scores. We are subsequently able to estimate the programs impact on teacher retention by comparing the decisions of teachers whose overall ratings fell just above or below the Level 5 cutoff in a regression discontinuity (RD) framework.

In spite of the relatively late announcement of the bonus program (voluntary transfer application windows were already open) we found that, for teachers of tested subject areas, the receipt of a $5,000 retention bonus helped keep successful instructors in their struggling schools. Specifically, receipt of a bonus increased the likelihood of retention of these high performing teachers by roughly 20 percent.

The increased retention of effective teachers is particularly promising when we compare these high performers to the average replacement teacher in Priority Schools. Teachers who accepted bonuses had overall teacher effectiveness ratings more than a full standard deviation above the state average, while the average teacher hired by Priority Schools was rated roughly two-thirds of a standard deviation below the state average. Thus, for every teacher that is retained as a result of the bonus, students taught by that teacher rather than the likely replacement experience an increase in estimated teacher effectiveness of 1.64 standard deviations.

Notably, for teachers of untested subjects and grades, effects of the bonus were indistinguishable from zero. The lack of significant effects for teachers of untested subject areas is consistent with the hypothesis that one-time bonuses are insufficient to overcome the potential perverse incentives in a teacher rating system that rewards or punishes teachers for the overall performance of the school. In the consistently low-performing Priority Schools, teachers without individual value-added scores have an added
incentive to leave, if they are interested in earning consistent high evaluation ratings.

As long as we have schools with high concentrations of disadvantaged students, and these concentrations are negatively associated with teachers’ sense of working conditions, we will have a policy imperative to keep effective teachers from leaving these challenging contexts. Our study of targeted retention bonuses in priority schools offers promising evidence regarding the efficacy of equity-oriented differentiation of teacher pay. For some teachers, though, financial rewards may be inadequate to overcome competing disincentives, underscoring the need for further examination of the interactions of working conditions, non-monetary policy incentives, and compensation. However, because of large differences between the effectiveness of bonus eligible teachers and their likely replacements, targeted bonuses have the potential to yield significant benefits to students under a range of plausible effects. Retention bonuses tied to teacher performance could serve as a cost-effective alternative to systematic layoffs or other punitive measures, due to reductions in costs associated with turnover.
