



## How Retention Bonuses Can Help Keep Highly Effective Teachers in Struggling Public Schools

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Proponents of teacher evaluation and tenure reform often argue that if we could identify the least effective teachers and somehow replace them with teachers of average effectiveness, student outcomes would improve. But in many of the lowest performing schools in high poverty areas teacher turnover is very high. In such schools, the real challenge is to identify and retain the most effective teachers, because when good teachers leave they are often replaced by less effective instructors. In the spring of 2013, the state of Tennessee set out to tackle this challenge – with a \$2.1 million pilot program to offer retention bonuses to the highest rated teachers in the lowest rated schools. My colleagues and I have done research to measure the effectiveness of this program.

### Tennessee's Retention Bonus Pilot

In the Tennessee bonus program, all “priority schools” – those that measure in the bottom 5% on a composite of student outcomes – are allowed to award a \$5000 bonus to any classroom teacher who earned a top rating in the statewide teacher evaluation system, if that teacher returns the following year to teach at a priority school. Tennessee categorizes teacher effectiveness (from one to five) based on a composite of observation scores, school-wide growth scores, and measures of how much teachers contribute to higher student test scores. In our study, we used a statistical technique called “regression discontinuity” to estimate the bonus program’s impact on the retention of highly evaluated teachers. We looked at teachers whose ratings fell just above or below the top (level 5) composite evaluation ranking to see if those with top ranks, who got bonuses, were more likely to continue to teach at priority schools compared to teachers ranked just a little lower who did not get bonuses.

### Findings on Bonus Impact

Proponents of retention incentives assume that the opportunity to earn an additional \$5,000 in income will induce bonus-eligible teachers to remain in a priority school the following year, because the bonus is greater than standard raises. Indeed, we found that the bonuses tended to work as planned. In spite of the relatively late announcement of the bonus program – after voluntary transfer applications had already started – we found that the bonuses did help to keep successful teachers of tested subject areas in their struggling schools. Specifically, receipt of a bonus increased the likelihood of retention of these high performing teachers by roughly 20 percent.

The retention of effective teachers is particularly heartening when we compare these high performers to typical replacements. Teachers who accepted bonuses had overall teacher effectiveness ratings more than a full standard deviation above the state average – and the comparison was even more significant for priority schools instructing struggling students, because the average teacher hired by such schools was rated roughly two-thirds of a standard deviation below the statewide average. In short, for every Tennessee teacher retained as a result of the bonus, students who are fortunate enough to be instructed by that teacher rather than the likely replacement enjoy an increase in estimated teacher effectiveness by 1.64 standard deviations.

However, this improvement holds only for teachers of subjects on which students are regularly tested. Notably, the bonuses had little effect for teachers of untested subjects and grades. 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, all teachers have an incentive to leave unless there is some way to show that they are having an individual impact

on student performance. Without measures of their individual performance, teachers cannot expect to earn consistent high evaluation ratings in struggling schools.

Our study also estimated the cost-effectiveness of the bonus program compared to alternative reforms that seek to elevate student achievement in struggling schools. The costs of bonuses for every student affected turn out to be modest compared with other programs such as No Child Left Behind's supplemental education services, summer school, or reductions in class size. Notably, these alternative interventions are often undercut or made more costly by constant teacher turnover in struggling schools. Such turnover makes reforms hard to carry through and forces school administrators to spend extra time and money on separations, hiring, and training.

## **A Promising Approach, if Done Right**

As long as some schools serve high concentrations of disadvantaged students, communities will face the challenge of retaining the teachers who do best in such difficult settings. Our study shows that bonuses can help meet this challenge in an equitable and cost-effective way.

- A relatively small financial reward can shift teachers' decisions about whether to stay or go.
- Because teachers who earn performance bonuses are significantly more effective than their likely replacements, students benefit in most scenarios.
- Bonuses work amid the normal pattern of teacher turnover without forcing school administrators to implement layoffs or other punitive measures.
- However, bonuses need to be based at least in part on measured individual performance. Poorly designed accountability systems prompt all teachers to want to move on from schools with difficult working conditions unless they can show individual results to earn extra pay.
- As school authorities implement bonus programs along the lines of Tennessee's pioneering effort, they can take additional steps to inform and support principals and teachers in eligible schools throughout the implementation process.

**Read more in Matthew G. Springer, Walker A. Swain, and Luis A. Rodriguez, "Effective Teacher Retention Bonuses: Evidence from Tennessee," *Educational Evaluation and Policy Analysis* 38, no. 2 (2016): 199-221.**