Research Brief

RAND EDUCATION

No Evidence That Incentive Pay for Teacher Teams Improves Student Outcomes

Results from a Randomized Trial

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Abstract

Researchers examined whether rewarding teams of teachers for student performance had an effect on student achievement or teacher practices or attitudes in a demonstration project in Round Rock, Texas. They found that the intervention had no effect in any of these areas. Students taught by teacher teams who were offered incentives scored slightly better on some standardized tests, but the differences were small and not statistically significant.

In recent years, education policymakers have shown growing interest in the potential of incentive pay for teachers as a way to improve student performance. Champions of this approach contend that incentive pay based on student performance can motivate teachers to improve their teaching practices, which in turn will boost student achievement; in addition, over the longer term, rewarding quality teaching has the potential to entice better teachers into entering the profession. However, some critics argue that paying teachers for student performance may erode teacher satisfaction with the intrinsic rewards of teaching and undermine morale. To date, evidence on teacher pay-for-performance programs has been inconclusive; most studies have found no effects on student outcomes.

A Demonstration in Texas Tested the Effects of Paying Teams of Teachers for Improvements in Student Performance

Most pay-for-performance initiatives have focused on rewarding individual teachers. However, a slightly different approach has also been proposed: rewarding teams of teachers for improving the performance of students under their control. This approach is appropriate when a set of teachers share responsibility for a group of students, as they do in many schools, and it recognizes the fact that teacher team dynamics—such as group support and peer pressure—can contribute to student outcomes. However, to date, there has been little scientific study, and none in the United States, of the effect of this kind of intervention in education.

To address this knowledge gap, a team from RAND and Vanderbilt University working through the National Center for Performance Incentives conducted an experimental evaluation to test the effects of bonus pay for teacher teams. The project took place in the Round Rock Independent School District, a suburban district near Austin, Texas, with above-average levels of student achievement for the state. In Round Rock middle schools, multidisciplinary teams of teachers each worked with a distinct group of students. Starting in August 2008, the project implemented two one-year randomized controlled trials to examine the effect of a team-level teacher pay-for-performance intervention on middle school student achievement.

Over the two years, the study included 159 teams of teachers instructing students in grades 6 to 8 in nine middle schools. The incentive program offered teachers on selected teams the opportunity to earn a bonus based on their students' growth in achievement in the four core subjects of mathematics, English language arts, science, and social studies, as measured by standardized tests. The teacher bonus offers ranged from $3,800 to $5,500.

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The Study Found No Significant Effects on Student Test Scores or Teacher Practices and Attitudes

Analysis of student achievement outcomes found that the intervention had no effect on student test scores in any of the subject areas across the two years of the experiment. Students instructed by teacher teams who were offered incentives scored slightly better on some standardized tests, but the differences were extremely small and not statistically significant.

Similarly, surveys revealed that bonuses had no significant effect on teachers' reported practices and attitudes. Measured across five different categories—collaboration with other teachers, professional development, parent engagement, instructional practice, and perceptions of the intervention—the behavior and attitudes of teachers who were eligible to win a bonus were similar to those of teachers who were not eligible to win. In addition, the surveys showed that a sizable minority of teachers in both the intervention and control groups reported that they lacked a clear understanding of the intervention or had misgivings about it.

However, the surveys did reveal an interesting trend: Among teachers eligible to win a bonus, those who did not win a bonus were more likely to report that the bonus was too small to motivate them to work harder, whereas teachers who did win a bonus were less likely to agree with this statement. The difference was large, although not statistically significant after adjusting for other factors.

Incentive Pay for Teacher Teams Had No Significant Effect on Student Test Scores or Teacher Practices and Attitudes

Outcome	Measure	Intervention Effect
Student achievement	State- and project-administered standardized achievement tests	No significant effect
Teacher reports of their • instructional practices • self-improvement efforts • collaboration with colleagues • attitudes about team pay-for-performance	Surveys	No significant effect

Next Steps: Building a Clearer Understanding of Teacher Incentives

Several factors could explain why the intervention did not have greater effect. It is possible that the duration of the experiment was too short to produce results. In addition, teachers' lack of understanding of the intervention and misgivings about it could have contributed to the absence of effects. Prior research on pay-for-performance programs suggests that participants' understanding and "buy-in" to the program are key factors in success.

The researchers identified a number of questions that remain to be answered about rewarding teacher teams. For example, the Round Rock demonstration did not capture effects of the intervention that might occur over a longer period of time through changes to the composition of the teaching workforce. In addition, future research could improve understanding of which particular features of incentive programs are accepted by teachers and which particular features need improvement, so that incentive programs can be better designed to promote teacher buy-in. ■

This research brief describes work done for RAND Education documented in "Team Pay for Performance: Experimental Evidence From the Round Rock Pilot Project on Team Incentives," by Matthew G. Springer, John F. Pane, Vi-Nhuan Le, Daniel F. McCaffrey, Susan Freeman Burns, Laura S. Hamilton, and Brian Stecher, *Educational Evaluation and Policy Analysis* [Epub May 14, 2012; doi: 10.3102/0162373712439094]. This research brief was written by David M. Adamson. The RAND Corporation is a nonprofit institution that improves policy and decisionmaking through research and analysis. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. **RAND**® is a registered trademark.

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