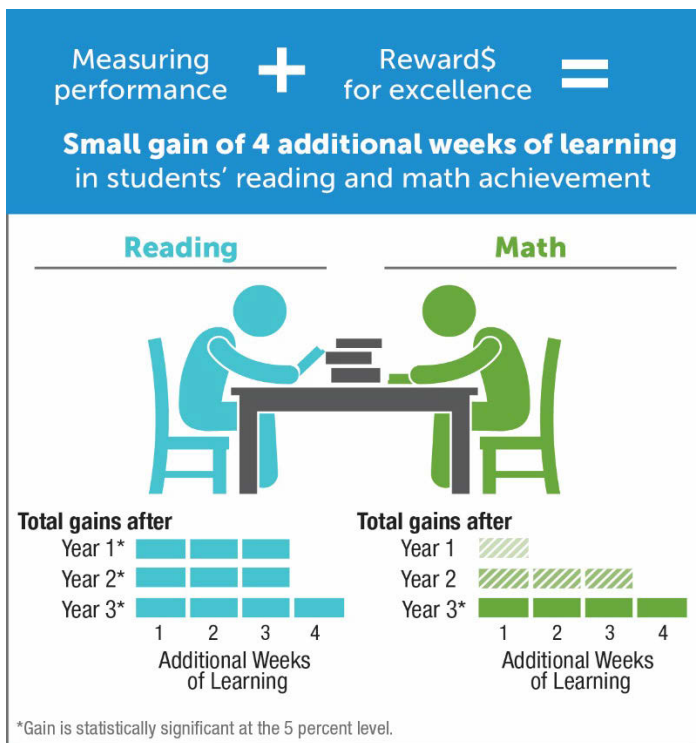


Implementation and Impacts of Pay-for-Performance: The 2010 Teacher Incentive Fund (TIF) Grantees After Three Years



After three years of implementation in 10 TIF districts, offering pay-for-performance bonuses increased student reading and math achievement by 1 to 2 percentile points—a small gain of about four additional weeks of learning.

Most districts implemented the required components of TIF, but few districts structured bonuses to align well with grant guidance, and many teachers continued to misunderstand key components of the program. The average bonus awarded to teachers continued to be smaller than suggested by the grant guidance, and most teachers received a bonus, suggesting bonuses were not challenging to earn. Similar to prior years, many teachers (43%) were unaware that they could earn a bonus and continued to underestimate the size of the bonus they could earn.

The policy context

The Teacher Incentive Fund (TIF) provides grants to support performance-based compensation systems for teachers and principals in high-need schools. The goal of the grants is to increase the number of high-performing teachers in high-need schools by rewarding educators for improving students' achievement.

In 2010 the Department awarded 62 grants, which are the focus of this study. There are three other cohorts of TIF grantees with awards in 2006, 2007, and 2012 (with 16, 18, and 35 grantees respectively).

Program details

The 2010 TIF grant application notice included two competitions: a main competition and an evaluation competition. All applicants were required to include

four program components: i) measures of educator effectiveness that included student achievement growth and observations of practice; ii) pay-for-performance bonuses designed to incentivize and reward educators *solely* for being effective; iii) extra pay for educators to take on additional roles or responsibilities such as becoming a master or mentor teacher; and iv) professional development to inform teachers about the performance measures and to provide support for improvement based on individual performance measures.

The 2010 TIF applicants that applied to the evaluation competition (hereafter referred to as the evaluation districts) were eligible for additional funding and more intensive implementation support in exchange for participating in a random assignment study of the pay-for-performance component of TIF. Evaluation

grantees also received more specific guidance about how to structure pay-for-performance bonuses.

Study approach

The report on which this snapshot is based describes TIF implementation in all 2010 TIF districts and analyzes, in greater detail, the implementation and impacts of pay-for-performance in 10 evaluation districts that implemented the TIF program for three years. Using information from the first (2011–2012), second (2012–2013), and third (2013–2014) years of TIF implementation, the report addresses the following four questions:

1. What are the characteristics of all 2010 TIF districts and their performance-based compensation systems? What implementation experiences and challenges have TIF districts encountered?
2. How do teachers and principals in schools that do and do not offer pay-for-performance bonuses compare on key dimensions, including their understanding of TIF program features, exposure to TIF activities, allocation of time, and attitudes toward teaching and the TIF program?
3. How do pay-for-performance bonuses affect educator effectiveness and the retention and recruitment of high-performing educators?
4. What is the impact of pay-for-performance bonuses on students' achievement on state assessments in math and reading?

To describe program implementation in all 2010 TIF districts, the study team surveyed the districts' TIF program administrators. To learn about the effects of pay-for-performance on educator and student outcomes within the evaluation districts, the study team assigned schools with grades 4-8 into two groups by lottery. In one group of schools, educators were eligible for performance-based bonuses. In the other group of schools, educators received an automatic one percent bonus, regardless of their performance. Both groups of schools were to implement all of the other required components of TIF. Because these two groups of schools were assigned by lottery, differences in outcomes between the groups can be attributed to the impact of pay-for-performance.

Within the evaluation districts, the study team administered surveys to principals and teachers in 132 schools (66 in each group) in spring 2012, 2013, and 2014, and conducted interviews with district administrators. The study team also collected districts' TIF administrative records to describe performance ratings, bonuses, and additional pay for teachers and principals, as well as to examine the impact of pay-for-performance bonuses on educator effectiveness. To assess the impact of pay-for-performance on students, the study team collected districts' administrative records on student test scores.

Findings highlights

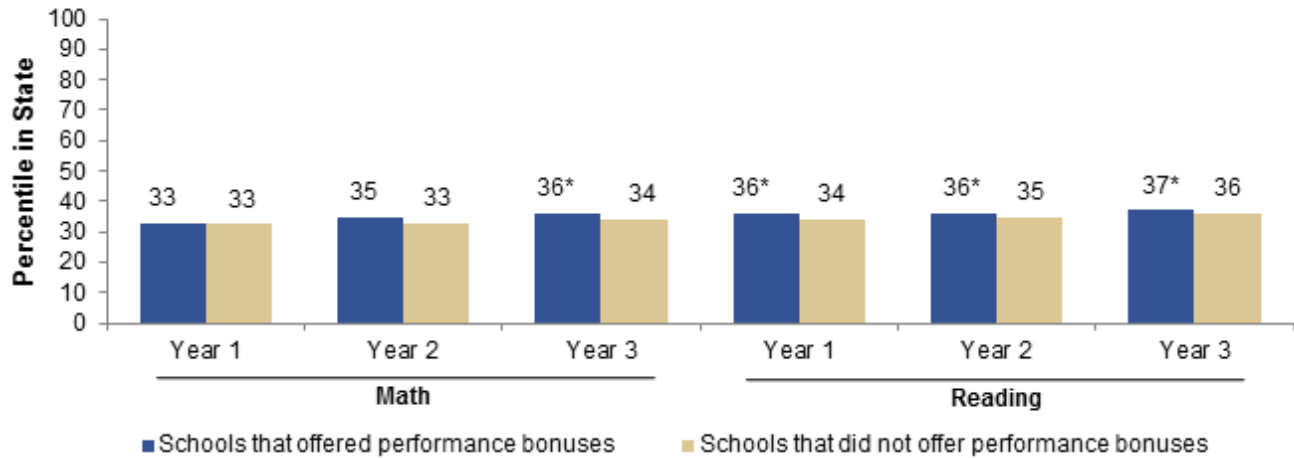
The study found that among all 2010 TIF districts:

- **Overall implementation of TIF requirements among all 2010 TIF districts was very similar in the third year of implementation as in previous years.** Similar to the previous two years, half of TIF districts in the third year reported implementing all four required components for teachers. Nevertheless, most districts (88 percent) reported implementing at least 3 of the 4 required components for teachers. Districts were least likely (70 percent) to report helping teachers improve their practices based on their performance.

For the 10 evaluation districts that completed three years of TIF implementation (the 2011–2012, 2012–2013, and 2013–2014 school years), the key findings include the following:

- **Pay-for-performance had small, positive impacts on students' math and reading achievement.** After three years of TIF implementation, the average math score was 2 percentile points higher in schools that offered pay-for-performance bonuses than in schools that did not. The average reading score was 1 percentile point higher in schools that offered pay-for-performance bonuses than in schools that did not (Figure 1). This difference was equivalent to a gain of about four additional weeks of learning.

Figure 1. Average Student Achievement in Schools that Did and Did Not Offer Pay-for-Performance Bonuses (Percentiles)



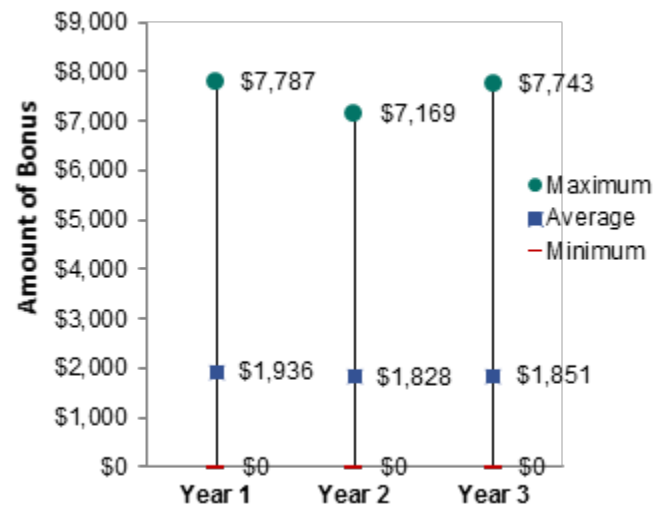
Source: Student administrative data (N = 40,847 students for Year 1 math; N = 40,708 students for Year 2 math; N = 40,037 students for Year 3 math; N = 40,571 students for Year 1 reading; N = 40,390 students for Year 2 reading; N = 39,807 students for Year 3 reading).

*Difference between schools with and without pay-for-performance is statistically significant at the .05 level, two-tailed test.

Figure reads: At the end of Year 1, students in schools that offered pay-for-performance earned an average math score at the 33rd percentile in their state, and students in schools that did not offer pay-for-performance also earned an average math score at the 33rd percentile.

- Few evaluation districts structured pay-for-performance bonuses to align well with TIF grant guidance. Overall, the bonuses were not very substantial or challenging to earn in these districts. The average teacher bonus was \$1,851 (equal to 4% of average teacher salary, less than the 5% recommended in the grant). Each year, more than 70% of teachers in the schools that offered pay-for-performance bonuses received one. However, the bonuses were differentiated, based on the Department’s guidance. The highest-performing teachers received a bonus (\$7,743 in Year 3) more than 4 times the average bonus (Figure 2).
- Many teachers still misunderstood whether they were eligible for performance bonuses or the amount they could earn. In schools that offered pay-for-performance bonuses, about 60 percent of teachers (62 percent in Year 2 and 57 percent in Year 3) correctly reported being eligible for a performance bonus (Figure 3).

Figure 2. Minimum, Average, and Maximum Pay-for-Performance Bonuses for Teachers

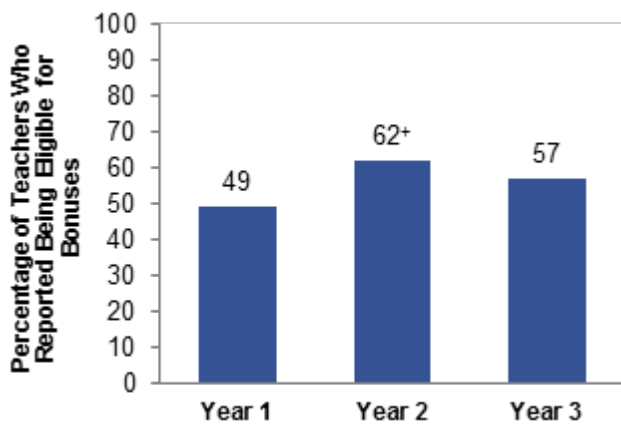


Source: District administrative data (N = 2,183 teachers in Year 1; N = 2,193 teachers in Year 2; N = 2,260 teachers in Year 3).

Figure reads: In Year 1, on average across the evaluation districts, the minimum pay-for-performance bonus for teachers was \$0, the average was \$1,936, and the maximum was \$7,787.

However, this also means that around 40 percent of teachers in the third year still did not understand that they were eligible for a bonus. Similar to previous years, teachers also continued to underestimate how much they could earn from performance bonuses, reporting a maximum bonus that was only two-fifths the size of the actual maximum bonuses awarded (Figure 4).

Figure 3. Percentages of Teachers in Schools that Offered Pay-for-Performance Bonuses Who Reported Being Eligible for Performance Bonuses

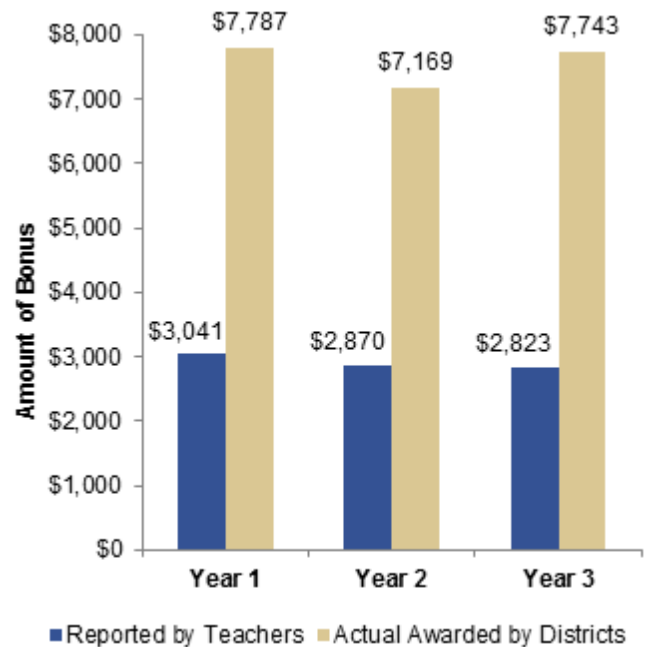


Source: Teacher surveys, 2012, 2013, and 2014 (N = 377 teachers in Year 1; N = 444 teachers in Year 2; N = 424 teachers in Year 3).

*Difference with previous year is statistically significant at the .05 level, two-tailed test.

Figure reads: Among teachers in schools that offered pay-for-performance, 49, 62, and 57 percent reported being eligible for a pay-for-performance bonus in Years 1, 2, and 3, respectively.

Figure 4. Reported and Actual Maximum Pay-for-Performance Bonuses for Teachers



Source: Teacher surveys, 2012, 2013, and 2014 (N = 223 teachers in Year 1; N = 232 teachers in Year 2; N = 232 teachers in Year 3) and district administrative data (N = 10 districts). Figure pertains to teachers in tested grades and subjects.

Figure reads: In Year 1, on average, the maximum pay-for-performance bonus that teachers reported they could earn was \$3,041, and the actual maximum pay-for-performance bonus that evaluation districts awarded to teachers was \$7,787.

Looking ahead

Because educators’ understanding of and responses to this policy may change over time, this study plans to follow the districts throughout the five-year grants. Evidence presented in the fourth and final report will provide more clarity on whether, over a longer period, the impacts of pay-for-performance change as educators have longer experience with this program.

IES develops these study snapshots to offer short, accessible summaries of complex technical evaluation reports. For the full report with technical details, see <http://ies.ed.gov/ncee/pubs/20164004/>.

Wellington, Alison, Hanley Chiang, Kristin Hallgren, Cecilia Speroni, Mariesa Herrmann, and Paul Burkander (2016). Evaluation of the Teacher Incentive Fund: Implementation and Impacts of Pay-for-Performance After Three Years (NCEE 2016-4006). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.