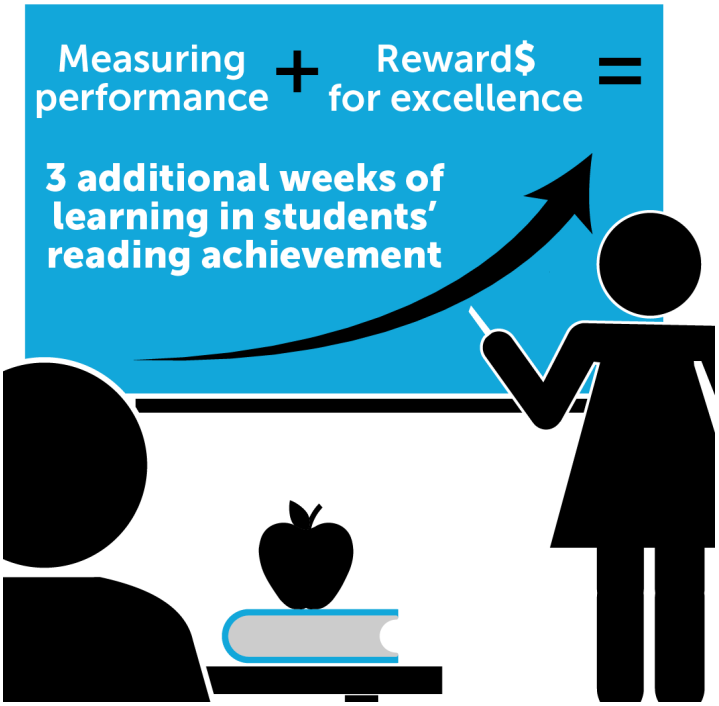
Implementation and Impacts of Pay-for-Performance:

The 2010 Teacher Incentive Fund (TIF) Grantees After Two Years



After two years of implementation in 10 TIF districts, offering pay-for-performance bonuses increased student reading achievement by 1 percentile point–a small gain of about three additional weeks of learning. The impact on math achievement was similar in magnitude but not statistically significant.

Some aspects of TIF implementation improved between the first and second years while other aspects continued to be challenging. The average bonus awarded to teachers was about 4% of average salary, less than the 5% recommended by TIF grant guidance for substantial bonuses. In the second year, substantially higher percentages of educators understood that they were eligible for a bonus, but many teachers in the evaluation districts (38%) were still not aware that they could earn a bonus. Teachers also 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

ies NATIONAL CENTER FOR EDUCATION EVALUATION AND REGIONAL ASSISTANCE
Institute of Education Sciences
U.S. Department of Education

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

In each evaluation district, schools with grades 4-8 were sorted 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.

The study team administered surveys to principals and teachers in 132 schools (66 in each group) in spring 2012 and 2013, 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.

This report describes TIF implementation in all 2010 TIF districts and analyzes, in greater detail, the implementation and impacts of pay-for-performance in the 10 evaluation districts that implemented the TIF program for two years. Using information from the first (2011–2012) and second (2012–2013) 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?

Findings highlights

The study found that among all 2010 TIF districts:

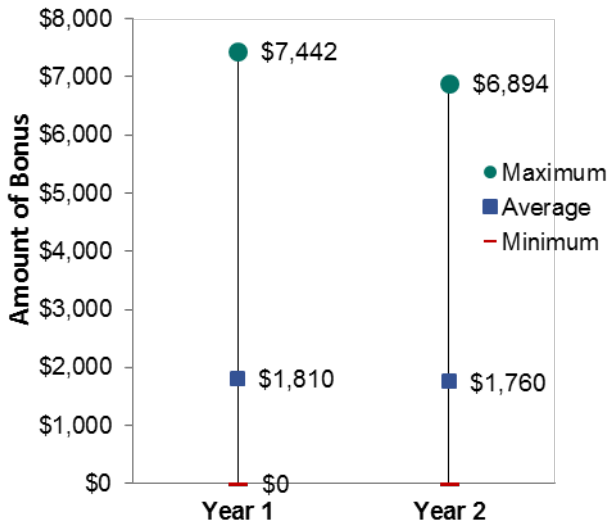
- **Full implementation of TIF continued to be a challenge, although districts' implementation from the first to the second year improved somewhat.** Although 90 percent of all TIF districts in 2012–2013 reported implementing at least 3 of the 4 required components for teachers, only about one-half (52 percent) reported implementing all four. This was a slight improvement from the first year of implementation, when 85 percent of districts reported implementing at least 3 of the 4 required components and 46 percent reported implementing them all.

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

- **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 about $1,800 (equal to 4% of average teacher salary, less than the 5% recommended in the grant for substantial bonuses). Each year, more than 60% 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 of about $7,000, more than 3 times the average bonus (Figure 1).

Figure 1. Minimum, Average, and Maximum Pay-for-Performance Bonuses for Teachers in Years 1 and 2

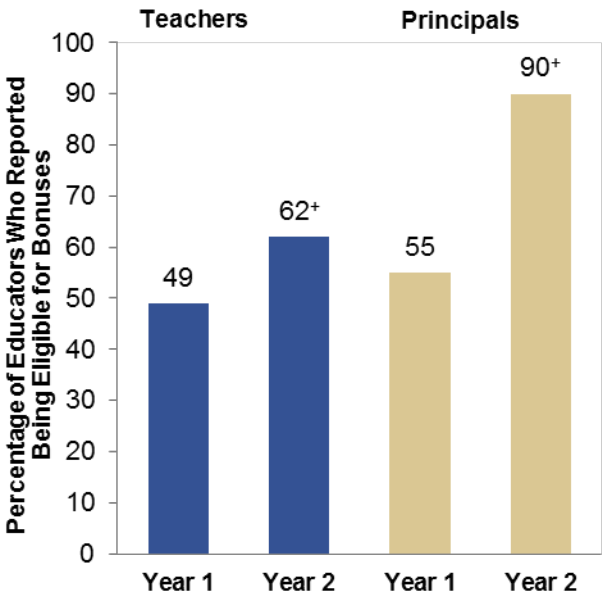


Source: District administrative data (N = 2,189 teachers in Year 1; N = 2,207 teachers in Year 2).

Figure reads: In Year 2, on average across the evaluation districts, the minimum pay-for-performance bonus for teachers was $0, the average pay-for-performance bonus for teachers was $1,760, and the maximum pay-for-performance bonus for teachers was $6,894.

- **Educators' understanding of key program components improved from the first to the second year, but 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, teachers' and principals' understanding of their eligibility for performance bonuses improved substantially (from 49 to 62 percent for teachers and 55 to 90 percent for principals, Figure 2). However, this also means that 38 percent of teachers in the second year still did not understand that they were eligible for a bonus. 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 2. Percentages of Teachers and Principals in Schools that Offered Pay-for-Performance Bonuses Who Reported Being Eligible for Performance Bonuses



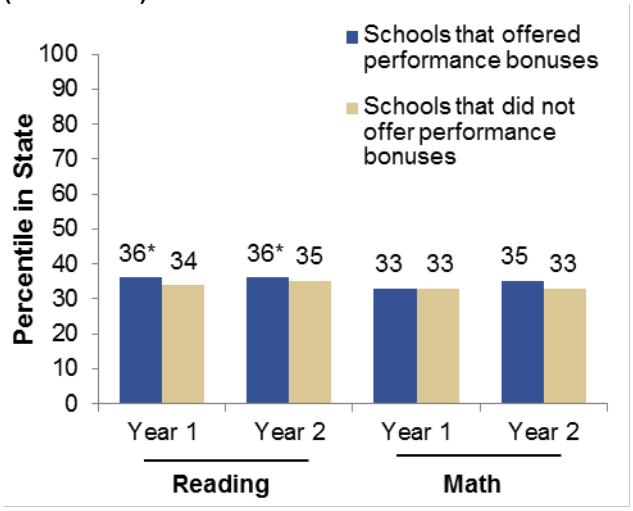
Source: Teacher and principal surveys, 2012 and 2013 (N = 377 teachers in Year 1; N = 444 teachers in Year 2; N = 64 principals in Year 1; and N = 63 principals in Year 2).

+Difference between 2011–2012 and 2012–2013 is statistically significant at the .05 level, two-tailed test.

Figure reads: Among teachers in schools with pay-for-performance, 49 and 62 percent reported being eligible for a pay-for-performance bonus in Year 1 and Year 2, respectively.

- **Pay-for-performance had small, positive impacts on students' reading achievement; impacts on students' math achievement were not statistically significant but similar in magnitude.** After two years of TIF implementation, the average reading score was 1 percentile point higher in schools that offered pay-for-performance bonuses than in schools that did not (Figure 3). This difference was equivalent to a gain of about three additional weeks of learning.

Figure 3. Average Student Achievement in Schools that Did and Did Not Offer Pay-for-Performance Bonuses (Percentiles)



Source: Student administrative data (N = 40,576 students for Year 1 reading; N = 40,391 students for Year 2 reading; N = 40,852 students for Year 1 math; and N = 40,709 students for Year 2 math).

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

Figure reads: In Year 2, students in schools that offered pay-for-performance earned an average reading score at the 36th percentile in their state, and students in schools that did not offer pay-for-performance earned an average reading score at the 35th percentile.

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 future reports 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/20154020/.

Chiang, Hanley, Alison Wellington, Kristin Hallgren, Cecilia Speroni, Mariesa Herrmann, Steven Glazerman, and Jill Constantine (2015). Evaluation of the Teacher Incentive Fund: Implementation and Impacts of Pay-for-Performance After Two Years (NCEE 2015-4020). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.