



PACER

RESEARCH for *ACTION*

ISSUE BRIEF
PERFORMANCE PAY FOR TEACHERS

April 2012

Pennsylvania Clearinghouse for Education Research (PACER)



Pennsylvania Clearinghouse for Education Research (PACER)

**This PACER Issue Brief – the third in a series –
examines alternative teacher compensation models,
specifically pay for performance.**

ISSUE BRIEF
PERFORMANCE PAY FOR TEACHERS

April 2012

INTRODUCTION

Based on the premise that financial incentives may change teachers' practice and improve student outcomes, performance pay is emerging as a key issue in the national education reform debate. Several of the nation's largest school districts—including New York City, Washington, D.C., and Denver—have implemented high profile performance, or merit, pay programs in recent years. In Pennsylvania, the current labor agreement between the Pittsburgh Public Schools and the Pittsburgh Federation of Teachers outlines a comprehensive plan for supporting and empowering teachers; elements include career ladder opportunities for highly effective teachers and district-, school-, and team-based bonuses. At the federal level, the U.S. Department of Education is increasingly focused on these programs. Indeed, President Obama's 2013 budget includes a \$5 billion competitive program, modeled on Race to the Top, to encourage states to reform the teaching profession, with special attention to compensation.¹

There is considerable diversity in the structures of performance pay systems. New York City's model—recently abandoned—provided awards based on school-level results.² Washington, D.C.'s Impact Plus program awards bonuses of up to \$25,000 for teachers who earn a "highly effective" rating and meet other conditions.³ One component of Denver's system is an incentive for teachers who work in hard-to-staff assignments. These varying designs have made it difficult for researchers to compare programs and make broad claims about effectiveness.

Research for Action's third PACER brief builds on its first brief on teacher effectiveness to provide context, identify challenges, and answer questions about performance pay systems. We focus on what rigorous, objective research has found, and where gaps remain. As always, RFA's goal is to provide stakeholders with trusted, non-partisan information that can support emerging state and local policy discussions. The works cited in this brief include peer-reviewed research from some of the nation's most respected education scholars and institutes, including Mathematica Policy Research Center and the National Center on Performance Incentives at Vanderbilt University's Peabody College—a primary source of scholarship in this field.



THE PENNSYLVANIA CONTEXT

Over the past several years, performance pay for teachers has received bipartisan support from state education policymakers. Governor Rendell's administration endorsed the concept in the state's 2010 Race to the Top application. Governor Corbett followed suit in outlining it in his 2011-12 budget proposal.

Pennsylvania's two largest school districts also have experience with performance pay systems. In 2006, the School District of Philadelphia utilized a \$12 million U.S. Department of Education grant to fund PhillyTAP in 11 charter schools. Eligible teachers in participating schools earned stipends and bonuses ranging from \$500 to \$3,900 based on classroom evaluations and student growth measured by value-added data.⁴ In September 2011, PhillyTAP's federal grant expired;⁵ however, at least one performance pay program, Mastery Charter School's Performance-Based Compensation System, still operates in Philadelphia using federal Teacher Incentive Funds.⁶

The current collective bargaining agreement between the Pittsburgh Public Schools and the Pittsburgh Federation of Teachers provides for a broad suite of reforms in the areas of teacher evaluation, professional roles and responsibilities, and compensation; the plan includes district-, school-, and team-level rewards based on performance. The school-level program—Students and Teachers Achieving Results (STAR)—provides annual awards ranging from \$1,200 to \$6,000 for teachers in buildings that see growth rates within the top 15 percent statewide.⁷ While key elements of the district's reform plan are underway, Pittsburgh's individual bonus program - *Voluntary Incentive Earnings at Work*, or VIEW - has been delayed.

PERFORMANCE PAY FOR TEACHERS: FREQUENTLY ASKED QUESTIONS

Q

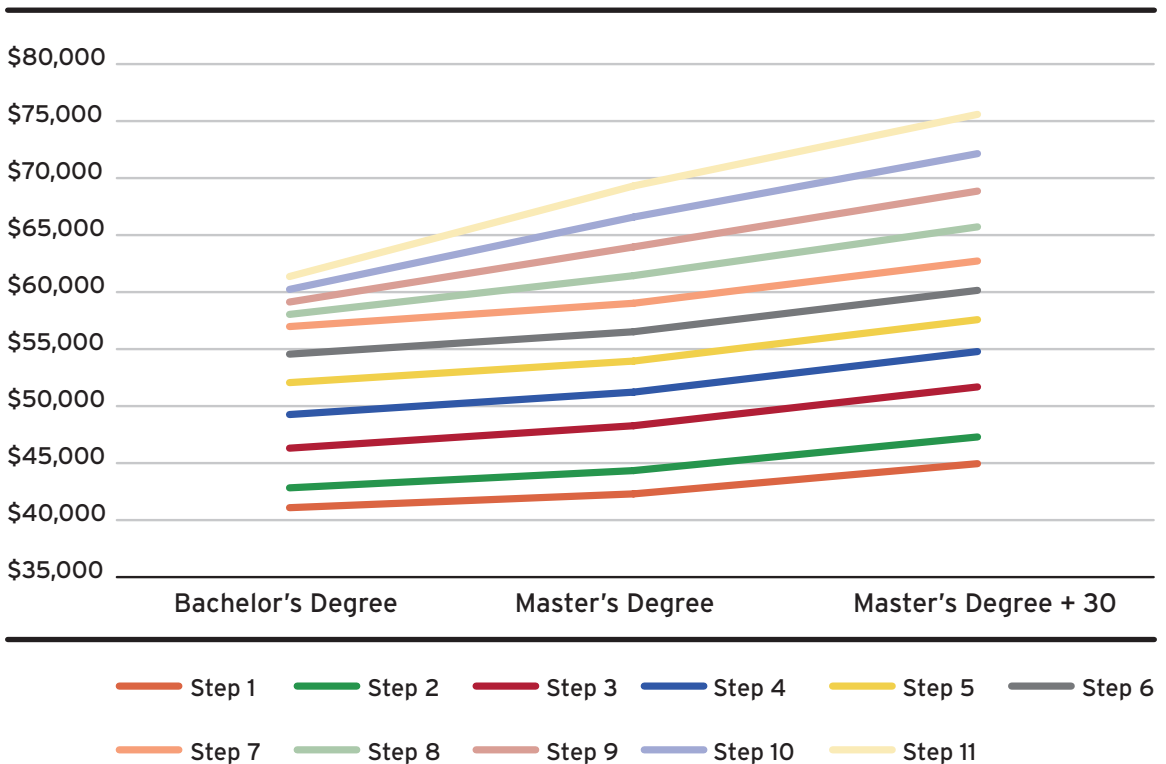
What is the current system of teacher compensation in Pennsylvania?

A

Nationwide and in Pennsylvania, teacher pay is largely determined by a **step-and-lane salary schedule**, with **steps** representing salary increases for years of experience and **lanes** rewarding additional education, such as attainment of a master's degree. The School District of Philadelphia's step-and-lane schedule for certified teachers illustrates the gradual, uniform rise negotiated under the District's contract (see Figure 1).

FIGURE 1

SCHOOL DISTRICT of PHILADELPHIA SALARY SCHEDULE: 2008

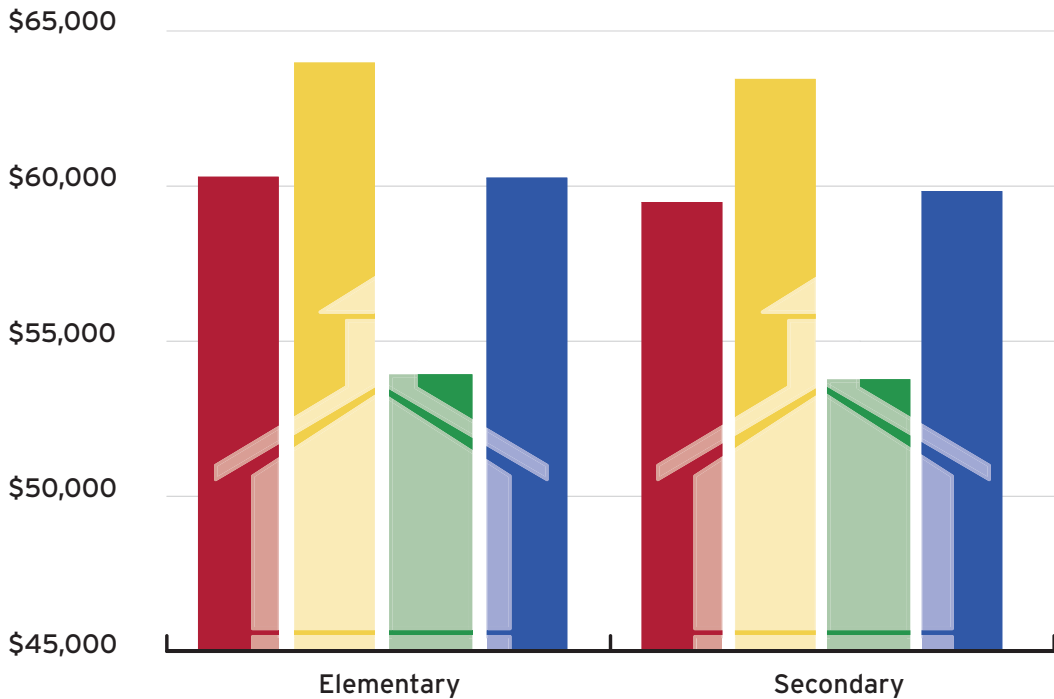




How much are teachers in Pennsylvania typically paid? How does their compensation compare nationally?

According to the Pennsylvania School Boards Association, the average 2009-10 salary for the commonwealth's school teachers was \$60,258 for elementary teachers and \$59,826 for secondary teachers.⁸ Salaries varied somewhat based on whether teachers worked in urban, suburban or rural areas (see Figure 2), with suburban teachers earning the most at both the elementary and secondary levels. Pennsylvania figures are slightly higher than the national average of \$55,350.⁹

FIGURE 2 **AVERAGE PA SALARIES BY SCHOOL LEVEL and TYPE: 2009-10**



Urban Suburban Rural Average Overall

A large, bold, black letter 'Q' with a small black arrow pointing downwards from its bottom right corner. To the left of the 'Q' are three small yellow dots arranged vertically.

What is performance pay?

A large, bold, black letter 'A' with a small black arrow pointing downwards from its top left corner. To the left of the 'A' are three small yellow dots arranged vertically.

Defined simply, performance pay is compensation or a salary adjustment provided to incentivize a desired outcome.¹⁰ While traditional salary scales have roots in progressive reforms designed to equalize pay between male and female teachers, contemporary critiques assert that these plans fail to recognize varying degrees of performance and skill, or especially challenging teaching assignments. Performance pay models represent an attempt to address this critique.

Career ladders are a compensation track associated with performance pay. In the majority of schools, the only way for an educator to advance beyond the step-and-lane schedule is to move from the classroom to an administrative position. To keep highly effective teachers in the classroom and allow them to take on leadership roles, some school districts have utilized these career ladders to pay teachers for additional responsibilities. For example, the Teacher Advancement Program, a widely used model, offers the opportunity to become master and mentor teachers.¹¹

A large, bold, black letter 'Q' with a small black arrow pointing downwards from its bottom right corner. To the left of the 'Q' are three small yellow dots arranged vertically.

How are teachers evaluated in performance pay systems?

A large, bold, black letter 'A' with a small black arrow pointing downwards from its top left corner. To the left of the 'A' are three small yellow dots arranged vertically.

The two types of evaluations most commonly used to assess teachers in performance pay systems are **classroom observations** and **value-added measures**. In most cases, performance pay programs use a combination of both observations and value-added data (along with other inputs). These models reflect the strong consensus among researchers that student performance data should only act as a portion of evaluation systems. Recent state policy changes are responsive in consistently requiring multiple measures of teacher effectiveness. For more information on value-added measures and teacher evaluation systems, see *Teacher Effectiveness: The National Picture and Pennsylvania Context* (September 2011) at www.researchforaction.org.

Q

What are some examples of existing performance pay systems?

A

Federal incentives have spurred the implementation of performance pay systems at the local level. The Teacher Incentive Fund (TIF), established by the U.S. Department of Education in 2006, provides five-year grants to high-need schools to develop and implement performance-based teacher and principal compensation systems tied to increases in student achievement. According to the National Center on Performance Incentives, all but eight states have local, state, and/or TIF-funded programs in place.¹²

The aforementioned Teacher Advancement Program, or TAP, has been implemented in more than 200 schools in 13 states and provides opportunities for extra pay based on teachers' performance, their knowledge and skill, and for assuming additional roles and responsibilities.¹³ Minnesota's Q-Comp, a state-sponsored voluntary program for all districts, includes a career ladder and performance pay based on evaluations, student achievement, school-wide achievement gains, and other factors. Washington's IMPACT employs a ratings system for teachers based on student achievement, five classroom observations per year, teacher collaboration, and professionalism.

Table 1 identifies important components of notable performance pay programs, including whether the bonus is based on school or individual performance, the range of the award and the types of measures used in the evaluation.

Specific components of performance pay systems vary greatly. One especially salient factor is whether incentives are structured around school-wide targets or on an individual educator's contributions.

TABLE 1

EXAMPLES of TEACHER PERFORMANCE PAY PROGRAMS

PERFORMANCE PAY PROGRAM: Denver ProComp

PARTICIPATION: Mandatory for new teachers; optional for veteran teachers

AWARD BASED ON INDIVIDUAL OR SCHOOL PERFORMANCE: Individual

BONUS LEVEL: Potential salary increase of 18% and bonus of 8%

PERFORMANCE MEASURES: Knowledge and skill (annual professional development units) • Evaluation • Student growth • Hard to staff school assignments

PERFORMANCE PAY PROGRAM: Toledo Review and Alternative Compensation System (TRACS)

PARTICIPATION: All schools participate; all certified school-based staff are eligible to participate

AWARD BASED ON INDIVIDUAL OR SCHOOL PERFORMANCE: School

BONUS LEVEL: PD completion: \$30/hour • School performance: \$500 •

Teacher incentives: Stipends worth 5-15% of salary

PERFORMANCE MEASURES: Professional development (PD) completion • School performance • Teacher incentives (NBPTS, additional responsibilities, hard to staff school assignments)

PERFORMANCE PAY PROGRAM: Minnesota Q-Comp

PARTICIPATION: Voluntary for districts and charter schools; local implementation varies

AWARD BASED ON INDIVIDUAL OR SCHOOL PERFORMANCE: Individual

BONUS LEVEL: 60% of compensation increase is based on student achievement and evaluation

PERFORMANCE MEASURES: Teacher roles/responsibilities • PD completion • Evaluation • Student achievement school-wide

PERFORMANCE PAY PROGRAM: Washington, D.C. IMPACT

PARTICIPATION: Voluntary

AWARD BASED ON INDIVIDUAL OR SCHOOL PERFORMANCE: Individual

BONUS LEVEL: Teachers rated Highly Effective are eligible for bonuses of up to \$25,000

PERFORMANCE MEASURES: Student achievement • Instructional expertise • Collaboration • Professionalism

Q



A

What has been the impact of performance pay on student test scores?

Research on the relationship between performance-based pay and student achievement has yielded mixed results. Earlier studies found positive trends. Two of the most recent studies focusing on narrow performance pay programs (i.e., those without other features, such as professional development or revised teacher evaluation rubrics) have found no effect on student achievement. Examinations of initiatives in New York City (2011)¹⁴ and Nashville (2010)¹⁵ failed to find a link between financial incentives and student performance. New York City discontinued its school-wide performance program in part because of these findings, and Nashville's Project on Incentives in Teaching evaluation found that rewarding teachers with bonus pay, in the absence of any other support programs, did not raise student test scores.

The most recent study (March 2012) of Chicago's TAP initiative, which included regular classroom observations and a focus on peer mentorship, found no consistent student achievement gains in participant schools when compared to non-TAP schools.¹⁶

While the most recent research reflects increasing consensus that pay incentives alone do not improve student outcomes, many of the programs evaluated include multiple components and different research designs, complicating broad comparative statements on the effectiveness of teacher performance pay. Table 2 provides an overview of research findings in the last six years, showing whether research found an impact on student achievement, and whether incentives were based solely on student achievement gains or if there were multiple criteria for bonuses.

TABLE 2

IMPACT OF PERFORMANCE PAY PROGRAMS IN STUDENT ACHIEVEMENT

Year	Study Details	Impact
2006	<p>STUDY • Figlio and Kenny (2006)</p> <p>PROGRAMS & DATA SETS • National Education Longitudinal Survey Data</p> <p>IMPACT ON STUDENT ACHIEVEMENT • Inconclusive: While the authors show student learning gains in schools in which the program is present, they warn that “we cannot discern whether this relationship is due to the incentives themselves or to better schools also choosing to implement merit pay programs.”¹⁷</p> <p>SINGLE OR MULTIPLE COMPONENTS • Not applicable: National data set</p>	INCONCLUSIVE IMPACT
2006	<p>STUDY • Springer, et al. (2010)</p> <p>PROGRAMS & DATA SETS • District Awards for Teacher Excellence (DATE)</p> <p>IMPACT ON STUDENT ACHIEVEMENT • Positive: Students in DATE schools had greater gains on the state assessment than students in non-DATE schools.²⁰</p> <p>SINGLE OR MULTIPLE COMPONENTS • Multiple: Impact on student academic improvement, growth and/or achievement, recruitment/retention of teachers, hard to staff assignments, career ladder and professional development</p>	POSITIVE IMPACT
2006	<p>STUDY • Springer, et al. (2010)</p> <p>PROGRAMS & DATA SETS • The Project on Incentives in Teaching (POINT) in the Metro-Nashville Public Schools.</p> <p>IMPACT ON STUDENT ACHIEVEMENT • No Impact: Students of teachers eligible for bonuses did not outperform students whose teachers were not eligible for bonuses.²¹</p> <p>SINGLE OR MULTIPLE COMPONENTS • Single: Value-added measure of year-to-year student growth on the state assessment</p>	NO IMPACT
2007	<p>STUDY • Springer, Ballou and Peng (2008)</p> <p>PROGRAMS & DATA SETS • Teacher Advancement Program (TAP)</p> <p>IMPACT ON STUDENT ACHIEVEMENT • Mixed: Positive effect at the elementary level and negative at the secondary level.¹⁸</p> <p>SINGLE OR MULTIPLE COMPONENTS • Multiple: Value-added student growth, teacher roles and evaluation</p>	MIXED IMPACT
2007	<p>STUDY • Ritter, et al (2008)</p> <p>PROGRAMS & DATA SETS • Achievement Challenge Pilot Project (ACPP) in Little Rock, Arkansas</p> <p>IMPACT ON STUDENT ACHIEVEMENT • Positive: Students in the schools with the ACPP showed improved achievement in math, language arts, and reading. However, because the study only involved three schools, the findings are limited.¹⁹</p> <p>SINGLE OR MULTIPLE COMPONENTS • Single: Student improvement on nationally-normed standardized tests.</p>	POSITIVE IMPACT
2009	<p>STUDY • Goldhaber and Walch (2011)</p> <p>PROGRAMS & DATA SETS • Denver ProComp</p> <p>IMPACT ON STUDENT ACHIEVEMENT • No impact: The students of both Pro-Comp and non Pro-Comp teachers showed achievement gains.²²</p> <p>SINGLE OR MULTIPLE COMPONENTS • Multiple: Knowledge and skills, evaluation, student growth, and hard to staff school assignments</p>	NO IMPACT
2009	<p>STUDY • Marsh, J. et al (2011)</p> <p>PROGRAMS & DATA SETS • New York City Schoolwide Performance Bonus Program (SPBP)</p> <p>IMPACT ON STUDENT ACHIEVEMENT • No impact: The three-year program had no effects on student achievement.²³</p> <p>SINGLE OR MULTIPLE COMPONENTS • Single: Performance and accountability targets</p>	NO IMPACT
2011	<p>STUDY • Glazerman and Seifullah</p> <p>PROGRAMS & DATA SETS • Teacher Advancement Program (TAP-Chicago)</p> <p>IMPACT ON STUDENT ACHIEVEMENT • No Impact: Researchers found no consistent, statistically significant growth on state test scores.²⁴</p> <p>SINGLE OR MULTIPLE COMPONENTS • Multiple: Value-added student growth, teacher roles and evaluation</p>	NO IMPACT

Q



What has been the impact of performance pay on teacher retention?

A

Four separate studies examining the impact of performance pay on teacher retention have reached varying conclusions. Research on Chicago’s TAP program found that it increased schools’ retention of educators over a three-year span beginning in 2008, but results were more variable for teachers in schools that initiated the program in later years.²⁵ Research on three Texas programs found either no change, or identified only short-term benefits. The District Awards for Teacher Excellence (DATE), a state program still funded in Texas, found the likelihood of teacher turnover decreased among teachers who received an award in the first year of the program, but only first-year results were available.²⁶ Similarly, participation in Texas’ Governor’s Educator Excellence Grant (GEEG) during the 2005-06 school year lowered the expected probability that a teacher would depart by about three percent. The increased retention occurred during the first year of implementation but was not sustained; in other words, turnover rates returned to normal in the second and third years of the program.²⁷ Lastly, research on the Texas Educator Excellence Grant (TEEG) did not find any systemic change in teacher turnover rates.²⁸

Q



What impact do performance pay programs have on teacher collaboration?

A

One concern about individual performance pay programs is that they may negatively impact teacher cooperation and collaboration—and ultimately school performance overall. For this reason, performance pay structures have often included school-wide performance as a measure. Two recent studies (2007, 2009) that surveyed teachers participating in performance pay systems found that approximately four in five respondents reported no decrease in collaboration and cooperation among staff.²⁹

Q



How can performance pay systems apply to teachers in non-tested grades and subjects?

A

Most performance pay plans rely, in part, on student performance on federally-mandated standardized tests. However, federal law does not require tests in all grades and subjects. To identify teachers who are effective at increasing student

learning in non-tested subjects, schools can use measures that apply to all teachers such as classroom observations and school-wide performance. In instances where programs do not incorporate observations or school-wide performance, identifying effective teachers requires different strategies.

The Center for Educator Compensation Reform’s (CECR) report provides recommendations for including these teachers in performance pay programs. The strategies are outlined in Table 3. It is important to note that due to the focus of student achievement data on math and English/language arts, relatively little research has been conducted on the impact of performance pay on student achievement in other subjects.³⁰

TABLE 3 STRATEGIES FOR TEACHERS IN NON-TESTED GRADES and SUBJECTS

Type of Teacher	Recommendations
Teachers of Non-tested Subjects	<ul style="list-style-type: none"> ➔ • Eligibility based on school-wide performance bonuses only • Eligibility for some, but not all, of the individual performance bonuses that teachers in tested grades and subjects are eligible to receive • Eligibility based exclusively on non-tested measures (i.e. observations) • Creation of new student tests to assess teacher performance in non-tested subjects
Teachers of Non-tested Grades: K-2	<ul style="list-style-type: none"> ➔ • Creation of a rubric to assess how well teachers in grades K-2 are supporting student development • Use of student results from adaptive tests such as the Dynamic Indicators of Basic Early Literacy Skills or Measures of Academic Progress • Use of measures other than individual classroom achievement as a way to include teachers in grades K-2
Teachers of Non-tested Grades: High School	<ul style="list-style-type: none"> ➔ • Use of existing tests (i.e. end-of-course tests) • Eligibility for rewards based on department-wide performance • Use of school-wide measures such as high school dropout and graduation rates
Teachers of English-Language Learners	<ul style="list-style-type: none"> ➔ • Use of school-wide achievement gains • Use of student gains in English language proficiency • Use of knowledge and skills-based pay structures
Teachers of Students with Disabilities	<ul style="list-style-type: none"> ➔ • Eligibility for rewards based on school-wide achievement gains • Rewards for teacher teams when the performance of students with disabilities improves • Development of new “student sharing” average to assess the performance of special education teachers

Q



What financial factors should be considered prior to implementing a performance pay plan?

A

Before new pay policies are implemented, school district administrators and state policymakers should be clear about program costs. CECR states that this analysis is often ignored: “Ample evidence suggests that states and districts do frequently underestimate overall costs of alternative compensation plans, as well as the numbers of teachers and schools that will qualify for the awards.” CECR cites examples from Florida, Texas, and California where administrators had to alter program compensation or request additional allocation to pay for programs. CECR recommends that states and districts place an upper-limit on costs, and understand the nature of the plan they are implementing—i.e., whether it is open-ended (where many participants can earn an award), restricted, or if separate compensation options are offered (i.e., for teachers who work in hard-to-staff areas).³¹

CONCLUSION

Early research on performance pay systems suggests that a successful system requires supervisors to be able to explain to teachers what they need to do to become more effective in achieving positive student outcomes.³² Given that the field is still in the process of refining how to properly define and evaluate effective teaching, establishing policies and programs that incentivize performance in a fair and reliable way is challenging work. Indeed, when looking across the literature, results of performance-pay models are mixed or limited in many cases and recent research suggests little impact on student achievement due to bonus pay alone.



WORKS CITED

- ¹ Obama Administration Seeks to Elevate Teaching Profession, Duncan to Launch RESPECT Project: Teacher-Led National Conversation. Press Release from the U.S. Department of Education, Feb. 15, 2012. Retrieved from: <http://www.ed.gov/news/press-releases/obama-administration-seeks-elevate-teaching-profession-duncan-launch-respect-pro>
- ² Otterman, S. (July 17, 2011). New York City Abandons Teacher Bonus Program. *The New York Times*. Retrieved from: <http://www.nytimes.com/2011/07/18/education/18rand.html?scp=1&sq=%22julie%20a%20marsh%22&st=cse>
- ³ District of Columbia Public Schools. *Impact: The DCPS Effectiveness Assessment System for School-Based Personnel*. Retrieved from: <http://www.dc.gov/DCPS/Files/downloads/In-the-Classroom/IMPACTplus%20for%20Teachers.pdf>
- ⁴ Eckert, J. (2010). *Performance-Based Compensation: Design and Implementation at Six Teacher Incentive Fund Sites*. Retrieved from: http://www.tapsystem.org/publications/eck_tif.pdf
- ⁵ Hangley, B. (December, 2010). Pay-for-performance in Philadelphia is Coming and Going. *The Notebook*. Retrieved from: <http://www.thenotebook.org/december-2010/103122/pay-performance-philadelphia-coming-and-going>
- ⁶ United States Department of Education. Teacher Incentive Fund: FY 2010 Funded Applications. Retrieved from: <http://www2.ed.gov/programs/teacherincentive/apps/index.html>
- ⁷ Collective Bargaining Agreement between the Pittsburgh Board of Public Education and the Pittsburgh Federation of Teachers, July 1, 2010 through June 30, 2015.
- ⁸ Pennsylvania School Boards Association. *Annual Salary Study, 2009-10*. Retrieved from http://www.pspa.org/issues-advocacy/issues-research/school-salaries/annual_salary_study-2009-10.pdf
- ⁹ National Center for Education Statistics.
- ¹⁰ Ellis, T. (1984). Merit Pay for Teachers. ERIC Clearinghouse on Educational Management. ERIC Digest, Number 10.
- ¹¹ Springer, M., Ballou, D., and Peng, A. (2008). *Impact of the Teacher Advancement Program on Student Test Score Gains: Findings from an Independent Appraisal* (Working Paper 2008-19). National Center on Performance Incentives. Retrieved from: http://www.performanceincentives.org/data/files/news/PapersNews/200819_Springer_ImpactAdvancedProg1.pdf
- ¹² National Center on Performance Incentives. Retrieved from: http://www.performanceincentives.org/statebystate_resources/index.aspx
- ¹³ Glazerman, S. and Seifullah, A. (2012). *An Evaluation of the Chicago Teacher Advancement Program (Chicago TAP) After Four Years*. Mathematica Policy Research. Retrieved from: http://www.mathematica-mpr.com/publications/PDFs/education/TAP_year4_impacts.pdf
- ¹⁴ Marsh, J.A., Springer, M.G., McCaffrey, D.F., Yuan, K., Eptsein, S., Koppich, J., Kalra, N., DiMartino, C., and Peng, A. (2011). *A Big Apple for Educators: New York City's Experiment with Schoolwide Performance Bonuses: Final Evaluation Report*. Santa Monica, CA: RAND Corporation.
- ¹⁵ Springer, M.G., Ballou, D., Hamilton, L., Le, V., Lockwood, J.R., McCaffrey, D.F., Pepper, M. and Stecher, B.M. (2010). *Teacher Pay for Performance: Experimental Evidence from the Project on Incentives in Teaching*. National Center on Performance Incentives. Retrieved from: http://www.performanceincentives.org/data/files/pages/POINT%20REPORT_9.21.10.pdf
- ¹⁶ Glazerman, S. and Seifullah, A. (2012).
- ¹⁷ Figlio, D. and Kenny, L. (2006). *Individual Teacher Incentives and Student Performance*. *Journal of Public Economics*. Retrieved from: <http://faculty.smu.edu/millimet/classes/eco7321/papers/figlio%20kenny.pdf>
- ¹⁸ Springer, M.G., Ballou, D., and Peng, A. (2008).
- ¹⁹ Ritter, G., Holley, M., Jensen, N., Riffel, B., Winters, M., Barnett, J., and Greene, J. (2008). *Year Two Evaluation of the Achievement Challenge Pilot Project in the Little Rock Public School District*. Department of Education Reform: University of Arkansas. Retrieved from: http://www.uark.edu/ua/der/Research/merit_pay/year_two/Full_Report_with_Appendices.pdf

- ²⁰ Springer, M.G., Lewis, J.L., Ehlert, M.W., Podgursky, M.J., Crader, G.D., Taylor, L.L., Gronberg, T.J., Jansen, D.W., Lopez, O.S. & Stuit, D.A. (2010). *District Awards for Teacher Excellence (D.A.T.E.) Program: Final Evaluation Report*. National Center on Performance Incentives. Retrieved from: http://www.performanceincentives.org/data/files/news/BooksNews/final_date_report_for_ncpi_site.pdf
- ²¹ Springer, M.G., Ballou, D., Hamilton, L., Le, V., Lockwood, J.R., McCaffrey, D.F., Pepper, M. & Stecher, B.M. (2010).
- ²² Goldhaber, D. and Walch, J. (2011). *Strategic Pay Reform: A Student Outcomes-Based Evaluation of Denver's ProComp Teacher Pay Initiative* (Working Paper 2011-3.0). Center for Education Data & Research. Retrieved from: [http://www.cedr.us/papers/working/CEDR%20WP%202011-3_Procomp%20Strategic%20Compensation%20\(9-28\).pdf](http://www.cedr.us/papers/working/CEDR%20WP%202011-3_Procomp%20Strategic%20Compensation%20(9-28).pdf)
- ²³ Marsh, J.A., Springer, M.G., McCaffrey, D.F., Yuan, K., Eptsein, S., Koppich, J., Kalra, N., DiMartino, C., Peng, A. (2011).
- ²⁴ Glazerman, S. and Seifullah, A. (2012).
- ²⁵ Ibid.
- ²⁶ Springer, M.G., Lewis, J.L., Ehlert, M.W., Podgursky, M.J., Crader, G.D., Taylor, L.L., Gronberg, T.J., Jansen, D.W., Lopez, O.S. & Stuit, D.A. (2010).
- ²⁷ Springer, M.G., Lewis, J.L., Podgursky, M.J., Ehlert, M.W., Taylor, L.L., Lopez, O.S., & Peng, A. (2009). *Governor's Educator Excellence Grant (GEEG) Program: Year Two Evaluation Report*. National Center on Performance Incentives. Retrieved from: http://www.performanceincentives.org/data/files/news/BooksNews/GEEG_Year_2_Report.pdf
- ²⁸ Springer, M.G., Podgursky, M.J., Lewis, J.L., Ehlert, M.W., Ghosh-Dastidar, B., Gronberg, T.J., Hamilton, L.S., Jansen, D.W., Lopez, O.S., Patterson, C.H., Stecher, B.M. & Taylor, L.L. (2008). *Texas Educator Excellence Grant (TEEG) Program: Year One Evaluation Report*. National Center on Performance Incentives. Retrieved from: http://www.performanceincentives.org/data/files/news/BooksNews/200802_SpringerEtAl_TEEG_Year1.pdf
- ²⁹ Center for Educator Compensation Reform. Retrieved from: http://cecr.ed.gov/researchSyntheses/CECR_RS_PerfPay-E.pdf
- ³⁰ Watson, J.G., Kraemer, S.B., and Thorn, C.A. *The Other 69 Percent*. Center for Educator Compensation Reform. U.S. Department of Education, Office of Elementary and Secondary Education, Washington, D.C., 2009. Retrieved from <http://www.cecr.ed.gov/guides/other69Percent.pdf>
- ³¹ Guthrie, J.W. and Prince, C.D. (2008). *Paying For and Sustaining a Performance-Based Compensation System*. Center for Educator Compensation Reform. U.S. Department of Education, Office of Elementary and Secondary Education, Washington, D.C. Retrieved from: <http://cecr.ed.gov/pdfs/guide/payingFor.pdf>
- ³² Podgursky, M.J. and Springer, M.G. (2006). *Teacher Performance Pay: A Review*. National Center on Performance Incentives.

**RFA is grateful to the Heinz Endowments
and Team Pennsylvania Foundation
for their generous support of this initiative.**

THE HEINZ ENDOWMENTS
HOWARD HEINZ ENDOWMENT • VIRA I. HEINZ ENDOWMENT

The Heinz Endowments supports efforts to make southwestern Pennsylvania a premier place to live and work, a center for learning and educational excellence, and a region that embraces diversity and inclusion.

TEAM
Pennsylvania
F O U N D A T I O N

Team Pennsylvania Foundation is a dynamic, public/private partnership that initiates and supports innovative programs to improve Pennsylvania's competitiveness and economic prosperity through a focus on educational effectiveness, economic development and government efficiency.





RESEARCH for *ACTION*

For 20 years, Research for Action has provided rigorous research and analysis designed to raise important questions about the quality of education available to disadvantaged students, and the effects of educational reform on students, schools, and communities.

Research for Action
3701 Chestnut Street
Philadelphia, PA 19104
Tel. 215.823.2500
Fax 215.823.2510
info@researchforaction.org
www.researchforaction.org