Technical Appendix

Performance pay

Low impact for low cost, based on limited evidence

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Definition

Performance pay schemes create a direct link between a teacher’s wages or bonus, and the performance of their class. A distinction can be drawn between awards, where improved performance leads to a higher permanent salary, and payment by results, where teachers get a bonus for higher test scores. These bonuses can be retrospective (payment after satisfactory pupil performance) or prospective (such as 'loss aversion' approaches where the bonus is given up front, but then paid back if the results are not satisfactory). A key issue is how performance is measured and how closely this is linked to outcomes for learners.

Search terms: performance/incentive pay; teacher incentives; performance-related pay; merit pay, loss aversion

Evidence Rating

There is one meta-analysis which was conducted in the last ten years. Most of the research tends to be correlational, although some studies with stronger causal warrant have emerged from the USA over the last few years. In general, it is hard to make causal claims about the benefits of performance pay on the basis of existing evidence. Overall the evidence rating is limited.

Cost Information

In the US, in one study, transfer incentive payments were $20,000 and retention bonuses $10,000, both over two years (approximately £7,600 and £3,800 per year respectively). Similar sums of between $15,000 and $5,000 have been awarded in merit pay schemes. However, in England, pay increases are usually of the order of £2,500 per teacher or £100 per pupil across a class of 25. We have used these figures to estimate the cost to schools in England.

Overall cost estimates are therefore low.
References

1. Atkinson, A., Burgess, S., Croxson, B., Gregg, P., Propper, C., Slater, H. & Wilson, D. 
   Evaluating the Impact of Performance-related Pay for Teachers in England 
   Labour Economics 16:3, pp 251-261 
   (2009)

2. Burgess, S., Croxson, B., Gregg, P. & Propper, C. 
   The Intricacies of the Relationship Between Pay and Performance for Teachers: Do teachers 
   respond to Performance Related Pay schemes? 
   CMPO Working Paper Series No. 01/35 
   (2001)

3. Dolton, P. & Marcenaro-Gutierrez, O. 
   If You Pay Peanuts, Do You Get Monkeys? A Crosscountry Analysis of Teacher Pay and Pupil Performance 
   Economic Policy 26(65): 5-55 
   (2011)

4. Education Commission of the States 
   Teacher Merit Pay: What do we Know? 
   The Progress of Education Reform, 11(3) 
   (2010)

5. Fryer, R.G. 
   Teacher Incentives and Student Achievement: Evidence from New York City Public Schools 
   (2011)

   Enhancing the efficacy of teacher incentives through loss aversion: A field experiment 
   (2012)

   Transfer incentives for high-performing teachers: Final results from a multisite randomized experiment 
   Mathematica Policy Research, Inc./ IES 
   (2013)
8. **Lavy, V.**  
   *Evaluating the Effects of Teachers’ Group Performance Incentives on Pupil Achievement*  
   *Journal of Political Economy, 110*(6), 1286-1317  
   *(2002)*

9. **Martins, P.S.**  
   *Individual Teacher Incentives, Student Achievement and Grade Inflation*  
   *Centre for Globalization Research: Working Paper 29. Queen Mary, University of London*  
   *(2009)*

10. **Muralidharan, K. & Sundararaman, V.**  
    *Teacher Performance Pay: Experimental Evidence from India*  
    *Journal of Political Economy, 119*(1), 39 - 77  
    *(2011)*

11. **Podgursky, M. J., & Springer, M. G.**  
    *Teacher performance pay: A review*  
    *Journal of Policy Analysis and Management, 26*(4), 909  
    *(2007)*

    *Teacher Pay for Performance: Experimental Evidence from the Project on Incentives in Teaching*  
    *Project on Incentives in Teaching, National Center on Performance Incentives*  
    *(2010a)*

    *District Awards for Teacher Excellence (D.A.T.E.) Program: Final Evaluation Report*  
    *National Center on Performance Incentives*  
    *(2010b)*

14. **Washington State Institute for Public Policy**  
    *Teacher Performance Pay Programs*  
    *Seattle: WISPP*  
    *(2015)*

15. **Woessmann, L.**  
    *Cross-Country Evidence on Teacher Performance Pay*

Incentive pay programs do not affect teacher motivation or reported practices results from three randomized studies
Educational Evaluation and Policy Analysis, 35(1), 3-22
(2013)

Summary of effects

<table>
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<tr>
<th>Meta-analyses</th>
<th>Effect size</th>
<th>FSM effect size</th>
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<td>Washington State Institute for Public Policy (2015)</td>
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<td><strong>Single Studies</strong></td>
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<tr>
<td>Fryer, R.G. (2011)</td>
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<td>Fryer Jr. R.G., Levitt, S.D., List, J., and Sadoff, S. (2012)</td>
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<td>0.09</td>
<td>(loss aversion)</td>
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<td>Glazer,man, S., Postik, A., Tah, B. R., Bruch, J., &amp; Max, J. (2013)</td>
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Meta-analyses abstracts


Teacher performance pay programs distribute bonuses to individual teachers and sometimes to school wide staff. Performance is usually measured as value-added student test scores alone or in combination with some other assessment (such as principal evaluations). These evaluations examine the impact on student test scores from short-term, pilot performance pay programs. 28 studies, impact on test scores 0.019.

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