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Does performance-based pay improve teaching?

PISA has long established that high-performing education systems tend to pay their teachers more. They also often prioritise the quality of teaching over other choices, including class size. But in the current budgetary climate, paying everybody more may not be a viable alternative. So many countries are now targeting salary increases to schools with particular needs or short supplies of teachers, or have developed greater local flexibility in salary schemes. Some countries have responded with systems of individual pay. But is recognising and rewarding teaching performance through pay an effective way to leverage improvement?

The effects of performance-based pay for teachers on student performance...

Performance-based pay implies rewarding something other than credentials and years of experience, both of which have been shown to be poor indicators of teachers' effectiveness. Those who argue in favour of performance-based pay say that it is fairer to reward teachers who perform well rather than paying all teachers equally. They also note that performance-based pay motivates teachers, and that a clearer connection between spending on schools and outcomes builds public support. Those who oppose performance-based pay argue that fair and accurate evaluations are difficult to achieve because performance cannot be determined objectively, co-operation among teachers is reduced or teaching becomes narrowly focused on the criteria being used.

It has not helped that empirical analyses of the effects of performance-related pay has generally been inconclusive. These effects are simply difficult to assess, since data are scarce and so many aspects need to be considered, such as how performance is defined, how performance is measured, what the scale of the rewards is, and whether rewards operate at the school or individual level.



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Where teacher performance is linked to pay

| | Average reading performance in PISA 2009 | Does outstanding performance in teaching influence... | | | |
|---------------|--|---|--|--|---|
| | | ...decisions on base salary | ...decisions on annual supplemental payments | ...decisions on incidental supplemental payments | |
| OECD | Australia | 515 | | | |
| | Austria | 470 | | | |
| | Belgium (Fl.) | 538 | | | |
| | Belgium (Fr.) | 490 | | | |
| | Canada | 524 | m | m | m |
| | Chile | 449 | | | |
| | Czech Republic | 478 | | | |
| | Denmark | 495 | | | |
| | England | 495 | | | |
| | Estonia | 501 | | | |
| | Finland | 536 | | | |
| | France | 496 | | | |
| | Germany | 497 | | | |
| | Greece | 483 | | | |
| | Hungary | 494 | | | |
| | Iceland | 500 | | | |
| | Ireland | 496 | | | |
| | Israel | 474 | | | |
| | Italy | 486 | | | |
| | Japan | 520 | | | |
| | Korea | 539 | | | |
| | Luxembourg | 472 | | | |
| | Mexico | 425 | | | |
| | Netherlands | 508 | | | |
| | New Zealand | 521 | | | |
| | Norway | 503 | | | |
| | Poland | 500 | | | |
| | Portugal | 489 | | | |
| | Scotland | 500 | | | |
| | Slovak Republic | 477 | | | |
| | Slovenia | 483 | | | |
| | Spain | 481 | | | |
| Sweden | 497 | | | | |
| Switzerland | 501 | | | | |
| Turkey | 464 | | | | |
| United States | 500 | | | | |

■ Yes ■ No

m: Data are not available.
Data refer to 2009.

Sources: Table I.2.3, *PISA 2009 Results*, Volume I (OECD, 2010) and Table D3.5a in *Education at a Glance: OECD Indicators* (OECD, 2011).

PISA offers another perspective on this by looking at how the relationship between student performance and the existence of performance-related pay plays out across countries. Currently, about half of OECD countries reward teacher performance in different ways. For example, in the Czech Republic, England, Mexico, the Netherlands, Sweden and Turkey, outstanding teaching performance is a criterion for decisions on a teacher's position on the base salary scale. In the Czech Republic, Denmark, England, Estonia, Finland, Mexico, the Netherlands, Norway, Poland and the Slovak Republic, it is a criterion for deciding on supplemental payments that are paid annually. In Austria, Chile, the Czech Republic, Denmark, England, Estonia, Hungary, the Netherlands, Poland, the Slovak Republic, Slovenia, Turkey and the United States, outstanding teaching performance is used as a criterion for deciding supplemental incidental payments.

...is seen most clearly when considering teachers' overall salary levels.

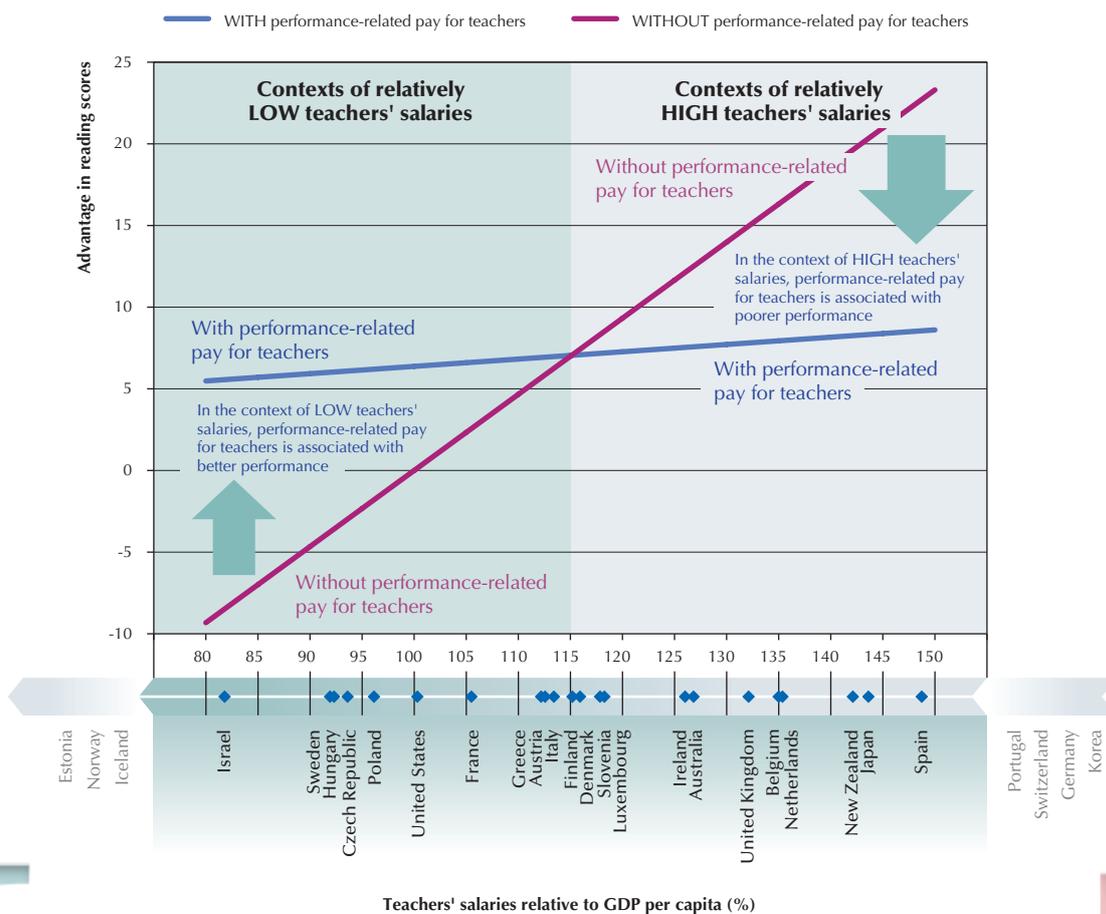
A look at the overall picture reveals no relationship between average student performance in a country and the use of performance-based pay schemes. In other words, some high-performing education systems use performance-based pay while others don't. But the picture changes when taking into account how well teachers are paid overall in comparison with national income. In countries with comparatively low teachers' salaries (less than 15% above GDP per capita), student performance tends to be better when performance-based pay systems are in place, while in countries where teachers are relatively well-paid (more than 15% above GDP per capita), the opposite is true. So for countries that do not have the resources to pay all of their teachers well, it is worth having a look at the experience of those countries that have introduced performance-based pay schemes.



Deciding whether to have a rewards-based pay scheme is only the first step.

Even if performance-based pay is a viable policy option, it is crucial to know how to implement the system effectively. First of all, measures of teacher performance need to be valid, reliable and considered by teachers themselves to be fair and accurate. Some measures are based on multiple observations by trained evaluators using a standards-based rubric that teachers believe reflects good practices. Others include contributions to school-improvement efforts or performance in specific areas based on external certifications. Still others include student performance, which then requires data-management systems that can connect student and teacher data. In particular, if “value-added” measures are used, databases need to be able to track student progress from year to year, to give an indication of what any individual teacher has added to a student’s achievement.

Average performance difference between countries with and without teacher performance payments, by the levels of teachers' salaries



Source: Tables 2 and 3 available at: <http://www.oecd.org/dataoecd/58/37/50282932.xls>



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Another issue is whether the rewards are targeted to individual teachers, groups of teachers or the whole school. Individual rewards can motivate people to work harder and give them a sense of control over their chances of reward. But it can be difficult to distinguish the impact made by an individual teacher, compared to previous teachers or other factors, such as the school environment. An alternative is to consider the performance of a group of teachers as a unit – such as grade-level teams, disciplinary departments, or another grouping that fits a school’s structure and mission. Group rewards have been found to promote staff cohesion, feelings of fairness and productivity norms, and they may foster mutual learning among teachers. School-wide rewards can encourage collaboration among teachers to ensure that the school meets certain criteria; but they may dilute the link between individual effort and reward, and run the risk of creating “free riders” who are rewarded simply because they teach in that particular school.

Systems also differ in whether they structure the payout of rewards as a fixed global sum distributed according to ranked teacher performance (for example, a bonus for the top quarter of performers), or as a bonus for any teacher attaining a certain level of performance. The first establishes at the outset the maximum amount of money that a district or country will spend. However, as noted above, it may discourage some individual teachers from trying to improve their performance. The second option requires a clear definition of what teachers need to do to meet the requirement for a bonus. While it allows for more teachers to earn rewards, it could also raise the amount of money that must be set aside to fund the rewards, if most or all teachers earn the bonus. To renege on the payment of rewards will doom this kind of programme, as teachers will question the commitment to improvement that it represents.

The bottom line: Performance-based pay is worth considering in some contexts; but making it work well and sustainably is a formidable challenge. Pay levels can only be part of the work environment: countries that have succeeded in making teaching an attractive profession have often done so not just through pay, but by raising the status of teaching, offering real career prospects, and giving teachers responsibility as professionals and leaders of reform. This requires teacher education that helps teachers to become innovators and researchers in education, not just civil servants who deliver curricula.

For more information

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See OECD (2009), *Evaluating and Rewarding the Quality of Teachers: International Practices*, OECD Publishing
OECD (2011), *Building a High-Quality Teaching Profession: Lessons from around the World*, OECD Publishing
Technical [notes](#) and [tables](#) related to this PISA in Focus.

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