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Can Incentives Effectively Raise the Quality of Instruction?

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Growing recognition of how important teachers are in determining the quality of education has led to an increase in the use of incentives designed to prepare, recruit, retain, and motivate high-quality teachers. Empirical evidence, primarily from the United States and developing countries, suggests that a better alignment of incentives with performance is a promising channel for policy reform.

A growing awareness of the large variation in teacher effectiveness and its impacts on social and private returns to education has elevated efforts to improve the quality of instruction worldwide, particularly in schools serving economically disadvantaged children. These efforts have included the use of incentives in teacher preparation, hiring, compensation and in-service training. Evidence on their effects would provide a valuable foundation for the development of effective policies.

Both monetary and non-monetary incentives may affect the quality of instruction. These include incentives that affect: (1) entry into the teaching profession; (2) the quality of initial teacher education (ITE); (3) the effectiveness of continuing professional development (CPD); (4) the decision to remain in teaching; and (5) the effective use of human resource practices in schools.

Empirical findings concerning current educational policies suggest that many policies are failing to provide the regulations and incentives needed for individuals to seek out the most effective ITE programmes or for school systems to adopt the most effective CPD programmes and to attract, develop, motivate and retain the most effective teachers.

It is important to note that little of our scientific evidence comes from within the EU, due to both the more limited use of incentives in EU schooling and a smaller body of scientific empirical research. Impact evaluation studies using good quality data and rigorous empirical methods, which would enable inferences to be drawn on the causal effects of practices and policies, are especially rare. Given the differences in institutional and demographic structures (among other factors) across countries, this lack of reliable evidence constitutes a significant limitation that may slow down or even compromise the development of effective education policies within the EU.

KEY SCIENTIFIC FINDINGS ON THE ROLE OF INCENTIVES

Initial teacher education. The findings reported in panel A (see Figure overleaf) raise important questions about the desirability of strict teacher preparation restrictions, including policies requiring extensive formal coursework in subjects that have little benefit outside of teaching and may have little impact on the quality of instruction. The fragmented state of the evidence in this area, which is mostly from outside the EU, also calls for more intensive research.

Continuing professional development (CPD). The findings reported in panel B raise questions about the manner in which CPD is provided in many schools. Intensive CPD programmes are time-intensive and financially costly, while feedback based on observations and student outcomes appears to have high returns. Strong consideration should therefore be given to the character of CPD provided.

Summaries of the strength of evidence on effects of incentives on quality of instruction

Panel A: Initial teacher education (ITE) programmes

- ITE programmes vary significantly in quality, as measured by their participants' subsequent effectiveness in the classroom – *little or no support*.
- Prospective teachers select ITE programmes based on quality, as measured by graduates' effectiveness – *little or no evidence*.
- Recruiting selective university graduates without ITE to teach in high-poverty schools after short preparation is promising for better instruction – *strong support*.
- Salary incentives that induce teachers to obtain an MA raise the quality of instruction – *little or no support*.

Panel B: Continuing professional development (CPD) programmes

- CPD programmes induced by in-service training requirements improve the quality of instruction – *little or no support*.
- CPD based on school leaders or supervisors observing teaching and student work raises the quality of instruction – *moderate support*.

Panel C: Structure of teacher pay

- Expanding labour-market opportunities for women and increasing private returns to tertiary education have placed cost pressures on schools which have likely contributed to a decline in the number of high-ability graduates entering the teaching profession – *strong support*.
- Pay for performance raises outcomes in the areas rewarded – *strong support*.
- Fixed salary schedules without variation by market conditions reduce the quality of instruction in difficult-to-staff subjects, schools serving poor children and those in rural areas – *strong support*.
- Fixed salary schedules without variation by quality of instruction reduce the quality of instruction – *moderate support*.
- Expanded school choice induces improved personnel practices that elevate the quality of teaching – *little or no evidence*.

Teachers' pay. Although the decision to enter the teaching profession is still predominantly determined by intrinsic motivation, compensation certainly influences many prospective teachers' career choices (panel C). Nevertheless, across-the-board salary increases that are not tied to teacher performance are a very costly approach to attract more effective teachers because existing teachers would receive the bulk of the additional salary expenditure regardless of whether they improved their practice. Even substantial salary increases for new teachers are unlikely to have a large impact unless they are credibly long-term and accompanied by changes in the structure of compensation (rewarding quality), since it remains difficult to identify high-quality teachers prior to their entry into schools.

In short

Scientific research suggests both incentives and regulations play important roles as co-determinants of teacher and administrator quality. Incentives may be appealing in the abstract, yet the details of their implementation are of fundamental importance. Policymakers should take great care when developing and implementing incentive schemes, carefully monitor their impacts and make appropriate modifications. The blind adoption of practices observed elsewhere may not bring desirable outcomes.

In light of this, more intensive and careful research attention within the EU should be paid to the implications of the fixed salary schedule for the quality of teacher preparation and CPD, the distribution of teacher quality relative to local demographic factors, and the decisions that affect teachers' entry and continuation in the profession. In certain circumstances, relaxing formal requirements such as costly annual provision of ineffective CPD, excessive licensure requirements or pay increases tied to the completion of an MA degree may elevate the quality of instruction and reduce cost.

For more details see: Daniel Münich, Steven Rivkin, *Analysis of incentives to raise the quality of instruction*. EENEE Analytical Report 26, December 2015, http://www.eenee.de/dms/EENEE/Analytical_Reports/EENEE_AR26.pdf.

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