

RESEARCH INSIGHTS



Does Merit Pay among Public School Teachers Affect the Mobility of Teachers Out of Teaching or within the School System?



This paper analyzes the effect on teacher mobility of a program that rewards excellence in teaching practices in Chile. Successful applicants receive a 6 percent annual wage increase for up to 10 years and an award that publicly recognizes their excellence.



The paper uses a regression discontinuity design to identify the causal effect of the public merit award. The program does not alter transitions out of teaching.



The program does, however, increase the mobility of awardees within the school system. This is consistent with the program providing a credible public signal of teacher quality.

CONTEXT

An efficient and equitable public school system requires that classrooms be staffed with good teachers. In Chile, as in other OECD countries, teachers are paid less than two-thirds of the earnings of similarly educated workers in other occupations. Not surprisingly, every year 8 percent of them leave the school system and 10 percent relocate to a new school. Although increasing wages results in higher retention rates, large wage increases across the board may be economically and politically unfeasible. More importantly, higher wages may not lead to better student outcomes because the wage increase is not related to teacher performance.

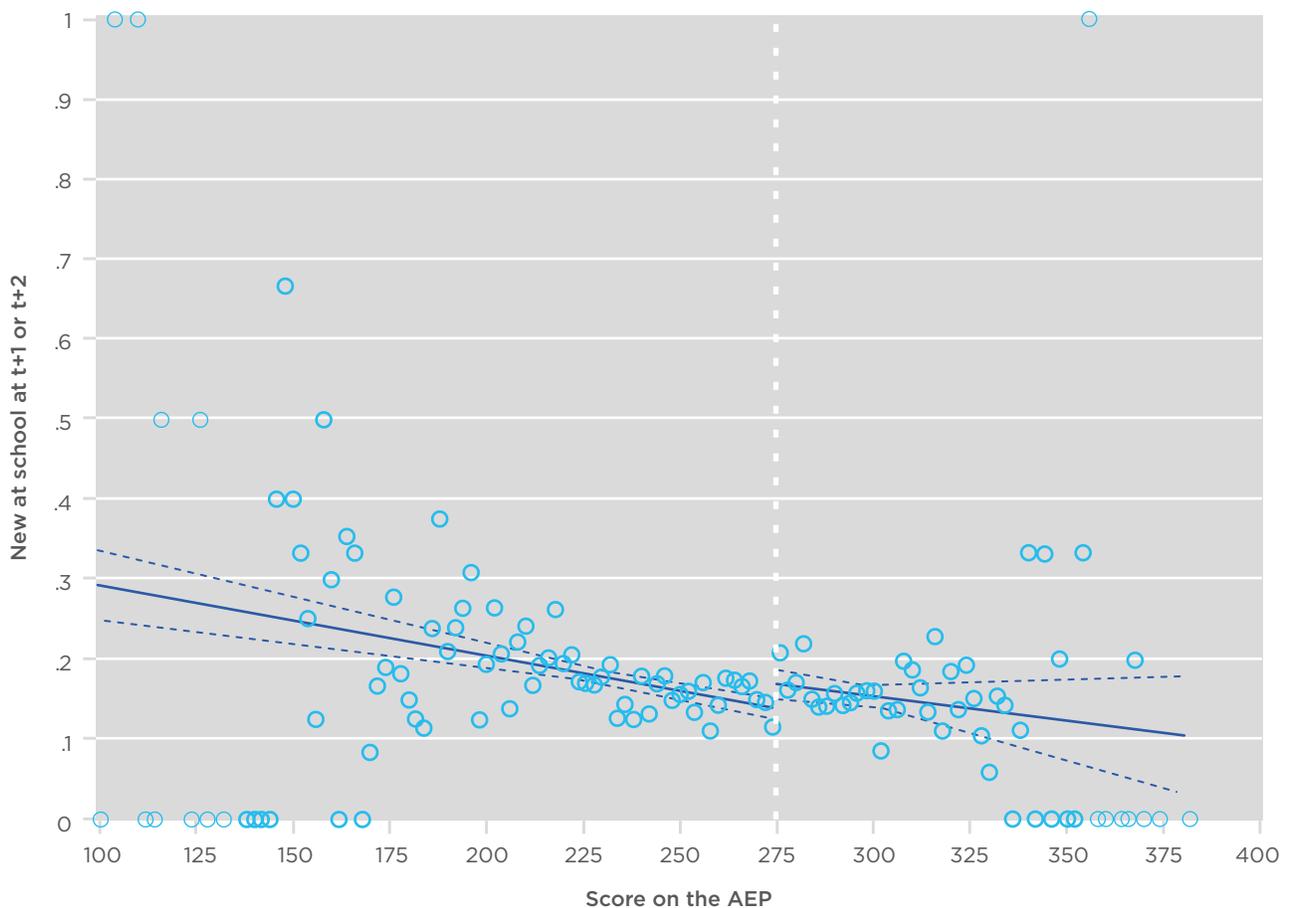
THE PROJECT

The Pedagogical Excellence Award Program (AEP, for its acronym in Spanish) is a voluntary participation program aimed at retaining and efficiently allocating teachers. Applicants must prepare a teaching portfolio and take a knowledge test. These assessments are combined in a final score. Teachers scoring above a certain threshold receive an incentive package with two components: i) a 6 percent yearly wage increase for up to 10 years that can be carried across the public-school system, and ii) a public award from the Ministry of Education. Data from nine cohorts of applicants are followed over five years to present evidence on the causal effect of this policy on teacher mobility.

RESULTS

1. This paper identifies the causal effect of the program using a sharp regression discontinuity design.
2. The estimates indicate that, locally, the incentive package does not alter transitions out of the school system in a five-year window. As a result, the salary increase from the award does not appear to be a decisive factor for the roughly 15 percent of teachers near the threshold who would leave the system in the five years following their application to the program. This finding is interpreted as suggesting that at the margin at which the program selects teachers, their outside option is not strongly correlated with teaching efficacy.
3. Figure 1 summarizes the relationship between the AEP score and whether a teacher moves within the school system in the two years following application for the program. The circles represent the un-adjusted mean of the outcome variable within score cell bins of size 2, the vertical dashed line represents the award cut-off, and the solid horizontal line represents a linear fit of the average outcome variable at each score cell on the score, with the corresponding 95 percent confidence intervals (dotted lines). Figure 1 suggests that teachers receiving the AEP award are more likely to move to a new school.
4. Obtaining the award has a positive effect on the likelihood of switching to a new school, indicating that it provides teachers with a credible signal of unobservable quality that was previously unavailable in the market.

Effect of the Pedagogical Excellence Award Program on Teachers' Mobility within the School System



Source: Figure (6) Berlinski and Ramos (2020).

Consistent with the notion that principals have private information about their employees and that information asymmetries increase with tenure, the paper finds suggestive evidence that mobility increases for the most experienced of teachers after receiving the award.

5. Perhaps surprisingly, no conclusive evidence is found that the award leads to a more unequal distribution of talented teachers across public schools.

POLICY IMPLICATIONS

1. The findings speak to a large literature in personnel economics studying how to recruit, retain, and motivate public sector employees. Within this literature, the paper raises an important point. At the margin at which voluntary participation programs select workers, the outside option might not be correlated with their expertise as civil servants. As a result, providing financial incentives via voluntary enrollment and quality standards might not contribute to increasing retention rates among motivated workers. If pro-social motivation positively correlates with talent, giving motivated agents better means to achieve their goals might prove a powerful incentive to stay on the job. For example, in the teaching sector, this can be accomplished by investing in complementary inputs such as school resources.

2. The paper also highlights the potential distributional effects of revealing information about worker quality. In markets where there is asymmetric learning between employers and where sorting across establishments is driven by workplace amenities, the revelation of information about worker ability may exacerbate inequality, as both employers and employees react to that available information. Importantly, the findings suggest that any compensatory measure designed to ameliorate these transitions (e.g., higher wages in hard-to-staff establishments, travel subsidies, or housing subsidies) should rise steeply with experience. This is a crucial issue for the public sector, where amenities are determined by societal needs rather than by profit-maximization.



FULL STUDY

[Berlinski, S. and A. Ramos. 2020. "Teacher Mobility and Merit Pay: Evidence from a Voluntary Public Award Program." *Journal of Public Economics*.](#)

DEPARTMENT OF RESEARCH AND CHIEF ECONOMIST

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