Double for Nothing? The Effects of Unconditional Teacher Salary Increases on Student Performance

Joppe de Ree
Karthik Muralidharan
Menno Pradhan
Halsey Rogers
12 June 2014

Abstract: How does a large unconditional increase in salary affect employee performance in the public sector? We present the first experimental evidence on this question to date in the context of a unique policy change in Indonesia that led to a permanent doubling of teacher salaries. Using a large-scale randomized experiment across a representative sample of Indonesian schools that affected more than 3,000 teachers and 80,000 students, we find that the doubling of pay significantly improved teacher satisfaction with their income, reduced the incidence of teachers holding outside jobs (and the hours worked on them), and reduced self-reported financial stress. Nevertheless, after two and three years, the doubling in pay led to no improvements in measures of teacher effort or student learning outcomes, suggesting that the salary increase was mostly a transfer to teachers with no discernible impact on student outcomes. While higher salaries may increase teacher quality on the extensive margin, we can rule out meaningful positive impacts of teacher salary increases on student learning from intensive margin increases in teacher effectiveness as predicted by gift-exchange, efficiency wage, and target-income models of employee behavior.