

Authors Clare Leaver University of Oxford

Owen Ozier Williams College

Pieter Serneels University of East Anglia

Andrew Zeitlin Georgetown University

> Recruitment, effort, and retention effects of performance contracts for civil servants: Experimental evidence from Rwandan primary schools

> > Clare Leaver, Owen Orier! Pieter Semeels! and Andrew Zeitlin<sup>§</sup>

This version: June 20, 2019 PRELIMINARY AND INCOMPLETE

## Abstract

Accumulating evidence suggests that pay-for-performance (P4P) contracts can disit greater effort from incumbent civil servants, but ices is known about how these contracts affect the composition of the public service workforce. We provide the first experimental evidence of the impact of P4P on both the compositional and effort sampline. In partnership with the Gaemannet of Remarks, we implemented a 'pay-dis-percentifie' scheme (Battey) and Noal 2002) in a root two-tice experimental designs. In the first tice, we randomly assigned tracker have market to either P4P or experimental designs. In the first tice, we randomly assigned tracker have differs of advective P4P or experimental designs constracts. In the second first, we implemented a 'unrajes', school-level re-randomization, allowing us to separately identify the composition differs of advective P4P constracts and the effort effect of caperisoned P4P constracts. Our presandysis plan sets out a theoretical framework that helps to define a set of hypotheses, and conducts simulations on bilined data to device high high-proveed tests. We find that P4P contracts did change the composition of the teaching workfores, durating is individuals who were near mesory-constrated, as measured by a framed Dictator Gaues. But these recruits were not low office/or teachers—if anything the reverse. On the effect margin, we observe subtantial of staticizingly significant gauss in its tooker tooks added, mixerored in positive effects on teacher presence and observed palagogy in the classroom. In War 2, we cohinave the total effect of P4B, access compositional and effort margins, to be 0.21 standard deviations of papil learning. One quarker of this inspect can be antitudined to selection at the recruitment stage, with the remaining three-quarkers arising from increased effort.

<sup>\*</sup>Binatufii School of Geoeranout, University of Oxford, CEPB, and RDSE <sup>\*</sup>World Bash Development Rowards Group, BBEAD, and RZA <sup>\*</sup>School of Hermitianal Development, University of East Angla, RZA, RDSE and EGAP <sup>\*</sup>McCourt School of Public Poley, Georgetown University, CGD, and IGC

1

## Recruitment, effort, and retention effects of performance contracts for civil servants: Experimental evidence from Rwandan primary schools

Accumulating evidence suggests that pay-for-performance (P4P) contracts can elicit greater effort from incumbent civil servants, but less is known about how these contracts affect the



composition of the public sector workforce. We provide the first experimental evidence of the impact of P4P on both the compositional and effort margins. In partnership with the Government of Rwanda, we implemented a 'pay-for-percentile' scheme (Barlevy and Neal 2012) in a novel two-tier experimental design. In the first tier, we randomly assigned teacher labor markets to either P4P or equivalent fixed-wage contracts. In the second tier, we implemented a 'surprise', school-level re-randomization, allowing us to separately identify the compositional effects of advertised P4P contracts and the effort effects of experienced P4P contracts. Our pre-analysis plan sets out a theoretical framework that helps to define a set of hypotheses, and conducts simulations on blinded data to develop high-powered tests. We find that P4P contracts did change the composition of the teaching workforce, drawing in individuals who were more money-oriented, as measured by a framed Dictator Game. But these recruits were not less effective teachers—if anything the reverse. On the effort margin, we observe substantial and statistically significant gains in teacher value added, mirrored in positive effects on teacher presence and observed pedagogy in the classroom. In Year 2, we estimate the total effect of P4P, across compositional and effort margins, to be 0.21 standard deviations of pupil learning. One guarter of this impact can be attributed to selection at the recruitment stage, with the remaining three-quarters arising from increased effort.

June 20, 2019