

## RESEARCH INSIGHT

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# Teacher Rotation and Student Outcomes: Experimental Evidence from Uganda

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*Location: Uganda*

*Sample: 1,400 teachers and 75,000 students from 140 schools*

*Timeline: 2018-2021*

*Partners: Bugiri District Local Government, Government of Uganda, Center for Effective Global Action, International Growth Centre*



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## Summary

Ugandan policy mandates periodic re-assignment of teachers between schools. We study whether rewarding high-performing teachers with posting to a preferred school improves teacher attendance, effort, and student performance. We find no effect on student and teacher outcomes. Results suggest that policymakers designing teacher incentive schemes need to train teachers on the details of the incentives and should accompany incentives with pedagogical support.

## Introduction to policy issues

A major challenge in educating children in low-income countries is low morale, engagement, and attendance by teachers. In sub-Saharan Africa, teacher absenteeism ranges from 15 to 45 percent (Bold et al, 2017). Teacher absenteeism is particularly severe in Uganda, where 27% teachers were absent during a surprise visit (Chaudhury et al, 2006). Uganda had the third highest rate of teacher absenteeism in comparison to other African countries surveyed by the World Bank (Rogers & Koziol, n.d.). In conjunction with mother's education level, socioeconomic status, and type of school (public vs. private), the high rate of teacher absenteeism has real consequences for learning outcomes: only three out of ten Ugandan students can read and comprehend a simple story by third grade (Mugo et al, 2015).

Uganda's district-centralized teacher deployment system offers a unique opportunity to study a low-cost way to motivate teachers. In Uganda, teachers are transferred between schools by district officials, who decide where teachers are transferred every five years and can place them in any school in the district.

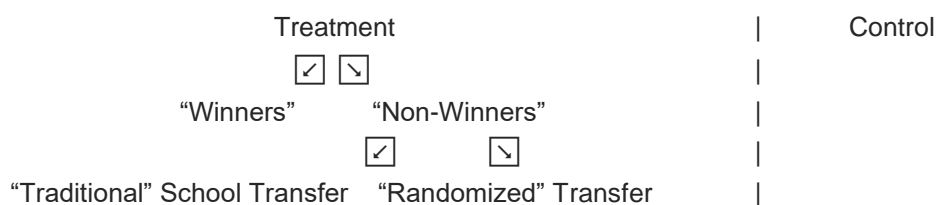
In partnership with a rural district in Eastern Uganda, we are conducting a randomized evaluation to study whether rewarding top-performing teachers with a future posting of their choice incentivizes teachers to improve their attendance and the quality of their teaching. Our transfer-for-performance (T4P) improves otherwise existing practices to provide incentives that have low monetary cost for the education district.

## Main results

We evaluated the effect of T4P over three years, by randomly allocating 140 schools in the district into a control group, or into one of two treatment groups.

In the treatment schools, eligible teachers were incentivized based on student improvement in literacy and numeracy. The higher a teacher's value added (i.e., the more their students' test scores improve), the higher their chances of "winning" and receiving a transfer to one of five pre-specified preferred schools.

In one treatment group ("Traditional"), the district transferred "non-winners" as they had done previously. In the second treatment group ("Randomized"), "non-winners" were transferred to a random school, which severed transfers both from performance and any influence activities that teachers might engage in under the traditional transfer system.



By comparing the performance of eligible teachers (and their students) at "Traditional" treatment schools to those at control schools, we estimated the effect of T4P against the pre-existing transfer scheme. Comparing the "Randomized" treatment schools to the control schools estimates the effect of T4P against a no-incentives baseline.

## Results

We found no improvements in student outcomes and teacher attendance in schools where highperforming teachers could receive their preferred posting and discuss possible reasons for this result below.

*The treatment may not have changed the perceived relationship between performance and whether a teacher is transferred to a better school.*

Over time, the control teachers correctly became more likely to believe that preferred transfers happen by chance, regardless of performance. Yet, treated teachers, for whom performance does matter, did not significantly start believing that student performance influenced transfers more. Although the intervention included instances where the transfer scheme was explained to teachers, our data shows that treated teachers had low levels of understanding of the intervention.

*Teacher attendance was not as low as predicted; other pathways are needed to both incentivize teachers and improve student outcomes.*

Teachers exhibited a somewhat surprising level of engagement in terms of attendance, even at baseline. The control teachers had an absenteeism rate of around 10% in our specific district, in contrast to 27% as documented by Chaudhary et al (2006) for the overall country. This suggests that teacher absenteeism might be less of an issue than previously thought and that helping teachers translate effort into outcomes may be a more promising policy lever.

## Implications and recommendations

While T4P did not seem to work as implemented in our context, Uganda's transfer system, and T4P more broadly, remains an important and understudied potential resource for the management of educational personnel, especially in cash-poor countries. Though many countries transfer various types of state personnel, how placements affect effort remains ill-understood. Previous work studying a T4P scheme (Khan et al. 2019) focused on tax inspectors and found transfers to be an effective incentive tool. One difference between tax inspectors and teachers, however, may be that transforming effort into outcomes is harder in an education setting.

This further begets the question - with our T4P intervention, why are students performing poorly in this Ugandan district? Our study suggests that it is not because teachers are not trying. In fact, the majority of teachers seem to be present in their classes: on average, there was approximately 87% teacher presence each year. Rather, it could be that the complexity of teaching effectively, at the right level, and with limited resources (i.e., chairs, desks, and permanent classrooms) amplifies difficulties with improving student performance. To improve student outcomes, teachers may need not just incentives, but also better training and guidance on how to translate their effort into better student performance. This is important when interpreting null results and assessing what policy levers to use next.

More broadly, this study involved the implementation of a complex policy at a system-wide level. The intervention was done in close collaboration with stakeholders from an early stage, not only with policymakers but with frontline personnel as well. This same level of commitment should serve well when tackling the challenge of providing teachers with not just incentives, but also guidance on how to translate effort into student outcomes. In future research, we seek to investigate whether the prospect of a mere transfer provides a stronger incentive than varying the desirability of future posts conditional on a transfer, and whether there are important match effects between teachers and schools.

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